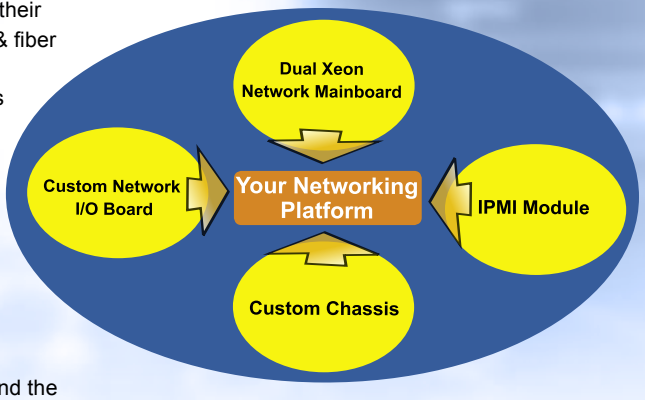
Single Board Computer

Networking Platform Solution

Networking is everywhere. Various Networking Appliances are demanded and created for different purposes in networking environment. To make competitive networking appliance, the worldwide ISV, experts of networking / Linux are always looking for the best Networking Platform to fit their individual needs. For example: different mix of 10/100 Mbps, Giga Ethernet & fiber port, Removable HDD, the number of HDD, wireless LAN, redundant power, LCD module, VPN accelerator option, custom appearance.....etc. The needs are diversified widely. However, the common needs are:



1. Time to Market
2. Flexible Custom Design
3. More Powerful CPUs
4. Best Networking Bandwidth
5. Remote Management Capability

Morphing The High Speed Network

IEI modularized network platform design includes the main board, ISS-113 and the peripheral board, HL-KIT-001. We realize the flexibility and performance through the innovative way.

IEI's Networking Platform Solution meet all field requirements by the Modular System Design with

a. Dual Xeon Network Mainboard with over 3GB bandwidth expansion
b. Custom I/O board to optimize the cost of performance & custom flexibility
c. IPMI module (IPMI 2.0 compliance) for the best Remote Management Solution
d. Custom Chassis for your unique ID & various peripherals demand

IPMI

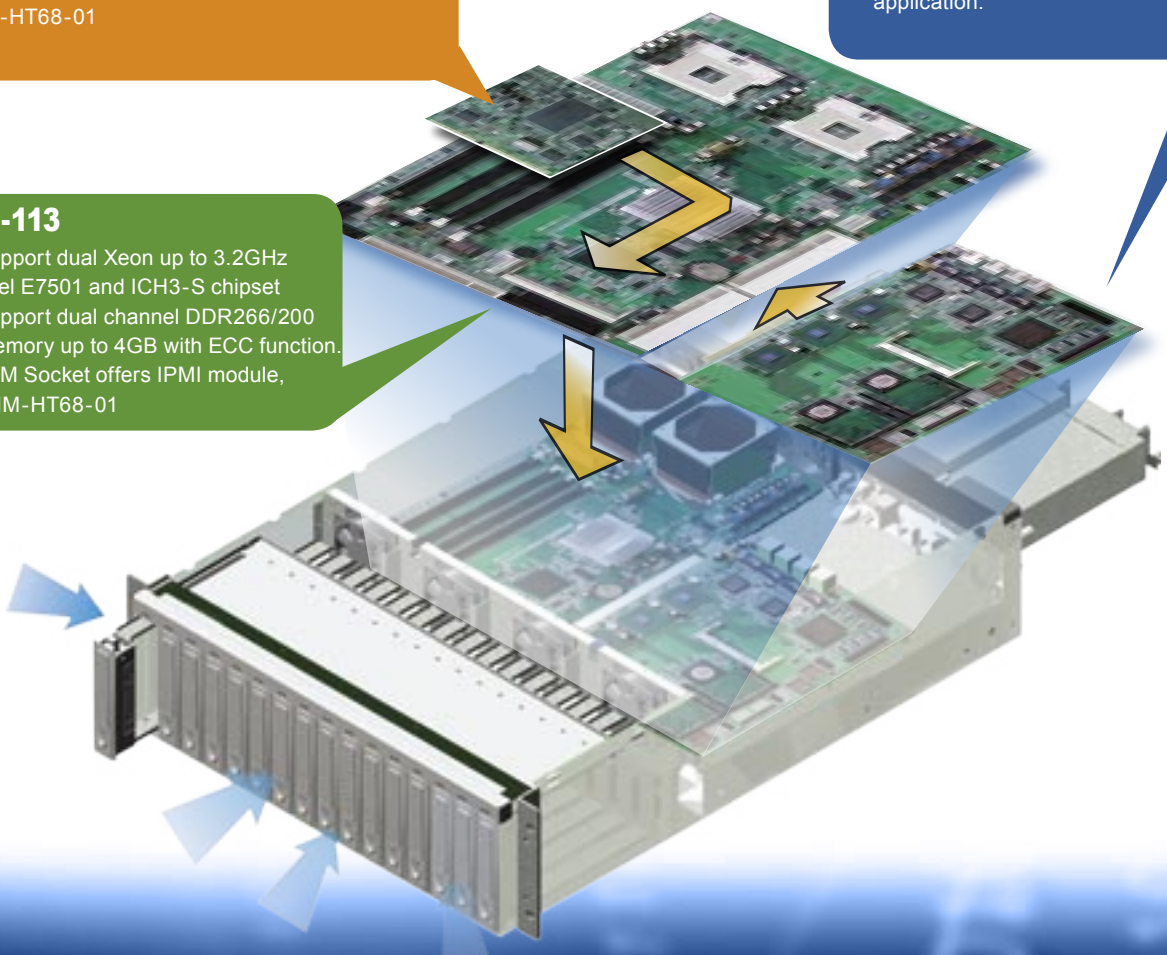
The best remote monitor solution – Intelligent Platform Management Interface (IPMI) monitors system health status automatically, remote recovery and console redirection. The IPMI can be an optional feature with our IPMI module, WIM-HT68-01

HL-KIT-001

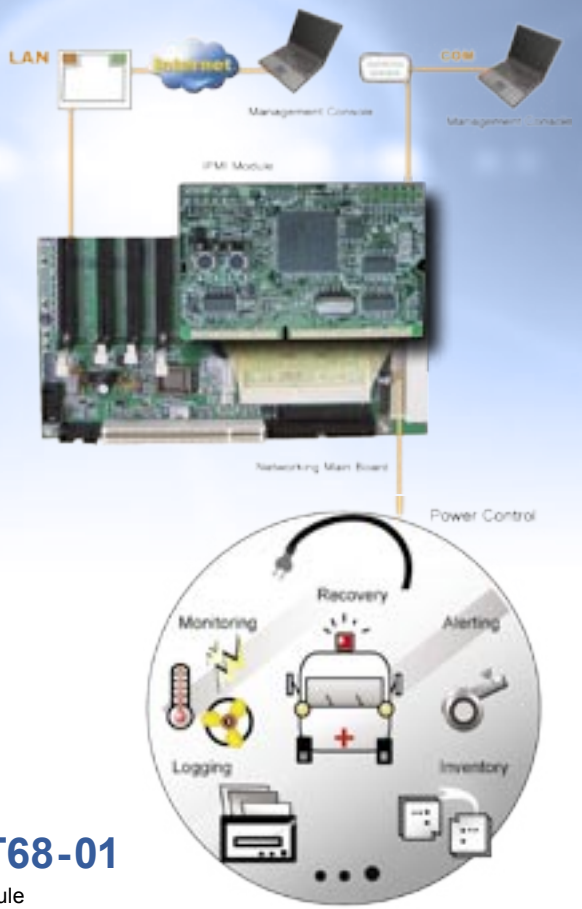
- Support three Hub link 2.0 interface, bandwidth up to 3GB
- Fully customization network IO board
- Socket PCI64 for 64bit PCI module application.

ISS-113

- Support dual Xeon up to 3.2GHz
- Intel E7501 and ICH3-S chipset
- Support dual channel DDR266/200 memory up to 4GB with ECC function.
- WIM Socket offers IPMI module, WIM-HT68-01



The Best Remote Monitor Solution
- IPMI (Intelligent Platform Management Interface)

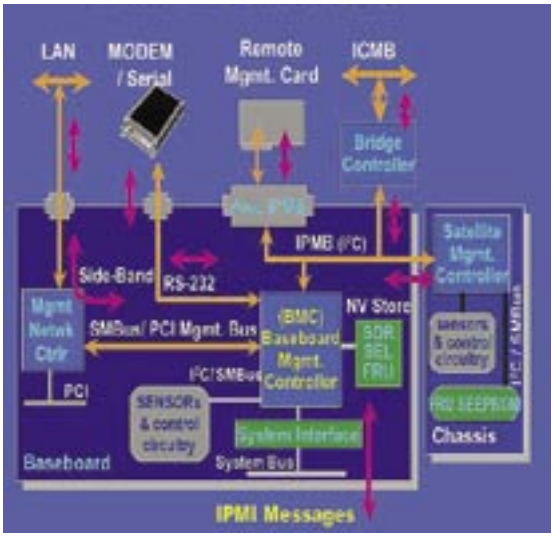


IPMI gives system managers access to platform management information and control features, allowing more accurate predictions of hardware failures, diagnostic of hardware problems and the initiation of recovery actions.
The Intelligent Platform Management Interface (IPMI) is a specification that defines system, network, and system board-level interfaces to an Intelligent Management device (named Base Management Controller, or BMC) on or attached to the system board that performs monitoring and control operations. The IPMI specification defines interfaces for such operations as power control, system event log management, system sensor readings, event handling, system parts inventory, and more.
IEI have capability of developing the custom firmware complying with IPMI standard. We reserve a WIM socket™ for the IPMI module, which can carry the IPMI module as an option for wide range applications including ATM, Server, KVM and some industrial application.

From our viewpoint, IPMI can benefit to the system integrator by decreasing the maintenance cost with remote control and management features. By using the console redirection via LAN or modem, engineers can easily proceed the remote diagnostic and recovery. They don't have to go for on-site trouble shooting every time and can get the alert before the systems encounter abnormal status e.g. temperature, voltage, fans, power supplies, and chassis intruded. So, they recognize the IPMI solution as a standard of industry.

IPMI WIM-HT68-01

Wellsyn IPMI Module
Hitachi H2168 BMC



IPMI Architecture

Main Features

- IPMI modular design can easily upgrade your system.
- Monitor your system health (fan/ temperature/ voltage/ processor/ disk/ device) with or without OS live.
- Remote control your system in emergency or requirement, like: power on/off, warm reset, reboot, power cycle ... etc.
- Wide range applications including server, KVM, ATM and industrial highly reliable product application.
- IPMI gives system managers access to platform management information and control features, allowing more accurate predictions of hardware failures, diagnostic of hardware problems and the initiation of recovery actions
- Eliminate extra maintenance cost
- IPMI 2.0 compliant (IPMI over LAN, Serial Port and Modem)
- Emergency Management Port by COM & LAN
- Shares LAN controller with mainboard, and uses out-of-band bandwidth.
- Event Log information
  - BIOS event
  - Hardware Monitor Event
  - System Event
- Text Console Redirection
  - POST
  - BIOS Setup
  - DOS Operation

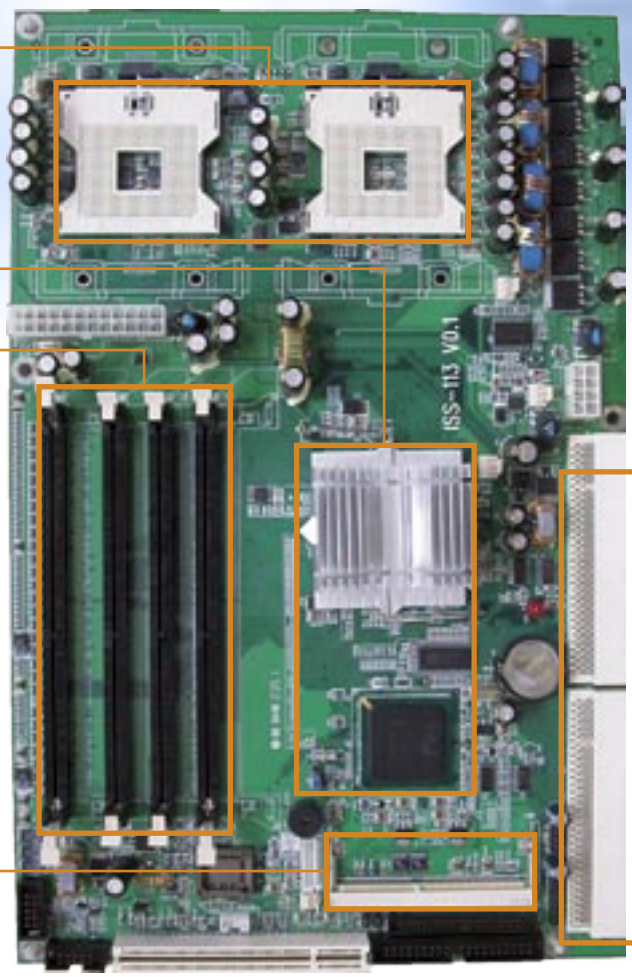
ISS-113 Dual Xeon Network Mainboard

IEI rolls out our dual Xeon™ platform integrated Intel® E7501 and ICH3-S chipset supporting dual channel DD226/200 memory up to 4GB with ECC function. ISS-113 represents high performance up to 3.2GHz powered by dual Xeon. Besides, it offers convenient remote management function (IPMI) to monitor system health status automatically, remote recovery and console redirection.

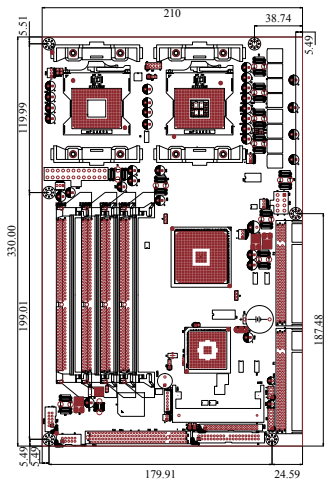
Processor
Dual mPGA604 ZIF Sockets
Supports up to two Intel Xeon processor with 2MB integrated Advanced Transfer Cache up to 3.20GHz

Chipset
Intel E7501 chipset MCH + ICH3-S

System Memory
Four 184-pin DIMM sockets
Supports up to 4 GB DDR266/200 ECC registered memory dual channel memory bus



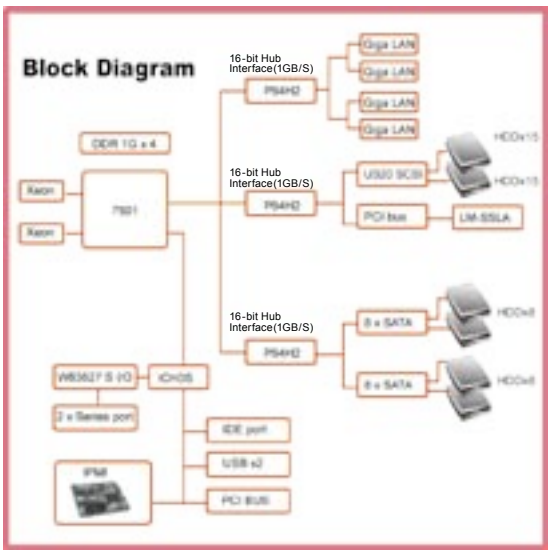
Dimension



WIM Socket™
socket for IPMI module

ISS-113 Specifications

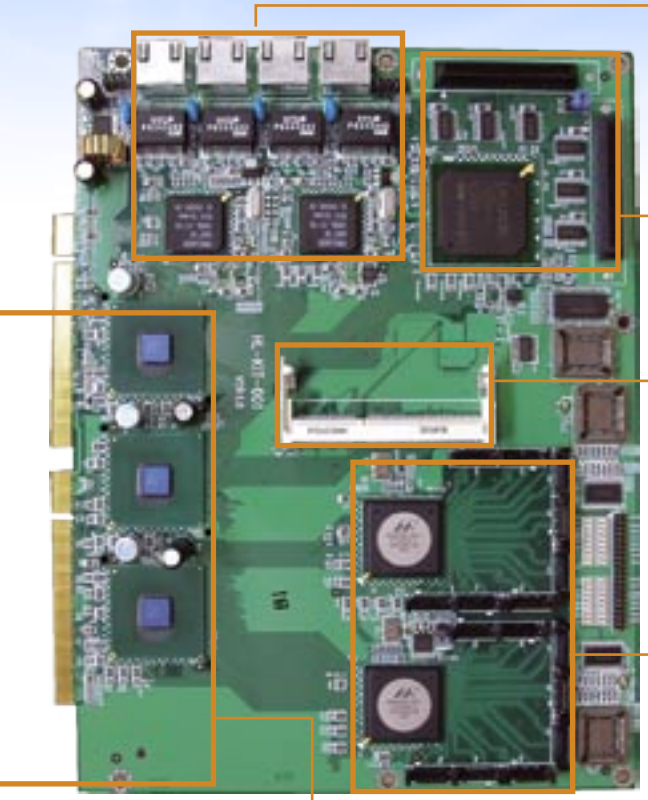
CPU	Dual mPGA604 ZIF Sockets Supports up to two Intel® Xeon™ processor with 2MB integrated Advanced Transfer Cache up to 3.20GHz
System Bus	533MHz/400MHz system bus
System Memory	Four 184-pin DIMM sockets Supports up to 4 GB DDR266/200 ECC registered memory Dual channel memory bus
Chipset	Intel® E7501 chipset MCH + ICH3-S
Expand Slot	WIM Socket for IPMI 32-bit 33MHz PCI slots
IDE	Enhanced IDE with 40pin and 44pin box header Supports UDMA Mode 5, PIO Mode 4, and ATA/100
USB	Two USB ports
Serial Ports	Two Fast UAR T 16550 serial ports
Keyboard / Mouse	Keyboard and Mouse ports with 6 pin header
Power Consumption	+12V@12.46A, 5V@13.6A, 3.3V@9.5A, 5VSB@0.8A, -12V@0.5A (Dual Xeon 3.06GHz CPU and 2GB DDR Memory)



HL-KIT-001 Network I/O Board

Intel P64H2 bridge technology transforming the three hub-link 2.0 to six 64-bit PCI-X and expanding the bandwidth up to 3GB is utilized in HL-KIT-001. The peripheral board is designed with custom form factor. It commits a full flexibility for tailor-made requirements.

OEM / ODM



Gigabit Ethernet Controllers

Intel 82546 Gigabit Ethernet Supports 10BASE-T, 100BASE-TX, and 1000BASE-T with four RJ-45 connector

Dual-Channel Ultra320 SCSI

LSI 1030 SCSI Controller Dual-Channel Ultra320 SCSI supports up to 30 Ultra 320 SCSI Devices

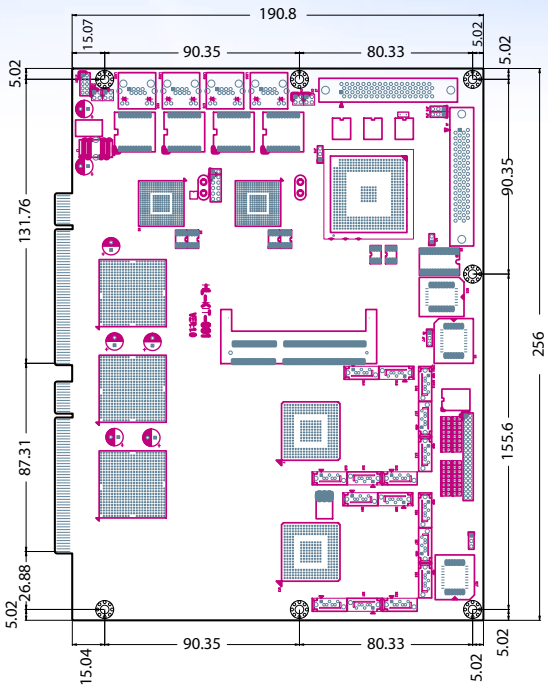
Socket - PCI 64™

64-bit 133MHz socket PCI slot

SATA

Two Marvell 88SX5080 Serial ATA Controller; Support 16 port SATA 150 devices

Dimension



Hub Link Interface 2.0

Over 3 Giga Byte bandwidth
Provide different kind of networking platform Solution

Case Study Internet server

Firewall, Web, E-Mail, VPN, Security, Load Balancing Server Max support to 24 channel Giga bit Ethernet/ Fiber

Case Study File server

Storage Gateway, SQL Server, Document Storage, Network Storage, NAS, DAS, SAN, iSCSI, Proxy Server, Cache server Ultra 320 SCSI Max. up to 90HDD devices
Serial ATA 150 Max. up to 64 S-ATA devices

HL-KIT-001 Specifications

Chipset	Each Intel® P64H2 supports two PCI-X expansion slot.
SCSI	LSI 1030 SCSI Controller Dual-Channel Ultra320 SCSI
SATA	Two Marvell 88SX5080 Serial ATA Controller; Support 16 port Serial ATA devices
Network Controllers	Two Intel®82546 Gigabit Ethernet Chipset Supports 4 Channel 10BASE-T, 100BASE-TX, and 1000BASE-T Ethernet
Expansion slot	One socket PCI 64 accept custom 64 bit PCI module, for example:TCP/IP Accelerat module

Ordering Information

Coming Soon

ISS-113
Dual XEON Network Mainboard with WIM socket, ECC DDR Dimm.

HL-KIT-001
Network I/O Board with 4 Giga bit Ethernet, Dual channel Ultra 320 SCSI, 16 channel SATA, socket PCI 64.

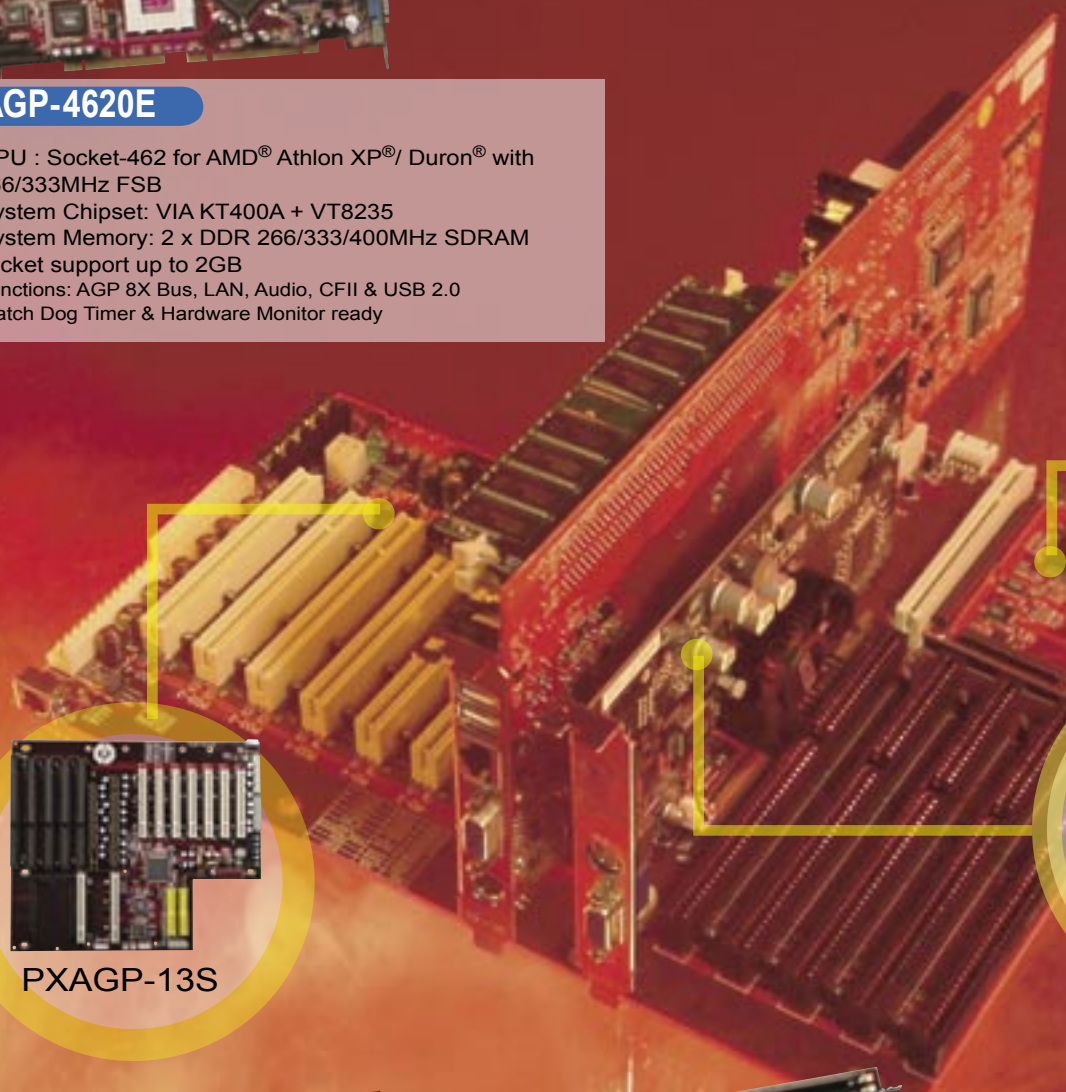
WIM-HT68-01
Wellsyn IPMI Module Hitachi H2168 BMC

PIAGP® Industrial PC Platform free up AGP capability!!

PIAGP PCI ISA AGP Bus Architecture

SAGP-4620E

- CPU : Socket-462 for AMD® Athlon XP®/ Duron® with 266/333MHz FSB
- System Chipset: VIA KT400A + VT8235
- System Memory: 2 x DDR 266/333/400MHz SDRAM socket support up to 2GB
- Functions: AGP 8X Bus, LAN, Audio, CFII & USB 2.0
- Watch Dog Timer & Hardware Monitor ready

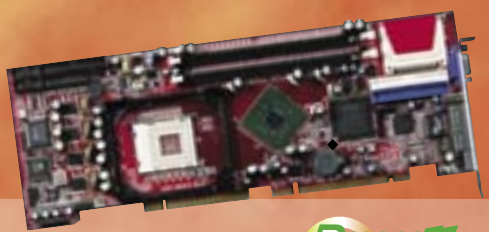


PISA-KIT01
PCI to ISA Bridge module

PXAGP-13S

AVGA-X400

SiS Xabre400 within on board
64MB DDR SDRAM 8X AGP Card



SAGP-865EVG

Prescott Ready

- CPU: Socket-478 base support Intel® Pentium 4®/ Celeron™ with 533/800MHz FSB
- System Chipset: Intel® 865G + ICH5
- System Memory: Dual channel DDR333/400 SDRAM socket support up to 2GB
- Functions: VGA, LAN, GbE, Audio, CFII, USB 2.0 & Serial ATA-150
- Watch Dog Timer & Hardware Monitor ready

SAGP-845MEV

- CPU: Socket-478 base support Intel® Pentium 4® / Pentium 4-M / Celeron™ with 400/533MHz FSB
- System Chipset: Intel® 845G + ICH4
- System Memory: 2 x DDR266/333 SDRAM socket support up to 2GB
- Functions: VGA, LAN, CFII, USB 2.0 & C-Media 5.1-channel Audio
- Watch Dog Timer & Hardware Monitor ready

SAGP-815EV

- CPU: Socket-370 base support Intel® Pentium III® Tualatin/ Celeron™ with 66/100/133MHz FSB
- System Chipset: Intel® 815E + ICH2
- System Memory: 2 x 168-pin SDRAM socket support up to 512MB
- Functions: VGA, LAN, CFII, USB 2.0 & C-Media 5.1-channel Audio
- Watch Dog Timer & Hardware Monitor ready

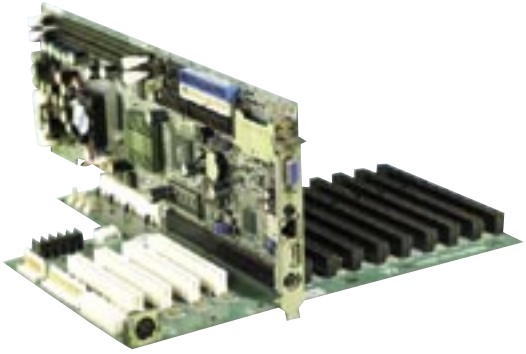
New PIAGP®system concept provides AGP slot capability between CPU card and Passive Backplane configuration

The PCI Industrial Computer Manufacturers Group(PICMG) was established in 1994, setting its mission as defining specifications for industrial PCI/ISA passive backplane and CPU card interfaces. Various manufacturers have introduced a multitude of CPU cards for all kinds of applications, all based on the standards defined by PICMG, but the advance in high-end AGP VGA card has led to a bottleneck, and these standards have found severe performance limitations. Most CPU cards are equipped with a VGA function on board, but due to the limitation in board sizes or taking cost into consideration, these cards are unable to offer a graphics quality that the user demands.

This now raises the issue of how to combine a PCI/ISA backplane with an AGP slot.

As one of the world pioneers in CPU mainboard technology, and after lengthy consultation with our clients, IEI has developed a proprietary CPU card AGP bus, designed to interface with the IEI-patented (patent pending) PCI/ISA/AGP passive backplane. This series of products are PIAGP (PCI, ISA and AGP) and cover the SAGP series of CPU cards and PCIAGP/PXAGP series passive backplanes.

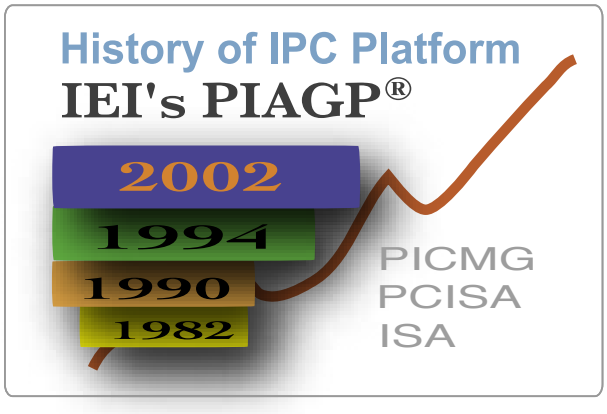
PIAGP® industrial PC platform free up AGP capability!!



Traditional PICMG PCI/ISA passive backplane solution,with no AGP slot.

The advantages of using this series of PIAGP cards are numerous:

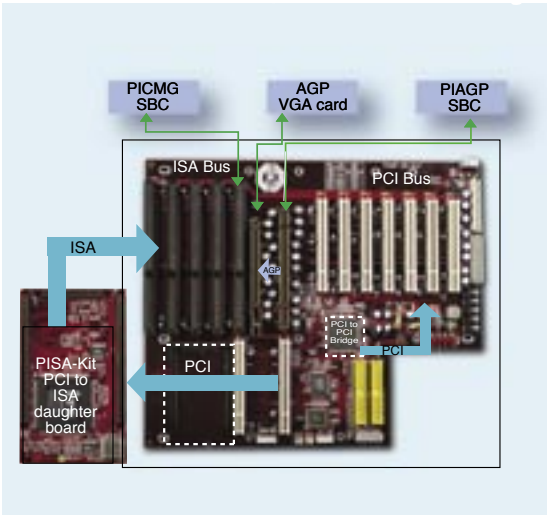
1. Supports standard AGP version 2.0 slot on the PCIAGP/PXAGP series passive backplane.
2. Compatible with all available AGP VGA cards PCIAGP/PXAGP backplane is also integrated with the PICMG PCI/ISA CPU Card slot.Thus, traditional PICMG form factor CPU cards and IEI proprietary SAGP series CPU cards are supported.
3. When using an SAGP series CPU Card, users can install a PISA-KIT01 PCI-to-ISA Conversion Module on the PCIAGP/ PXAGP backplane to enable the ISA slots to function.
4. PCIAGP/PXAGP Backplanes also provide an IDE RAID controller option. Using the backplane RAID controller, users can now assemble highly reliableIndustrial PC storage system without any change to the CPU card configuration.



PCIAGP® and PXAGP backplanes fit perfectly into any IEI Chassis

PCIAGP / PXAGP Series Backplane Features :

- PIAGP system concept design supports PCI,ISA and AGP slot on one backplane
- 6-layer PCB designed to exceed high speed AGP signal requirements
- Selected models provide a PIAGP and PICMG slot to offer more flexibility to integrate either a traditional or SAGP series CPU board
- Optional PISA-Kit01 PCI to ISA interface module supports ISA slot function when using SAGP series CPU board.
- Mounting Holes compatible with IEI PCI/PX series backplane. No modifications necessary for current chassis backplane mounting hole position design.
- Optional IDE RAID controller (Promise PDC20267)
  Supports JBOD (spanning), RAID 0 (striping), RAID 1 (mirroring), and RAID 0/1 (striping/mirroring).
  Offers sustained data transfer under RAID 0 of up to 100MB/sec
  Supports up to two arrays with different RAID levels
  Supports Ultra ATA-100/66/33 and EIDE drives
  Supports “hot” swap of failed drive (PROMISE SuperSwap product)
  Supports “hot” spare (portable drive required) .
  Offers transparent data recovery and rebuilds drive in background
  Arrays are bootable with built-in BIOS
  Multi-boot feature allows user to select which array to boot.

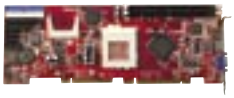


(R): Stands for RAID function
Example: PCIAGP-4S without RAID function
PCIAGP-4SR with RAID function

Backplane Model	PICMG CPU Card	PCI slot	ISA slot	Optional IDE RAID	Mounting Hole Compatible Backplane
PCIAGP-4S (R)		2		YES	PCI-4S
PCIAGP-5S (R)		3		YES	PCI-5S
PCIAGP-5SD		3			PCI-5SD5
PCIAGP-6S (R)		3	2	YES	PCI-7S
PCIAGP-7S (R)		4	2	YES	PCI-8S
PCIAGP-9S2 (R)	YES	4	3	YES	PCI-10S
PCIAGP-12S	YES	4	5		PCI-12S
PCIAGP-13S2 (R)	YES	4	7	YES	PCI-13S2
PCIAGP-13S3 (R)		4	7	YES	PCI-14S3
PXAGP-7S (R)		5		YES	PX-8S
PXAGP-9S (R)	YES	6	2	YES	PX-10S
PXAGP-12S2 (R)	YES	7	3	YES	PX-14S2
PXAGP-13S (R)		7	4	YES	PX-14S5
PXAGP-13S3 (R)	YES	11		YES	PX-14S3
PXAGP-19S (R)		12	5	YES	PX-20S
PXAGP-19S2 (R)		16	2	YES	PX-20S2

* PCIAGP-13S2(R) for PICMG slot, please contact supplier

PIAGP CPU Card Selection Guide

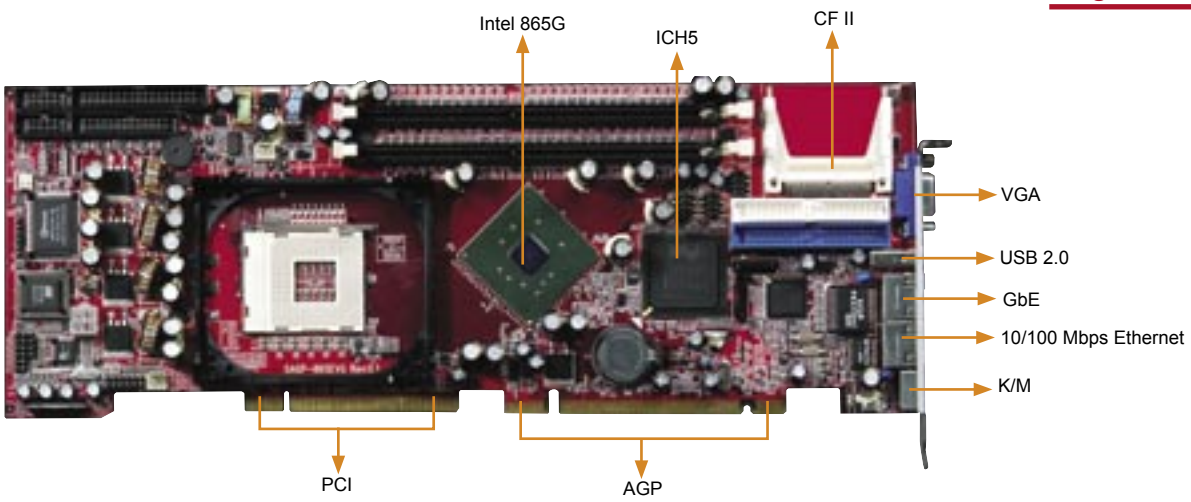
Model Name	SAGP-865EV/ EVG	SAGP-845MEV	SAGP-4620E	SAGP-815EV
CPU Socket	Socket 478	Socket 478	Socket-462	Socket-370
CPU Type	Intel P4 / Celeron supports HT Technology	Intel P4 / P4-M / Celeron supports HT Technology	AMD Athlon XP / Duron	Intel Tualatin / Celeron
FSB	400/533/800 MHz	400/533 MHz	266 / 333 MHz	66 / 100 / 133 MHz
Chipset	Intel 865G + ICH 5	Intel 845G/GE + ICH 4	VIA KT400A + VT8235	Intel 815E + ICH 2
Memory	Dual channel DDR333/400 SDRAM up to 2GB	DDR200/266/ 333(845GE) SDRAM up to 2GB	DDR 266/333/400 SDRAM up to 2GB	PC100/133 SDRAM up to 2GB
VGA	Intel 865G integration	Intel 845G integration	N/A	Intel 815E integration
AGP	AGP 4X / 8X bus	AGP 4X/2X (only 1.5V) bus	AGP 4X/8X bus	AGP 4X/2X (only 1.5V) bus
Ethernet	One 10/100Mbps or One GbE i82547 by CSA (SAGP-865EVG)	One 10/100Mbps Ethernet	One 10/100Mbps Ethernet	One 10/100Mbps Ethernet
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 7 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT (SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 2.0 1 x IrDA
Drive Interface	2 x IDE ATA-100/66/33 2 x SATA-150 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-133/100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD
Audio	AC'97 CODEC	C-Media CMI8738 5.1 channel audio	AC'97 CODEC	C-Media CMI8738 5.1 channel audio
SSD	CF Type II	CF Type II	CF Type II	CF Type II
Power Consumption	+12V@7.5A, +5V@7A, -12V@0.5A (P4 3.0GHz FSB800 Dual channel DDR400 512MB SDRAM)	+12V@4A, +5V@7A (P4 2.4GHz, Dual channel DDR 512MB SDRAM)	+12V@0.95A, +5V@19.5A, -12V@0.2A (AMD 2500+ 2.4GHz , 512MB DDR SDRAM)	+12V@0.23A, +5V@7.6A (P3 1GHz 256MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset			
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function			
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing			
Recommand Fancooler	CF-514	CF-512 CF-513(upto 3.06GHz) CF-515(P4-M CPU used)	CF-508 CF-516	CF-504
Remark	If needed ISA function, used PISA-KIT01 PCI to ISA bridge	If needed ISA function, used PISA-KIT01 PCI to ISA bridge	No ISA Support VGA card required	If needed ISA function, used PISA-KIT01 PCI to ISA bridge

SAGP-865

PIAGP Socket 478 800MHz FSB Based CPU Card with VGA, LAN, GbE, S-ATA, USB 2.0 & Audio

Prescott Ready Version coming soon !!

Long Term Supports



FSB 800 | DUAL DDR 400 | Prescott Ready | Gigabit Ethernet | AGP8X | USB | SERIAL ATA

Specifications

CPU	Socket-478 base support Intel® Pentium 4®/ Celeron™ with 533/800MHz FSB
System Chipset	Intel® 865G + ICH5
System Memory	Dual channel DDR333/400 SDRAM socket support up to 2GB
Display	Integrated with i865G – Bus: AGP 4X/8X
SSD	1 x Compact Flash™ Type II socket
Audio	AC'97 CODEC
Ethernet	– 1 x 10/100Mbps i82562ET Ethernet – 1 x 10/100/1000Mbps i82547 Ethernet by CSA (Communication Streaming Architecture)(SAGP-865EVG)
I/O	– 2 x RS-232 by pin header – 1 x PS/2 for Keyboard/Mouse – 1 x LPT by pin header (supports SPP/ECP/EPP mode) – 7 x USB 2.0 (1 x USB connector, others 2 x 4 by pin-header) – 2 x IDE ATA-100 (40-pin with 2.54mm pitch) – 2 x Serial-ATA 150 – 1 x Floppy (34-pin with 2.54mm pitch) – 1 x IrDA
WDT	Software programmable supports 1 ~ 255 sec system reset
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Control Function	Meets ACPI 1.1 specification
Power Consumption	+12V@7.5A, +5V@7A,-12V@0.5A (P4 3.0GHz FSB 800MHz, Dual chanel DDR400 512MB SDRAM)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	1.1kg
Remark	Intel Prescott CPU support up to 3.0 GHz

IEI Option

- **CF-514**
  High Performance Skiving Pentium 4 CPU Cooler
  page 5-5
- **CB-USB-02**
  Dual port USB cable
  page 5-6
- **PISA-KIT-01**
  PCI to ISA bridge module
  page 1-11

Feature

- Intel Pentium 4 CPU support upto FSB 800 MHz
- PIAGP interface supports AGP 8X/4X add-on card
- Dual channel DDR400 SDRAM memory support
- LAN, SATA, USB 2.0, Audio integrated

Tech Talk

Intel Prescott Processor Introduction

Intel's latest 90nm process technology, the Prescott processor is nothing more than just the familiar Pentium 4 processor. Now that the transistor size has been shrunk from 130nm (in Northwood) to 90nm, there is now more real estate space on the silicon die to fit an extra transistor to further enhance the performance. Much of these transistors make up the large 1MB Level 2 cache which should help boost the performance of certain applications. The doubling of the L2 cache has been proven effective in performance as seen during the transition from the Willamette (256KB) to Northwood (512KB)

Processor Specifications Compared

Processor Model	Intel Pentium 4	Intel Pentium 4 "Prescott"
Codename	Northwood	Prescott
Manufacturing Technology	0.13µm	90nm (0.09µm)
No. of Transistors	55 million	125 million
Die Size	146 mm²	112 mm²
Front Side Bus	800MHz	800MHz
L1 Cache (data + instruction)	8KB + 12KB	16KB + 12KB
L2 Cache	512KB full-speed	1MB full-speed
Core Voltage	1.475V - 1.550V	1.25V - 1.40V
Form Factor	Socket-478	Socket-478

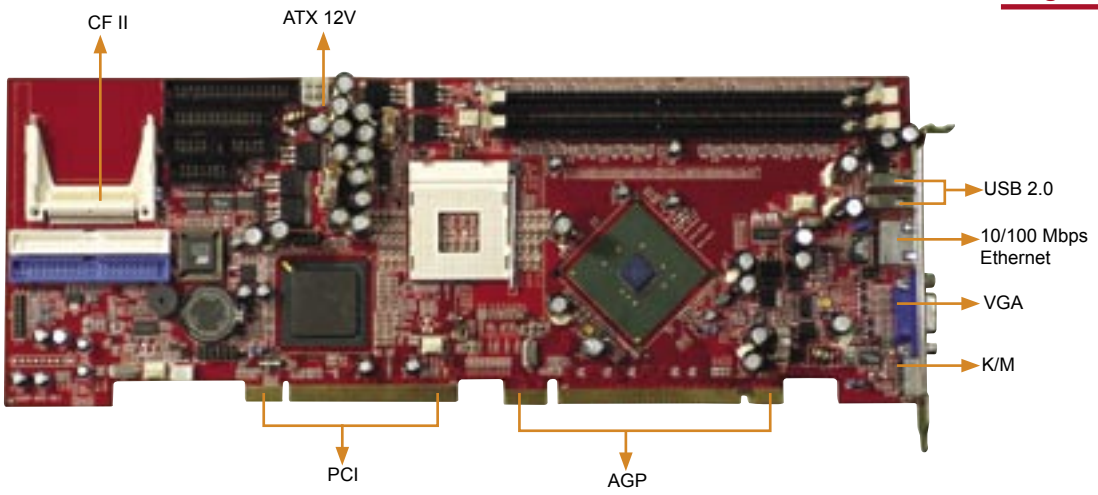
Ordering Information

- **SAGP-865EV**
  PIAGP Socket 478 800MHz FSB Based CPU Card with VGA, LAN, S-ATA, USB 2.0 & Audio
- **SAGP-865EVG**
  PIAGP Socket 478 800MHz FSB Based CPU Card with VGA, LAN, GbE, S-ATA, USB 2.0 & Audio

SAGP-845

PIAGP Socket 478 533MHz FSB Based CPU Card with VGA, LAN, USB 2.0 & Audio

Long Term Supports



DDR 333 FSB 533 AGP4X USB

Specifications

CPU	Socket-478 base supports Intel® Pentium® 4-M / P4 / Celeron™ up to 533MHz FSB
System Chipset	Intel 845G/GE + ICH4)
System Memory	Support 200/266/(845GE) 333MHz DDR SDRAM, maximum up to 2GB
Display	– Integrated-in Intel 845G chipset – Bus: AGP 4X, 66MHz(When plug-in AGP VGA card with the SAGP-845EV CPU Board will automatically disable the SAGP-845EV's internal VGA function) – V-RAM: Shared with system memory (DVMT technology) – Resolution: Up to 2048x1536@60MHz refresh rate (Analog) – Connector: DB-15 for CRT display
SSD	1x Compact Flash Type II socket
Ethernet	Onboard 10/100Mbps Fast Ethernet controller (82562ET PHY)
Audio	Onboard C-Media CMI8738 5.1 channel audio chip
I/O	– 2x ATA/100 IDE channels support CD-ROM, ZIP and LS-120 bootable – 4x USB 2.0 ports – 1x FDD channel supports 1.44/2.88MB and 3-Mode – 2x RS-232 serial ports by pin header (16C550 UARTs compatible) – 1x LPT parallel port supports SPP/ECP/EPP mode – 1x IrDA (SIR Mode) – 1x PS/2 connector for keyboard/mouse
WDT	Software programmable supports 1~255 seconds system reset
Hardware monitoring	Provides CPU Vcore, Vcc; CPU/System fan speed and temperature detecting function.
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	+5V@7A; +12V@4A (Intel P4 2.4G with 512MB DDR SDRAM) +5V@4A; +12V@3A (Intel P4-M 2.5G with 512MB DDR SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
Note	AGP 2X only support 1.5V
GW	1.1kg

IEI Option

- **CF-512** P4 Cooler for SAGP-845EV, up to 2.5GHz P4
- **CF-513** P4 Cooler for SAGP-845EV, up to 3.06GHz P4
- **CF-515** Pentium4-M CPU Cooler

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- **PISA-KIT-01** PCI to ISA bridge module

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Feature

- Intel P4 / P4-M CPU support upto FSB 533 MHz
- PIAGP interface supports AGP 4X add-on card
- DDR266 SDRAM memory support
- LAN, USB 2.0, Audio integrated

Tech Talk

Hyper-Threading Technology Benefits

Intel Hyper-Threading Technology improves the utilization of onboard resources so that a second thread can be processed in the same processor. Hyper-Threading Technology provides two logical processors in a single processor package.
Hyper-Threading Technology offers
– improved overall system performance
– increased number of users a platform can support
– improved reaction and response time because tasks can be run on separate threads increased number of transaction that can be executed
– compatibility with existing IA-32 software
Code written for dual-processor (DP) and multi-processor (MP) systems is compatible with Intel Hyper-Threading Technology-enabled platforms. A Hyper-Threading Technology-enabled system will automatically process multiple threads of multi-threaded code. (Data provided from Intel Corp.)
Intel Supported HT Chipsets List :
Intel 875P/865G/865GV/865PE/865P/848P/850E/845GE/845PE/ 845GV/ 845G/ 845E chipsets

Intel Pentium 4 Processor supports Hyper-Threading technology	
Speeds Supporting Hyper-Threading Technology	800 MHz system bus: 3.20, 3.0, 2.80, 2.60, 2.40 GHz
	533 MHz system bus: 3.06 GHz
Other Available Speeds	533 MHz system bus: 2.80, 2.66, 2.53, 2.40, 2.26 GHz
	400 MHz system bus: 2.60, 2.50, 2.40, 2.20, 2.0 GHz

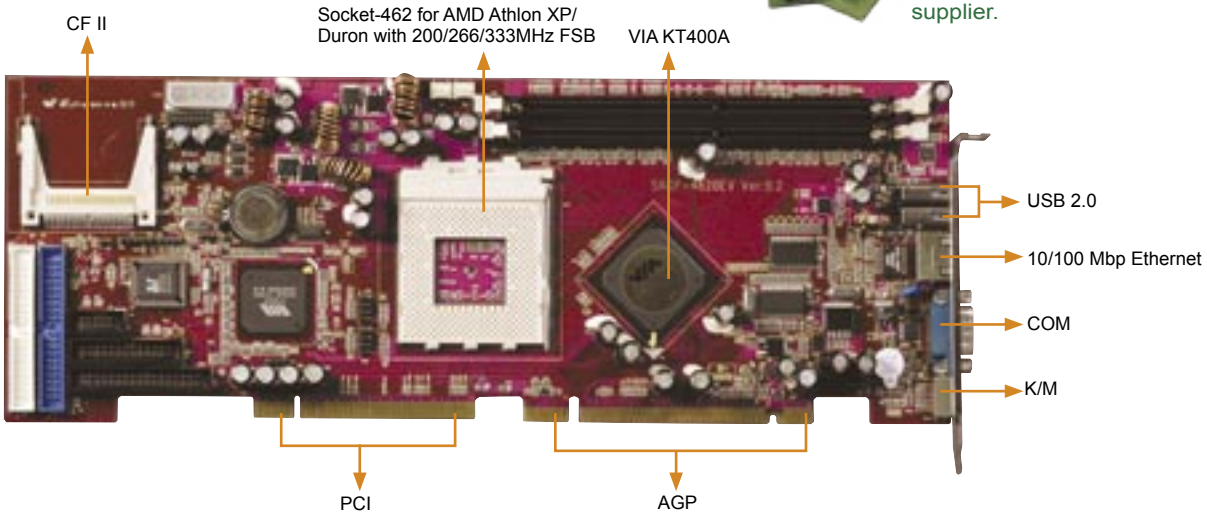
Ordering Information

- **SAGP-845MEV**
  PIAGP Socket 478 533MHz FSB Based CPU Card with VGA, LAN, USB 2.0 & Audio

SAGP-4620

PIAGP Socket 462 333MHz FSB AMD Based CPU card with LAN, USB 2.0 & Audio

For low power consumption fan-less solution, please contact supplier.



DDR 400 AGP8X USB AMD Athlon XP

Specifications

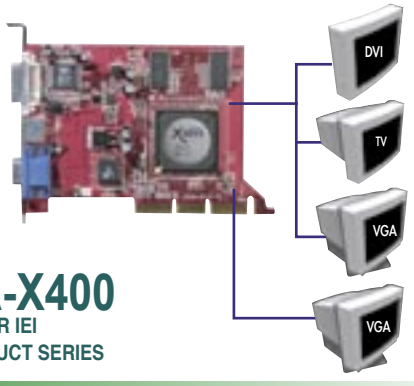
CPU	Socket-462 for AMD® Athlon XP®/ Duron® with 266/333MHz FSB
System chipset	VIA KT400A + VT8235
System memory	2 x DDR 266/333/400MHz SDRAM socket support up to 2GB
Display	4X/8X AGP bus **(VGA AGP add-on card required; 1.5V only)**
SSD	1 x Compact Flash™ Type II socket
Audio	AC'97 Codec (VIA 1612)
Ethernet	1 x 10/100Mbps VT8235 on chip Ethernet controller
I/O	– 2 x RS-232 by pin header (10-pin with 2.54mm pitch) – 1 x LPT by pin header (supports SPP/EPP/ECP mode) – 6 x USB 2.0 – 1 x PS/2 for Keyboard/Mouse – 2 x IDE ATA 66/100/133 (40-pin with 2.54mm pitch) – 1 x Floppy (34-pin with 2.54mm pitch) – 1 x IrDA
WDT	Software programmable supports 1 ~ 255 sec, system reset
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Consumption	+5V@19.5A, +12V@0.95A, -12V@0.2A (AMD 2500+, 512MB DDR SDRAM)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
Note	No ISA interface supported
GW	1.1kg

Ordering Information

● **SAGP-4620E**
PIAGP Socket 462 333MHz FSB AMD Based CPU card with LAN, USB 2.0 & Audio

Feature

- AMD AthlonXP / Duron CPU support upto FSB 333 MHz
- PIAGP interface supports AGP 8X/4X add-on card
- DDR400 SDRAM memory support
- LAN, USB 2.0, Audio integrated



AVGA-X400

PERFECT FOR IEI
PIAGP PRODUCT SERIES

Specifications

- ◆ Chip: SiS Xabre400 + SiS 301
- ◆ V-RAM: On board 64 MB DDR SDRAM
- ◆ Resolution: MAX. 2048x1536, 32bit for CRT display
- ◆ Support AGP 8X bus to enhance graphics performance
- ◆ I/O Connector:
  – Support CRT display: 1 x 15 pin D-SUB15VGA Connector, 1 x by pin-header
  – Support DVI interface
- ◆ Dual Display: Supports VGA & VGA or VGA & TV-Out or VGA & LCD

Ordering Information

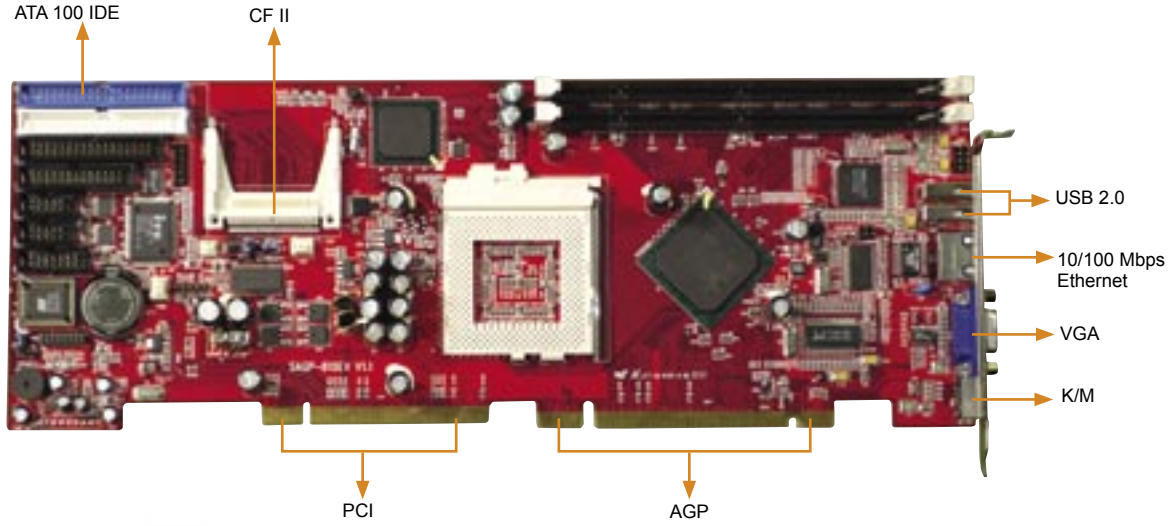
● **AVGA-X400 :**
Xabre400 on board 64MB DDR SDRAM with DVI Dual display function

Note: It is recommanded to use AGP 2X with the SAGP-815EV single board computer.

SAGP-815

PIAGP Socket-370 Based CPU board with AGP 4X Bus, LAN, USB2.0 & Audio

Long Term Supports



Specifications

CPU	Supports Intel Coppermine/Tualatin socket 370 series Pentium III and Celeron CPU with 66/100/133MHz FSB
System Chipset	Intel 815E B stepping chipset
System Memory	2x 168-pin SDRAM socket maximum up to 512MB
Display	– Built-in FW82815 chip – Bus: AGP 4X, 66MHz (When you plug-in AGP VGA card with the SAGP-815EV CPU Board – will automatically disable the Internal VGA function of SAGP-815EV) – V-RAM: Shared with system memory (DVMT technology) – Resolution: Up to 1600x1200@8bit color – Connector: DB-15 for CRT display
SSD	1x Compact Flash™ Type II socket for CF disk or IBM Microdrive
Audio	Onboard C-Media CMI8738 5.1 channel audio chip
Ethernet	Onboard 10/100Mbps Fast Ethernet controller (82562ET PHY)
I/O	– 2x RS-232 serial ports by pin header (16C550 UARTs compatible) – 1x PS/2 connector for keyboard/mouse – 1x LPT parallel port by pin header (supports SPP/EPP/ECP mode) – 1x IrDA (SIR Mode) – 4x USB 2.0 ports – 2x ATA/100 IDE channel supports CD-ROM, ZIP and LS-120 drive bootable – 1x FDD connector, support 1.44/2.88MB and 3-Mode
WDT	Software programmable supports 1~255 seconds system reset
Hardware Monitoring	Provides CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function.
ATX Power control function	Meets ACPI 1.1 specification, comes with external power connector of 5V input
Power Consumption	5V@7.6A, 12V@230mA (Intel 1GHz CPU with 256MB memory)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	1.1kg

IEI Option

- **PISA-KIT-01** PCI to ISA bridgemodule

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Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- PIAGP interface supports AGP 4X add-on card
- PC133 SDRAM memory support
- LAN, USB 2.0, Audio integrated

Tech Talk

What is AGP ?

AGP(Accelerated Graphics Port) is a bus interface targeted for high-performance 3D graphics. AGP supports only memory read/write operation and single-master single-slave one-to-one only. AGP uses both rising and falling edge of the 66MHz clock, for 2X AGP, the data transfer rate is 66MHz x 4byte x 2 = 528MB/s. AGP is now moving to 8X mode, 66MHz x 4byte x 8 = 2.1GB/s.

As for the detail information please refer the Accelerated Graphics Port Implementors Forum's web site www.agpforum.org

AGP version comparison Table :

Model Name	AGP 1.0	AGP 2.0	AGP 3.0
Signaling	3.3V Signaling	1.5V Signaling	0.8V Signaling
0.8V Signaling	Pipeined trans actions +Source synchronous clocking	AGP 1.0 +Fast Writes	AGP 2.0
Speeds	2X, 1X	4X, 2X, 1X	8X, 4X
Connector	3.3V keyed	1.5V keyed, Universal	1.5V keyed, Universal
IEI's SAGP Products	--	SAGP-815EV SAGP-845MEV SAGP-4620E	SAGP-865EV SAGP-865EVG

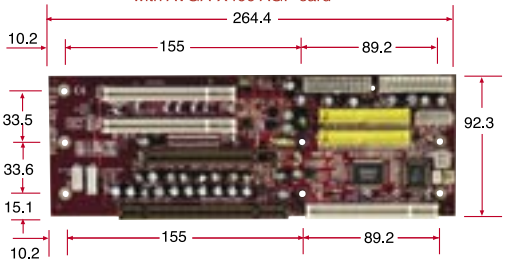
Ordering Information

- **SAGP-815EV**
  PIAGP Socket 370 133MHz FSB Based CPU Card with VGA, LAN, USB 2.0 & Audio

PCIAGP Backplane

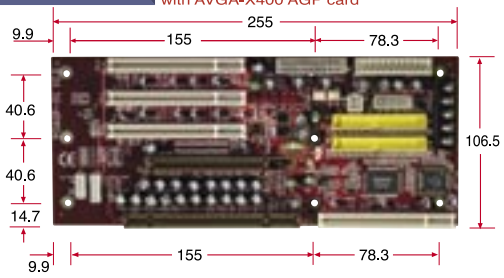
* PCIAGP-4S(R)

Suitable for implement at slim size of chessis with AVGA-X400 AGP card

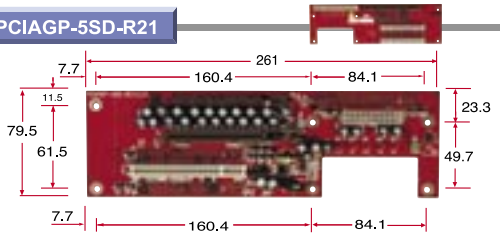


* PCIAGP-5S(R)-R21

Suitable for implement at slim size of chessis with AVGA-X400 AGP card



PCIAGP-5SD-R21



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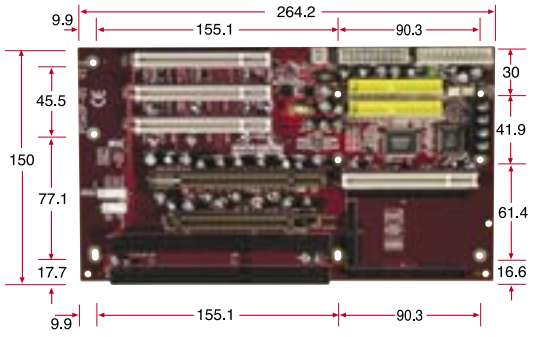

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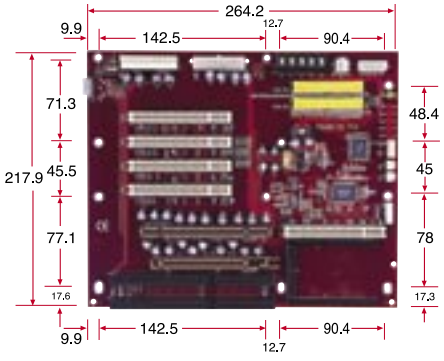
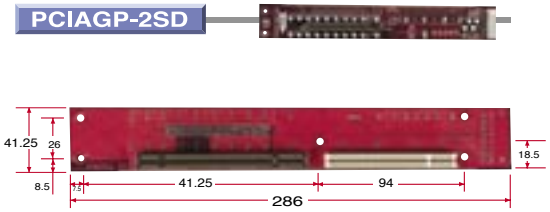
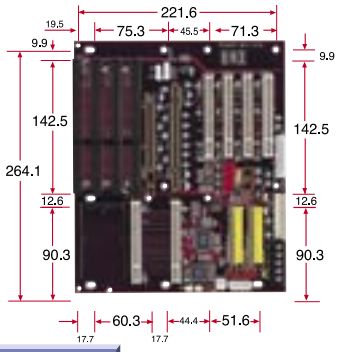


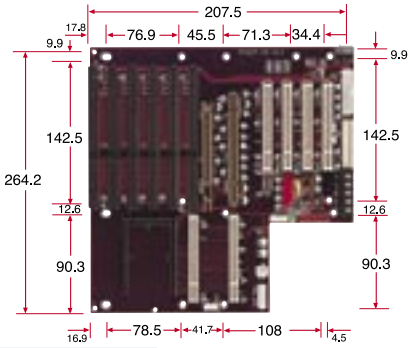
PCIAGP-2SD



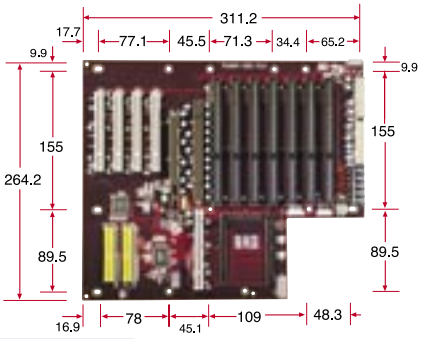
PCIAGP-9S2(R)



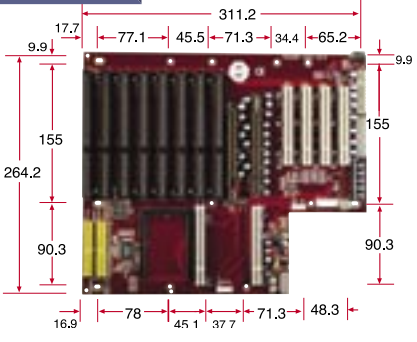
PCIAGP-12S-R21



PCIAGP-13S2(R)-R21



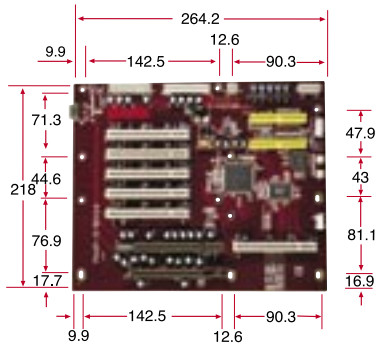
PCIAGP-13S3(R)-R21



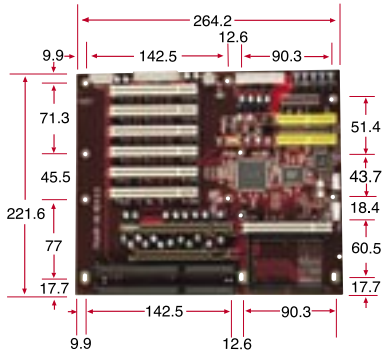
Note: PCIAGP-4S and PCIAGP-9S2 only support AGP 4X CPU cards (SAGP-815, SAGP-845) and AGP 4X Graphic cards.

PXAGP Backplane

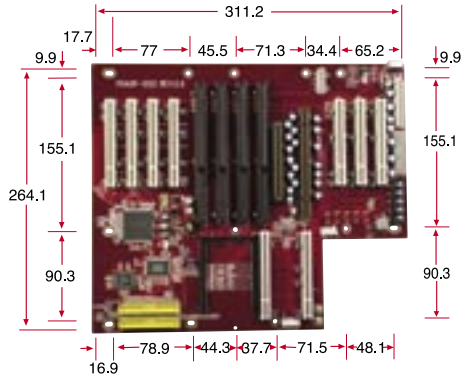
PXAGP-7S(R)-R21



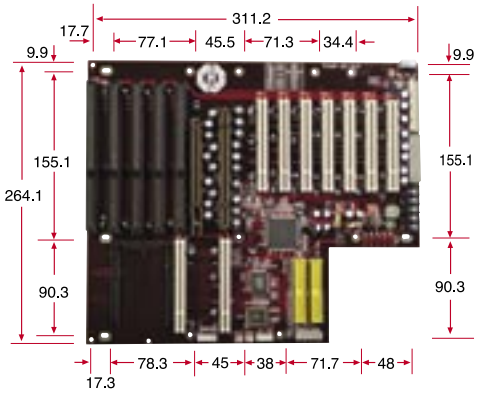
PXAGP-9S(R)-R21



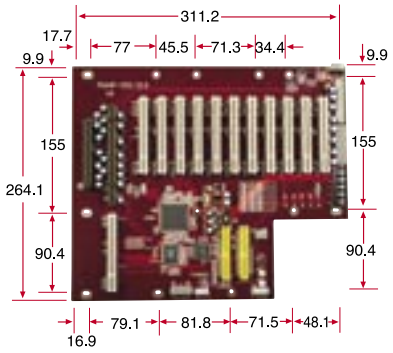
PXAGP-12S2(R)-R21



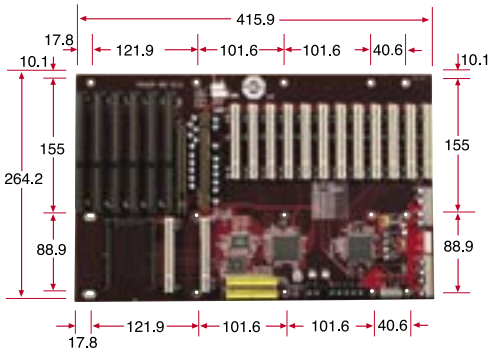
PXAGP-13S(R)-R21



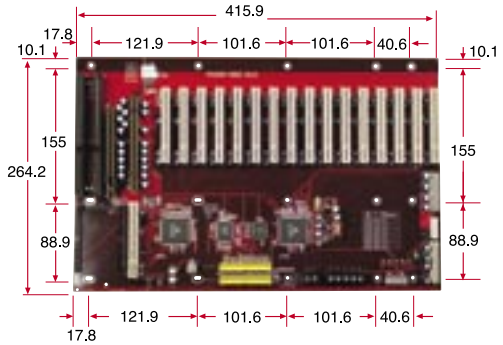
PXAGP-13S3(R)-R21



PXAGP-19S(R)-R21



PXAGP-19S2(R)-R21



PISA-KIT01

PCI-to-ISA Bridge Module

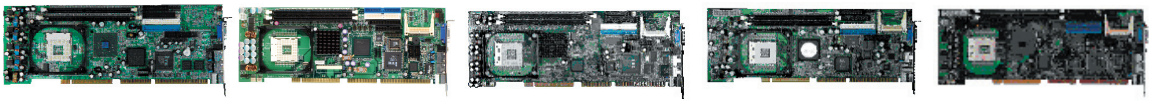
- PCI-to-ISA bridge chip : ITE8888
- For IEI PIAGP Series CPU Board **SAGP-815/845/865** transfers PCI signal to ISA

LPISA-KIT01

LPC-to-ISA Bridge Module

- LPC-to-ISA bridge chip : Winbond 83626
- For IEI PIAGP Series CPU Board **SAGP-648** to transfer LPC signal to ISA

Full-Size CPU Card Selection Guide



Model Name	ROCKY-4786EV/ EVG-R30	ROCKY-6160	ROCKY-4784EV/ EVG	ROCKY-4783EV	ROCKY-4782EV/ E2V
CPU Socket	Socket-478				
CPU Type	Intel P4 / Celeron support HT Technology	Intel P4 / Celeron	Intel P4 / Celeron support HT Technology	Intel P4 / Celeron support HT Technology	Intel P4 / Celeron
FSB	400/533/800 MHz	400/533 MHz	400 / 533 MHz	400 / 533 MHz	400 MHz
Chipset	Intel 865GV + ICH 5	Intel 852GME + ICH 5	Intel 845E + ICH 2	SiS651 + SiS962	Intel 845+ ICH2
Memory	Doul channel DDR 333 / 400 SDRAM up to 2GB	DDR 266 / 333 SDRAM up to 2GB	DDR 200 / 266 SDRAM up to 2GB	DDR 200 / 266 / 333 SDRAM up to 2GB	PC100/133 SDRAM up to 2GB
Graphic	Integrate with Intel 865GV	Integrated with Intel 852GME	SiS315 2D / 3D Graphics Engine AGP 4X bus bandwidth, 32MB SDRAM	Integrate with SiS651	SiS315 2D / 3D Graphics Engine AGP 4X bus bandwidth, 32MB SDRAM
Ethernet	One 10/100Mbps Ethernet(EV) and One GbE i82547 by CSA (EVG)	One 10/100Mbps Ethernet and one GbE i82541PI (ROCKY-6160G)	One 10/100 Mbps Ethernet(EV) and One GbE Broadcom (EVG)	One 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet(EV) or dual 10/100 Mbps Ethernet (E2V)
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 8 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 8 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 2.0 3 x IEEE-1394a 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 1.1 1 x IrDA
Drive Interface	2 x IDE ATA-100/66/33 2 x SATA-150 1 x FDD	2 x IDE ATA-100 / 66 / 33 2 x SATA-150 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-133/100/ 66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD
Audio	AC'97 CODEC	AC '97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC
SSD	CF Type II	CF Type II	CF Type II	CF Type II	CF Type II
Power Consumption	+12V@7.52A, +5V@6.98A, -12V@0.5A (P4 3.0GHz, Dual channel DDR400 512MB SDRAM)	+12V@7.17A, +5V@2.7A, (P4 Prescott 2.8G,2 x 512 MB DDR SDRAM)	+12V@6.6A, +5V@5A (P4 2.2GHz , DDR266 2GB SDRAM)	+12V@7.2A, +5V@3.1A (P4 2.0GHz , DDR266 2GB SDRAM)	+12V@6.55A, +5V@4.46A (P4 2.0GHz , 1GB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset				
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function				
Operation Environment	Temperation Range: 0 ~ 60°C Relative Humidity: 5 ~ 95 %, non-condensing				
Recommand Fancooler	CF-514	CF-514	CF-514	CF-514	CF-514

Full-Size CPU Card Selection Guide

Model Name	ROCKY-3742EV/ EVF	ROCKY-3732EV/ EVS-R2	ROCKY-3722V/ EV/ EVS-R2	ROCKY-3786EV/ EVGU2-R11	ROCKY-3785EV-R11
CPU Socket	Dual Socket-370			Socket-370	
CPU Type	Intel P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron
FSB	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz
Chipset	VIA VT82C694X + VT82C686B	VIA VT82C694T + VT82C686B	Intel 440BX	ntel 815E + ICH 2	Intel 815E + ICH 2
Memory	PC 100 / 133 SDRAM up to 2GB	PC 100 / 133 SDRAM up to 2GB	PC 100 SDRAM up to 1GB	PC 100 / 133 SDRAM up to 512MB	PC 100 / 133 SDRAM up to 512MB
Graphic	SiS6326, 4MB RAM	SiS6326, 4MB RAM	SiS6326, 4MB RAM	Integrate with i815E	Integrate with i815E
Ethernet	One 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet (EV/ EVS) or One 10/100 Mbps Ethernet(E1V)	Dual 10/100 Mbps Ethernet (EV/ EVS)	One 10/100 Mbps Ethernet (EV) and One GbE (EVG/EVGU2)	One 10/100 Mbps Ethernet
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA 2 x IEEE-1394a (EVF)	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 2.0 (EVU2/EVGU2) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA
Drive Interface	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-100/66/33 2 x Ultra160 SCSI channels (EVS) 1 x FDD	2 x IDE ATA-33 2 x Ultra160 SCSI channels (EVS) 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD
Audio	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC
SSD	CF Type II	CF Type II	DiskOnChip	CF Type II	N/A
Power Consumption	+12V@0.35A, +5V@15A, (Dual P3 1GHz 2GB SDRAM)	+12V@0.35A, +5V@15A, (Dual P3 1GHz 2GB SDRAM)	+12V@0.17A, +5V@6.8A, -12V@0.06 (P3 850MHz 256MB SDRAM)	+12V@0.23A, +5V@7.6A (P3 1GHz , 256MB SDRAM)	+12V@0.23A, +5V@7.6A (P3 1GHz , 256MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset				
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function				
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing				
Recommand Fancooler	CF-504	CF-504	CF-504	CF-504	CF-504

Full-Size CPU Card Selection Guide

Model Name	ROCKY-3782V/ EV/ EVS	ROCKY-3708EV/ E2V	ROCKY-3706EV/ EVG	ROCKY-3705EV-R2	ROCKY-3703EV	ROCKY-3702EV-R6/ -R6V8
CPU Socket	Socket-370					
CPU Type	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin/ P3 / Celeron	Intel Tualatin / P3 / Celeron	Intel Tualatin / P3 / Celeron
FSB	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz	66 / 100 / 133 MHz
Chipset	Intel 810E	SiS635T	ServerWorks LE-T	SiS 630ET	VIA PM133	Intel 440BX
Memory	PC 100 SDRAM up to 512MB	PC 100 / 133 SDRAM up to 1GB	PC 100 / 133 SDRAM up to 2GB	PC 100 / 133 SDRAM up to 1GB	PC 100 / 133 SDRAM up to 1.5GB	PC 100 SDRAM up to 512MB
Graphic	Integrate with i810E	SiS315 2D / 3D Graphics Engine 32MB SDRAM	ATI Rage XL 2D / 3D Engine 8MB SDRAM	Integrated SiS630ET	Chipset Ingrated Savage4 2D / 3D Video Accelerator	ATI Rage Mobility-M, 2MB RAM (8MB for EV-R6V8)
Ethernet	Dual 10/100 Mbps Ethernet (EV/EVS)	One 10/100 Mbps Ethernet(EV) or dual 10/100 Mbps Ethernet(E2V)	One 10 / 100 Mbps Ethernet (EV) and One GbE(EVG)	One 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet (EV)	One 10/100 Mbps Ethernet
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 4 x USB 1.1	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA
Drive Interface	2 x IDE ATA-66/33 1 x FDD and 2 x Ultra160 SCSI channels (EVS)	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-33 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-33 1 x FDD
Audio	AC'97 CODEC	C-Media CMI8738 5.1 channel	N/A	AC'97 CODEC	AC'97 CODEC	N/A
SSD	CF Type II	CF Type II	N/A	CF Type II	DiskOnChip	DiskOnChip
Power Consumption	+12V@0.2A, +5V@5A, -12V@0.05A (P3 500MHz , 128MB SDRAM)	+12V@0.24A, +5V@5.4A, 5VSB@0.27A (P3 1.2GHz 1GB SDRAM)	+12V@0.17A, +5V@8.4A (P3 1GHz , 256MB SDRAM)	+12V@0.17A, +5V@6A (P3 500MHz , 512MB SDRAM)	+12V@0.17A, +5V@5A (P3 850MHz , 256MB SDRAM)	
Watchdog Timer	Software Programmable 1-255 sec system reset					
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function		N/A	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function		
Operation Environment	Temperation Range 0 ~ 60 °C Relative Humidity 5 ~ 95 %, non-condensing					
Recommand Fancooler	CF-504	CF-504	CF-504	CF-504	CF-504	CF-504

Full-Size CPU Card Selection Guide

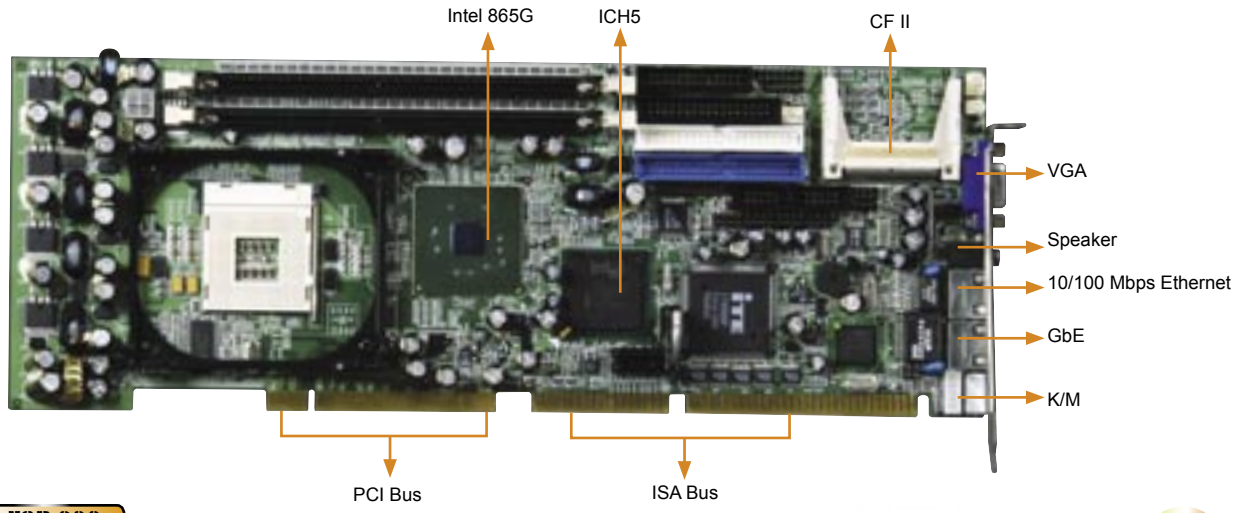
Model Name	ROCKY-3701BX	ROCKY-772NEV/REV	ROCKY-C800EVN/EVR-1G	ROCKY-C400EVN/EVR	ROCKY-548TX-R6	ROCKY-538TXV-R7
CPU Socket	Socket-370	Socket-A	Embedded on board CPU		Socket-7	
CPU Type	Intel Tualatin / P3 / Celeron	AMD Athlon / Athlon XP / Duron	VIA C3 1GHz embedded	Intel ULV Celeron 400MHz	Intel Pentium	Intel Pentium
FSB	66 / 100 / 133 MHz	200 / 266 MHz	133MHz	133MHz	66 MHz	66 MHz
Chipset	Intel 440BX	VIA KL 133A	VIA 8601A + 686B	VIA 8601A + 686B	Intel 430TX	Intel 430TX
Memory	PC 100 SDRAM up to 1GB	PC 100 / 133 SDRAM up to 1.5GB	2 DIMM socket up to 1GB	2 DIMM socket up to 1GB	2 DIMM socket upto 512MB	2 DIMM socket upto 512MB
Graphic	N/A	Chipset Ingrated Savage4 2D / 3D Video Accelerator,AGP 4X, 32MB shared memory	VIA 8601A Integrated	VIA 8601A Integrated	N/A	ATI M1
Ethernet	N/A	Dual 10/100 Mbps Ethernet	One 10/100Mbps Ethernet	One 10/100Mbps Ethernet	N/A	N/A
I/O Interface	4 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.0 1 x IrDA
Drive Interface	2 x IDE ATA-66 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-33 1 x FDD	2 x IDE ATA-33 1 x FDD
Audio	N/A	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	N/A	N/A
SSD	DiskOnChip / CF Type II	DiskOnChip / CF Type II	CF Type II	CF Type II	4 x DiskOnChip	DiskOnChip
Power Consumption	+12V@0.17A, +5V@6.8A, -12V@0.06, (Celeron 333MHz , 512MB SDRAM)	+12V@0.28A, +5V@12.7A, (Athlon 1.4GHz , 1.5GB SDRAM)	+12V@0.17A, +5V@3.8A, +5VSB@0.18A (C3 800MHz 1GB SDRAM)	5V@2.6A, +5VSB@180mA, 12V@170mA (512 MB SDRAM)	+12V@0.07A, 5V@4A, (Pentium MMX 200MHz, 32MB SDRAM)	+12V@0.07A, 5V@4A, (Pentium MMX 200MHz, 32MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset				Support	Support
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function	Hardware monitoring system	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function		N/A	N/A
Operation Environment	Temperation Range 0 ~ 60 °C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 50 °C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing		Temperation Range 0 ~ 60 °C Relative Humidity 5 ~ 95 %, non-condensing	
Recommand Fancooler	CF-504	CF-508	On board cooler	Fan-Less	CF-502/CF-504	CF-502/CF-504

ROCKY-4786

PICMG Socket 478 800MHz FSB CPU Card with VGA, LAN, GbE, S-ATA, USB 2.0 & Audio

Prescott Ready and Serial-ATA RAID function coming soon !!

Long Term Supports



FSB 800 | DUAL DDR 400 | ISA PLUS | SERIAL ATA | RAID | USB | Gigabit Ethernet | Prescott Ready

Feature

- Intel P4 / Prescott / Celeron CPU supports upto FSB 800 MHz
- Intel Extreme Graphic II integrated graphic engine
- Dual channel DDR400 SDRAM memory support
- LAN, SATA, USB 2.0, Audio integrated
- Optional RAID function available

Specifications

CPU	Socket-478 for Intel® Pentium® 4 with 533/800MHz FSB
System chipset	Intel® 865G/GV + ICH5 /ICH5R (ROCKY-4786EVGR)
System memory	Dual channel DDR 333/400 SDRAM socket support up to 2GB
Display	Integrated in Intel® 865G/GV – Bus: AGP 4X/8X
SSD	1 x Compact Flash™ Type II socket
Ethernet	1 x 10/100Mbps i82562ET Ethernet 1 x 10/100/1000Mbps i82547 Ethernet by CSA (Communication Streaming Architecture)
Audio	AC'97 CODEC
I/O	– 2 x RS-232 serial port by pin header – 1 x LPT by pin header (supports SPP/EPP/ECP mode) – 8 x USB 2.0 by pin header – 1 x PS/2 for Keyboard/Mouse – 2 x IDE ATA-100 (40-pin header with 2.54mm pitch) – 1 x Floppy (34-pin with 2.54mm pitch) – 2 x Serial-ATA 150 (RAID function optional) – 1 x IrDA
WDT	Software programmable supports 1 ~ 255 sec, system reset
Hardware Monitor	CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Consumption	+12V@7.52A, -12V@500mA, +5V@6.98A (P4 3.0GHz FSB 800MHz; Dual channel DDR400 512MB SDRAM)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	1.1kg
Remark	Intel Prescott CPU support up to 3.0 GHz

IEI Option

- **CB-USB-02** Dual port USB cable
- **CF-514** High performance Skiving Pentium® 4 CPU cooler

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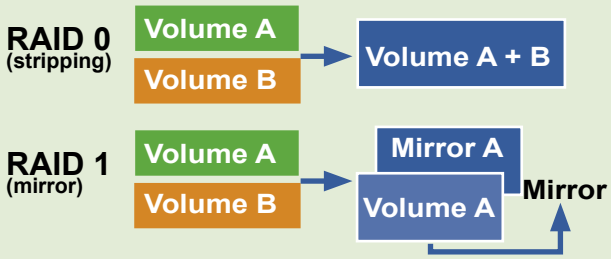
Tech Talk

Intel® RAID Technology of Intel® 82801ER(ICH5R)

RAID means Redundant Array of Independent Disks. As the words, the aims of RAID technology was to use an array of hard disks for either better performance or better security against disk failure.

The Intel® RAID Technology solution, available with the 82801ER(ICH5R), offers data stripping for higher performance (RAID Level 0) and data mirroring for better preservation. There is no loss of PCI resources or add-in card slot needed in the system.

The Intel RAID Technology for SATA Option ROM provides a pre-OS user interface for the Intel RAID Technology implementation and provides the ability for a Intel RAID Technology volume to be used as a boot disk as well as to detect any faults in the Intel RAID Technology volume attached to the Intel RAID controller.



Ordering Information

- **ROCKY-4786EVG-R30**
  PICMG Socket 478 800MHz FSB CPU Card with VGA, LAN, GbE, S-ATA, USB 2.0 & Audio
- **ROCKY-4786EVGR-R30**
  PICMG Socket 478 800MHz FSB CPU Card with VGA, LAN, GbE, S-ATA, USB 2.0, RAID & Audio
- **ROCKY-4786EV-R30**
  PICMG Socket 478 800MHz FSB CPU Card with VGA, LAN, S-ATA, USB 2.0 & Audio

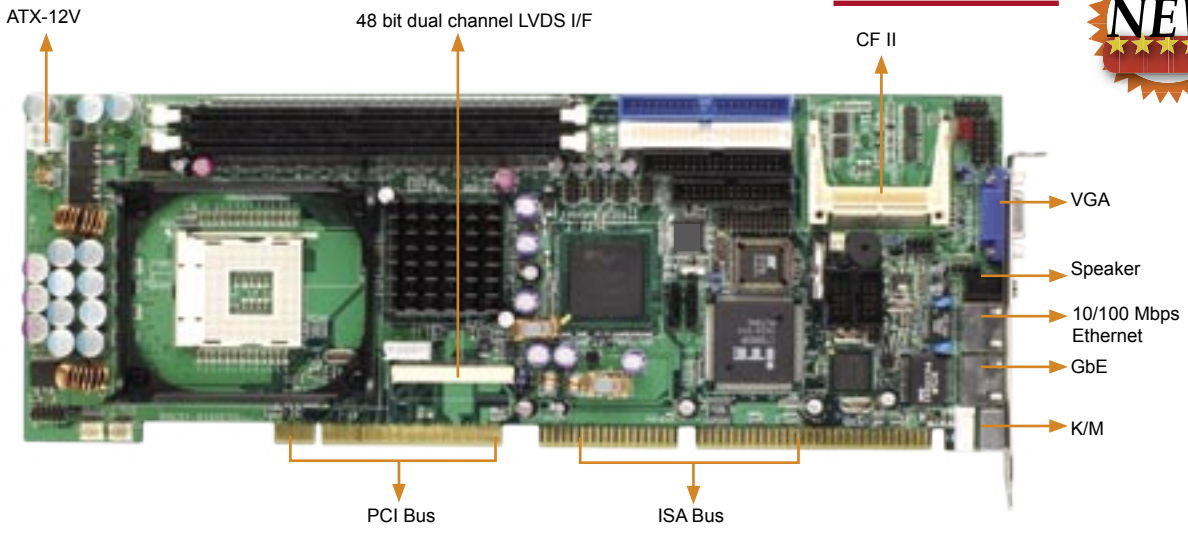
Note
For DVI / NIC Teaming capability function, please contact with supplier

ROCKY-6160

PICMG Socket-478 533MHz FSB CPU Card with LCD/ CRT VGA, LAN, GbE, SATA, USB2.0 & Audio

Long Term Supports

NEW



DDR 333 FSB 533 ISA PLUS SERIAL ATA USB Gigabit Ethernet intel inside pentium 4 Dual Display Prescott Ready

Specifications

CPU	Socket-478 for Intel® Pentium® 4 with 400/533 MHz FSB
System Chipset	Intel® 852GME + ICH5
System Memory	2x DDR-DIMM support DDR266/333 SDRAM upto 2GB
Display	Integrated in Intel® 852GME Bus: AGP 4X Share system memory with Intel DVMT technology DB-15 CRT connector DF14-30F 48 bit dual channel LVDS LCD interface Dual Independent Display
Ethernet	1 x 10/100 Mbps ICH4 + i82562ET 1 x 10/100/1000 Mbps i82541PI (ROCKY-6160G)
SSD	1 x Compact Flash™ Type II socket
I/O	2 x RS-232 serial ports 1 x LPT (support SPP/EPP/ECP mode) 8 x USB 2.0 ports 1 x PS/2 for Keyboard/Mouse 2 x ATA-100 IDE channel 2 x SATA-150 IDE channel 1 x Floppy 1 x IrDA
Audio	Support AC '97 Codec
Digital I/O	4 inputs, 4 outputs
WDT	Software programmable supports 1 ~ 255 seconds system reset
Hardware Monitoring	Provides CPU Vcore, Vcc, CPU / System fan speed and temperature detecting function
Power control function	Support APM / ACPI 2.0 power control function
Power consumption	+12V@7.17A, 5V@2.7A, (P4 Prescott 2.8G, 2x 512MB DDR SDRAM)
Operation Temperature	0 ~ 60°C
Relative Humidity	5 ~ 95%, non-condensing
GW	900g
Remark	Intel prescott CPU support up to 2.8 GHz

IEI Option

- **CF-514** High performance Skiving Pentium® 4 CPU cooler

page 5-5

Feature

- Intel P4 / P4-M / Prescott CPU supports upto FSB 533 MHz
- Intel Extreme Graphic II integrated graphic engine with LVDS
- DDR266 SDRAM memory support with ECC function
- LAN, SATA, USB 2.0, Audio integrated
- Support dual independent display

Tech Talk

Intel 852GM/GME Chipset Introduction

The Intel® 852GME Chipset for Embedded Computing is an optimized integrated graphics solution with a 400/533 MHz system bus and integrated 32-bit 3D core at 133 MHz (at 533 MHz system bus). It features a low-power design, supports the Intel® Pentium® 4 processor and the Intel® Celeron® processor, and supports up to 2 GB of DDR 266/333 system memory.
The Intel® 852GM chipset is a mobile optimized integrated graphics solution with a 400 MHz system bus and integrated 32-bit 3D core at 133MHz with Dynamic Video Memory Technology (DVMT). The Intel® 852GM chipset has a low power design, supports advanced mobile power management, and supports up to 1GB of DDR 200/266 System Memory.

Chipset comparison chat

	Intel 855GME	Intel 852GME	Intel 852GM	Intel 845GV
FSB	400 Mhz	400/533 Mhz	400 Mhz	400/533 Mhz
Memory	DDR: 200/ 266/333	DDR: 266/333	DDR: 200/ 266	DDR: 200/266
ECC support	Yes	Yes	No	No
AGP support	4X	4X	No	No
LVDS interface	Integrated	Integrated	Integrated	Through DVO Port
DVO Port	DVOB/C	DVOB/C	DVOC	DVOC

Ordering Information

- **ROCKY-6160-R10**
  PICMG Socket-478 533MHz FSB CPU Card with LCD/CRT VGA, LAN, SATA, USB2.0 & Audio
- **ROCKY-6160G-R10**
  PICMG Socket-478 533MHz FSB CPU Card with LCD/CRT VGA, LAN, GbE, SATA, USB2.0 & Audio

Note: For DVI function, please contact supplier

ROCKY-4784

PICMG Socket 478 533MHz FSB CPU Card with VGA(32MB), LAN, GbE & Audio

Independent VGA SIS 315 chip with 32MB V-RAM on board

FSB 533 | DDR 266 | ISA PLUS™ | Gigabit Ethernet

Feature

- Intel Pentium 4 CPU supports upto FSB 533 MHz
- SiS 315 graphic chip with 32MB memory
- DDR266 SDRAM memory support with ECC
- LAN, USB, Audio integrated

Specifications

CPU	Socket-478 base support Intel® Pentium® 4 / Celeron™ up to 533 MHz FSB
System Chipset	Intel 845E+ ICH2
System Memory	2x 184pin DIMM up to 2GB DDR SDRAM (DDR 200/266 MHz), support ECC function
Display	SiS 315 2D/3D Graphics Engine AGP 4X bus bandwidth up to 533 MB/sec Resolutions: up to 1600x1200 (UXGA) V-RAM: 32MB SDRAM onboard Connector: DB-15 for CRT dispay
Ethernet	1x 10/100Mbps fast Ethernet controller on board (i82562, ICH2) 1x Gigabit LAN onboard (Broadcom 5702)
SSD	1x Compact Flash™ Type II
I/O	– 2x RS-232 series port by pin header (16C550 UARTs Compatible) – 1x LPT by pin header (support SPP/EPP/ ECP mode) – 1x IrDA (SIR mode) – 2x USB (USB 1.1 Compliant) – 1x FDD channel support 1.44MB, 2.88MB and 3-mode – 2x ATA-100 IDE channel support CD-ROM; ZIP and LS-120 bootable
Audio	AC'97 compliant Audio CODEC (Line-in, Line-out, Mic-in by pin header)
WDT	software programmable support 1~255 second system reset
ISA Plus™	Designed to enhance the ISA bus drive capability (64mA)
Hardware Monitoring	CPU Vcore; Vcc; CPU/System Fan speed and Thermal
ATX power control function	Meets ACPI 1.1
Power consumption	+5V@5A, +12V@6.6A, 12V power request min. 8A. (P4 2.2GHz CPU with 2GB DDR SDRAM, Windows 2000)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	1kg

Ordering Information

- **ROCKY-4784EVG**
  PICMG Socket 478 Base SBC with VGA(32MB), Audio, LAN and Gigabit LAN
- **ROCKY-4784EV**
  PICMG Socket 478 Base SBC with VGA(32MB), Audio, LAN

IEI Option

- **CB-USB02** Dual ports USB cable with bracket page 5-6
- **CF-514** High performance Skiving Pentium® 4 CPU cooler page 5-5

ROCKY-4783

PICMG Socket 478 533MHz FSB CPU Card with VGA, LAN, USB 2.0, 1394 & Audio

Prescott Ready Version coming soon !!

DDR 333 | FSB 533 | USB | ISA PLUS™ | FireWire

Feature

- Intel Pentium 4 CPU supports upto FSB 533 MHz
- SiS 651 integrated graphic engine
- DDR333 SDRAM memory support
- LAN, IEEE-1394, USB 2.0, Audio integrated

Specifications

CPU	Socket-478 base support Intel® Pentium 4 / Celeron™ up to 533 MHz FSB
System Chipset	SiS651 + 962
System Memory	2x 184pin DIMM up to 2GB DDR SDRAM (DDR 200/ 266/ 333 MHz)
Display	Chipset integrated 2D/3D Graphics Engine (SiS 651) AGP 4 x bus Chipset integrated 2D/3D Graphic Engine Resolutions: up to 1600x1200 (UXGA) V-RAM: share system memory up to 64MB Connector: DB-15 for CRT display
Ethernet	1x 10/100Mbps fast Ethernet controller onboard (in SiS 962)
SSD	1x Compact Flash™ Type II socket onboard
IEEE-1394	3x port IEEE-1394a 400Mbps
I/O	– 2x RS-232 series port by pin header (16C550 UARTs Compatible) – 1x LPT by pin header (support SPP/EPP/ ECP mode) – 1x IrDA (SIR mode) – 4xUSB (USB 2.0 Compliant) – 1x FDD channel support 1.44MB, 2.88MB and 3-mode – 2x ATA-133 IDE channel support CD-ROM; ZIP and LS-120 bootable.
Audio	AC'97 compliant Audio CODEC (Line-in, Line-out, Mic-in by pin header)
WDT	software programmable support 1~255 second system reset
ISA Plus™	Design to enhance the ISA bus drive capability (64mA)
Hardware Monitoring	CPU Vcore; Vcc; CPU/System Fan speed and Thermal
ATX power control function	Meet ACPI 1.1
Remark	8-bit ISA bus (LPC-ISA)
Power Consumption	+5V@3.1A, +12V@7.2A (P4 2.0GHz CPU with 2GB DDR SDRAM, Windows 2000)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-4783EV**
  PICMG Socket 478 533MHz FSB CPU Card with VGA, LAN, USB 2.0, 1394 & Audio

IEI Option

- **CB-USB02** Dual ports USB cable with bracket
- **CB-IEEE1394** Dual ports IEEE-1394 cable page 5-6
- **CF-514** High performance Skiving Pentium® 4 CPU cooler page 5-5

ROCKY-4782

PICMG Socket 478 400MHz FSB CPU Card with VGA, Dual LAN & Audio

Independent VGA SIS 315 chip with 32MB V-RAM on board

FSB 400 ISA PLUS

Feature

- Intel Pentium 4 CPU supports upto FSB 400 MHz
- SiS 315 graphic chip with 32MB memory
- DDR200 SDRAM memory support
- LAN, USB, Audio integrated

Specifications

CPU	Supports Intel® Socket 478 Pentium® 4 with 400MHz system bus
System Chipset	Intel® 845 Chipset
System Memory	2 x 168 pin DIMM up to 2GB SDRAM
Display	Ultra high Performance Graphic Chip : SIS315 with 32MB SDRAM AGP interface : AGP 4X, 266MHz Built-in 256-bit 3D engine up to 2048x2048 texture size
Ethernet	Dual LAN Built-in Intel 845 chipset(i82562) and i82559 Chip
SSD	Supports Compact Flash™ Type II Socket for CF or IBM MicroDrive.
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 4 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44/2.88MB & 3-mode function – 2 x ATA-100 IDE channels
Hardware monitoring	CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Control	ATX power control function
WDT	software programmable, support 1~ 255 sec. system reset
Power Consumption	5V@4.46A, 12V@6.55A (with 2GHz Pentium 4 and 1GB Memory)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-4782E2V**
  PICMG Socket 478 400MHz FSB CPU Card with VGA, Dual LAN & Audio
- **ROCKY-4782EV**
  PICMG Socket 478 400MHz FSB CPU Card with VGA, LAN & Audio

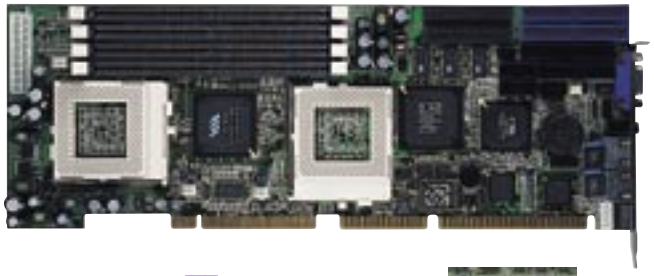
IEI Option

- **CB-USB02** Dual ports USB cable with bracket
- **CF-514** High performance Skiving Pentium® 4 CPU cooler

page 5-5

ROCKY-3732

PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, Dual LAN, SCSI & Audio



ISA PLUS Tualatin Supports

CF II

Rear side

Feature

- Dual Intel PIII / Tualatin / Celeron CPU supports upto FSB 133 MHz
- SiS 6326 graphic chip with 4MB memory
- PC133 SDRAM memory support
- LAN, Ultra160 SCSI(option), USB, Audio integrated

Specifications

CPU	Dual Socket-370 Processor support Tualatin Celeron™ (P-PGA) / Pentium® III (FC-PGA) up to 133MHz FSB
System Chipset	VIA VT82C694T/VT82C686B
System Memory	4 x 168-pin DIMM sockets up to 2GB SDRAM
Display	SIS 6326 with 4MB V-RAM
Ethernet	Dual Intel® 82559 10/100Mbps LAN Chip
SSD	Compact Flash™ Type II Socket supports Compact Flash and IBM MicroDrive
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-100 channels
SCSI Controller	SYMBIOS 53C1010R – Interface : 2 x Ultra160 SCSI(160MB/Sec. 68-pin connector) – Drivers : Microsoft Windows NT/2000/95/98, Novell Netware, SCO Openserver, SCO UnixWare, IBM OS/2, Linux and Sun Solaris.
WDT	software programmable, support 1~ 255 sec. system reset
Power Control	Support ATX power control function
Power Consumption	+5V@15A, +12V@350mA (Dual PIII 1GHz and 2GB SDRAM)
Operating Temp.	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-3732EVS-R2**
  PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, Dual LAN, SCSI & Audio, R2
- **ROCKY-3732EV-R2**
  PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, Dual LAN & Audio, R2

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3742

PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, LAN, 1394 & Audio

ISA PLUS™ FireWire

Rear side

Feature

- Dual Intel PIII / Celeron CPU supports upto FSB 133 MHz
- SiS 6326 graphic chip with 4MB memory
- PC133 SDRAM memory support
- LAN, IEEE-1394(option), Audio integrated

Specifications

CPU	Dual Socket-370 Processor support Celeron™ (PPGA)/Pentium® III (FC-PGA) up to 133MHz FSB
System Chipset	VIA VT82C694X/VT82C686B
System Memory	4 x 168-pin DIMM sockets up to 2GB SDRAM
Display	SiS 6326 with 4MB V-RAM
Ethernet	1 x Intel 82559 10/100Mbps LAN Chip
SSD	Compact Flash™ Type II Socket to support Compact Flash and IBM MicroDrive HDD.
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-100 channels
1394	TI TSB43AA22 chipset up to 100/200/400 Mbps Fully supports provisions of IEEE 1394-1995 standard for high performance serial bus
WDT	software programmable, support 1~ 255 sec. system reset
Power Control	Support ATX power control function
Power Consumption	+5V@15A, +12V@350mA (Dual PIII 1GHz and 2GB SDRAM)
Operating Temp.	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing

Ordering Information

- **ROCKY-3742EVF**
  PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, LAN, 1394 & Audio
- **ROCKY-3742EV**
  PICMG Dual Socket 370 133MHz FSB CPU Card with VGA, LAN & Audio

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3722

PICMG Dual Socket 370 100MHz FSB CPU Card with VGA, Dual LAN, SCSI & Audio

Feature

ISA PLUS™

- Dual Intel PIII / Celeron CPU supports upto FSB 100 MHz
- SiS 6326 graphic chip with 4MB memory
- PC100 SDRAM memory support
- LAN, Ultra160 SCSI(option), USB, Audio integrated

Specifications

CPU	Dual Socket 370 base support Celeron® (P-PGA)/ Pentium® III (FC-PGA) CPU up to 100MHz FSB
BIOS	Award BIOS
System Chipset	Intel® 440BX
System Memory	4 x168-pin DIMM sockets up to 1GB SDRAM
Display	– Chip : SiS 6326 – V-RAM : 4MB – Resolution : 1600 x 1200 (256 colors) – Connector : DB-15 for CRT display
Ethernet	Two Intel 82559 10/100Mbps Ethernet chips with RJ-45 connectors, support AOL & WOL function
SSD	One DiskOnChip™ socket
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-33 IDE channels
SCSI Controller	– Chip : SYMBIOS 53C1010 – Interface : 2 x Ultra160 SCSI (160MB/Sec.; 68-pin connector) – Drivers : Microsoft Windows NT, Windows 2000, Windows 95/98, Novell NetWare, SCO Openserver, SCO UnixWare, IBM OS/2, Linux and Sun Solaris
WDT	software programmable, support 1~ 255 sec. system reset
Hardware monitor	Function chip on board
ISA Plus™	Designed to enhance the ISA bus drive capability
Power Control	Supports ATX power control function
Power Consumption	+5V@8.5A, +12V@350mA, -12V@50mA (Dual Pentium III and 512MB SDRAM)
Operating Temperature	0~60°C(CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g
Note	ROCKY-3722EVS shipping with one U160-CB01 cable

Ordering Information

- **ROCKY-3722EVS-R2**
  PICMG Dual Socket 370 100MHz FSB CPU Card with VGA, Dual LAN, SCSI & Audio R2
- **ROCKY-3722EV-R2**
  PICMG Dual Socket 370 100MHz FSB CPU Card with VGA, Dual LAN & Audio, R2
- **ROCKY-3722V-R2**
  PICMG Dual Socket 370 100MHz FSB CPU Card with VGA & Audio, R2

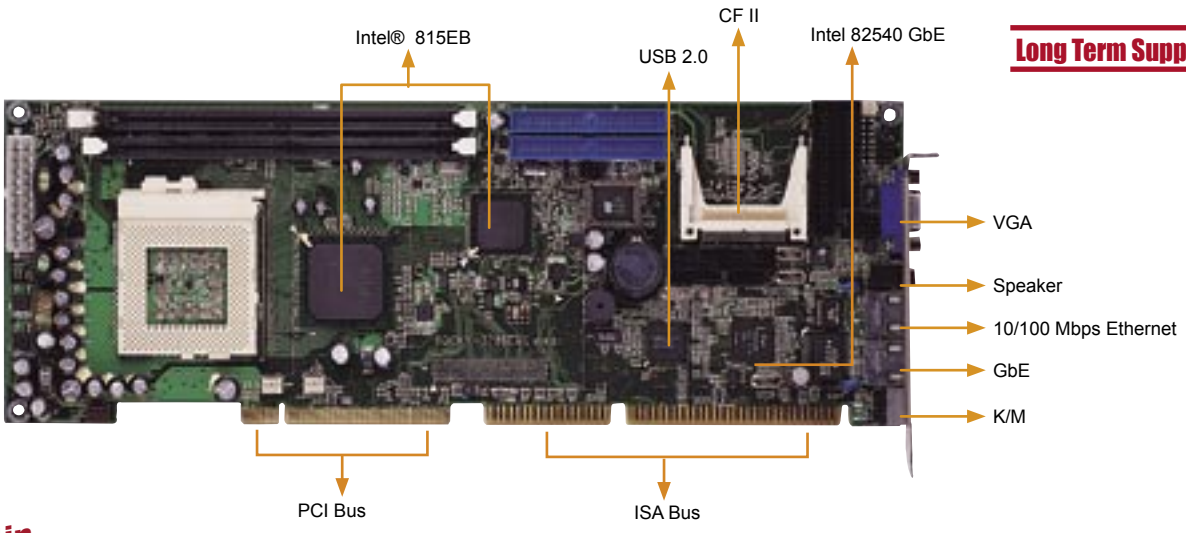
IEI Option

- **U320-CB01** Internal Ultra320 SCSI cable
- **CB-U320EXT** External Ultra320 SCSI connector
- **CB-USB02** Dual ports USB cable with bracket

page 5-6

ROCKY-3786

PICMG Socket 370 133MHz FSB CPU Card with VGA, LAN, GbE, USB 2.0 & Audio



Long Term Supports

Tualatin Supports

ISA PLUS

USB

Gigabit Ethernet

PICMG

Feature

- Intel PIII / Tualatin / Celeron CPU supports upto FSB 133 MHz
- Intel Graphic integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB 2.0(option), Audio integrated

Specifications

CPU	Supports Intel® Coppermine/Tualatin socket 370 series Pentium® III and Celeron™ CPU with 66/100/133MHz FSB
System chipset	Intell® 815E B stepping chipset
System memory	2x 168-pin SDRAM socket maximum up to 512MB
Display	– Built-in 815 chipset – V-RAM: Shared with system memory (DVMT technology) – Resolution: Up to 1600x1200, 8bit color – Connector: DB-15 for CRT display
SSD	1x on board Compact Flash™ Type II socket for CF disk or IBM Microdrive
Audio	Onboard AC'97 compliant audio CODEC
Ethernet	– 1x onboard 10/100bps fast Ethernet controller – 1x onboard Intel 82540 Gigabit Ethernet controller
I/O	– 2x RS-232 serial ports (16C550 UARTs compatible) by pin header – 1x LPT parallel port by pin header (supports SPP/EPP/ECP mode) – 1x IrDA (SIR mode) – 2x USB 1.1 port by pin header – 4x USB 2.0 port by pin header (Optional) – 2x ATA/100 IDE channel supports CD-ROM, ZIP and LS-120 drive bootable – 1x FDD connector, support 1.44/2.88MB and 3-mode floppy drive
WDT	Software programmable supports 1~255 seconds system reset
Hardware Monitoring	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function
Power control function	Meets ACPI 1.1 specification, comes with external power connector of 5V input
Power Consumption	5V@7.6A, 12V@230mA (Intel 1GHz CPU with 256MB memory)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	900g

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

Tech Talk

Boot from your USB Device!!

USB stands for Universal Serial Bus within Plug and Play features as populate peripheral interface appliance between human and computers. USB booting technology is benefit for both system integrators and develops on free of selecting the right serial port, installing expansion cards, or the technical headaches of dip switches, jumpers, software drivers, IRQ settings, DMA channels and I/O address.

USB Devices Bootable Function Supporting CPU Cards			
Model Name	BIOS version	Model Name	BIOS version
SAGP-865EVG	V1.0	ICPMB-7660	V1.0
SAGP-845	V1.0	ICPMB-7760	V1.0
SAGP-4620EV	V1.0	ICPMB-2661	V1.0
ROCKY-4786E2V	V1.0	ICPMB-2660	V1.0
ROCKY-4786	V1.0	POS-478	V1.0
ROCKY-6160	V1.0	POS-380	V1.0
ROCKY-4784EVG	V1.3	POS-370	V2.2
ROCKY-4783EV	V1.1	POS-EDEN-400	V1.0
ROCKY-4782EV	V1.4	NOVA-7170	V1.0
ROCKY-3732EVS	V1.2	NOVA-8890	V1.0
ROCKY-3786EVG	V1.2	NOVA-7898	V1.1
ROCKY-3785EVG	V1.4	NOVA-7896	V2.3
ROCKY-3705EV	V2.1	NOVA-7895FW	V1.3
ROCKY-C800EV	V1.4	NOVA-7894	V1.0
ROCKY-C400	V1.0	NOVA-7830	V1.0
PSB-4710EV	V1.0	NOVA-7820	V1.0
PCISA-3716E2V	V3.1	NOVA-C400	V1.0
PCISA-C400	V1.0	NANO-7270	V1.0
PCISA-C800EV	V1.0	NANO-7240	V1.0
JUKI-3711P-T	V1.5	WAFER-C400EV	V1.0
JUKI-C400	V1.0	WAFER-E669E2V	V1.0
ICPMB-8650	V1.0	ETX-C400	V1.0
ICPMB-8660	V1.0	ETX-5800	V1.0

Ordering Information

- **ROCKY-3786EV-R11**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, LAN & Audio
- **ROCKY-3786EVGU2-R11**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, LAN, GbE, USB 2.0 & Audio

ROCKY-3785

PICMG Socket 370 133MHz FSB CPU Card with VGA, LAN & Audio

Tualatin Supports ISA PLUS™ PICMG

Feature

- Intel PIII / Tualatin / Celeron CPU supports upto FSB 133 MHz
- Intel Graphic integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, Audio integrated

Specifications

CPU	Socket 370 support Tualatin, Pentium® III, Cerelon™ CPU with 66/100/133MHz FSB
System Chipset	Intel® 815E B stepping
System Memory	Max. 512MB, 2xDIMM
Display	Intel 815E chipset integrated with share memory architecture (DVMT)Resolution Max. 1600x1200, 8-bit colors
Ethernet	– 1 x 10/100Mbps : Built-in Intel® 815E chipset (i82562ET)
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-100 channels
Hardware monitor	Supported
Power Control Function	ATX power control function
WDT	software programmable, support 1~ 255 sec. system reset
Power Consumption	5V@7.6A, 12V@230mA (Intel 1GHz CPU with 256MB Memory)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-3785EV-R11**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, LAN & Audio

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3782

PICMG Socket 370 133MHz FSB CPU Card with VGA, Dual LAN, SCSI Ultra160 & Audio

ISA PLUS™ PICMG

Rear side

Feature

- Intel PIII / Celeron CPU supports upto FSB 133 MHz
- Intel Graphic integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB, Ultra160 SCSI, Audio integrated

Specifications

CPU	Socket 370 base support Celeron™ / Pentium® III up to 133MHz FSB
BIOS	Award PnP Flash BIOS
System Chipset	Intel® 810E
System Memory	Two 168-pin DIMM sockets up to 512MB SDRAM
PCI-ISA Bridge	ITE IT8888
Display	Integrated in 810E chipset with share memory architecture, max. resolution1600 x 1200 (256 colors)
Ethernet	Dual Intel® 82559 10/100Mbps Ethernet chips with two RJ-45 connectors, support AOL & WOL Function
SSD	One CompactFlash™ socket
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-66 IDE channels
SCSI	– Chip : SYMBIOS® 53C1010 Ultra160 SCSI chip – Transfer Rate : 160MB/Sec. – Connectors : Two 68-pin connectors
WDT	software programmable, support 1~ 255 sec. system reset
ISA Plus™	Designed to enhance the ISA bus drive capability
Power control	Supports ATX power control function
Power Consumption	+5V@5A, +12V@200mA, -12V@50mA (Pentium® III 500MHz and 128MB SDRAM)
Operating Temperature	0 ~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g
Note	ROCKY-3782EVS shipping with one U160-CB01 cable

Ordering Information

- **ROCKY-3782EVS**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, Dual LAN, SCSI Ultra160 & Audio
- **ROCKY-3782EV**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, Dual LAN & Audio
- **ROCKY-3782V**
  PICMG Socket 370 133MHz FSB CPU Card with VGA & Audio

IEI Option

- **U160-CB01** Internal Ultra160 SCSI cable
- **CB-U160EXT** External Ultra160 SCSI connector
- **CB-USB02** Dual ports USB cable with bracket

page 5-6

ROCKY-3708

PICMG Socket 370 133MHz FSB CPU Card with VGA (32MB), Dual LAN & Audio

ISA PLUS™ Tualatin Supports PICMG

Feature

- Intel PIII / Tualatin / Celeron supports CPU upto FSB 133 MHz
- SiS 315 graphic chip with 32MB memory
- PC133 SDRAM memory support upto 1GB
- LAN, USB, Audio integrated

Specifications

CPU	Socket-370 base 66/100/133MHz FSB CPU up to Intel P3 Tualatin CPU
System Chipset	SiS 635T chipsets
System Memory	2 x DIMM (168-pin) up to 1GB SDRAM
Display	SiS 315 with 32MB SDRAM, DB-15 for CRT AGP interface:AGP 4X, 266MHz, 1GByte data bandwidth Built-in 256-bit 3D engine up to 2048 texture size
Ethernet	2x10/100Mbps Ethernet with RJ-45 (SiS 635T build-in & Intel 82559)
SSD	1 x CompactFlash™ Type II Socket support Flash Disk or IBM Micro Drives (option)
Audio	1x PCI hardware sound (C-Media 8738) on board 1xLine-in, 1xLine-out, 1xSub-out, 1x Micro-in, 1 x Rear-out
I/O	– 2 x RS-232 serial port – 1 x parallel port (SPP/EPP/ECP) – 2x USB 1.1 (Pin header) – 1x channel support 2x3.5" FDD, support 1.44MB, – 2 x ATA-100 channel support HDD, CDROM, LS-120, and ZIP. – 1x PS/2 controller
Hardware monitor	Supported
Power control	ATX power control function
WDT	Software programmable, support 1~ 255 sec. system reset
ISA Plus™	Designed to enhance the ISA bus drive capability
Power connector	1x ATX 20-pin connector
Interface	PICMG 338 x 122mm (13.3" x 4.8")
Operating Temperature	0~55°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g
Remark	8-bit ISA bus (LPC-ISA)

Ordering Information

- **ROCKY-3708E2V**
  PICMG Socket 370 133MHz FSB CPU Card with VGA (32MB), Dual LAN & Audio
- **ROCKY-3708EV**
  PICMG Socket 370 133MHz FSB CPU Card with VGA (32MB), LAN & Audio

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3706

PICMG Socket 370 133MHz FSB CPU Card with 64bit/ 66MHz PCI, VGA, LAN, GbE

ISA PLUS™ Tualatin Supports PICMG Gigabit Ethernet

Feature

- Intel PIII / Tualatin / Celeron supports CPU upto FSB 133 MHz
- ATi Rage XL with 8MB memory
- PC133 SDRAM memory with ECC support upto 2GB
- PCI-64 slots extension ability supported

Specifications

CPU	Socket-370 base 100/133MHz FSB Tualatin, Pentium® III, Cerelon™
System Chipset	ServerWorks LE-T chipset
Advanced 64-bit PCI Technology	Maximizes IO bandwidth for the next generation of 64-bit PCI cards.Up to 528MB data bandwidth
System Memory	max. 2GB SDRAM support, Registered 72-bit ECC module only.
Display	ATI Rage XL 2D / 3D VGA controller, V-RAM 8MB SDAM on board
Ethernet	2x10/100Mbps Ethernet with RJ-45 (SiS 635T build-in & Intel 82559)
I/O	– 2 x RS-232 serial port – 1 x parallel port (SPP/EPP/ECP) – 2x USB 1.1 (Pin header) – 1 x IrDA – 1x FDD port, support 1.44MB, – 2.88MB, 3-mode function – 2 x ATA-33 channel support HDD, CDROM, LS-120, and ZIP.
Power control	ATX power control function
WDT	software programmable, support 1~ 255 sec. system reset
Power Consumption	5V@8.4A, 12V@170mA(Intel 1GHz CPU with 256MB Memory)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g
Note	While implement on 1U solution, low profile ECC RAM module is ewquired

Ordering Information

- **ROCKY-3706EVG**
  PICMG Socket 370 133MHz FSB CPU Card with 64bit/ 66MHz PCI, VGA, LAN, GbE
- **ROCKY-3706EV**
  PICMG Socket 370 133MHz FSB CPU Card with 64bit/ 66MHz PCI, VGA, LAN

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3705

PICMG Socket 370 133MHz FSB CPU Card with with VGA, LAN & Audio

ISA PLUS™ PICMG Tualatin Supports

Feature

- Intel PIII / Tualatin / Celeron supports CPU upto FSB 133 MHz
- SiS 630ET integrated graphic engine
- PC133 SDRAM memory support upto 1GB
- LAN, USB, Audio integrated

Specifications

CPU	Socket-370 base 66/100/133MHz FSB Celeron™ / Pentium® III
BIOS	Award PnP BIOS
System Chipset	SiS 630ET
System Memory	Two 168-pin DIMM sockets up to 1GB SDRAM
Display	– Integrated in SiS630ET Chipset – Bus:AGP 66MHz – V-RAM: Share with system memory up to 64MB RAM – Resolution: 1600 x 1200 (16-bit colors) – Connector: DB-15 for CRT display
Ethernet	10/100Mbps by SiS630ET Chipset Support WOL function
SSD	Support Compact Flash™ Type II Socket
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-100 IDE channels
WDT	software programmable, support 1~ 255 sec. system reset
Power control	Support ATX power control function
Power Consumption	5V@6A, 12V@170mA (Pentium® III 500MHz CPU and 512MB SDRAM)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g
Remark	8-bit limited ISA (LPC-ISA)

Ordering Information

- **ROCKY-3705EV-R2**
  PICMG Socket 370 133MHz FSB CPU Card with with VGA, LAN & Audio, R2

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3703

PICMG Socket 370 133MHz FSB CPU Card with VGA, Dual LAN & Audio

ISA PLUS™ PICMG

Feature

- Intel PIII / Celeron CPU supports upto FSB 133 MHz
- VIA PM133 integrated graphic engine
- PC133 SDRAM memory support upto 1.5GB
- LAN, USB, ATA100 RAID, Audio integrated

Specifications

CPU	Socket-370 base 66/100/133MHz FSB support Celeron™ /Pentium® III
System Chipset	VIA PM133
System Memory	Three 168-pin DIMM sockets up to 1.5GB SDRAM/VCM/ESDRAM
Display	– Chipset Integrated Savage4 2D/3D/Video Accelerator – 2-32MB frame buffer using system memory(SMA) – 2D/3D resolutions up to 1920x1440
Ethernet	Dual Intel® 82559 10/100Mbps LAN Chip
Audio	AC'97 compliant Audio CODEC
SSD	Support DiskOnChip™ Socket
I/O	– 2 x RS-232 ports (16C550 UARTs compatible) – 1 x LPT parallel port (SPP/EPP/ECP) – 4 x USB 1.1 – 1 x IrDA (SIR) – 1 x FDD support 1.44MB, 2.88MB and 3-mode – 2 x ATA-100 channels from PM133 chipset
WDT	Software programmable, support 1~ 255 sec. system reset
Power control	Support ATX power control function
ISA Plus	Designed to enhance the ISA bus drive capability
Power Consumption	5V@5A, 12V@170mA(PIII 850MHz and 256MB SDRAM)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-3703EV**
  PICMG Socket 370 133MHz FSB CPU Card with VGA, Dual LAN & Audio

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3702

PICMG Socket 370 100MHz FSB CPU Card with VGA(8MB), LAN, DOC

Feature

- Intel PIII / Celeron CPU supports upto FSB 100 MHz
- ATi Rage Mobility-M with 4MB memory
- PC100 SDRAM memory support upto 512MB
- LAN, USB integrated

Specifications

CPU	Socket 370 base support Celeron™ /Pentium® III up to 100MHz FSB
System Chipset	Intel 440BX
System Memory	4 x 168-pin DIMM sockets up to 512MB SDRAM
Display	– ATi Rage Mobility-M – Bus : AGP 2x – V-RAM : 4MB (ROCKY-3702EV-R6) 8MB (ROCKY-3702EV-R6V8) – Resolution :1600 x 1200 (64k colors) – Connector : DB-15 for CRT display
Ethernet	Realtek RTL8100BL 10/100Mbps Ethernet chip with RJ-45 connector
SSD	One DiskOnChip™ socket
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode unction – 2 x ATA-66 IDE channels
WDT	software programmable, support 1~ 255 sec. system reset
Hard monitor	LM78 hardware monitoring chip on board
ISA Plus™	Designed to enhance the ISA bus drive capability
E²Key™	A non-volatile 1Kbit EEPROM is provided to retain application critical read/write data
Power control	Supports ATX power control function
Power Consumption	+5V@6.8A, +12V@170mA, -12V @60mA(Celeron™ 333MHz CPU and 512MB SDRAM)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-3702EV-R6**
  PICMG Socket 370 100MHz FSB CPU Card with VGA(4MB), LAN, DOC, R6
- **ROCKY-3702EV-R6V8**
  PICMG Socket 370 100MHz FSB CPU Card with VGA(8MB), LAN, DOC, R6

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ROCKY-3701

PICMG Socket 370 100MHz FSB CPU Card with 4 x COM, CFII

CF+ Type II Socket

Rear side

Feature

- Intel PIII / Celeron CPU supports upto FSB 100 MHz
- PC100 SDRAM memory support upto 512MB
- LAN, USB integrated
- CF-II socket + DOC sockets for SSD device

Specifications

CPU	Socket 370 base 66/100MHz FSB CPU Celeron™ / Pentium® III
System Chipset	Intel® 440BX
System Memory	Four 168-pin DIMM sockets up to 1GB SDRAM
SSD	One DiskOnChip™ Socket and one CF+ Type II socket on solder side
I/O	– 4 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (1 by Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 2 x ATA-66 IDE channels
WDT	software programmable, support 1~ 255 sec. system reset LM78 hardware monitoring chip on board
ISA Plus™	Designed to enhance the ISA bus drive capability
Power control	Supports ATX power control function
Power Consumption	+5V@6.8A, +12V@170mA, -12V@60mA (Celeron 333MHz CPU and 512MB SDRAM)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-3701BX**
  PICMG Socket 370 100MHz FSB CPU Card with 4 x COM, CFII

ROCKY-772

PICMG Socket A 200MHz FSB CPU Card with VGA, Dual Intel LAN & Audio

ISA PLUS™ AMD Athlon

Feature

- AMD Athlon / Duron CPU support upto FSB 266 MHz
- VIA KL133 integrated graphic engine
- PC133 SDRAM memory support upto 1.5GB
- LAN, USB, Audio integrated

Specifications

CPU	Socket-A for AMD / Athlon® / Duron® 200/266MHz FSB Procesor
System Chipset	VIA KL133A Chipset
System Memory	Three 168-pin DIMM sockets up to 1.5GB SDRAM
Display	– Chipset integrated Savage4 Graphic Core – Full AGP 4X and 2D/3D resolutions up to 1920x1440 – V-RAM : Share with system memory up to 32MB RAM – High Quality DVD video playback – Connector : DB-15 for CRT display
Ethernet	Dual 10/100Mbps Ethernet controller on board Intel 82559 LAN Chip x 2 (ROCKY-772NEV) Realtek 8100 LAN Chip x 2 (ROCKY-772REV)
SSD	Support DiskOnChip™ and Compact Flash™ Type II Socket
Audio	AC'97 compliant Audio CODEC
I/O	– 2 x RS-232 (16C550 UARTs compatible) – 1 x LPT (support SPP/EPP/ECP mode) – 4 x USB 1.1 ports – 1 x IrDA (SIR mode) – 1 x FDD port – 2 x ATA-100 IDE channel
Hardware monitor	Support
ISA Plus	Designed to enhance the ISA bus drive capability
WDT	software programmable, support 1~ 255 sec. system reset
Power Control	Support ATX power control functionn
Power Consumption	+5V@12.7A, +12V@280mA (Athlon 1.4G, 1.5GB SDRAM)
Operating Temp	0~50°C (CPU cooler required)
Relative Humidity	5-95%,non-condensing
GW	900g

Ordering Information

- **ROCKY-772NEV**
  PICMG Socket A 200MHz FSB CPU Card with VGA, Dual Intel LAN & Audio
- **ROCKY-772REV**
  PICMG Socket A 200MHz FSB CPU Card with VGA, Dual Realtek LAN & Audio

IEI Option

- **CF-508** AMD K7 CPU Cooler page 5-5
- **CB-USB02** Dual ports USB cable with bracket page 5-6

ROCKY-C800

PICMG VIA C3 1GHz CPU Card with VGA, Intel LAN & Audio

ISA PLUS™ 1GHz CPU

Feature

- VIA C3 1GHz CPU
- VIA 8601 integrated graphic engine
- PC133 SDRAM memory support upto 1GB
- LAN, USB, Audio integrated

Specifications

CPU	Embedded VIA C3 CPU 1GHz (EBGA package) with FAN
System Chipset	VIA 8601A + 686B, PCI 2.2 compliant
System Memory	2x DIMM up to 1GB SDRAM
Display	– 64-bit Single Cycle 2D/3D Graphics Engine (VIA 8601A) – AGP 4X bus bandwidth up to 533 MB/sec – Resolutions: up to 1600x1200 (UXGA) – Integrated 24-bit 230MHz True Color DAC – V-RAM: Share system memory up to 8MB – Support I²C bus interface – Connector: DB-15 for CRT display
Ethernet	1x 10/100Mbps fast Ethernet controller onboard (Intel 82559 / Realtek RTL8100B)
SSD	1x DiskOnChip™ socket and 1x CompactFlash™ type II socket onboard
I/O	– 2x RS-232 series port by pin header (16C550 UARTs Compatible) – 1x LPT by pin header (support SPP/EPP/ ECP mode) – 1x IrDA by pin header (SIR mode) – 3xUSB port by pin header (USB 1.1 Compliant), one USB on bracket – 1x FDD channel support 1.44MB, 2.88MB and 3-mode – 2x ATA-100 IDE channel support CD-ROM; ZIP and LS-120 bootable.
Audio	AC'97 compliant Audio CODEC
WDT	software programmable support 1~255 second system reset
ISA Plus™	Design to enhance the ISA bus drive capability (64mA)
Hardware Monitor	CPU Vcore; Vcc; CPU/System Fan speed and Thermal
Power Control	Meets ACPI 1.1
Power Consumption	+5VSB@180mA, +12V@170mA, +5V@3.8A (VIA C3 800MHz CPU with 512MB SDRAM x 2, Windows 2000)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g

Ordering Information

- **ROCKY-C800EVN-1G**
  PICMG VIA C3 1GHz CPU Card with VGA, Intel LAN & Audio
- **ROCKY-C800EVR-1G**
  PICMG VIA C3 1GHz CPU Card with VGA, Realtek LAN & Audio

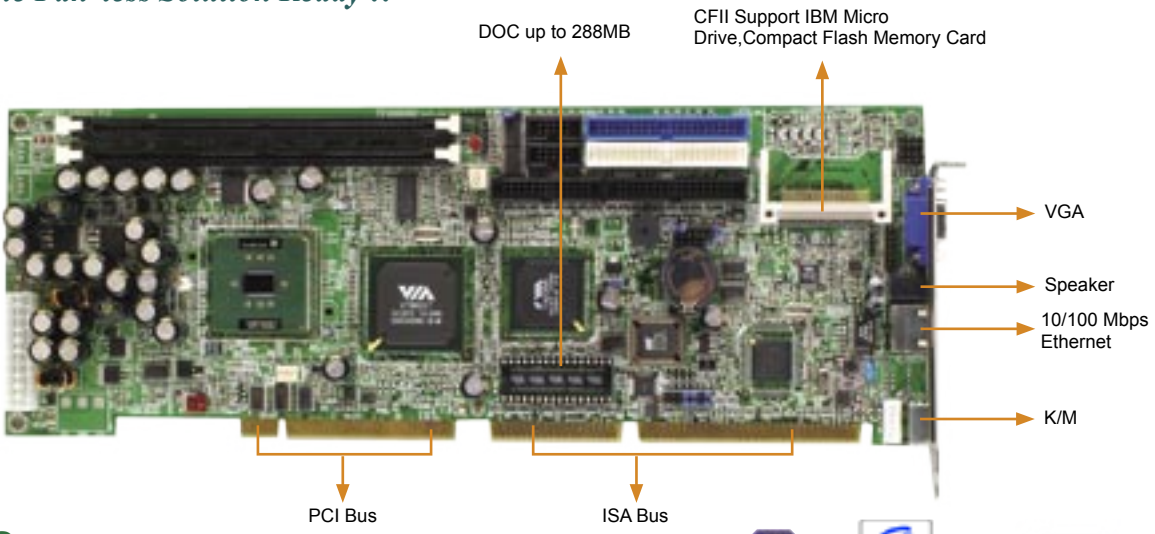
IEI Option

- **CB-USB02**
  Dual port USB cable with bracket page 5-5

ROCKY-C400

PICMG Intel ULV Celeron 400 CPU Card with VGA, Intel LAN & Audio

All-in-One Fan-less Solution Ready !!



Feature

- ULV Intel Celeron 400 MHz
- VIA 8601 integrated graphic engine
- PC133 SDRAM memory support upto 1GB
- LAN, USB 2.0, Audio integrated

Specifications

CPU	Embedded Ultra Low Voltage Intel® Celeron 400MHz
System chipset	VIA VT8601T + 686B
System Memory	2 x DIMM up to 1GB SDRAM
Display	– 64-bit Single Cycle 2D/3D Graphics Engine (VIA 8601T) – AGP 4X bus bandwidth up to 533 MB/sec – Resolutions: up to 1600x1200 (UXGA) – Integrated 24-bit 230MHz True Color DAC – V-RAM: Share system memory up to 8MB – Support I2C bus interface – Connector: DB-15 for CRT display
SSD	1 x Disk On Chip socket and 1 x Compact FlashTM type II socket onboard
Ethernet	1 x onboard 10/100Mbps Intel 82551ER / Realtek RTL8100B fast Ethernet controller
Audio	AC'97 compliant Audio CODEC
I/O	– 1 x RS-232/422/485 selectable port with Auto-Direction function – 1 x RS-232 serial port by pin-header – 1 x LPT parallel port by pin-header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 4 x USB 2.0 ports (4 by pin header) – 2 x ATA-100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable – 1 x PS/2 for Keyboard / Mouse – 1 x FDD connector, support 1.44/2.88MB and 3-mode floppy drive
WDT	Software programmable supports 1~255 seconds system reset
ISA Plus™	Design to enhance the ISA bus drive capability (64mA)
Hardware Monitoring	Provides CPU Vcore / Vcc; CPU / System Fan speed and temperature detecting function
power control	Meets ACPI 1.1 specification
Power Consumption	5V@2.6A, 5VSB@180mA, 12V@170mA (512 MB SDRAM)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing
GW	900g

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

ISA PLUS™

Tech Talk

Ultra Low Voltage (ULV) Intel Celeron

The Ultra Low Voltage (ULV) Celeron® processor is a brand-new 0.13 level process product of Intel®. With 256-KB L2 cache integrated and Intel® MMX™ media enhancement technology, ULV Celeron shows an excellent performance in Low-power consumption appliance region.

Product Highlights

◆ Low Power Consumption
Fanless embedded system solution of high performance.

Intel Celeron 400MHz Power Consumption comparison			
Version	Regular	Low Voltage	Ultra Low Votage
Power(W)	23.5	11	5

◆ 32-KB non-blocking, level 1 (L1) cache.
Two blocks of 16-KB L1 cache for instructions and data.
◆ 256-KB non-blocking integrated L2 cache.
Advanced Transfer Cache (ATC) has a high bandwidth 256-bit interface and CPU synchronous frequency enhanced by micro-architectural technology.
◆ Intel® MMX™ media enhancement technology.
◆ 0.13 level manufacturing processes.
◆ Fully compatible with existing Intel Architecture-based software.
◆ uFC-BGA2 Package form.

ULV Intel Celeron CPU Supports Product		
Model Name	Chipset	Form Factor
ROCKY-C400 series	VIA 8601T	Full size PICMG Bus SBC
PCISA-C400 series	VIA 8601T	Half size PCISA Bus SBC
JUKI-C400	VIA 8606T	Half size PCISA Bus SBC
NOVA-C400	VIA 8606T	5.25" Embedded Board
WAFER-C400	VIA 8601T	3.5" Embedded Board
ETX-C400	VIA 8606T	ETX CPU Module
NANO-7240	VIA 8606T	EPIC Embedded Board
ICPMB-2660	VIA CLE266	ATX Motherboard

Ordering Information

- **ROCKY-C400N** PICMG ULV Intel Celeron 400 CPU Card with VGA, Intel LAN & Audio
- **ROCKY-C400R** PICMG ULV Intel Celeron-400 CPU Card with VGA, Realtek LAN & Audio

Note
For Intel® Celeron 650MHz / LV Pentium® III 800MHz CPU supports, please contact supplier

ROCKY-538

PICMG Socket 7 66MHz FSB CPU Card with VGA(4MB), DOC

Feature

- Intel PentiumMMX CPU supports upto FSB 66 MHz
- ATi Rage Mobility-M with 4MB memory
- PC66 SDRAM memory support upto 256MB
- USB, DOC socket integrated

Specifications

CPU Type	Socket-7 base support Intel® Pentium® MMX up to 66 MHz FSB
System Chipset	Intel® 430TX
System Memory	2 x 168-pin DIMM sockets support up to 256MB SDRAM
Display Controller	ATI Rage Mobility-M BUS: AGP 2X V-RAM: 4MB SDRAM Resolution: 1280 x 1024@24-bit DB-15 for VGA
SSD	1 x DiskOnChip™ socket
Ethernet	N/A
I/O	2 x RS-232 1 x PS/2 for Keyboard 1 x PS/2 for Mouse 1 x LPT supports SPP/ECP/EPP mode 2 x USB 1.0 2 x ATA-33 IDE channels 1 x Floppy 1 x IrDA (SIR)
WDT	Software Programmable supports 1~255 sec system reset
E2Key	A non-volatile 1K-bit EEPROM is provided to retain application critical read/write data
ISA Plus™	Yes
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function
Power Consumption	+12V@70mA, +5V@7A, -12V@20mA, (Pentium® MMX 200MHz with 32MB SDRAM)
Operation Temperature	0~60°C
GW	900g

Ordering Information

- **ROCKY-538TXV-R7**
  PICMG Socket 7 66MHz FSB CPU Card with VGA(4MB), DOC, R7

IEI Option

- **CB-USB02** Dual ports USB cable with bracket page 5-6
- **CF-502** Socket-7 CPU Cooler
- **CF-504** Slim Type Copper Socket-7/370 CPU Cooler page 5-5

ROCKY-548

PICMG Socket 7 66MHz FSB CPU Card with DOC

Feature

- Intel PentiumMMX CPU support up to FSB 66 MHz
- PC66 SDRAM memory support upto 256MB
- USB, DOC socket integrated

Specifications

CPU Type	Socket-7 base support Intel® Pentium® MMX, AMD® K6 up to 66 MHz FSB
System Chipset	Intel® 430TX
System Memory	2 x 168-pin DIMM sockets support up to 256MB SDRAM
Display Controller	N/A
SSD	4 x DiskOnChip™ socket
Ethernet	N/A
I/O	2 x RS-232 1 x PS/2 for Keyboard 1 x PS/2 for Mouse 1 x LPT supports SPP/ECP/EPP mode 2 x USB 1.0 2 x ATA-33 IDE channels 1 x Floppy 1 x IrDA (SIR)
WDT	Software Programmable supports 1~255 sec system reset
E2Key	A non-volatile 1K-bit EEPROM is provided to retain application critical read/write data
ISA Plus™	Designed to enhance the ISA bus drive capability
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function
Power Consumption	+12V@70mA, +5V@7A, -12V@20mA, (Pentium® MMX 200MHz with 32MB SDRAM)
Operation Temperature	0~60°C

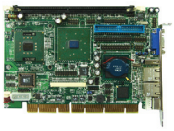
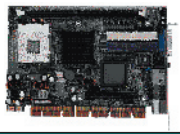
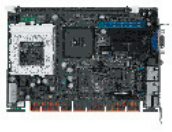
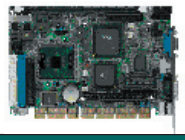
Ordering Information

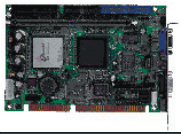
- **ROCKY-548TX-R6**
  PICMG Socket 7 66MHz FSB CPU Card with DOC, R6

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket page 5-6
- **CF-502**
  Socket-7 CPU Cooler
- **CF-504**
  Slim Type Copper Socket-7/370 CPU Cooler page 5-5

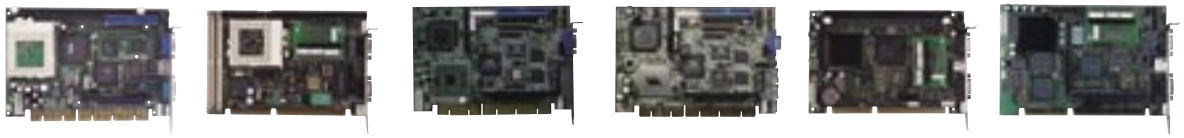
Half Size CPU Card Selection Guide



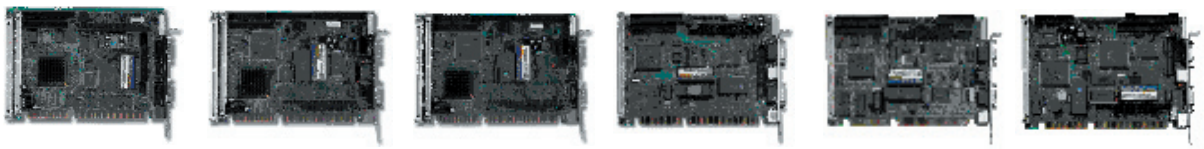
Model Name	JUKI-6770	PSB-4710MEV	PCISA-3716EV/ E2V-R4	PCISA-C400EVR	PCISA-C800EVN/ EVR-1G, PCISA-EDEN-400EVN/EVR	ROCKY-512
CPU Scoket	Socket-479	Socket-478	Socket-370	On Board CPU		
CPU Type	Intel Pentium-M / Celeron-M	Intel P4 / P4-M / Celeron	Intel Tualatin/ P3 / Celeron	ULV Intel Celeron 400MHz	VIA C3 1GHz (PCISA-C800EVN/ EVR-1G) VIA EDEN 400MHz (PCISA-EDEN-400EVN/EVR)	AMD Geode GX1-300MHz
Chipset	Intel 852GM + ICH 4	Intel 845GV + ICH 4	SiS 630ET	VIA 8601A + VT82C686B	VIA 8601A + VT86C686B	AMD GX1 + CS5530A
Memory	DDR200 / 266 SDRAM up to 1GB	1 x DDR200 / 266 SDRAM up to 1GB	1 x PC100 / 133 SDRAM up to 512MB	1 x DIMM socket upto 512MB	1 x DIMM socket upto 512MB	On board 64 or 128 MB SDRAM 1 x DIMM upto 512MB
Graphic	Integrate with i852GM	Integrate with i845GV	Integrate SiS630ET	Integrate VIA 8601A	Integrate VIA 8601A	Integrate System Chipset
LCD Interface	Dual chance 48-bit LVDS	N/A	N/A	N/A	N/A	N/A
Ethernet	2 x 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet(EV) or Dual 10/100 Mbps Ethernet (E2V)	One 10/100Mbps Ethernet	One 10/100Mbps Ethernet	One 10/100 Mbps Ethernet
I/O Interface	1 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 5 x USB 2.0 1 x IrDA	1 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 2.0 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 4 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 4 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA 8 x Digital I/O channel
Drive Interface	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	1 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	1 x IDE ATA-100/ 66/33 1 x FDD
Audio	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	N/A
SSD	CF Type II	CF Type II	CF Type II	CF Type II	CF Type II	CF Type II ,Doc
Power Consumption		+12V@4.6A, +5V@3.6A (P4 2.4GHz ,512MB DDR SDRAM)	+12V@0.17A, +5V@6A (P3 500MHz, 512MB SDRAM)	+12V@0.17A, +5V@2.6A, +5VSB@0.18A (Intel ULV 400MHz CPU, 512MB SDRAM)	+12V@0.17A, +5V@3.8A, +5VSB@0.18A (VIA C3 800MHz , 1GB SDRAM)	+5V@1.8A (extra 128MB SDRAM module)
Watchdog Timer	Software Programmable 1-255 sec system reset					
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function					N/A
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing					
Recommand Fancooler	CF-518	CF-512,CF-515	CF-504	Fanless	On Board Fan or Fan-less	Fanless
Remark		PCI Bus Only	PCISA	PCISA	PCISA	ISA

Half Size CPU Card Selection Guide



Model Name	JUKI-3711PTN, JUKI-3711PTR	JUKI-745E-R4	JUKI-C400	JUKI-C3-1GN JUKI-C3-1GR JUKI-EDEN-400N JUKI-EDEN-400R	JUKI-510-300-R1 JUKI-511P-300-R1	JUKI-6752
CPU Scoket	**Socket-370**	**Socket-7**	**On board CPU**	**On Board CPU**	**On board CPU**	**On board CPU**
CPU Type	Intel Coppermine/ Tualatin P3/Celeron Socket-370 based	Intel Pentium socket 7 based	ULV Intel Celeron 400 MHz	VIA C3 1GHz (JUKI-C3-1G) VIA EDEN 400MHz (JUKI-EDEN-400)	AMD Geode GX1-300MHz	Intel Tillamook Pentium 266
Chipset	VIA 694T + VT82C686B	ALi Aladdin 4+	VIA 8606T + VT82C686B	VIA 8606T + VT82C686B	AMD GX1 + CS5530A	Intel 430TX
Memory	PC100/133 SDRAM upto 512MB	SIMM upto 128MB EDO RAM	SO-DIMM upto 512MB SDRAM	PC100/133 SDRAM upto 512MB	DIMM upto 256MB SDRAM	DIMM SDRAM upto 128MB
Graphic	Asiliant(C&T) 69000, 2M /4M(69030 Optional) RAM	CHIPS 69000 2MB RAM	Integrate ProSavage in 8606T	Integrate ProSavage in 8606T	Integrate CS5530A	Asiliant(C&T) 69000 2MB RAM
LCD Interface	50-pin for TTL DB-15 for CRT	50-pin 36-bit TTL 44-pin 18-bit TTL (with FP24-01A) LVDS-01 and LVDS-02 module Optional DB-15 for CRT	20-pin 36-bit dual channel LVDS 50-pin for TTL	20-pin 36-bit dual channel LVDS 50-pin for TTL DB-15 for CRT	50-pin 18-bit TTL 44-pin for TTL (with FP24-01A) LVDS (LVDS-01) CRT DB-15 AV-Out S-video	50-pin for TTL 44-pin for TTL (with FP24-01A) DB-15 for CRT
Ethernet	One 10/100 Mbps Ethernet	One 10/100Mbps Ethernet	Dual 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet	One 10/100Mbps Ethernet	One 10 Mbps Ethernet
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 1 x USB 1.1 1 x IrDA	4 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 3 x USB 2.0 2 x USB 1.1 1 x IrDA	4 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 3 x USB 2.0 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA	1 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 2 x USB 1.1 1 x IrDA
Drive Interface	1 x IDE ATA-100/ 66/33 1 x FDD	1 x ATA-33 1 x FDD	1 x IDE ATA-100/ 66/33 1 x FDD	1 x IDE ATA-100/ 66/33 1 x FDD	1 x ATA-33 1 x FDD	1 x ATA-33 1 x FDD
Audio	N/A	N/A	AC'97 Codec	AC'97 Codec	AC'97 compliant Audio CODEC	N/A
SSD	DiskOnChip	DiskOnChip	CF Type II	CF Type II	CF Type II	CF Type II
Power Consumption	+12V@0.5A, +5V@7A(P3 1GHz , 256MB SDRAM)	+12V@0.17A +5V@5A -12V@0.02A (Pentium MMX 233MHz 32MB EDO RAM)	+12V@0.5A, +5V@2.8A (256MB SDRAM)	+5V@3.1A (VIA EDEN 400MHz 256MB SDRAM)	+12V@0.1A +5V@2A (64MB SDRAM)	+12V@0.17A +5V@5A -12V@0.02A (32MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset	Software Programmable 1-255 sec system reset	Software Programmable 1-255 sec system reset	Software Programmable 1-255 sec system reset	Software Programmable 1-255 sec system reset	Software Programmable 1-255 sec system reset
Hardware Monitor	Hardware Monitoring system	N/A	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function	Hardware Monitoring system	N/A	Hardware monitoring chip on-board
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing
Recommand Fancooler	CF-504	CF-502	Fan-less	Fan or Fanless	Fan-less	Fan-less
Remark	PCISA	ISA	PCISA	PCISA	ISA (510) PCISA (511P)	ISA

Half Size CPU Card Selection Guide



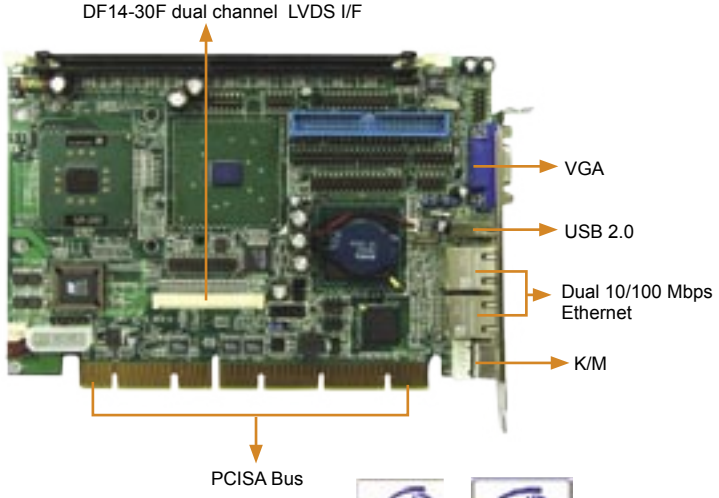
Model Name	ROCKY-418-R3	JUKI-750E-R3	JUKI-752-R3	ROCKY-318-M4-R3	ROCKY-328-M4-R2	JUKI-730-M4-R3
CPU Scoket	On Board CPU	On board CPU	On board CPU	On Board CPU	On Board CPU	On board CPU
CPU Type	Maple 486DX4-100	Maple on board 486DX4-100	Maple on board 486DX4-100	ALi M6117	ALi M6117	ALi M6117
Chipset	ACC Maple	ACC Maple	ACC Maple	ALi M6117	ALi M6117	ALi M6117
Memory	2 SIMM upto 64MB EDO RAM	SIMM upto 32MB EDO RAM	SIMM upto 32MB EDO RAM	1 SIMM upto 16MB DRAM or on board 2M/4M DRAM	SIMM upto 16MB DRAM or on board 2M/ 4M DRAM	SIMM DRAM upto 16MB / on board 2M(JUKI-2M-R3) 4M(JUKI-4M-R3) DRAM
Graphic	N/A	HM-86508 1MB RAM	HM-86508 1MB RAM	N/A	N/A	HM86508 1MB RAM
LCD Interface	N/A	44-pin 18-bit TTL channel DB-15 for CRT	44-pin 18-bit TTL channel DB-15 for CRT	N/A	N/A	44-pin 18-bit TTL channel DB-15 for CRT
Ethernet	N/A	One 10 Mbps Ethernet	N/A	N/A	One 10 Mbps Ethernet	N/A
I/O Interface	1 x RS-232 1 x RS-232/422/485 2 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP) 1 x IrDA	1 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP)	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP)	2 x RS-232 1 x LPT(SPP/EPP/ ECP) 2 x PS/2 KB/MS	2 x RS-232 1 x LPT(SPP/EPP/ ECP) 2 x PS/2 KB/MS	3 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ ECP)
Drive Interface	1 x IDE PIO-4 1 x FDD	1 x IDE PIO-4 1 x FDD	1 x IDE PIO-4 1 x FDD	1 x IDE PIO-4 1 x FDD	1 x IDE PIO-4 1 x FDD	1 x IDE PIO-4 1 x FDD
Audio	N/A	N/A	N/A	N/A	N/A	N/A
SSD	DiskOnChip	DiskOnChip	DiskOnChip	DiskOnChip	DiskOnChip	DiskOnChip
Power Consumption	+5V@1.5A (32MB EDO RAM)	+5V@1.65A (32MB RAM)	+5V@1.55A (32MB RAM)	+5V@1.1A (4MB EDO RAM)	+5V@1.3A (4MB EDO RAM)	+5V@1.6A (32MB RAM)
Watchdog Timer	Software Programmable 1-220 sec system reset	Software Programmable 1-220 sec system reset	Software Programmable 1-220 sec system reset	Software Programmable 1-220 sec system reset	Software Programmable 1-220 sec system reset	Software Programmable 1-220 sec system reset
Hardware Monitor	N/A	N/A	N/A	N/A	N/A	N/A
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing
Recommand Fancooler	Fan-less	Fan-less	Fan-less	Fan-less	Fan-less	Fan-less
Remark	ISA	ISA	ISA	ISA	ISA	ISA

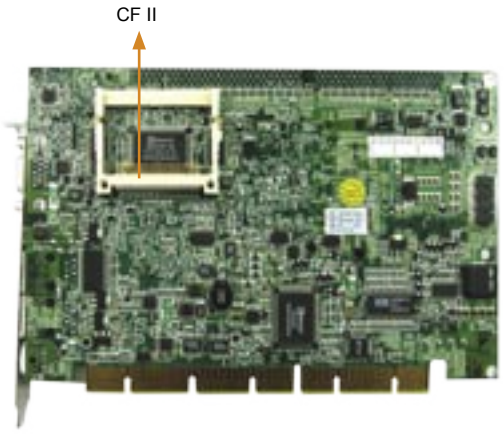
JUKI-6770

PCISA Intel Pentium-M/Celeron-M CPU Card with LCD/CRT VGA, Dual LAN, USB2.0 and Audio

Coming Soon

Long Term Supports





Dual Display

USB 2.0

Feature

- Support Intel Pentium-M / Celeron-M up to FSB 400MHz
- Intel 852GM integrated graphic engine support dual display function
- DDR266 SDRAM memory support upto 1GB
- Dual LAN, USB2.0, Audio Integrated

Specifications

CPU	Socket-479 based support Intel® Pentium-M® / Celeron-M® up to 400MHz FSB / Onboard Celeron-M 600MHz
System Chipset	Intel® 852GM + ICH-4
System Memory	DDR266 SDRAM socket support up to 1GB
Display	Integrated i852GM - Support dual display, dual view - DB-15 VGA connector - DF14-30F dual channel LVDS connector - Optional DVI interface
Ethernet	2 x 10/100 Mbps intel 82562ET/82551ER fast Ethernet controller onboard
SSD	Support Compact Flash Type II Socket (rear side)
I/O	- 1 x RS-232 serial port - 1 x RS-232/422/485 serial port with Auto-Direction function - 1 x LPT by pin-header - 1 x IrDA by pin-header - 5 x USB 2.0 (4 by pin header, 1 by connector) - 1 x FDD - 2 x ATA-100 IDE Channel - 1 x PS/2 connector for keyboard/mouse
Audio	AC '97 compliant Audio codec
WDT	Software programmable supports 1 ~ 255 seconds system reset
Hardware monitoring	Provides CPU Vcore, Vcc; CPU/System fan speed and temperature detecting function
Operating Temp	0~60°C
Relative Humidity	5~95%, non-condensing

IEI Option

- **CB-USB03** Dual ports USB cable with bracket and 2.0mm pitch connector page 5-6
- **CF-518** High performance pentium-M CPU cooler page 5-5

Tech Talk

Intel Pentium M/ Celeron M Introduction

The Intel® Pentium® M/ Celeron® M processor utilizes a new microarchitecture to meet the current and future demands of high-performance, low-power embedded computing, making it ideal for communications, transaction terminal, interactive client, and industrial automation applications. While incorporating advanced processor technology, it remains software-compatible with previous members of the Intel® microprocessor family.

Product Number	Core speed (GHz)	FSB (MHz)	L2 Cache	Thermal	VID	Package
.13µ Process Technology (Celeron-M)						
320	1.3	400	512KB	24.5W	1.356V	µFC-BGA 479
320	1.3	400	512KB	24.5W	1.356V	µFC-PGA 478
-	600 (MHz)	400	512KB	7.0W	1.004V	µFC-BGA 479
90nm Process Technology (Pentium M)						
745	1.8	400	2MB	21W	1.276V ~1.340V	µFC-PGA 478
745	1.8	400	2MB	21W	1.276V ~1.340V	µFC-BGA 479
738	1.4	400	2MB	10W	1.116V	µFC-BGA 479
.13µ Process Technology (Pentium M)						
-	1.6	400	1MB	24.5W	1.484V	µFC-PGA 478
-	1.6	400	1MB	24.5W	1.484V	µFC-BGA 479
-	1.1	400	1MB	12W	1.180V	µFC-BGA 479

Ordering Information

- **JUKI-6770E2-R10**
  PCISA Intel Pentium-M/Celeron-M CPU Card with LCD/CRT VGA, Dual LAN, USB2.0 and Audio
- **JUKI-6770E2-600-R10**
  PCISA Intel Celeron-M 600MHz CPU Card with LCD/CRT VGA, Dual LAN, USB2.0 and Audio

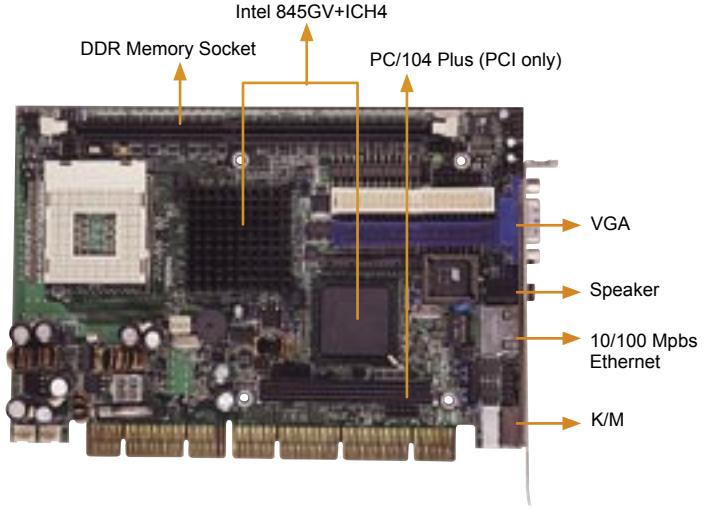
For GbE, DVI,Pentium-M lintroduction LV Pentium-M 1.1GHz CPU, please confact supplier

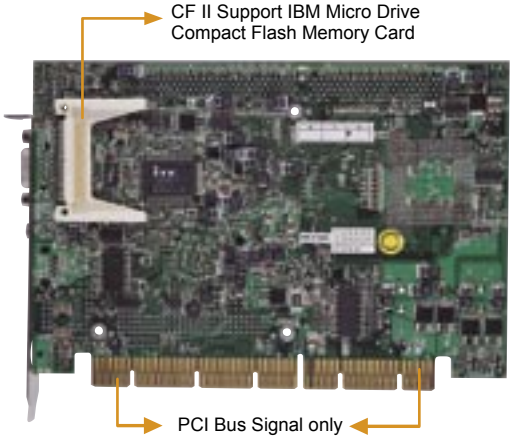
PSB-4710

PCISA (PCI only) Socket 478 CPU Card with VGA, LAN, USB2.0 & Audio

Celeron-D Ready Version coming soon !!

Long Term Supports





FSB 533 DDR 266 USB intel inside pentium 4

Specifications

CPU	Socket-478 base supports Intel® Pentium® 4-M / P4 / Celeron™ up to 2.6GHz
System Chipset	Intel® 845GV chipset (with ICH4)
System Memory	1x PC1600/PC2100 (200/266MHz) DDR SDRAM, maximum up to 1GB
Display	– Integrated in Intel® 845GV chipset – Bus: AGP 4X – V-RAM: Shared with system memory (DVMT technology) – Resolution: Up to 2048x1536@60MHz refresh rate (Analog) – Connector: DB-15 for CRT monitor
SSD	1x Compact Flash™ Type II socket onboard
Ethernet	Onboard 10/100Mbps Fast Ethernet controller (82562ET PHY)
WDT	Software programmable supports 1~255 seconds system reset
I/O	– 2x ATA/100 IDE channels support CD-ROM, ZIP and LS-120 bootable – 2x USB 2.0 ports by pin header – 1x FDD channel supports 1.44/2.88MB and 3-mode – 1x RS-232 series port by pin header – 1x RS-232/422/485 selectable port – 1x LPT parallel port by pin header supports SPP/ECP/EPP mode – 1x IrDA (SIR) – 1x PS/2 connector for keyboard/mouse
Audio	AC'97 CODEC
Expansion slot	PC/104 plus (only PCI signal)
Hardware monitoring	Provides CPU Vcore, Vcc; CPU/System fan speed and temperature detecting function.
Interface	PCISA golden edge with PCI bus.
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	+5V@3.6A; +12V@4.6A (Intel® P4 2.4G with 512K L2; 512MB DDR SDRAM); +5V@4.2A, +12V@4A (Intel® P4-M 2.4GHz with 256MB DDR SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
Note	Only PCI Bus signal via golden finger due to the limitation of chipset.

IEI Option

- **CF-512**
  CPU cooling fan support P4 CPU
- **CF-515**
  High performance Skiving CPU cooling fan support P4-M CPU

page 5-5

Feature

- Intel P4 CPU support up to 2.53GHz / FSB 533 MHz
- Intel Extreme Graphic integrated graphic engine
- DDR266 SDRAM memory support upto 1GB
- LAN, USB 2.0, Audio integrated

Tech Talk

IEI's Complete P4-M Solution

IEI's P4-M product solution is complete. Ranging from half size SBC (PSB-4710MEV), full size SBC (SAGP-845MEV), to 5.25" size (NOVA-8890M series) CPU board. In addition, iEi has designed the CF-515 CPU cooler to go with the P4-M product solution.

intel

	Pentium® 4	Pentium® 4-M
Available Speeds	800MHz system bus: 3.20, 3, 2.80C, 2.60C, 2.40CGHz 533MHz system bus: 3.06, 2.80, 2.66, 2.53, 2.40B, 2.26GHz 400MHz system bus: 2.60, 2.50, 2.40, 2.20, 2AGHz	2.60, 2.50, 2.40, 2.20, 2.0, 1.80, 1.70, 1.60, 1.50, 1.40GHz
L2 Cache	Normally 256KB	512KB
Power consumption	80~95W	25~35W

Note: The attached letter behind the CPU frequency stands as below:
#.##a.....512KB L2 Cache
#.##b.....Box Package
#.##c.....800Mhz FSB

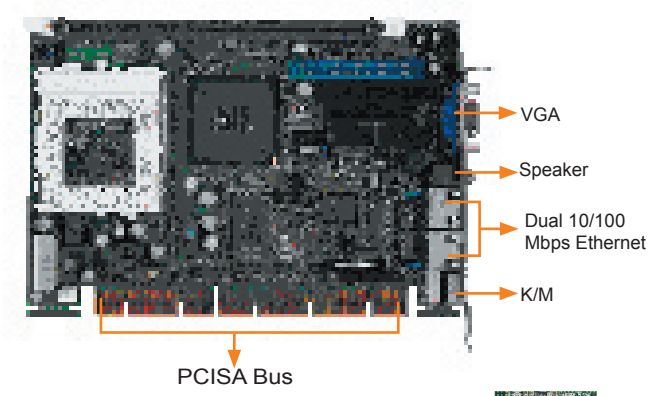
Model Name	Chipset	Form Factor
SAGP-845MEV	Intel 845G	Full size PIAGP Bus SBC
ROCKY-4786EV/G-R30	Intel 865GV	Full size PICMG Bus SBC
ROCKY-6160/G-R10	Intel 852GME	Full size PICMG Bus SBC
PSB-4710MEV	Intel 845GV	Half size PCISA Bus SBC
NOVA-8890M	Intel 845GV	5.25" Embedded Board
ICPMB-7660-R10	Intel 852GME	ATX Motherboard
POS-478-R30	Intel 845GV	POS CPU Board

Ordering Information

- **PSB-4710MEV**
  PCISA (PCI only) Socket 478 CPU Card with VGA, LAN, USB2.0 & Audio

PCISA-3716

PCISA Socket 370 CPU Card with VGA, Dual LAN & Audio



ISA PLUS™ PCISA™ BUS Tualatin Supports

Rear Side

Feature

- Intel PIII / Tualatin / Celeron CPU support up to FSB 133 MHz
- SiS 630ET integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB, Audio integrated

Specifications

CPU	Socket-370 66/100/133 MHz FSB Tualatin, P III / Celeron™
System Chipset	SiS630ET
System Memory	One 168-pin DIMM sockets up to 512MB
Display	– Integrated in SiS630ET Chipset – Bus: AGP 66MHz – V-RAM: Share with system memory up to 64MB RAM – Resolution: 1600 x 1200 (16-bit colors) – Connector: DB-15 for CRT display
Ethernet	Dual Ethernet with one integrated in chipset and one Realtek 8100
SSD	Support Compact Flash Type II Socket (rear side)
Audio	AC'97 compliant Audio CODEC with 6W Amplifer
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 1 x ATA-100 IDE channels
WDT	software programmable, support 1~ 255 sec. system reset
Power Control function	Support ATX power control function
Power Consumption	5V@6A, 12V@170mA (Pentium III 500MHz CPU and 512MB SDRAM)
Operating Temp	0 ~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	700g
Remark	8 bit limited ISA (LPC-ISA)

Ordering Information

- **PCISA-3716E2V-R4**
  PCISA Socket 370 CPU Card with VGA, Dual LAN & Audio, R4
- **PCISA-3716EV-R4**
  PCISA Socket 370 CPU Card with VGA, LAN & Audio, R4

Notes:
For RS-422/485, plese contact with supplier

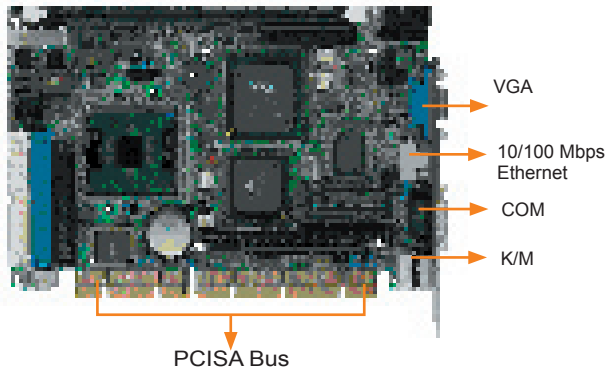
IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

PCISA-C400

PCISA ULV Intel Celeron 400 MHz CPU Card with VGA, Realtek LAN & Audio



ISA PLUS™ PCISA™ BUS intel inside celeron

Rear Side

Feature

- Embedded ULV Intel Celeron 400 MHz
- VIA 8601 integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB, Audio integrated

Specifications

CPU	Ultra Low Voltage Intel® Celeron 400MHz
System chipset	VIA VT8601T with VT82C686B
System Memory	1 x DIMM up to 512MB SDRAM
Display	– VIA 8601A integrated – Bus: AGP 4X – Resolution: Up to 1600 x 1200 CRT display – V-RAM: Shared with system memory up to 8MB – Connector: DB-15 for CRT display – Support I2C bus interface
SSD	1 x Disk On Chip socket and 1 x Compact Flash™ type II socket onboard
Ethernet	1 x onboard 10/100Mbps Realtek RTL8100 fast Ethernet controller
WDT	Software programmable supports 1~255 seconds system reset
I/O	– 1 x RS-232 serial port by pin-header – 1 x RS-232/422/485 selectable port – 1 x LPT parallel port by pin-header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 4 x USB 1.1 ports by pin header – 2 x ATA-100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable – 1 x PS/2 for Keyboard / Mouse – 1 x FDD connector, support 1.44/2.88MB and 3-mode floppy drive
Audio	AC'97 compliant Audio CODEC codec
ISA Plus™	Design to enhance the ISA bus drive capability
Hardware Monitoring	Provides CPU Vcore / Vcc; CPU / System Fan speed and temperature detecting function
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	5VSB@180mA, +5V@2.6A, +12V@170mA (512MB SDRAM)
Operating Temperature	0 ~ 60°C
Relative Humidity	5 ~ 95 %, non-condensing
GW	700g

Ordering Information

- **PCISA-C400R**
  PCISA ULV Intel Celeron 400 MHz CPU Card with VGA, Realtek LAN & Audio

Note:
For Intel® Celeron 650MHz / Pentium® III 800MHz CPU/Intel LAN chipset solution supports, please contact supplier

IEI Option

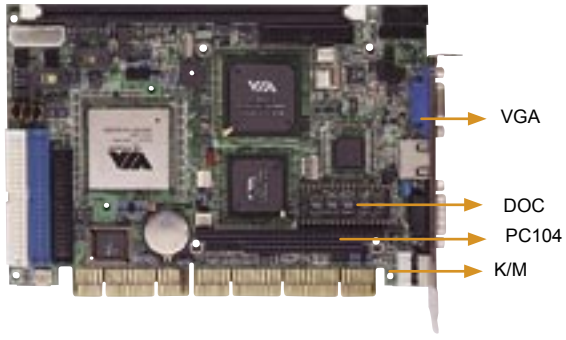
- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

PCISA-C800/EDEN-400

PCISA VIA C3 / EDEN CPU Card with VGA, LAN & Audio

All-in-One Half size SBC



ISA PLUS™ PCISA™ BUS 1GHz CPU

Rear Side

Feature

- Embedded VIA C3 1GHz / EDEN 400MHz CPU
- VIA 8601 integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB, Audio integrated

Specifications

CPU	Embedded VIA C3 1GMz CPU (PCISA-C800-1G) EDEN 400MHz CPU (PCISA-EDEN-400)
System Chipset	VIA 8601A + 686B, PCI 2.2 compliant
System Memory	1x DIMM up to 512MB SDRAM
Display	– 64-bit Single Cycle 2D/3D Graphics Engine (VIA 8601A) – AGP 4X bus bandwidth up to 533 MB/sec – Resolutions: up to 1600x1200 (UXGA) – Integrated 24-bit 230MHz True Color DAC – V-RAM: Share system memory up to 8MB – Support I²C bus interface – Connector: DB-15 for CRT
Ethernet	1x 10/100Mbps fast Ethernet controller onboard (Intel 82559 / Realtek RTL8100B)
SSD	1x Disk On Chip socket and 1x CompactFlash™ type II socket onboard
I/O	– 1x RS-232 series port by pin header (16C550 UARTs Compatible) – 1x RS-232/422/485 selectable port – 1x LPT by pin header (support SPP/EPP/ ECP mode) – 1x IrDA by pin header (SIR mode) – 4xUSB port by pin header (USB 1.1 Compliant) – 1x FDD channel support 1.44MB, 2.88MB and 3-mode – 2x ATA-100 IDE channel support CD-ROM; ZIP and LS-120 bootable.
Audio	AC'97 compliant Audio CODEC (Line-in, Line-out, Mic-in by pin header)
WDT	software programmable support 1~255 second system reset
ISA Plus™	Design to enhance the ISA bus drive capability (64mA)
Hardware Monitoring	CPU Vcore; Vcc; CPU/System Fan speed and Thermal
ATX power control function	Meets ACPI 1.1
Power Consumption	+5VSB@180mA, +12V@170mA, +5V@3.8A (VIA C3 800MHz CPU with 512MB SDRAM, Windows 2000)
Operating Temp	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	700g
Note	CPU cooling fan included !

Ordering Information

- **PCISA-C800EVN-1G**
  PCISA VIA C3 1GHz CPU Card with VGA, Intel LAN & Audio
- **PCISA-C800EVR-1G**
  PCISA VIA C3 1GHz CPU Card with VGA, Realtek LAN & Audio
- **PCISA-EDEN-400EVN**
  PCISA VIA EDEN 400MHz CPU Card with VGA, Intel LAN & Audio
- **PCISA-EDEN-400EVR**
  PCISA VIA EDEN 400MHz CPU Card with VGA, Realtek LAN & Audio

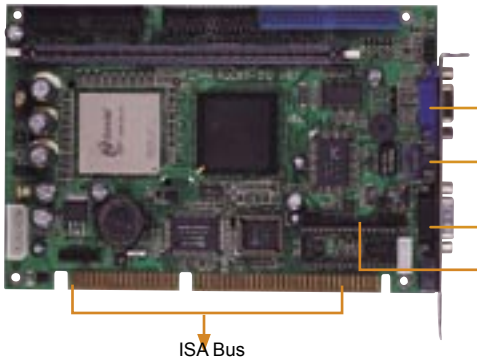
IEI Option

- **CB-USB02** Dual ports USB cable with bracket page 5-6

ROCKY-512

ISA GX1-300MHz CPU Card with VGA, LAN

On Board Memory 64MB/128MB



ISA PLUS™ +5V Only

Rear Side

Feature

- Embedded AMD Geode GX1 300 MHz
- GX-1 integrated graphic engine
- PC133 SDRAM memory support upto 512MB
- LAN, USB, CF-II + DOC sockets integrated

Specifications

CPU	Embedded Geode GX1 300MHz CPU
System chipset	AMD Geode GX1 with CS5530A
System memory	Onboard 64 or 128MB SDRAM and 1x PC100/133 SDRAM slot up to 512MB
Display	– Built-in CS5530A chip – V-RAM: Shared with system memory up to 4MB, adjustable via BIOS setup program. – Resolution: Up to 1280x1024 – Connector: DB-15 for CRT display
SSD	1x onboard Compact Flash type II socket and; One DiskOnChip socket
Ethernet	1x onboard Realtek RTL8100B 10/100bps fast Ethernet controller
I/O	– 1x RS-232 and 1 x RS-232/422/485 (selectable) serial ports by pin header – 1x LPT parallel port by pin header (supports SPP/EPP/ECP mode) – 1x IrDA (SIR mode) – 2x USB 1.1 port by pin header – 1x ATA/33 IDE channel supports CD-ROM, ZIP and LS-120 drive bootable – 1x FDD connector, support 1.44/2.88MB and 3-mode floppy drive
Digital I/O	4 inputs and 4 pins for outputs
Power control function	Meets ACPI 1.1 specification, comes with external power connector of 5V input
Power Consumption	5V@1.8A (with an extra 128MB SDRAM module)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

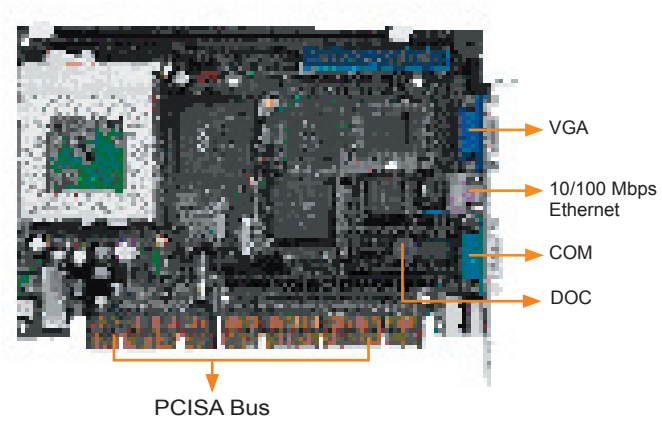
- **ROCKY-512**
  ISA GX1-300MHz CPU Card with VGA, LAN
- **ROCKY-512-64MB**
  ISA GX1-300MHz CPU Card with 64MB DRAM, VGA, LAN
- **ROCKY-512-128MB**
  ISA GX1-300MHz CPU Card with 128MB DRAM, VGA, LAN

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket page 5-6

JUKI-3711

PCISA Socket 370 PIII CPU Card with LCD/ CRT VGA (2MB), LAN & Audio



Feature

PCISA BUS ISA PLUS Tualatin Supports

- Intel PIII / Tualatin / Celeron CPU support up to FSB 133 MHz
- C&T 69000 graphic chip with 2MB memory and TTL interface
- PC133 SDRAM memory support upto 512MB
- LAN, USB, Audio integrated

Specifications

CPU	Socket-370 66/100/133 MHz FSB Tualatin, P III / Celeron
System Chipset	VIA 694T+686B chipsets
System Memory	1 x DIMM (168-pin) for SDR Memory module up to 512MB
Display	Asiliant (C&T) 69000(2M V-RAM) controller, DB-15 for CRT, 50pin pin-header for LCD, with FP24-01A for 18/24-bit LCD Resolution: max. 1280 x 1024, 256 colors
Ethernet	1x10/100Mbps Ethernet controller with RJ-45 (Intel 82559 or Realtek 8100B Chip)
SSD	1 x DOC socket support up to 288MB
I/O	– IDE: 1x ATA-100 IDE channel support HDD, CDROM, LS-120, and ZIP. – FDD: 1 x port, support 1.44MB, 2.88MB, 3-mode function – COM: 2 x RS-232 serial ports – LPT: 1 x parallel port (SPP/EPP/ECP) – USB: 2x USB 1.1 ports (Pin header) – KB/MS: 1x PS/2
Hardware monitor	Support
Power control	ATX power control function
WDT	software programmable, support 1~ 255 sec. system reset
Power connector function	Molex 8981-4M equivalent (5V, 12V input)
Power Consumption	12V@0.5mA, 5V@7A (P3-1G with 256MB)
Operating Temperature	0-60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
Dimensions	185 x 122mm (7.3" x 4.8")
GW	700g

Ordering Information

- **JUKI-3711PTN**
  PCISA Socket 370 PIII CPU Card with LCD/ CRT VGA (2MB), Intel LAN & Audio
- **JUKI-3711PTR**
  PCISA Socket 370 PIII CPU Card with LCD/ CRT VGA (2MB), Realtek LAN & Audio

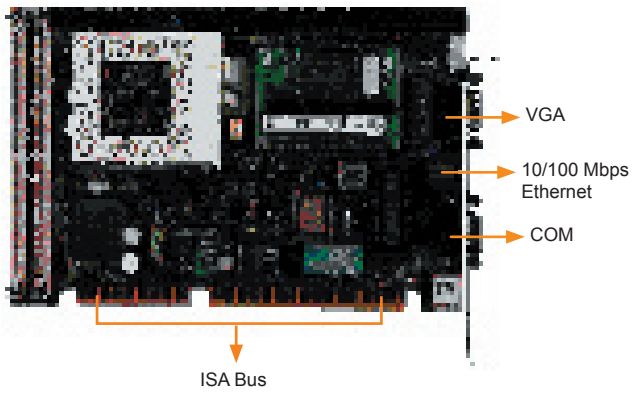
IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

JUKI-745

ISA Socket 7 CPU Card with LCD/ CRT VGA (2MB), LAN, FP24-01A



Feature

ISA PLUS

- Intel PentiumMMX / AMD K6 CPU support up to FSB 66 MHz
- C&T 69000 graphic chip with 2MB memory and TTL interface
- EDORAM memory support upto 128MB
- LAN, USB Integrated

Specifications

CPU	Socket-7 base support Intel® Pentium® MMX up to 66MHz FSB
System Chipset	ALi Aladdin 4+
System Memory	Two 72-pin SIMM sockets up to 128MB EDO RAM
Display	– Asiliant (C&T) 69000 LCD/CRT VGA – Bus : PCI – V-RAM : 2MB RAM – Resolution : 1280 x 1024 (256 colors) for CRT display – Connectors : DB-15 for CRT display – 50-pin pin-header for 36-bit LCD panel – 44 pins pin-header for 24-bit LCD panel (With FP24-01A board) – Supports 3.3V and 5V LCD panel – Optional LVDS-01 & LVDS-02 module for LVDS interface
Ethernet	Realtek RTL8100B 10/100Mbps Ethernet chip with RJ-45 connector
SSD	One DiskOnChip socket
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 1 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 1 x ATA-33 IDE channel (44-pin header)
WDT	software programmable, support 1~ 255 sec. system reset
E²Key	A non-volatile 1Kbit EEPROM is provided to retain application critical read/write data
ISA Plus	Designed to enhance the ISA bus drive capability
Power Consumption	+5V@5A, +12V@170mA, -12V@20mA (Intel Pentium MMX 233MHz CPU and 32MB EDO RAM)
Operating Temperature	0 ~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

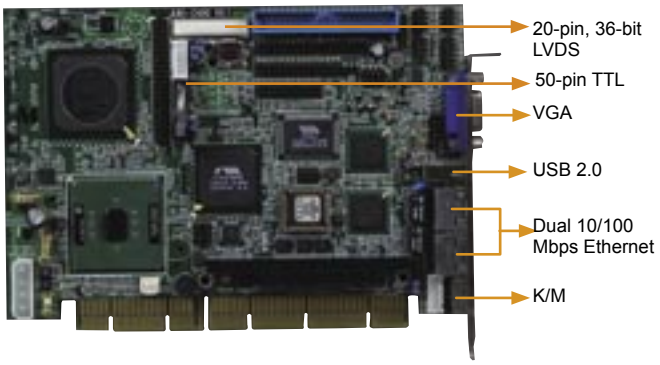
- **JUKI-745E-R3**
  ISA Socket 7 CPU Card with LCD/ CRT VGA (2MB), LAN, FP24-01A, R3

IEI Option

- **LVDS-01-R7** One channel LVDS module
- **LVDS-02** Two channels LVDS module

JUKI-C400

PCISA ULV Intel Celeron 400MHz CPU Card with LCD/ CRT VGA, Dual LAN, USB 2.0 & Audio



Rear Side

Feature

- Embedded ULV Intel Celeron 400 MHz
- VIA 8606 integrated graphic engine with TTL / LVDS interface
- PC133 SDRAM memory with SO-DIMM support upto 512MB
- LAN, USB 2.0, Multi-COM, Audio integrated

Specifications

CPU	Ultra Low Voltage Intel Celeron 400MHz
System chipset	VIA VT8606T (PN133T) with VT82C686B
System Memory	Provide 1x SODIMM up to 512MB SD RAM
Display	– On-chip ProSavage™ VGA controller – Bus: AGP 4 x – V-RAM: Shared with system memory up to 32MB (SMA Technology) – Resolution: 1920 x 1440 single display – Connector: DB-15 for CRT display – LCD: DF14-20F 36-bit Dual channel for LVDS and 1 x 50-pin by pin-header for TTL
SSD	1x onboard Compact Flash™ Type II socket
Ethernet	2 x onboard 10/100Mbps Intel 82551 / Realtek RTL8100BL fast Ethernet controller
I/O	– 4 x RS-232 serial port by pin-header – 1 x LPT parallel port by pin-header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 3 x USB 2.0 and 2 x USB 1.1 ports by pin-header – 2 x ATA/100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable(IDE 1: 40-pin, IDE 2: 44-pin) – 1 x PS/2 for Keyboard / Mouse – 1 x FDD connector, support 1.44 / 2.88 and 3-mode floppy drive
Audio	AC'97 compliant Audio CODEC
WDT	Software programmable supports 1~255 seconds system reset
Expansion slot	PC/104
Digital I/O	TTL Level 4-input and 4-output
Hardware Monitoring	VT82C 686B (Provides CPU Vcore / Vcc; CPU / System Fan speed and temperature detecting function)
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	+5V@2.8A, +12V@500mA (512MB SDRAM)
Operating Temperature	0 ~ 60°C
Relative Humidity	5 ~ 95 %, non-condensing
GW	700g

Ordering Information

- **JUKI-C400R** PCISA ULV Intel Celeron 400MHz CPU Card with LCD/ CRT VGA, Dual Realtek LAN, USB 2.0 & Audio
- **JUKI-C400N** PCISA ULV Intel Celeron 400MHz CPU Card with LCD/ CRT VGA, Dual Intel LAN, USB 2.0 & Audio

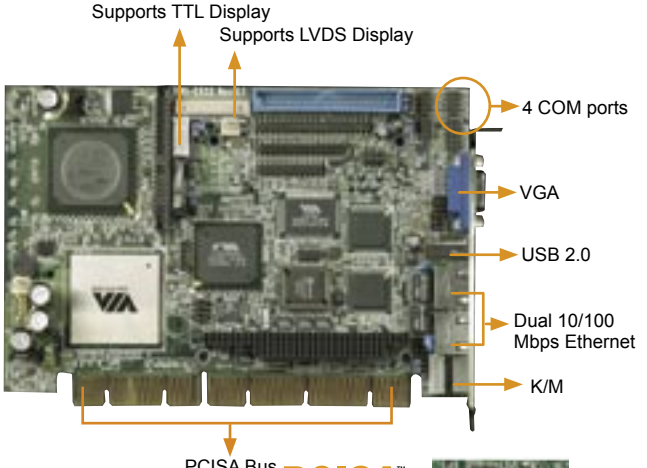
Note:
For Intel Celeron 650 MHz / LV Pentium III 800 MHz / RS-232/422/485 support, please contact supplier.

IEI Option

- **CB-USB02** Dual ports USB cable with bracket page 5-6

JUKI-EDEN-400/C3-1G

PCISA VIA C3 / EDEN CPU Card with LCD/ CRT VGA, Dual LAN, USB 2.0 & Audio



Rear Side

Feature

- VIA C3 1GH z / EDEN 400MHz CPU
- VIA 8606 integrated graphic engine with TTL / LVDS interface
- PC133 SDRAM memory with SO-DIMM support upto 512MB
- LAN, USB 2.0, Multi-COM, Audio integrated

Specifications

CPU	Embedded VIA C3 1GHz CPU (JUKI-C3-1G) Embedded VIA EDEN 400MHz CPU (JUKI-EDEN-400)
System chipset	VIA VT8606T (PN133T) + VT82C686B
System memory	1xSO-DIMM socket support up to 512MB
Display	– On-chip ProSavage™ VGA controller – Bus: AGP 4x – V-RAM: Shared with system memory up to 32MB (SMA technology) – Resolution: 1920 x 1440 single display – Connector: DB-15 for CRT display – LCD: DF14-20F 36-bit Dual channel for LVDS and 1 x 50-pin by pin-header for TTL
SSD	1x onboard Compact Flash type II socket
Ethernet	2x onboard 10/100bps Intel 82551/RTL8100BL fast Ethernet controller
I/O	– 4 x RS-232 serial ports by pin header – 1 x LPT parallel port by pin header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 3 x USB 2.0 and 2 x USB 1.1 by pin header – 2 x ATA/100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable (IDE1: 40-pin, IDE2: 44-pin) – 1 x PS/2 for Keyboard/Mouse – 1 x FDD connector, support 1.44/2.88MB and 3-mode floppy drive
Audio	AC'97 Codec
WDT	Software programmable supports 1~255 seconds system reset
Expansion Slot	PC/104 Expansion connector
Digital I/O	TTL Level 4 - input and 4 - output
Hardware Monitoring	VT82C 686B (Provides CPU Vcore, Vcc; CPU/System fan speed and temperature detecting function)
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	5V@3.1A; (VIA EDEN 400MHz 256MB SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

- **JUKI-C3-1GN** PCISA VIA C3 1GHz CPU Crad with LCD/ CRT VGA, Dual Intel LAN, USB 2.0 & Audio
- **JUKI-C3-1GR** PCISA VIA C3 1GHz CPU Card with LCD/ CRT VGA, Dual Realtek LAN, USB 2.0 & Audio
- **JUKI-EDEN-400N** PCISA VIA EDEN 400MHz CPU Card with LCD/ CRT VGA, Dual Intel LAN, USB 2.0 & Audio
- **JUKI-EDEN-400R** PCISA VIA EDEN 400MHz CPU Card with LCD/ CRT VGA, Dual Realtek LAN, USB 2.0 & Audio

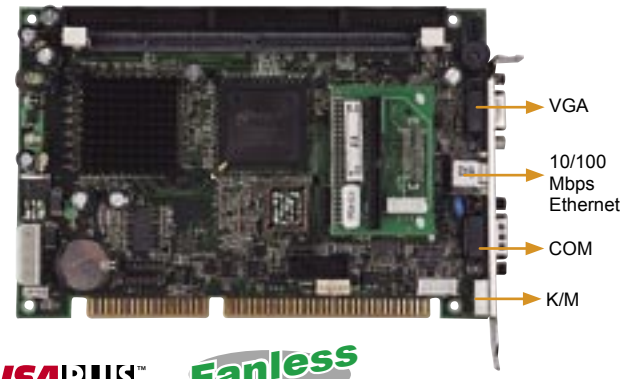
Note:
For optional RS-232/422/485 serial port, please contact supplier

IEI Option

- **CB-USB02** Dual ports USB cable with bracket page 5-6

JUKI-510/511P

ISA/PCISA GX1-300 CPU Card with LCD/ CRT VGA, TV Output, LAN & Audio



ISA PLUS™ Fanless

Feature

- AMD Geode GX1 300 MHz
- GX-1 integrated graphic engine with TTL interface
- PC100 SDRAM memory support upto 256MB
- LAN, USB, Audio integrated

Specifications

CPU	AMD Geode GX1-300MHz
System Memory	up to 256MB DIMM
Bus	JUKI-511P PCISA bus to support 4 PCI slots JUKI-510 ISA bus
Display	– built-in CS5530A chipset to support TFT LCD & CRT display – V-RAM : share with system memory(up to 4MB), setting in BIOS – Resolution : 1280 x 1024, 256 colors – Connector :DB-15 for CRT display 50-pin pin header for 18-bit TFT LCD, Standard equipped with FP24-01A for 44-pin LCD connection TV output: support NTSC and PAL signal
Ethernet	Realtek RTL8100B 10/100 Mbps Ethernet Controller Support WOL function
SSD	One CF Type II socket (support IBM MicroDrive) (rear side)
Audio	AC'97 compliant Audio codec
I/O	– 2 x RS-232 serial port (16C550 UARTs compatible) – 1 x parallel port (SPP/EPP/ECP) – 2 x USB 1.1 (Pin header) – 1 x IrDA (SIR) – 1 x FDD port, support 1.44MB, 2.88MB, 3-mode function – 1 x ATA-33 IDE channels
WDT	software programmable, support 1~ 255 sec. system reset
Power Control	Support ATX function
Power Consumption	5V@2A, 12V@100mA (with 64MB SDRAM)
Operating Temp.	0-60°C
Relative Humidity	5~95%, non-condensing
GW	700g
Remark	External Power Connector of 5V input.

Ordering Information

- **JUKI-510-300-R1**
  ISA GX1-300 CPU Card with LCD/ CRT VGA, TV Output, LAN & Audio, R1
- **JUKI-511P-300-R1**
  PCISA GX1-300 CPU Card with LCD/ CRT VGA, TV Output, LAN & Audio, R1

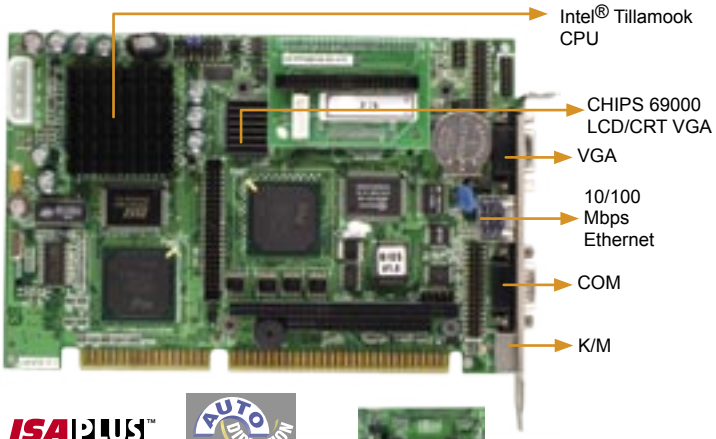
IEI Option

- **LVDS-01-R7** One Channel LVDS module,18-bit Work with NEC 15" NL1027BC30-04F LCD Panel,...etc.
- **CB-USB02** Dual ports USB cable with bracket

page 5-6

JUKI-6752

ISA Low Power Pentium-266 CPUCard with LCD/ CRT VGA (2MB), LAN



Rear Side

ISA PLUS™ AUTO DIRECTION 485

Feature

- Intel PentiumMMX 266 MHz CPU
- C&T 69000 graphic chip with 2MB memory and TTL interface
- PC133 SDRAM memory with SO-DIMM support upto 128MB
- LAN, USB integrated

Specifications

CPU	Intel® low power consumption Tillamook Pentium®MMX -266 MHz CPU on board
External Cache	512KB
System Chipset	Intel® 430TX
System Memory	One 144-pin SO-DIMM sockets up to 128MB SDRAM
Display	– Asiliant (C&T) 69000 LCD/CRT VGA – Bus : PCI – V-RAM : 2MB RAM – Resolution : 1280 x 1024 (256 colors) for CRT display – Connectors : DB-15 for CRT display 50-pin pin-header for 36-bit LCD panel
Ethernet	Intel 82559ER 10/100Mbps Ethernet chip with RJ-45 connector
SSD	One CF Type II Socket (rear side)
I/O	– 1 x RS-232 port – 1 x RS-232/422/485 selectable port with Auto-Direction function – 1 x parallel port (support SPP/EPP/ECP mode) – 2 x USB 1.1 (pin header) – 1 x IrDA port – 1 x FDD port – 1 x ATA-33 IDE channel (44-pin header)
Expansion Slot	PC/104
WDT	software programmable, support 1~ 255 sec. system reset
Hardware Monitor	Winbond hardware monitoring chip on board
ISA Plus	Designed to enhance the ISA bus drive capability
Power Consumption	+5V@2A, +12V@170mA, -12V@20mA (32MB SDRAM)
Operating Temperature	0-60°C (CPU heat sink included)
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

- **JUKI-6752**
  ISA Low Power Pentium-266 CPU Card with LCD/ CRT VGA (2MB), LAN

IEI Option

- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

5x86/486 Class CPU Card

Half Size ISA Bus
5x86/486 Class CPU Card

ROCKY-418-R3

JUKI-750E-R3

JUKI-752-R3

	ROCKY-418-R3	JUKI-750E-R3	JUKI-752-R3
CPU	Maple on board	Maple on board	Maple on board
CPU FSB	486DX4-100	486DX4-100	486DX4-100
Ext.Cache	No	No	No
RAM Socket	1 SIMM/32MB or 2 SIMM/16+16MB	1 SIMM/32MB or 2 SIMM/16+16MB	1 SIMM/32MB or 2 SIMM/16+16MB
RAM Type	5V EDO/FP RAM	5V EDO/FP RAM	5V EDO/FP RAM
Chipset	ACC Maple	ACC Maple	ACC Maple
Bus	ISA	ISA	ISA
VGA	No	HM-86508 (1MB)	HM-86508 (1MB)
Supports LCD	No	Yes	Yes
Ethernet	No	10Mbps (*L1)	No
RS-232	1	1	2
RS-232/422/485	1	1	0
Parallel	1	1	1
IrDA Port	No	No	No
IDE Port	1 (PIO-4)	1 (PIO-4)	1 (PIO-4)
FDD Port	1	1	1
SSD Socket	DOC/1	DOC/1	DOC/1
WatchDog Timer	Yes	Yes	Yes
PC/104	Yes	Yes	Yes
E2Key	Yes	No	No

Note:		
	*L1	Realtek RTL8019 10Mbps Ethernet on board with RJ-45 connector
	*R1	Option : DRAM on board & RAM socket will be disable (2 RAM modules are required)

● Ordering Information

ROCKY-418-R3 ISA 486DX4-100 CPU Card with COM, DOC, R3
JUKI-750E-R3 ISA 486DX4-100 CPU Card with LCD/ CRT VGA, LAN, R3
JUKI-752-R3 ISA 486DX4-100 CPU Card with LCD/ CRT VGA, R3

386SX-40 Class CPU Card

Half Size ISA Bus
386SX-40 CPU Card

ROCKY-318-M4-R3

ROCKY-328E-M4-R2

JUKI-730-M4-R3

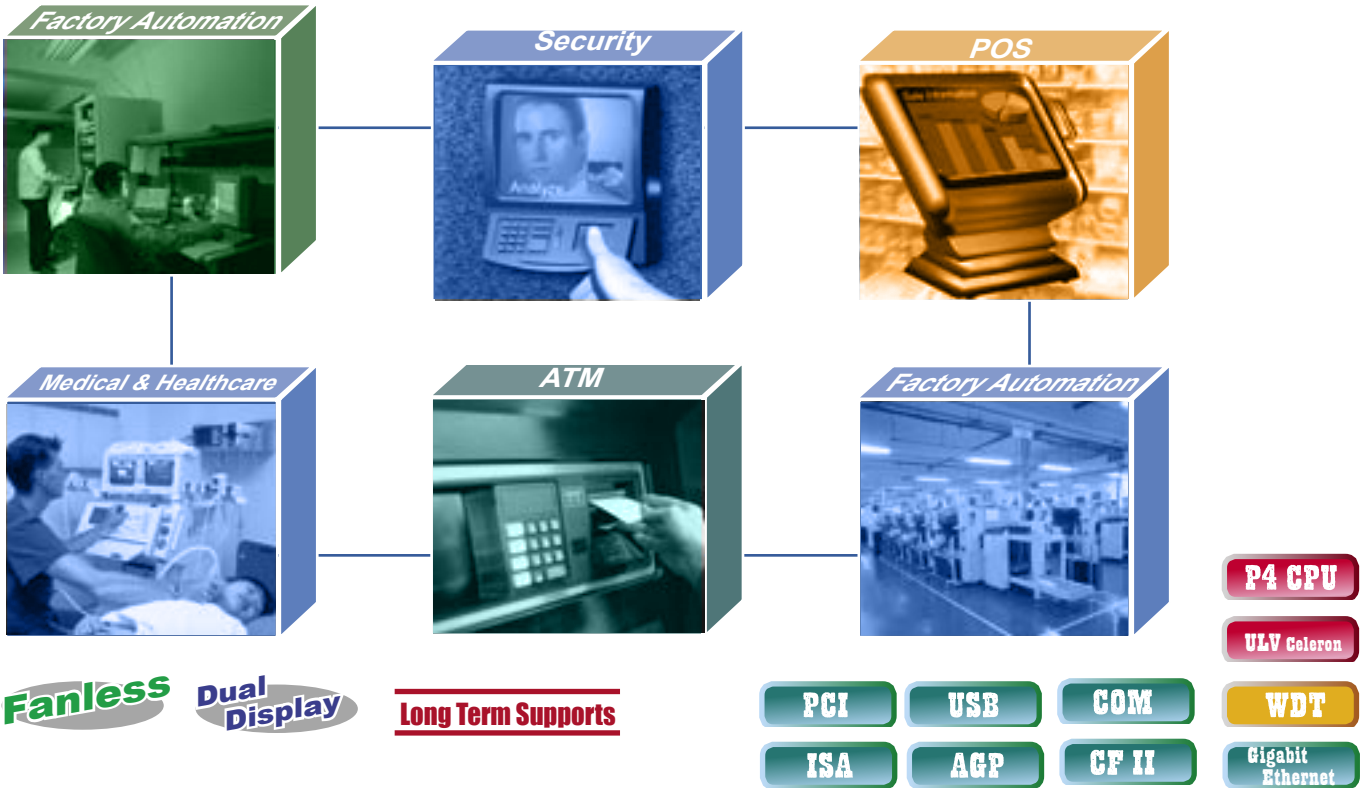
	ROCKY-318-M4-R3	ROCKY-328E-M4-R2	JUKI-730-M4-R3
CPU	M6117 on board	M6117 on board	M6117 on board
CPU FSB	386SX-40	386SX-40	386SX-40
RAM Socket	1 SIMM/16MB (4MB, *R1)	1 SIMM/16MB (4MB, *R1)	1 SIMM/16MB (4MB, *R1)
RAM Type	EDO/FP RAM	EDO/FP RAM	EDO/FP RAM
Chipset	ALi M6117	ALi M6117	ALi M6117
Bus	ISA	ISA	ISA
VGA	No	No	HM86508 (1MB)
Supports LCD	No	No	Yes
Ethernet	No	10Mbps (*L1)	No
RS-232	2	2	3
RS-232/422/486	0	0	1
Parallel	1	1	1
IDE Port	1 (PIO-4)	1 (PIO-4)	1 (PIO-4)
FDD Port	1	1	1
SSD Socket	DOC/1	DOC/1	DOC/1
WatchDog Timer	Yes	Yes	Yes
PC/104	Yes	Yes	Yes
E2Key	Yes	Yes	Yes

Note:		
	*L1	Realtek RTL8019 10Mbps Ethernet on board with RJ-45 connector
	*R1	Option: DRAM on board & RAM socket will be disable

● Ordering Information

ROCKY-318-M4-R3 ISA 386SX-40 CPU Card with 4M DRAM, R3
ROCKY-328E-M4-R2 ISA 386SX-40 CPU Card with 4M DRAM, LAN, R2
JUKI-730-M4-R3 ISA 386SX-40CPU Card with 4M DRAM, LCD/ CRT VGA, 4COM

New Industrial Motherboard ICPMB Product Line



Long Life Capability for Industrial Application

IEI Industrial Motherboard is targeted for industrial applications that require a cost-effective x86 system board yet do not want to sacrifice in reliability, flexibility, and support. All of our industrial motherboards are tested under industrial environment. Moreover, applications that require multiple serial communication ports and ISA bus will also be supported by our industrial motherboard. For applications where detail specifications are critical, we not only commit to long term product support, but we also support any revision control and version update control, and allow customer to retain their exact product specification under the revision control. We provide technical support to all of our products including industrial motherboard such as customization of BIOS. As a system application builder, you will greatly benefit from designing your solution with industrial motherboard.

Some of the key features of industrial motherboard that differs from consumer motherboard are functions such as compact flash socket, watch-dog timer, digital I/O, LCD display and ISA bus slots. The benefit of using IEI industrial motherboards is its guaranteed long life cycle, revision control, and industrial reliability.

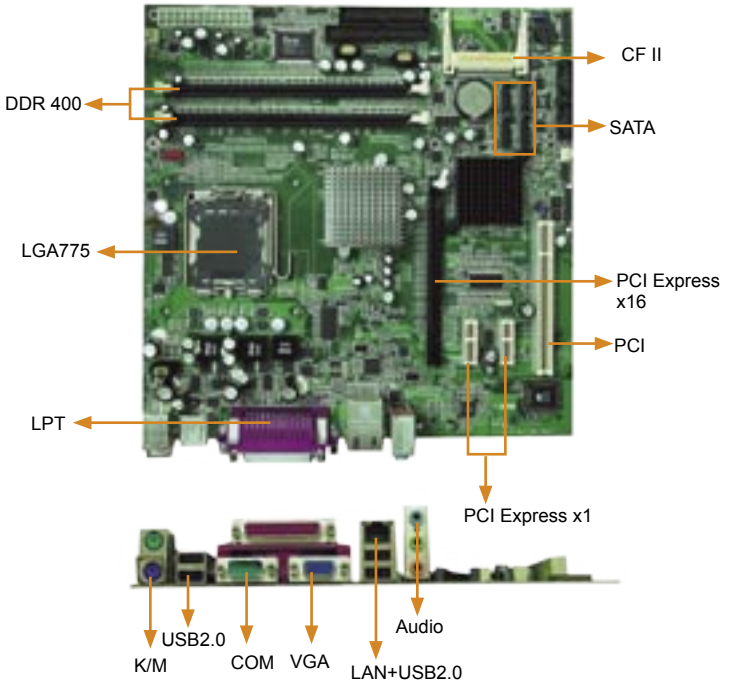
ICPMB Series Motherboard Main Features

- Standard ATX and embedded ATX form factor design
- PCI slots and ISA slots expandability
- Provides wide range of CPU frequency between Intel® Pentium 4 and fan-less Ultra Low Voltage Intel® CPU solution
- Multiple inputs and outputs extension ability like COM ports, Digital I/O channel, USB2.0 and ISA bus
- Support Giga bit Ethernet
- On-board CompactFlashTM type II socket supports embedded system usage
- Qualified for industrial level environment

Model Name	CPU	Form Factor	PCI slot	ISA slot	PCI/ISA slot	AGP add-on card support	COM	USB
ICPMB-8650	Intel P4 Socket-478 upto 800 FSB	ATX	4	1	1	YES	6	8 (USB2.0)
ICPMB-8660	Intel P4 Socket-478 upto 800 FSB	Embedded ATX	1	0	0	N/A	4	8 (USB2.0)
ICPMB-7660	Intel P4 socket-478 upto 533 FSB	ATX	4	2	1	YES	6	8 (USB2.0)
ICPMB-7760	Intel P4 socket-478 upto 533 FSB	Embedded ATX	1	IPMI socket			4	6 (USB2.0)
ICPMB-2660	ULV Intel Celeron 400	ATX	4	2	1	N/A	6	6 (USB2.0)
ICPMB-2661	P3 Socket-370, upto 133 FSB	ATX	4	2	1	N/A	6	6 (USB2.0)
POS-478	Intel P4 socket-478 upto 533 FSB	LPX	1	0	0	N/A	4	6 (USB2.0)
POS-380	P3 Socket-370, upto 133 FSB	LPX	1	0	0	N/A	6	6 (USB2.0)
POS-370	P3 Socket-370, upto 133 FSB	LPX	1	0	0	N/A	4	5 (USB1.1)
POS-EDEN-400	VIA EDEN 400 MHz	LPX	0	1 x PCISA			4	4 (USB1.1)

ICPMB-7880

Micro-ATX MB, LGA775 800MHz FSB with VGA, GbE, SATA, 4 COM & Audio



Coming Soon

Feature

- Intel LGA 775 P4/Celeron CPU with HT up to 800MHz FSB
- Supports PCI Express x16 and CRT VGA solution
- Dual Channel DDR 333/400 support up to 2GB
- PCI Express GbE, USB2.0, 4 x COM, 4 x SATA, CF II
- Support 2x PCI Express x1 and 1x PCI extension slot

Specifications

CPU	LGA 775 for Intel Pentium 4/ Celeron D with 533/800 MHz FSB
System Chipset	Intel 915G + ICH6
System Memory	Dual channel DDR333/400 socket support up to 2GB
SSD	1x Compact Flash™ Type II Socket
Display	Display controller Intel GMA 900 Graphic One VGA port for CRT monitor up to 2048x1536@ 85 Hz Support for Direct9X and OpenGL 1.4 PCI Express* Graphics Interface One x16 PCI Express port
Ethernet	Mavell 88E8053 for PCI Express 10/100/1000 Mbps Ethernet
I/O	- 3x RS232 (2 by pin header) - 1x RS232/422/485 selectable, with Auto-direction function - 8x USB 2.0 (4 by pin header) - 1x ATA-100 IDE Channel - 4x SATA-150 - 1x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive - 1x LPT by connector (Supports SPP/EPP/ECP mode) - 2 x PS/2 for Keyboard/Mouse - 1 x IrDA by pin header (SIR mode)
Audio	AC'97 codec
Digital I/O	4 inputs / 4 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	1 x PCI Express x16 slot, 2 x PCI Express x1 slot, 1x PCI slot
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

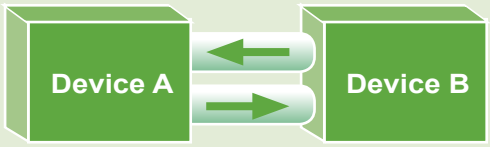
Ordering Information

- **ICPMB-7880G**
  Micro-ATX MB LGA775 Pentium 4 / Celeron D with 533/800 MHz FSB with VGA, GbE, SATA, Audio

Tech Talk

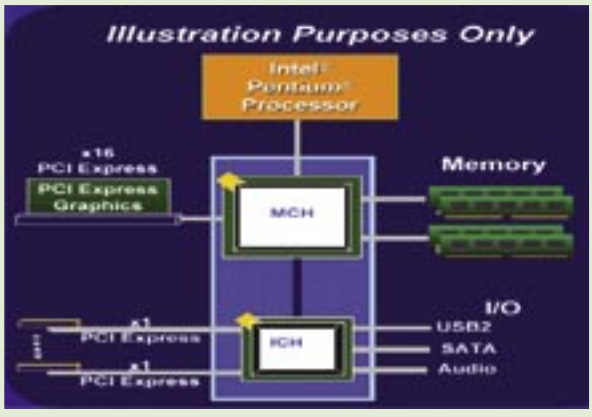
PCI-Express Introduction

PCI Express is a high-performance interconnection that gives more for less, meaning more bandwidth with fewer pins. PCI Express is designed to leverage the strengths of yesterday's and current general I/O architectures while addressing immediate and future I/O architectural and mechanical issues with current technologies. A few examples of these issues are bandwidth constraints, protocol limitations and high pin count. More technically speaking, PCI Express is a high speed, low voltage, and differential serial pathway for two devices to communicate with each other. PCI Express uses a protocol that allows devices to communicate simultaneously by implementing dual unidirectional paths between two devices.



Dual Uni-directional Path Concept

The PCI Express Base Specification defines the following configuration of serial links: x1, x2, x4, x8, x12, x16, and x32 (read as by one, by two, etc.).



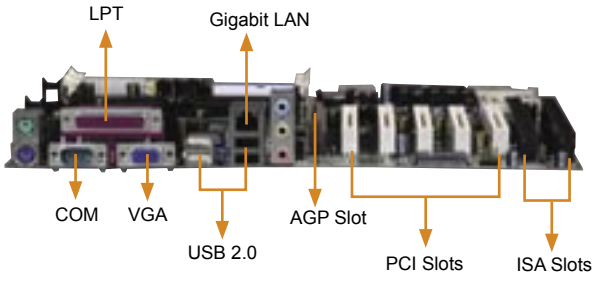
Bandwidth Comparison

Model	Full Duplex BW	Bandwidth
PCI Express x1	500MB/s	250MB/s
PCI Express x2	1GB/s	500MB/s
PCI Express x4	2GB/s	1GB/s
PCI Express x8	4GB/s	2GB/s
PCI Express x16	8GB/s	4GB/s
PCI Express x32	16GB/s	8GB/s
AGP 8X	N/A	2.1GB/s
PCI	N/A	133.3MB/s
ISA	N/A	8.33MB/s

ICPMB-8650

ATX Mother Board, Socket 478 800MHz FSB with VGA, GbE, S-ATA, USB 2.0, 6 COM & Audio

Long Term Supports



Specifications

CPU	Socket-478 for Intel® Pentium® 4 with 533/800 MHz FSB
System chipset	Intel® 865G + ICH5
System memory	Dual channel DDR 333/400 SDRAM socket support up to 4GB
Display	Integrated in Intel® 865G
SSD	1x onboard Compact Flash™ Type II socket
Ethernet	On-board 10/100/1000Mbps Intel 82540 / Realtek RTL8110S Gigabit Ethernet controller
Audio	AC'97 compliant Audio CODEC
I/O	– 5 x RS-232 – 1 x RS-232 / 422 / 485 selectable – 8 x USB 2.0 (4 by pin header) – 2 x ATA-100 IDE channel – 2 x Serial ATA-150 channel – 1 x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive – 1 x LPT parallel port (Supports SPP/EPP/ ECP mode) – 2 x PS/2 for Keyboard/Mouse – 1 x IrDA by pin header (SIR mode)
Digital I/O	TTL Level, 4 inputs and 4 outputs
WDT	Software programmable supports 1 ~ 255 sec, system reset
Expansion slot	1 x AGP 8X/4X slot, 4 x PCI slot, 1 x ISA slot, 1x PCI/ISA slot
Hardware Monitor	Provides CPU Vcore, Vcc, CPU / System fan speed and temperature detecting function
Power Consumption	+12V@7.3A, +5V@4.9A, +3.3V@0.7A, -12V@0.2A, 5VSB@0.7A (Based on P4 3.0GHz, 1GB DDR400 SDRAM)
Operating Temperature	0~60°C

IEI Option

- **CF-514**
  High performance Skiving Pentium® 4 CPU cooler

page 5-5

Feature

- Intel P4 / Prescott CPU with HT support up to FSB 800MHz
- CRT, AGP8X integrated in i865G.
- 4x Dual channel DDR333/400 support up to 4GB
- Support both PCI and ISA extension slots
- CFII,GbE, USB2.0, Multi-COM, Audio, SATA integrated

Tech Talk

IEI Supports Prescott CPU Product List

Model Name	BIOS Version	Support Front side Bus
ICPMB-8650 series	V1.0	Up to FSB 800 Mhz
ICPMB-8660 series	V1.0	Up to FSB 800 Mhz
ICPMB-7660 series	V1.0	Up to FSB 533 Mhz
ICPMB-7760 series	V1.0	Up to FSB 533 Mhz
POS-478-R30 series	V3.0	Up to FSB 533 Mhz
NOVA-8890-R30 series	V3.0	Up to FSB 533 Mhz
Rocky-4786-R20 series	V2.0/ V3.0(ICH5R)	Up to FSB 800 Mhz
Rocky-6160-R10	V1.0	Up to FSB 533 Mhz
PSB-4710EV-R30	V2.0	Up to FSB 533 Mhz
Rocky-4783EV-R20	V2.0	Up to FSB 533 Mhz
SAGP-865EVG-R20	V2.0	Up to FSB 800 Mhz

Intel IPD (EID) long support CPU list (Socket 478 type)
Pentium 4 for FSB 800Mhz: 3.0G*
Pentium 4 for FSB 533Mhz: 2.4G, 2.8G
Pentium 4 for FSB 400Mhz: 2.0G, 2.6G
Celeron D for FSB 533Mhz: 2.8G*
Celeron for FSB 400Mhz: 2.0G, 2.5G

*Prescott core CPU

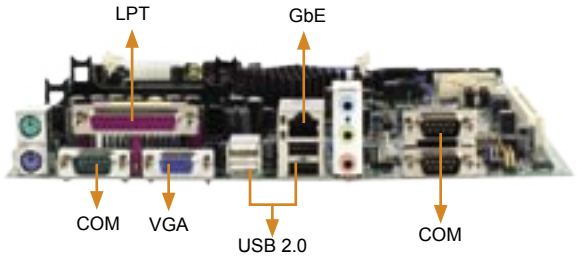
Ordering Information

- **ICPMB-8650GN**
  ATX Mother Board, Socket 478 800MHz FSB with VGA, Intel GbE, S-ATA, USB 2.0, 6 COM & Audio
- **ICPMB-8650GR**
  ATX Mother Board, Socket 478 800MHz FSB with VGA, Realtek GbE, S-ATA, USB 2.0, 6 COM & Audio

ICPMB-8660

Embedded ATX Mother Board, Socket 478 800MHz FSB with VGA, GbE, S-ATA, USB 2.0, 4 COM & Audio

Long Term Supports



Feature

- Intel P4 / Prescott CPU with HT support up to FSB 800 MHz
- CRT/LCD integrated in 865GV
- 2 x DDR 333/400 support up to 2GB
- Support 1 x PCI extension slot
- CFII,GbE, USB2.0, Multi-COM, Audio, SATA integrated

Specifications

CPU	Socket-478 for Intel® Pentium® 4 with 533/800 MHz FSB
System chipset	Intel® 865GV + ICH5
System Memory	Dual channel DDR 333/400 SDRAM socket support up to 2GB
Display	Integrated in Intel® 865GV with DB15 connector and 2x5 box header – Bus: AGP 4X / 8X
SSD	1x onboard Compact Flash™ Type II socket
Ethernet	On-board 10/100/1000Mbps Intel 82540 / Realtek RTL8110S Gigabit Ethernet controller
I/O	– 3 x RS-232 – 1 x RS-232 / 422 / 485 selectable – 8 x USB 2.0 (4 by pin header) – 2 x ATA-100 IDE channel – 2 x Serial ATA-150 channel – 1 x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive – 1 x LPT parallel port (Supports SPP/EPP/ECP mode) – 2 x PS/2 for Keyboard / Mouse – 1 x IrDA by pin header (SIR mode)
Audio	AC'97 compliant Audio CODEC
Digital I/O	TTL Level, 4 inputs and 4 outputs
WDT	Software programmable supports 1~255 seconds system reset
Expansion slot	1 x PCI slot
Hardware Monitor	Provides CPU Vcore, Vcc, CPU / System fan speed and temperature detecting function
Power Control Function	Meets ACPI 1.1 specification
Power Consumption	+12V@7.3A, +5V@4.9A, +3.3V@0.7A, -12V@0.2A, 5VSB@0.7A (Based on P4 3.0GHz, 1GB DDR400 SDRAM)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing

IEI Option

- **CF-514**
  High performance Skiving Pentium® 4 CPU cooler

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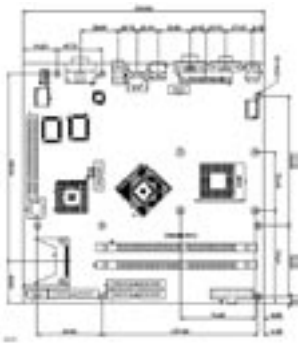
Tech Talk

IEI Support Hyper Threading Technology Product List

Model Name	Chipset	BIOS version
ICPMB-8650 series	Intel 865G	V1.0
ICPMB-8660 series	Intel 865GV	V1.0
ICPMB-7660 series	Intel 852GME	V1.0
ICPMB-7760 series	Intel 852GME	V1.0
Rocky-4786 series	Intel 865GV	V1.2
Rocky-4784 series	Intel 845E (A1)	V1.3
Rocky-4783 series	SiS 651 (B)	V1.2
SAGP 865 series	Intel 865G	V1.2
SAGP 845 series	Intel 845GE (B1)	V2.0
POS-478 series	Intel 845GV (B1)	V1.0
NOVA-8890 series	Intel 845GV (B1)	V2.4

Dimensions

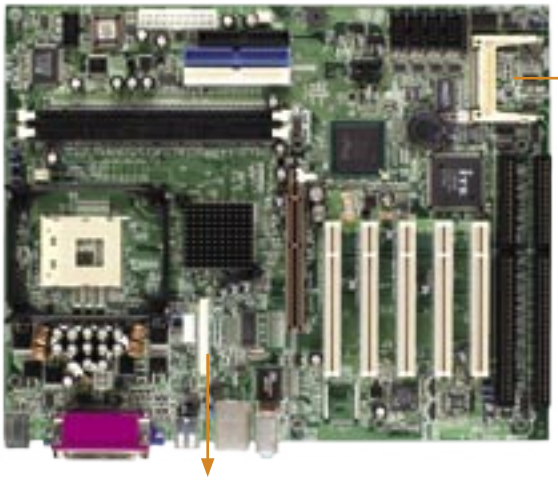


Ordering Information

- **ICPMB-8660GN**
  Embedded ATX Mother Board, Socket 478 800MHz FSB with VGA, Intel GbE, S-ATA, USB 2.0, 4 COM & Audio
- **ICPMB-8660GR**
  Embedded ATX Mother Board, Socket 478 800MHz FSB with VGA, Realtek GbE, S-ATA, USB 2.0, 4 COM & Audio

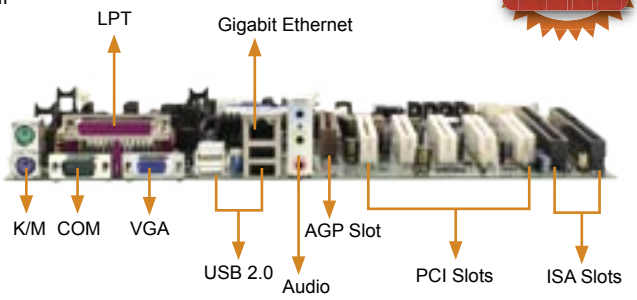
ICPMB-7660

ATX MB, Socket 478 533MHz FSB with LCD/CRT VGA, GbE, 6 COM & Audio



Long Term Supports

NEW



Feature

- Intel P4 / P4-M / Prescott CPU with HT support up to FSB 533 MHz
- CRT/LCD integrated in i852GME, support LVDS interface for Dual display
- 2x DDR 266/333 support up to 2GB
- Support both PCI and ISA extension slots
- Long term support industal motherboard
- Support Intel Gigabit Ethernet function
- CFII,GbE, USB2.0, 6 COM port, Audio, SATA integrated

Specifications

CPU	Socket 478 for Intel Pentium 4/ Pentium 4-M/ Celeron with 400/ 533MHz FSB
System Chipset	Intel 852GME + ICH5
System Memory	2x DDR266/333 SDRAM DIMM support up to 2GB ECC support
SSD	1x Compact Flash™ Type II Socket
Display	- Display controller - Intel GMCH Integrated Graphics controller - Integrated AGP 4X 2D/3D engine - One VGA port for CRT monitor 1600x1200@8pp; 1280X1024@16bpp - DF14-30F connertor for 48-bit LVDS I/F - Dual independent displays - Shared system memory up to 32MB (DVMT)
Ethernet	Intel 82540 for 10/100/1000Mbps Ethernet
I/O	- 5x RS232 (4 by pin header) - 1x RS232/422/485 selectable - 8x USB 2.0 (4 by pin header) - 2x ATA-100 IDE Channel - 2x SATA-150 - 1x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive - 1x LPT by connector (Supports SPP/EPP/ECP mode) - 2 x PS/2 for Keyboard/Mouse - 1 x IrDA by pin header (SIR mode)
Audio	AC'97 codec
Digital I/O	8 inputs / 8 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	1 x AGP 4X slot, 4 x PCI slot, 1 x ISA slot, 1x PCI/ISA slot
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification
Power consumption	+12V@7.5A, +5V@1.7A, +3.3V@3.2A, -12V@0.2A, 5VSB@0.1A (Based on P4 3.06GHz, 1GB DDR333 SDRAM)
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

IEI Option

- **CF-514**
  High performance Skiving Pentium® 4 CPU cooler

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Tech Talk

What is Preboot eXecution Environment(PXE)?

PXE is an open industry standard develop by a number of software and hardware vendors. PXE works with a network interface card or on board Ethernet device in the PC, and makes as Ethernet boot device. A PXE is available either as a boot ROM chip that an administrator ca add to the adapter, or as part of the system BIOS if the network interface is on the motherboard.

CPU Cards with PXE Function

Model Name	BIOS version	Model Name	BIOS version
SAGP-4620EV	V1.0	ICPMB-7660	V1.0
SAGP-815EV	V1.0	ICPMB-7760	V1.0
ROCKY-6160	V1.1	ICPMB-2660	V1.0
ROCKY-4784EVG	V1.3	POS-478	V1.0
ROCKY-4783EV	V1.1	POS-370	V2.2
ROCKY-4782EV	V1.3	POS-380	V1.0
ROCKY-3732EV	V1.2	NOVA-7170	V1.0
ROCKY-3742EVFG	V1.1	NOVA-8890	V1.0
ROCKY-3786EVG	V1.2	NOVA-7896	V2.1
ROCKY-3785EVG	V1.4	NOVA-7895FW	V1.3
ROCKY-3708E2V	V1.3	NOVA-7894	V1.0
ROCKY-3705EV	V2.1	NOVA-7830	V1.0
ROCKY-772EV	V1.1	NOVA-7820	V1.0
ROCKY-C800EV	V1.0	NOVA-C400	V1.0
ROCKY-C400	V1.0	NOVA-4898	V1.4
PSB-4710EV	V1.0	ISS-102R	V1.1B
PCISA-3716E2V	V3.1	NANO-7240	V1.0
PCISA-C400	V1.0	NANO-7279	V1.0
PCISA-C800EV	V1.0	WAFER-C400EV	V1.0
ROCKY-512	V1.0	WAFER-E667EV	V1.4
JUKI-3711P	V1.3	WAFER-E669E2V	V1.0
JUKI-C400	V1.0	WAFER-5820	V2.2
ETX-GX-300	V1.0	WAFER-5821	V1.3

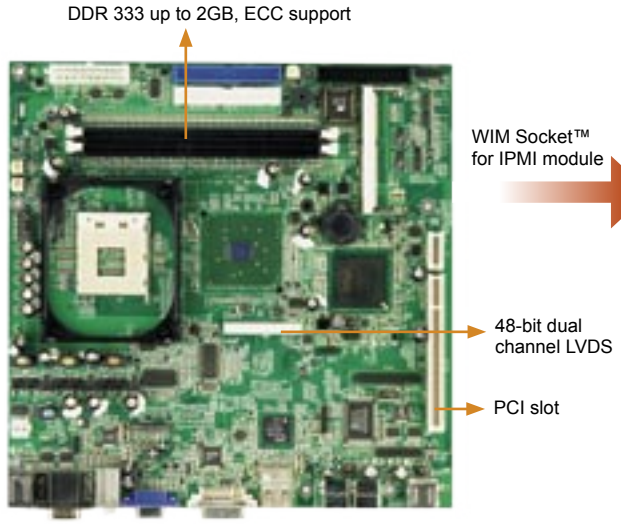
Ordering Information

- **ICPMB-7660GN-R10**
  ATX MB socket 478 Pentium 4/ Pentium 4-M/ Celeron with 400/533MHz FSB with LCD/CRT VGA, GbE, Audio

ICPMB-7760

Embedded ATX MB, Socket 478 533MHz FSB with LCD/CRT VGA, GbE, Audio

The Best POS Platform Solution!!

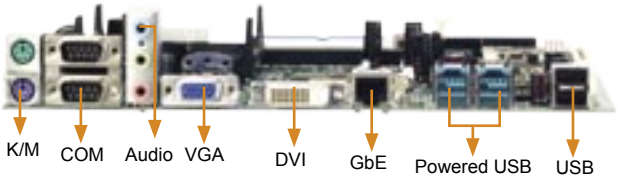


Long Term Supports

Coming Soon

WIM-HT68-01

ICPMB-7760 with IPMI firmware and hardware solutions provide system health monitoring for fan speed(1xCPU fan, 2xSystem fans), voltage and temperature, recovery capabilities, D I/O logging and alerting, identification of failed hardware and it can help IT managers efficiently manage ATM, POS, Automation for remote control.



Feature

- Intel P4 Prescott 533Mhz and Pentium 4-M CPU support
- CRT/LCD integrated in i852GME, support LVDS/DVI interface for Dual display
- 2x DDR 266/333 support up to 2GB
- Support 1xPCI and IPMI Socket
- GbE, USB2.0, Multi-COM, Audio

Specifications

CPU	Socket 478 for Intel Pentium 4/ Pentium 4-M/ Celeron with 400/ 533MHz FSB
System Chipset	Intel 852GME + ICH4
System Memory	2x DDR266/333 SDRAM DIMM support up to 2GB ECC support
Display	Display controller Intel GMCH Integrated Graphics controller Integrated AGP 4X 2D/3D engine One VGA port for CRT monitor 1600x1200@8bpp; 1280X1024@16bpp DF14-30F connertor for 48-bit LVDS I/F DVI-I port with Silicon Image Sil164 (Optional) Dual independent displays Shared system memory up to 32MB (DVMT)
Ethernet	Intel 82541ER for 10/100/1000Mbps Ethernet
I/O	2 x ATA-100 IDE port 1 x FDD port supports 1.44/2.88MB and 3-mode floppy drive 1 x LPT (Supports SPP/EPP/ECP mode) 2 x PS2 Keyboard/Mouse support 3 x RS-232 Serial port 1 x RS-232/422/485 selectable 6 x USB 2.0 port (4 by connector, 2 x power USB with 12VDC shared 2.5A) 1 x IrDA by pin header (SIR mode)
Audio	AC'97 codec
Digital I/O	4 inputs / 4 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	1x PCI slot 1x Em-ATX riser card connector 1x WIM IPMI Socket
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

Ordering Information

- **ICPMB-7760GN-R10**
  Embedded ATX MB socket 478 Pentium 4/ Pentium 4-M/ Celeron with 400/ 533MHz FSB with LCD/CRT VGA, GbE, IPMI Socket, Audio

IEI Option

- **WIM-HT68-01** Wellsyn IPMI module Hitachi H2168 BMC
- **CF-514** High performance Skiving Pentium® 4 CPU cooler

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FSB 533 DDR 333 Powered USB Dual Display Prescott Ready USB Gigabit Ethernet

Tech Talk

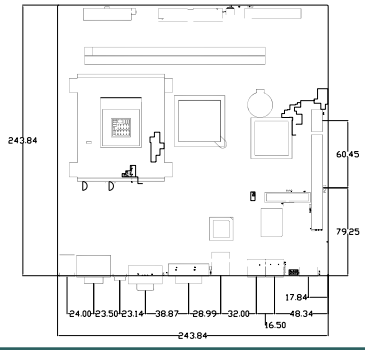
What is Powered USB?

One of the limitations of USB is the amount of +5V current available to supply attached peripherals. Normally, 500mA is available at each host port and each powered external hub port. This amount of current is sufficient for most PC type peripherals like mice and keyboards. When the power requirements exceed the 500mA limitation, external peripherals require the use of an external power supply (brick) to supply the necessary power requirements. This limitation takes away from the true "plug-n-play" idea conceived for USB peripherals.
PoweredUSB provides a single cable connection that supplies both the standard USB communication signals and two additional wire pairs for extra power.

Powered USB in Industry

Powered USB is a natural fit for the retail POS (point-of-sale) peripheral market but we also believe that other industries could benefit from this connectivity technology. These industrial controllers almost always have a separate power supply. In the gaming industry, new, high end, joysticks with force feedback mechanisms. In the home, devices like CDROM.

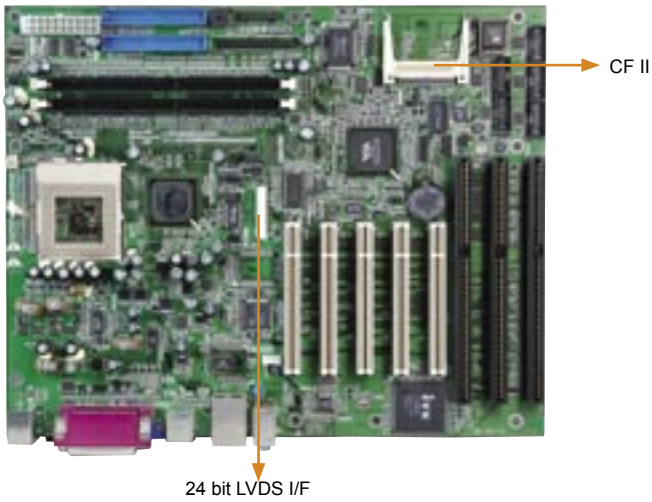
Dimensions

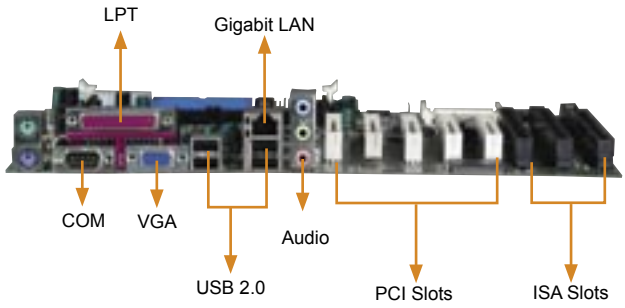


ICPMB-2661

ATX Mother Board, Socket 370 133MHz FSB with LCD/ CRT VGA, Realtek GbE, USB 2.0, 6 COM & Audio

Long Term Supports





Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT/LCD integrated in CLE266, support 24-bit LVDS for Dual display
- 2x DDR 266 support up to 2GB
- Support both PCI and ISA extension slots
- CFII,GbE, USB2.0, 6 COM ports, Audio integrated

Specifications

CPU	Socket-370 support Intel® Tualatin, PIII, Celeron, VIA C3 with FSB 100/133 MHz
System chipset	VIA CLE266 (VT8623 + VT8235)
System Memory	2 x DDR 266/200 SDRAM socket support up to 2GB
Display	Integrated in VT8623 – Bus: AGP 4X / 8X – DF 14-20F connector for LCD 24-bit LVDS I/F
SSD	1x onboard Compact Flash™ Type II socket
Ethernet	On-board 10/100/1000Mbps Realtek RTL8110S Gigabit Ethernet controller
I/O	– 5 x RS-232 (4 by pin header) – 1 x RS-232 / 422 / 485 by pin header – 6 x USB 2.0 (2 by pin header) – 2 x ATA-133 IDE channel – 1 x FDD connector, support 1.44 / 2.88 and 3-mode floppy drive – 1 x LPT parallel port (Supports SPP/EPP/ECP mode) – 2 x PS/2 for Keyboard/Mouse – 1 x IrDA by pin header (SIR mode)
Audio	AC'97 compliant Audio CODEC
Digital I/O	TTL Level, 8 inputs and 8 outputs
WDT	Software programmable supports 1~255 seconds system reset
Expansion slot	4 x PCI slots, 2 x ISA slots, 1 x PCI/ISA slot
Hardware Monitor	Provides CPU Vcore, Vcc, CPU / System fan speed and temperature detecting function
Power Control Function	Meets ACPI 1.1 specification
Power consumption	+12V@0.8A, -12V@0.3A, +5V@5.1A, -5V@0.4A, 5VSB@0.9A , +3.3V@4.9A (PIII 1.26G, DDR 266 1GB)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing
	Shipped with ATX bracket

IEI Option

- **CF-507**
  Socket 370 slim type CPU cooler

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Tech Talk

Benefits of VIA CLE266

A Leading Edge Digital Video Experience

The integrated VIA 2D/3D 128-bit graphics engine with internal AGP 8X possesses every feature required for digital video. Hardware MPEG-2 decoding delivers must have applications like DVD playback and video streaming at an equivalent level to today's multi-gigahertz, discrete graphics PC systems, at a fraction of the cost.

High Speed DDR Memory Subsystem

The integrated graphics engine and Socket-370 processor benefit from the 2.1GB/sec of bandwidth available from the DDR memory subsystem ensuring system performance is maximized across the whole spectrum of applications.

Designed for Fanless, Low Power Solutions

The CLE266 has been designed from the ground up to minimize power usage and heat dissipation. The low transistor count in the graphics core and low voltage DDR memory enable passive cooling solutions, while the CLE266 is fully compatible with the latest mobile power management specifications.

Market Leading South Bridge Technology

The VT8235 South Bridge possesses a complete suite of the very latest I/O and communication technologies including USB2.0 enabling peripheral connectivity 40 times faster than in previous generation systems and ATA-133, the fastest IDE interface currently available.

Ordering Information

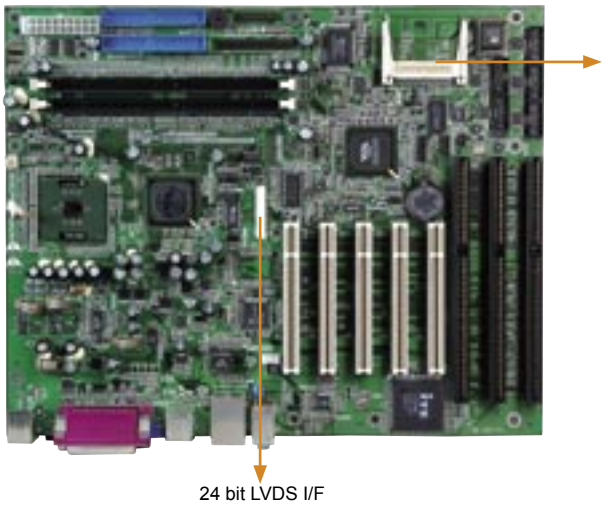
- **ICPMB-2661GR**
  ATX Mother Board, Socket 370 133MHz FSB with LCD/ CRT VGA, Realtek GbE, USB 2.0, 6 COM & Audio

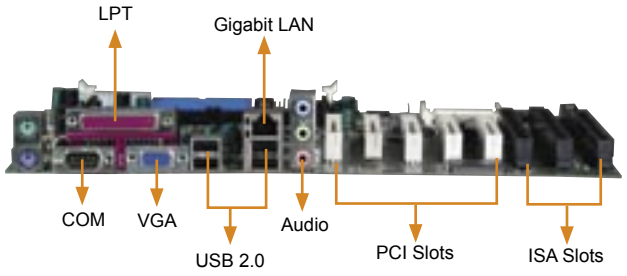
Note:
For Intel GbE support please contact supplier

ICPMB-2660

ATX Mother Board, ULV Intel Celeron 400MHz with LCD/ CRT VGA, Realtek GbE, USB 2.0, 6 COM & Audio

Long Term Supports





DDR 266 | USB | Gigabit Ethernet | Intel Inside Celeron | Fanless | Dual Display | 6 COM

Feature

- ULV Intel Celeron 400 MHz CPU for Fanless system support
- CRT/LCD integrated in CLE266, support 24-bit LVDS for Dual display
- 2x DDR 266 support up to 2GB
- Support both PCI and ISA extension slots
- CFII,GbE, USB2.0, 6 COM ports, Audio integrated

Specifications

CPU	Ultra Low Voltage Intel® Celeron 400MHz
System chipset	VIA CLE266 (VT8623 + VT8235)
System Memory	2 x DDR 266 SDRAM socket support up to 2GB
Display	Integrated in VT8623 – Bus: AGP 4X / 8X – DF 14-20F connector for LCD 24-bit LVDS I/F
SSD	1x onboard Compact FlashTM Type II socket
Ethernet	On-board 10/100/1000Mbps Realtek RTL8110S Gigabit Ethernet controller
I/O	– 5 x RS-232 (4 by pin header) – 1 x RS-232 / 422 / 485 by pin header – 6 x USB 2.0 (2 by pin header) – 2 x ATA-133 IDE channel – 1 x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive – 1 x LPT parallel port (Supports SPP/EPP/ECP mode) – 2 x PS/2 for Keyboard/Mouse – 1 x IrDA by pin header (SIR mode)
Audio	AC'97 compliant Audio CODEC
Digital I/O	TTL Level, 8 inputs and 8 outputs
WDT	Software programmable supports 1~255 seconds system reset
Expansion slot	4 x PCI slot, 2 x ISA slot, 1 x PCI/ISA slot
Hardware Monitor	Provides CPU Vcore, Vcc, CPU / System fan speed and temperature detecting function
Power Control Function	Meets ACPI 1.1 specification
Power consumption	+12V@0.8A, -12V@0.3A, +5V@3.0A, -5V@0.4A, 5VSB@0.8A , +3.3V@4.8A (ULV Intel celeron 400 MHz, DDR 266 1GB)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing

Tech Talk

VIA CLE266 Chipset Introduction

The VIA CLE266 chipset is the product of a new vision, blending the power of VIA DDR Chipset technology with the features required for a complete range of digital video functions. These include MPEG-2 decoding and video scaling for high quality DVD acceleration and an integrated 128-bit 2D and 64-bit 3D graphics engine with internal AGP 8X and Alpha Blending for multimedia and gaming applications. Supplied with 2.1GB per second of bandwidth from the ultra-fast DDR memory subsystem, the VIA CLE266 enables real world performance in key applications like video streaming or DVD playback that equals that of the most powerful PC systems in production today, while operating as part of a fanless power efficient, low cost device. In addition the CLE266 supports CRT, LCD or TV dual display technology, two Video Capture ports and Picture in Picture functionality for multi-channel capability.

The VIA CLE266 North Bridge is connected to the very latest in South Bridge technology, the VT8235 through a 4X V-Link connection to the North Bridge transferring data at 266MB/s, twice the speed of the conventional PCI bus. This enables CLE266 based systems and devices to take advantage of the integrated support for 6 USB 2.0 ports with 40 times more bandwidth than USB 1.1, as well as ATA-133, the fastest available IDE interface. Additional features include integrated VIA MAC for 10/100Mbps Ethernet, integrated PCI support, 6 Channel Surround Sound AC-97 audio interface and MC-97 modem.

Ordering Information

- **ICPMB-2660GR**
  ATX Mother Board, ULV Intel Celeron 400MHz with LCD/ CRT VGA, Realtek GbE, USB 2.0, 6 COM & Audio

Note:
For ULV Intel Celeron 650MHz / LV P III 800MHz CPU / Intel GbE support, please contact supplier

POS Product Selection Guide

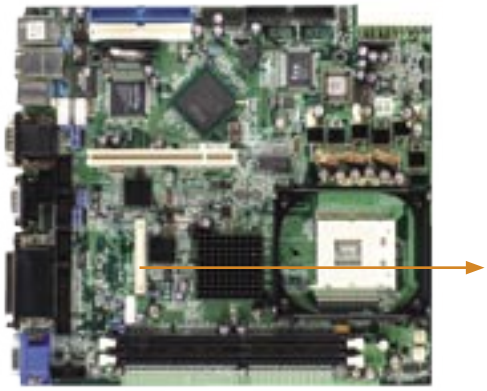


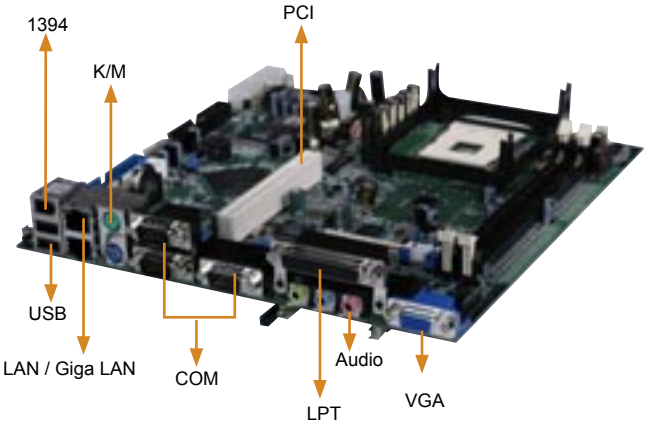

Model Name	POS-478	POS-380	POS-370	POS-EDEN-400
CPU Socket	Socket-478	Socket-370		On Board CPU
CPU Type	Intel P4/Celeron with HT Technology	Intel Coppermine / Tualatin series P3/Celeron	Intel Coppermine / Tualatin series P3/Celeron	VIA EDEN 400MHz
FSB	400/533 MHz	66/100/133 MHz	66/100/133 MHz	66/100/133 MHz
Chipset	Intel 845 GV + ICH4	VIA CLE266(VT8623+8235)	SiS630ST	VIA VT8606T + VT82C686B
Memory	Dual DDR 266/333 upto 2GB SDRAM	Dual DDR 200/266 upto 2GB SDRAM	Dual DIMM upto 1GB SDRAM	One DIMM upto 512MB SDRAM + Onboard 64MB SDRAM
Graphic	Integrate i845GV NS DS90C2501 LCD controller dual channel LVDS interface	Integrated CLE266 single channel 24-bit TTL/LVDS LCD interface DB-15 VGA TV-Out(optional)	Integrate SiS630ST 50/44-pin 24-bit LCD	Integrate ProSavage 24-bit TTL/LVDS LCD DB-15 VGA TV output
Ethernet	One 10/100 Mbps Ethernet and One GbE	One 10/100 Mbps Ethernet(R) or One GbE(G)	One 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet
I/O Interface	3 x RS-232 1 x RS-232/422/485 2 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA 2 x IEEE-1394a 8 x Digital I/O channel	5 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA 8 x Digital I/O channel	3 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 2 x LPT(SPP/EPP/ECP) 5 x USB 1.1 1 x IrDA 8 x Digital I/O channel	3 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 2 x LPT(SPP/EPP/ECP) 4 x USB 1.1 1 x IrDA 8 x Digital I/O channel
Drive Interface	Dual IDE ATA-100 Dual SATA(Optional) 1 x FDD	Dual IDE ATA-133 1 x FDD	Dual IDE ATA-100 1 x FDD	Dual IDE ATA-100 1 x FDD
Audio	AC'97 CODEC			
SSD	CF Type II Socket	CF Type II Socket	CF Type II Socket	CF Type II Socket
Expansion slot	1 x PCI	1 x PCI	1 x PCI	1 x PCISA
Power Consumption	+12V@6.9A, +5V@0.9A 3.3V@5.2A, -12V@0.2A, 5VSB@0.5A (P4 2.4GHz, 1GB DDR333 SDRAM)	+12V@0.26A -12V@0.1A, +5V@8.1A 5VSB@0.35A(P3 1GHz , 256MB DDR266 SDRAM)	+12V@0.17A, +5V@6A -12V@0.6A (P3 500MHz, 128MB SDRAM)	+12V@0.26A, -12V@0.11A +5V@2.3A, 5VSB@0.15A (128MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset			
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function			
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing			
Recommand Fancooler	CF-514	CF-504	CF-504	On Board

POS-478

POS Board, Socket 478 533MHz FSB with LCD/ CRT VGA, LAN, GbE, S-ATA, 1394, USB 2.0, 4 COM & Audio

Celeron D Version coming soon !!





Feature

- Intel P4 CPU with HT support upto FSB 533MHz
- ** Celeron D support.coming soon
- CRT/LCD integrated in i845GV, support 48-bit LVDS
- 2x DDR 266/333 support up to 2GB
- Support 1x PCI expansion slot
- CFII, LAN, USB2.0, Multi-COM, Audio, IEEE1394 integrated

Specifications

CPU	Socket-478 base support Intel Pentium 4/ Celeron up to 533MHz FSB
System Chipset	Intel 845GV + ICH4(support Hyper-Threading P4)
System Memory	2 x DDR 266/333 SDRAM socket support up to 2GB
Display	VGA chip: Integrated in 845GV chipset – LCD controller: NS DS90C2501 supports up to 1400x1050 resolution, LVDS 24/48-bit TFT LCD – V-RAM: shared with system memory (DVMT technology) – CRT Resolution: Supports up to 2048x1536 36-bit color display – Connector: DF14-30F for 48-bit Dual channel LVDS, DB-15 and 2x5 box header for CRT display
SSD	One Compact Flash type II socket
Ethernet	– 1 x onboard 10/100Mbps Ethernet – 1 x 10/100/1000Mbps Ethernet (Intel 82540)
Audio	AC '97 Codec, 6W Amplify (supports line-in, line-out, mic-in and speak-out)
I/O	– 3 x RS232 serial port – 1 x RS232/RS422/485 selectable port – 1 x IrDA – 2 x LPT parallel ports – 6 x USB 2.0 ports – 2 x ATA-100 IDE channel – 2 x Serial-ATA(Silicon Image SIL3112), equipped with 2 Serial-ATA cables support RAID 0 (Striping) and RAID 1 (Mirroring) with Silicon Image Medley-software RAID. (optional) – 1 x FDD port
IEEE-1394	2 x IEEE-1394a 400Mbps ports (TI TSB43AA22)
Digital I/O	TTL Level, 4 x inputs and 4 x outputs
Extension Slot	1 x 32-bit PCI slot
WDT	Software programmable supports 1~255 sec system reset
	Support ATX function
Power Consumption	+5V@0.9A, +12V@6.9A, 3.3V@5.2A, -12V@0.2A, 5VSB@0.5A (P4 2.4GHz /1GB DDR266 SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

IEI Option

- **CF-514**
  High performance Skiving Pentium® 4 CPU cooler

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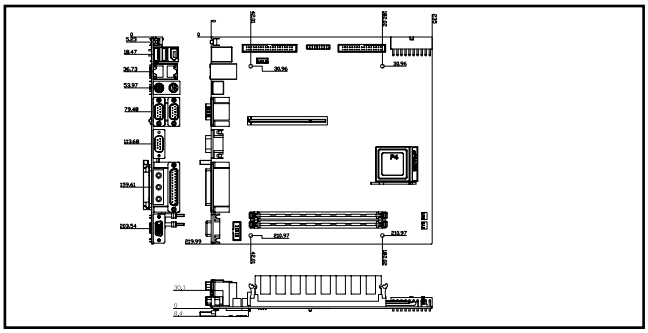
Tech Talk

Available Power Supply Suggestion			
Model Name	Max +12V	Max +5V	Input
ACE-940AP	15A	40A	AC AT
ACE-828A	10A	25A	AC ATX
ACE-832A/AP/AP-S	15A	30A	AC ATX
ACE-840A	15A	40A	AC ATX
ACE-841AP-S	20A	33A	AC ATX
ACE-850AP	36A	29A	AC ATX
ACE-925P	10A	25A	48V DC AT
ACE-916A	10A	15A	AC AT
ACE-816A	12A	15A	AC ATX
ACE-830VU1	10A	15A	12V DC ATX
ACE-830CU1/TU1	22A	25A	24/48V DC ATX
ACE-818APM	12A	12A	AC ATX
ACE-728APM	10A	28A	AC ATX
ACE-828M	10A	25A	AC ATX
ACE-930AP(230V)	12A	30A	AC AT
ACE-C232	12A	25A	AC AT
ACE-R30A/30AP(230V)	15A	35A	AC ATX

Dimensions



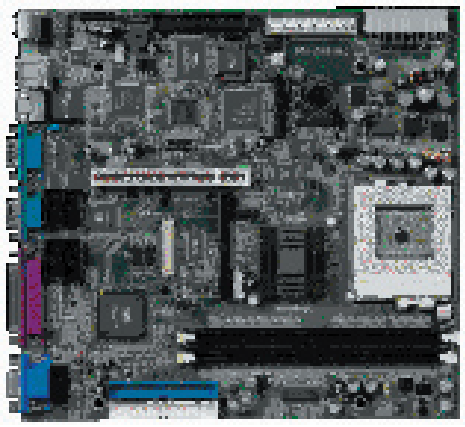
Ordering Information

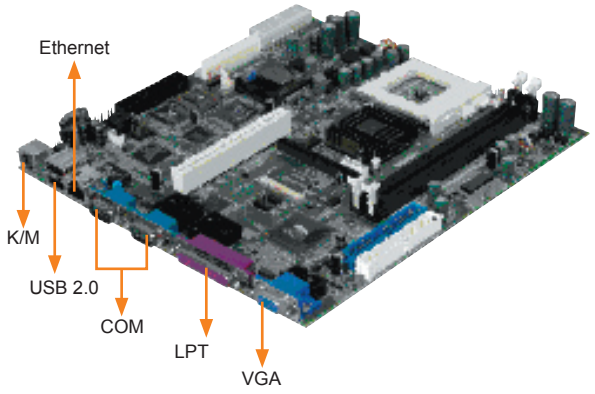
- **POS-478S**
  POS Board, Socket 478 533MHz FSB with LCD/ CRT VGA, LAN, GbE, S-ATA, 1394, USB 2.0 & Audio
- **POS-478**
  POS Board, Socket 478 533MHz FSB with LCD/ CRT VGA, LAN, GbE, 1394, USB 2.0 & Audio
- **POS-478E**
  POS Board, Socket 478 533MHz FSB with LCD/ CRT VGA, LAN, USB 2.0 & Audio

POS-380

POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, LAN, USB 2.0, 6 COM & Audio

New Generation of POS Solution!!





DDR266 | Universal Socket-370 | SERIAL ATA | AUTO Realtek 5.1-channel | 6 COM | Tualatin Supports | Dual Display

Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT/LCD integrated in VIA CLE266 support 24-bit TTL/LVDS, support dual independent display
- 2x DDR 266 support up to 2GB
- support 1x PCI expansion slot
- CFII, LAN, USB2.0, 6 COM ports, Audio integrated

Specifications

CPU	Socket-370 base supports up VIA C3, Intel® Tualutin Pentium® III/Celeron™ up to 133MHz FSB
System chipset	VIA CLE266 (VT8623+8235)
System memory	2 x DDR 200/266 SDRAM socket support up to 2GB
VGA Display	Integrated in VT8623 – Resolution: 1920x1440 for CRT display with DB15 and 2x5 box header – DF 14-20F connector for Supports single channel 24-bit TTL / LVDS LCD interface, support dual independent display
SSD	1 x Compact Flash™ Type II socket
Ethernet	– 1 x 10/100Mbps Realtek 8100BL Ethernet Controller (POS-380R)
Audio	AC'97 Codec (Realtek 5.1-channel)
I/O	– 5 x RS-232 (3 by pin header) – 1 x RS-232/422/485 selectable – 1 x LPT supports SPP/EPP/ECP mode – 6 x USB 2.0 (2 x USB connectors, others by 2 x 4 pin-header) – 1 x PS/2 for Keyboard/Mouse – 2 x IDE ATA 66/100/133 (40-pin with 2.54mm pitch) – 1 x Floppy (34-pin with 2.54mm pitch) – 1 x IrDA
Digital I/O	TTL Level, 4 x inputs and 4 x outputs
Extension Slot	1 x 32-bit PCI slot
WDT	Software programmable supports 1 ~ 255 sec, system reset
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Consumption	+5V@8.1A, +5VSB@0.35A (STR), -12V@0.1A, +12V@0.26A (PIII 1GHz , 133MHz FSB 256MB DDR266)
Power Connector	AT & ATX
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

IEI Option

- **FP24-02-V10**: 3.3V Buffered LCD connection board
- **CF-504:** Socket-370 CPU Cooler

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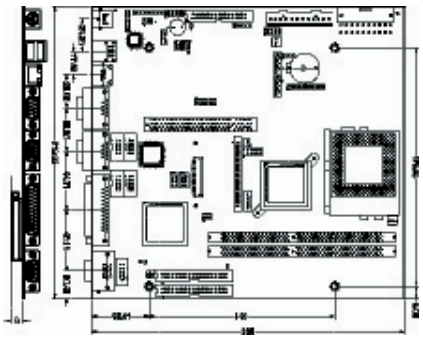
What benefits of POS-380

IEI's new generation of POS (Point of Sales) series product line in POS-380 is designed by VIA CLE266 solution within multi-function, low power consumption and cost effective features. It is design with universal Socket-370 CPU form factor to support most of VIA C3, Intel® Celeron™ and Pentium® III series CPU type. In the POS series market, usually, it has multi peripheral communication requirements such as, Scanner, Card reader and Goods perceptron. To be able to meet the next generation demand of POS market, iEi's POS-380 had been concerned the future requirements and design in totally six serial communication ports within USB2.0 and IEEE-1394 high speed transmission interface. It is capable to enhance the support ability in the near future and focused on popular peripheral applications. Moreover, following with the new demand on data displaying, POS-380 has also implemented DVI and TV-Out functions to be able to support various display type. On the other hand, the most new hard disk transmission interface Serial-ATA can be increase the storage performance by sending the data through out optional GbE LAN to remote server.

Dimensions



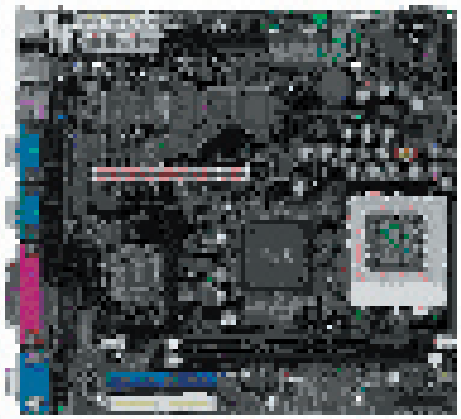
Ordering Information

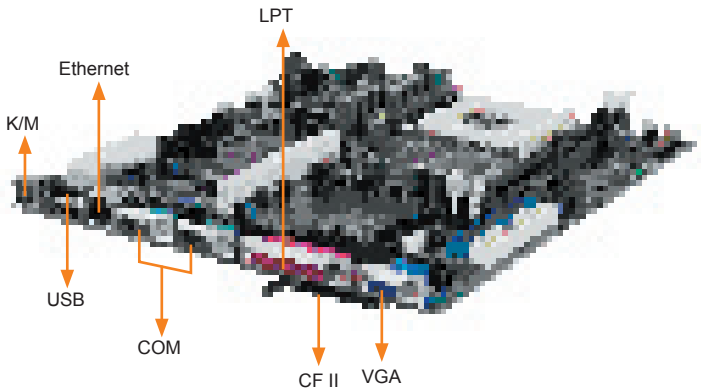
- **POS-380R**
  POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, LAN, USB 2.0, 6 COM & Audio

Note:
For TV-out / IEEE-1394a / Serial-ATA / Intel LAN supporting demand, please contact supplier.

POS-370

POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, LAN & Audio





Dual View

Tualatin Supports

Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT/LCD integrated in SiS630ST, support 24-bit TTL/LVDS
- 2x PC133 SDRAM support up to 1GB
- support 1x PCI expansion slot
- CFII, LAN, USB,Multi-COM, Audio integrated

Specifications

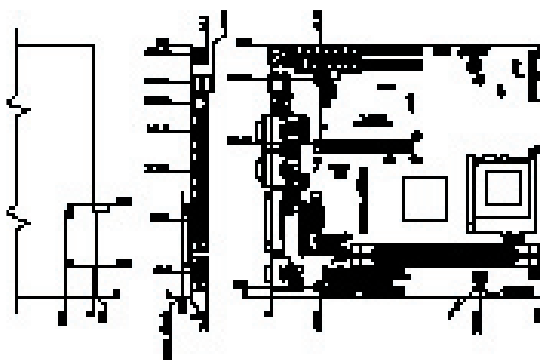
CPU	Socket-370 base supports Tualatin Celeron / Pentium III up to 133MHz FSB
System Chipset	SiS 630ST
System Memory	Two 168-pin DIMM sockets up to 1GB SDRAM
Display	– Chip : Embedded in SiS 630ST chipset – Bus : Internal AGP – V-RAM : Share with system memory, setting in BIOS up to 64MB – Resolution : 1600 x 1200 (16-bit colors) for CRT display – Connectors : DB-15 and 2x5 box hearder for CRT display – 50-pin pin-header for 24-bit LCD panel – 44-pin pin-header for 24-bit LCD panel (With FP24-02V10 board) – Supports dual-view function – Optional one channel LVDS module – Support 3.3V or LCD panel
Ethernet	10/100Mbps Ethernet controller on board (Intel 82559/Realtek RTL-8100)
SSD	One Compact Flash™ Type II socket
Audio	AC'97 compliant Audio CODEC with 6W x 2 amplifier
I/O	– 3 x RS-232 ports – 1 x RS-232/422/485 selectable port – 2 x parallel ports (support SPP/EPP/ECP mode) – 5 x USB 1.1 – 1 x IrDA – 1 x FDD – 2 x ATA-100 IDE channel Supports chassis intrusion detection
Isolated Digital I/O	– Digital Input : 4 channels – Digital output : 4 channels – Isolated channel with common power
Extension Slot	One PCI bus for add-on cards
WDT	Software programmable, support 1~ 255 sec. system reset
Power Connector	AT (P8/P9) and ATX
Power Consumption	+5V@6A, +12V@170mA, -12V@60mA(Pentium III 500MHz CPU and 128MB SDRAM)
Operating Temperature	0 ~60°C (CPU need cooler)
Relative Humidity	5~95%, non-condensing
GW	900g

IEI Option

- **FP24-02-V10** 3.3V Buffered LCD connection board
- **LVDS-01-R7** One channel LVDS module, 18-bit Work with NEC 15"NL1027BC30-04F LCD Panel,...etc.
- **CF-504** Socket-370 CPU Cooler

page 5-5

Dimensions



EB-4800

Embedded Chassis for POS-370/566

Specifications

- Equipped with ACE-916A PSU
- Optional ACE-816/916 series PSU
- Support two 2.5" drive bay
- One cooling fan
- Dimension: 380(W)x60.2(H)x280(D)mm

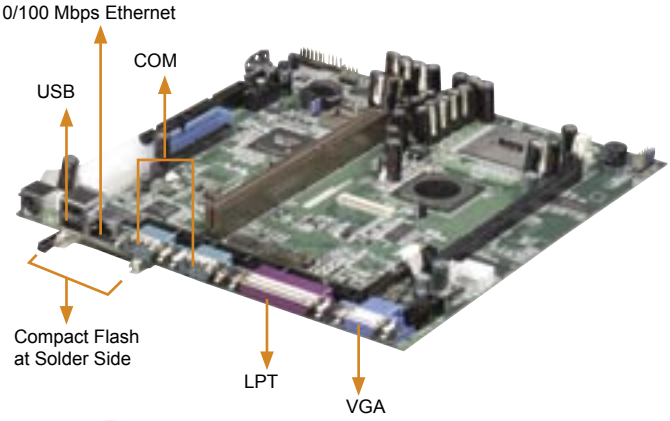
Ordering Information

- **POS-370N**
  POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, Intel LAN & Audio
- **POS-370R**
  POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, Realtek LAN & Audio

POS-EDEN-400

POS Board, VIA EDEN 400MHz CPU with LCD/ CRT VGA, LAN & Audio

Low Power Consumption & Fanless Solution



Fanless **Optional (On Board 64 MB SDRAM)** 400 MHz

Feature

- Embedded VIA Eden 400Mhz CPU for Fanless system support
- CRT/LCD integrated in VIA 8606 support 36-bit LVDS,TV-Out
- 1x PC133 SDRAM support up to 512MB
- Support 1x PCISA extenson slot(PCI+ISA)
- CFII, LAN, USB,Multi-COM, Audio integrated

Specifications

CPU	Embedded lower power consumption VIA Eden 400MHz CPU
System Chipset	VIA VT8606T(PN133T) + VT82C686B
System Memory	1 x DIMM slot + optional on board 64MB SDRAM support up to 512 MB
Display	– On-chip ProSavage VGA controller – Bus: AGP 4x, 66MHz – V-RAM: Share with system memory up to 32MB(SMA technology) – Resolution: Up to 1600X1200 (UXGA) – Connector:DB-15 and 2x5 box header for CRT display – DF 14-20F connector for 36-bit LVDS
SSD	1X Compact Flash™ Type II socket
Ethernet	1 x 10/100Mbps Realtek RTL8100BL Fast Ethernet Controller
Audio	AC'97 (VIA 1612A) with 0.25W amplifern
I/O	– VT82C686B + Winbond 83877 – 3x RS-232 port – 1x RS-232/422/485 ports – 2x Parallel port – 4x USB 1.1 – 1x IrDA (SIR Mode) – 1x FDD – 2x ATA-100 IDE channel (40-pin/44-pin header) – 1x PS/2 Keyboard/Mouse
Digital I/O	4 x Input and 4 x Output
Expansion slot	1 x PCISA (PCI+ISA)
WDT	Software programmable supports 1~255 sec. system reset
Power Consumption	+5V@2.3A, +12V@260mA,-12V@110mA,+5VSB@150mA (Eden 400MHz; CPU/128MB SDRAM; IBM 30GB HDD)
Operating Temperature	0~60ºC (CPU cooler required)
Relative Humidity	5~95%, non-condensing

Ordering Information

- **POS-EDEN-400**
  POS Board, VIA EDEN 400MHz CPU with LCD/ CRT VGA, LAN & Audio
- **POS-EDEN-400-64MB**
  POS Board, VIA EDEN 400MHz CPU with 64M DRAM, LCD/ CRT VGA, LAN & Audio

Tech Talk

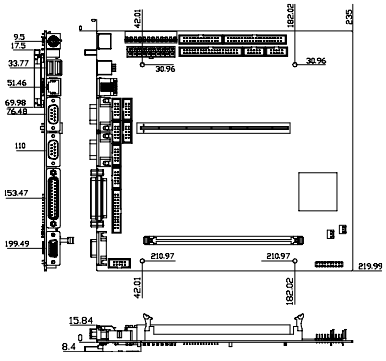
Why VIA Eden CPU and ProSavage™ PN133T chipset?

The VIA Eden™ Platform is a low power, high performance, and highly integrated x86 platform that provides the most flexible, compatible, and cost-effective solution for building the emerging new generation of connected digital information & entertainment devices. It combines a proven ultra low power sixth generation processor core with a choice of a highly integrated North Bridge and South Bridge chips, as well as a broad spectrum of expansion options for enhanced communications, connectivity, and multimedia functions.

The VIA ProSavage™ PN133T integrated mobile graphics chipset combines the rich 2D/3D graphics capabilities of the proven Savage4™ graphics core with advanced North Bridge features such as a 133MHz Front Side Bus and 133MHz SDRAM support. This delivers unrivaled performance and flexibility in an affordable, highly integrated laptop chipset. With its low power characteristics and highly integrated nature, the VIA ProSavage PN133T is ideally suited for the thin, light and ultra small mobile sectors, and its low cost points also make it appropriate for entry level and mainstream systems.

Bringing all the accepted SMA features to the laptop market, including extremely low power consumption, effective heat dissipation, space saving single chip design and full ACPI compliance enables OEMs and System Integrators to reduce the cost of building smaller, thinner laptops without sacrificing features and performance.

Dimensions



5.25” NOVA Embedded Board Selection Guide

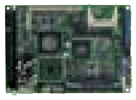
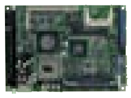






Model Name	NOVA-7170EG/E2-600	NOVA-7171EG	NOVA-8890M / MSFG	NOVA-7898	NOVA-7895(N)(R)(FW), NOVA-7896(N)(R)(FW)	NOVA-7894R/N	NOVA-7830
CPU Socket	Socket-479 / On Board CPU	Socket-479 / Onboard	Socket-478	Socket-370			
CPU Type	Intel Pentium M / Celeron M 600MHz	Intel Pentium M / Celeron M 600MHz	Intel P4 / Celeron 400 / 533 MHz support HT Technology	Intel Coppermine / Tualatin series P3 / Celeron / Socket-370 base series FSB 66 / 100 / 133 MHz			
Chipset	Intel 852GME + ICH 4	Intel 852GME + ICH 4	Intel 845 GV + ICH4	Intel 815E + ICH 2	SiS630ST	VIA CLE 266 + VT8235	Intel 815E + ICH 2
Memory	DDR 266 / 333 SDRAM up to 2GB	DDR 266 / 333 SDRAM up to 2GB	DDR 266 / 333 SDRAM upto 1GB	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 512MB	DDR 200 / 266 SDRAM upto 1GB	PC100 / 133 SDRAM upto 512MB
Graphic	Integrated with Intel 852GME, 48-bit LVDS interface, optional 2nd LVDS / DVI interface	Integrated with Intel 852GME, 48-bit LVDS / TTL LCD interface, optional 2nd LVDS / DVI interface	Integrated in i845GV and NS DS90C2501 LCD controller , dual channel LVDS interface	815E integrated	SiS630ST integrated 50-pin 24-bit LCD interface and VGA	Integrated in CLE 266	Smartasic SP1015 LCD controller, 50-pin 36 bit LCD I/F, VGA
Ethernet	Dual 10/100Mbps Ethernet (NOVA-7170E2-600)or 10/100 Mbps, GbE (NOVA-7170EG)	Dual 10/100Mbps Ethernet (NOVA-7171E2-600)or 10/100 Mbps, GbE (NOVA-7171EG)	One 10/100 Mbps Ethernet and 10/100 Mbps, GbE(MSFG)	Dual 10/100 Mbps Ethernet on board and optional LAN module up to six LAN	Dual 10/100 Mbps Ethernet	Four 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet
I/O Interface	3 x RS-232 1 x RS232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA 4x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA 4x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4 x USB 2.0 1 x IrDA 2 x IEEE-1394a (MSFG)	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	3 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA 2 x IEEE-1394a(FW)	3 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 6 x USB 2.0 1 x IrDA	3 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA 2 x IEEE-1394a Video-in Multiplexer
Drive Interface	2 x IDE ATA-100 / 66 / 33 1 x FDD	2 x IDE ATA-100 / 66 / 33 1 x FDD	2 x IDE ATA-100/ 66/33 2 x SATA (MSFG) 1 x FDD	2 x IDE ATA-100/ 66/33 1 x FDD	1 x IDE ATA-100/ 66/33 2 x IDE ATA-100/ 66/33 (-NCF version only) 1 x FDD	2 x IDE ATA-133/100 1 x FDD	1 x IDE ATA-100/66/33 1 x FDD
Audio	AC ‘97 CODEC	AC ‘97 CODEC	AC’97 CODEC	N/A	AC’97 CODEC	AC’97 CODEC	C-Media 5.1 channels
SSD	CF Type II	CF Type II	CF Type II	N/A	CF Type II	CF Type II	CF Type II
Power Consumption	TBD	TBD	+12V@4.85A, +5V@4.2A (P4 2.4GHz , DDR 266 512MB SDRAM) +12V@4A, +5V@3.9A (P4-M 2.4GHz , DDR266 512MB SDRAM)	+12V@0.2A, -12V@0.02A, +5V@9A, +3.3V@3.1A (P3 933MHz, 256MB SDRAM)	+12V@0.3A, +5V@7.5A (P3 1.4GHz, 256MB SDRAM)	+12V@0.3A, +5V@6.1A (P3 1.2GHz, DDR 266 512MB SDRAM)	+12V@0.076A, +5V@5A (P3 550MHz, 512MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset						Software Programmable 1-220 sec system reset
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function						
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing						
Expansion slot	1 x PCI 1 x mini-PCI socket	1 x PCI 1 x IPMI socket	1 x PC/104+	1 x PCI 2 x Socket-PCI	1 x PCI 1 x PC/104+ (NOVA-7895) 1 x PC/104 (NOVA-7896)	1 x PCI	1 x PCI 1 x Card Bus I/F for PCMCIA module
Recommand Fancooler	CF-518	CF-518	CF-512 upto 2.5GHz CF-513 upto 3.06GHz	CF-504	CF-504	CF-504	CF-504

5.25" NOVA Embedded Board Selection Guide

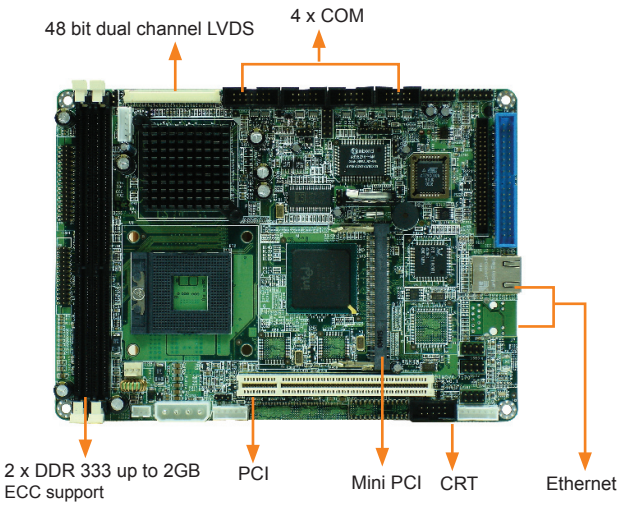



Model Name	NOVA-7820-E400	NOVA-C400	NOVA-EDEN-733N/ R	NOVA-4899N/R	NOVA-4898N/ R-300	NOVA-600-R2	NOVA-300-M4	ISS-102-300-R2
CPU Socket	**On Board CPU**					**Socket-7**	**On Board CPU**	On Board CPU
CPU Type	VIA EDEN 400	ULV Intel Celeron 400 MHz	VIA EDEN 733MHz	AMD Geode GX1 300MHz	AMD Geode GX1 300MHz	Intel Pentium AMD K6/K6-2/K6-3 IDT WinChip socket 7 series FSB 66 MHz	386SX-40	AMD Geode GX1 300MHz
Chipset	Intel 815E + ICH 2	VIA VT8606T + VT82C686B	VIA VT8606T + VT82C686B	AMD Geode GX1 + CS5530A	AMD Geode GX1 + CS5530A	ALi Aladdin 4+	ALi M6117C	AMD Geode GX1 + CS5530A
Memory	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 512MB	PC100 / 133 SDRAM upto 128MB	SIMM socket upto 16MB EDO RAM, on-board 2M(NOVA-300-2M) / 4M(NOVA-300-4M)	PC100/133 SDRAM upto 512MB
Graphic	Smartasic SP1015 LCD controller, 50-pin 36 bit LCD I/F, VGA	50-pin 36-bit LCD DB-15 VGA TV output	50-pin 36-bit LCD DB-15 VGA TV output	CS5530A integrated DB-15 VGA	CS5530A integrated, 50/ 44-pin LCD (with FP24-01A) DB-15 VGA TV-Out	CHIPS 69000 2MB RAM 50/44-pin LCD (with FP24-01A) DB-15 VGA	HM86508, 1MB RAM, 44-pin LCD DB-15 VGA	CS5530A integrated, 44pin LCD, DB-15 VGA
Ethernet	One 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet	Three 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet	One 10 / 100 Mbps Ethernet	N/A	Three 10/100 Mbps Ethernet
I/O Interface	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 2 x USB 1.1 1 x IrDA 2 x IEEE-1394a Video-in Multiplexer	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 4 x USB 2.0 2 x USB 1.1 1 x IrDA 4 x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 4 x USB 2.0 2 x USB 1.1 1 x IrDA 4 x Digital I/O inputs and outputs, TTL	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 2 x USB 1.1 1 x IrDA 4 x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 2 x USB 1.1 1 x IrDA 4 x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP) 2 x USB 1.1 1 x IrDA 4 x Digital I/O inputs and outputs, TTL	3 x RS-232 1 x RS-232/422/ 485 1 x PS/2 KB/MS 1 x LPT(SPP/ EPP/ECP)	1x RS232 2x PS/2 KB/MS 1x LPT(SPP/ EPP/ECP) 2x USB1.1 4x Digital I/O inputs and outputs, TTL
Drive Interface	1 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-33 1 x FDD	2 x IDE ATA-33 1 x FDD	2 x IDE ATA-33 1 x FDD	1 x IDE PIO-4 1 x FDD	2 x IDE ATA-100 / 66 / 33 1 x FDD
Audio	C-Media 5.1 channels	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	AC'97 CODEC	N/A	N/A	N/A
SSD	CF Type II	CF Type II	CF Type II	CF Type II DiskOnChip	CF Type II DiskOnChip	DiskOnChip	DiskOnChip	CF Type II DiskOnChip IBM, MicroDrive
Power Consumption	+12V@0.22A, +5V@3A (EDEN 400MHz , 256MB SDRAM)	+12V@0.7A, +5V@3A, +5VSB@0.6A (256MB SDRAM)	+12V@0.16A, +5V@3.1A (256MB SDRAM)	+12V@0.1A, +5V@2A (64MB SDRAM)	+12V@0.1A, +5V@2A (32MB SDRAM)	+5V@5.1A (PentiumMMX 233MHz 32MB SDRAM)	+5V@1.6A (PentiumMMX 233MHz 32MB SDRAM)	+12V@100mA (LCD display only) (64MB SDRAM)
Watchdog Timer	Software Programmable 1-220 sec system reset	Software Programmable 1-255 sec system reset						
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function							
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing							
Expansion slot	1 x PCI 1 x Card Bus I/F for PCMCIA module	1 x PCI 1 x PC/104+ 1 x PC/104		1 x PCI	1 x PCI 1 x PC/104	1 x PC/104		
Recommand Fancooler	Onboard Fan or Fanless					CF-502	Onboard Fan or Fanless	Fanless

NOVA-7170

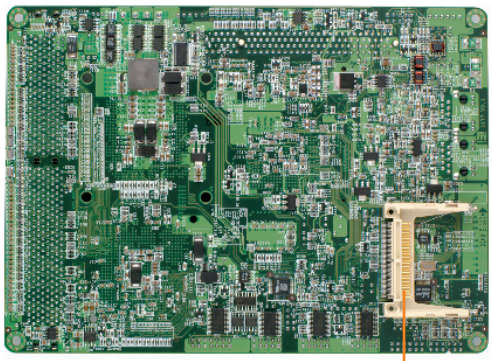
5.25” Intel Pentium M / Celeron M CPU with LCD/ CRT VGA, LAN, USB2.0, Audio

Mini-PCI provide wireless application



Long Term Supports

Coming Soon



Dual Display

Gigabit Ethernet

HI-SPEED USB

Feature

- Intel Pentium M / Celeron M CPU support up to FSB 533 MHz
- CRT/LCD VGA integrated in i852GME, support 48-bit LVDS
- Support independent dual display
- 2x DDR 266/333 support up to 2GB
- Support 1 x PCI and 1 x mini PCI
- CFII, Dual LAN, USB2.0, Multi-COM, Audio integrated

Specifications

CPU	Socket 479 base support Intel Pentium M CPU up to 533MHz FSB (NOVA-7170E) On board ULV Intel Celeron M 600MHz with 512KB L2 Cache (NOVA-7170E-600)
System Chipset	Intel 852GME + ICH4
System Memory	2x DDR266/333 SDRAM socket up to 2GB ECC support
Display	- Display controller Intel GMCH Integrated Graphics controller Integrated AGP 4X 2D/3D engine - One VGA port for CRT monitor 16001200@8bpp;1280X1024@16bpp - DF 14-30F support 48 bit dual chennel LVDS TFT LCD - Second 48-bit LVDS Port (Optional) - DVI interface (Optional) - Dual independent displays - Shared system memory up to 32MB (DVMT)
Ethernet	One Intel 82551ER 10/100Mbs
SSD	1x Compact Flash™ Type II Socket
I/O	2 x IDE port 1 x FDD port 1 x Parallel port (Supports SPP/EPP/ECP mode) 1 x PS2 Keyboard/Mouse support 3 x RS-232 Serial port 1 x RS-232/422/485 selectable 6 x USB 2.0 port 1 x IrDA by pin header (SIR mode)
Audio	AC’97 CODEC
Digital I/O	4 inputs / 4 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Power Consumption	+5V@3.1A, +12V@2.3A, 5VSB@0.8A (Pentium M 1.8G, DDR 333 256MB)
Expansion slot	1x PCI slot and 1x Mini PCI
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

IEI Option

- **CF-518**
  High Performance Pentium-M CPU Cooler

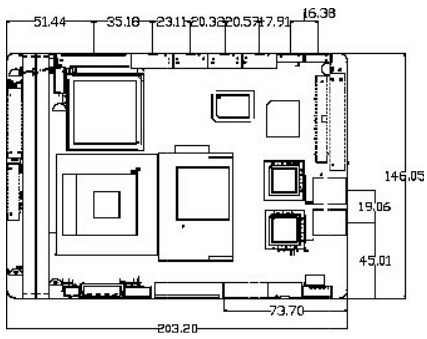
page 5-5

Tech Talk

Mini PCI Introduction

The Mini PCI Specification defines an alternate implementation for small form factor PCI cards referred to in this specification as a Mini PCI Card. This specification establishes a high-performance local-bus standard for small or restricted mechanical environments. The key features and benefits as following
- Upgradeability. Mini PCI Cards are removable and upgradeable with available “new technology” cards.
- Flexibility. A single Mini PCI interface can accommodate various types of communications devices, wireless card, Bluetooth …etc.
- Serviceability. Mini PCI Cards can be removed and easily serviced if they fail.
- Reduced Size. Mini PCI Cards are smaller than PCMCIA cards, Small PCI cards, and typical daughter boards.

Dimensions



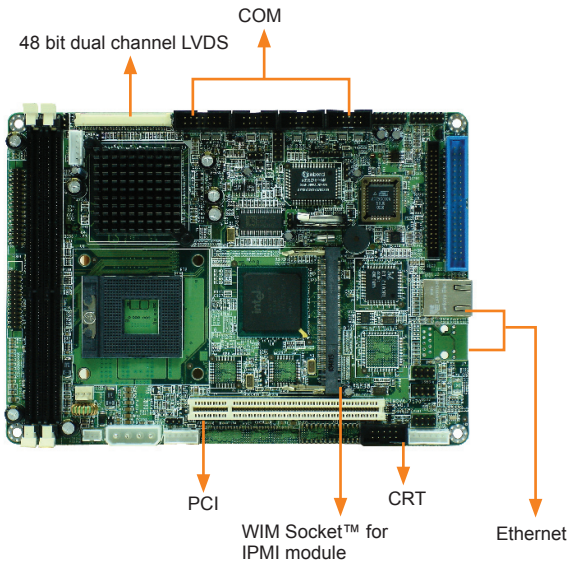
Ordering Information

- **NOVA-7170E-R10**
  5.25” Socket 479 Intel Pentium M 533MHz FSB with LCD/CRT VGA, LAN, USB2.0, Audio
- **NOVA-7170E-600-R10**
  5.25” on board ULV Intel Celeron M CPU with LCD/CRT VGA, Dual LAN, USB2.0, Audio

Note: For DVI and second LVDS/ Dual Lan(Intel 82541PI GbE or Intel 82551 ER 10/100 Mbps) please contact supplier

NOVA-7171

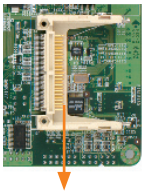
5.25” Intel Pentium M / Celeron M CPU with LCD/ CRT VGA, LAN, USB2.0, IPMI Socket, Audio



Long Term Supports

Coming Soon

Rear side



Gigabit Ethernet

Dual Display

HI-SPEED USB

Feature

- Intel Pentium M / Celeron M CPU support up to FSB 533 MHz
- CRT/LCD VGA integrated in i852GME, support 48-bit LVDS
- Support independent dual display
- 2x DDR 266/333 support up to 2GB
- Support IPMI function
- CFII, Dual LAN, USB2.0, Multi-COM, Audio integrated

Specifications

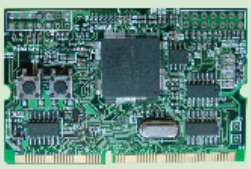
CPU	Socket 479 base support Intel Pentium M CPU up to 400MHz FSB On board ULV Intel Celeron M 600MHz with 512KB L2 Cache (NOVA-7171E2-600)
System Chipset	Intel 852GME + ICH4
System Memory	2x DDR266/333 SDRAM support up to 2GB ECC support
Display	- Display controller Intel GMCH Integrated Graphics controller Integrated AGP 4X 2D/3D engine - One VGA port for CRT monitor 1600x1200@8bpp ; 1280X1024@16bpp - DF 14-30F support 48 bit dual channel LVDS TFT LCD - Second 48-bit LVDS Port (Optional) - DVI interface (Optional) - Dual independent displays - Shared system memory up to 32MB (DVMT)
Ethernet	One Intel 82551QM 10/100Mbps
SSD	1x Compact Flash™ Type II Socket
I/O	2 x IDE port 1 x FDD port 1 x Parallel port (Supports SPP/EPP/ECP mode) 1 x PS2 Keyboard/Mouse support 3 x RS-232 Serial port 1 x RS-232/422/485 selectable 6 x USB 2.0 port 1 x IrDA by pin header (SIR mode)
Audio	AC’97 CODEC
Digital I/O	4 inputs / 4 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	1x PCI slot and 1x IPMI Socket
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

IEI Option

- **WIM-HT68-01** Wellsyn IPMI module Hitachi H2168 BMC
- **CF-518** High Performance Pentium-M CPU Cooler

page 5-5

Tech Talk



WIM-HT68-01

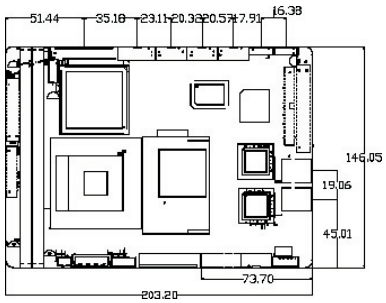
WSIPMI

NOVA-7171 provides IPMI function, support 1xCPU FAN, voltage and temperature recovery capabilities, D I/O logging and alerting, identification of failed hardware.

IPMI Main Features

- IPMI modular design can easily upgrade your system.
- Monitor your system health (fan/ temperature/ voltage/ processor/ disk/ device) with or without OS live.
- Remote control your system in emergency or requirement, like: power on/off, warm reset, reboot, power cycle ... etc.
- Wide range applications including server, KVM, ATM and industrial highly reliable product application.
- IPMI gives system managers access to platform management information and control features, allowing more accurate predictions of hardware failures, diagnostic of hardware problems and the initiation of recovery actions
- Eliminate extra maintenance cost
- IPMI 2.0 compliant (IPMI over LAN, Serial Port and Modem)
- Emergency Management Port by COM & LAN
- Shares LAN controller with mainboard, and uses out-of-band bandwidth.
- Event Log information
  - BIOS event - Hardware Monitor Event - System Event
- Text Console Redirection
  - POST - BIOS Setup - DOS Operation

Dimensions



Ordering Information

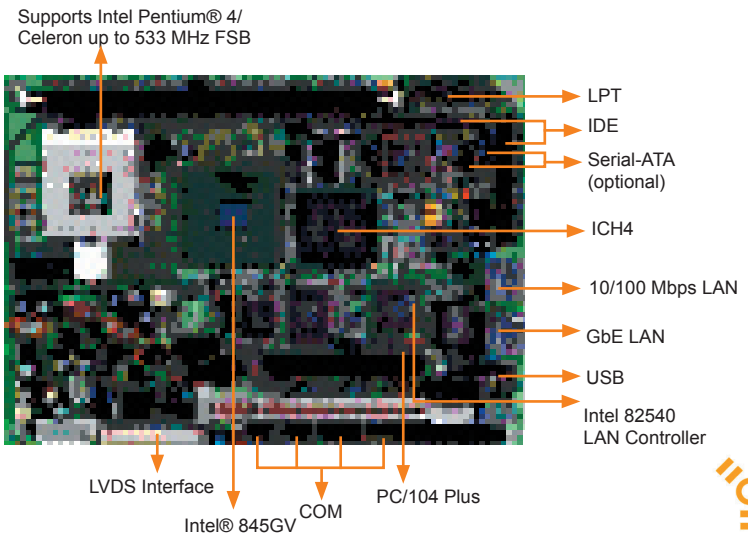
- **NOVA-7171E-R10**
  5.25” Socket 479 Intel Pentium M 533MHz FSB with LCD/CRT VGA, LAN, USB2.0, IPMI Socket, Audio
- **NOVA-7171E-600-R10**
  5.25” ULV Intel Celeron-M CPU with LCD / CRT VGA, LAN, USB 2.0, IPMI socket, Audio

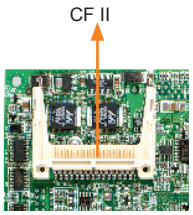
NOVA-8890

5.25" Socket 478 533MHz FSB CPU Board with LCD/ CRT VGA, LAN, GbE, S-ATA, 1394, USB 2.0

Celeron D Version coming soon !!

Long Term Supports





Rear side

FireWire

Specifications

CPU	Socket-478 base support Intel® Pentium 4-M & Pentium® 4/ Celeron up to 533 MHz FSB
System Chipset	Intel 845GV + ICH4 (support Hyper-Threading Technology)
System Memory	1 x DDR 266/333 DDR SDRAM socket up to 1GB
Display	VGA chip: Integrated in 845GV chipset – LCD controller: NS DS90C2501 supports up to 1400x1050 resolution, 24/48-bit TFT LCD – V-RAM: shared with system memory (DVMT technology) – CRT Resolution: Supports up to 2048x1536 36-bit color display – Connector: DF14-30F for 36-bit Dual channel LVDS, DB-15 for CRT display
Ethernet	– 1x10/100 Mbps Ethernet onboard i82562ET(NOVA-8890M) – 1x10/100 Mbps Ethernet onboard i82562ET and 1 x Gigabit Ethernet onboard i82540(NOVA 8890MSFG)
SSD	One Compact Flash Type II socket
IEEE-1394	2 x IEEE-1394a 400Mbps by pin-header (NOVA-8890MSFG)
I/O	– 3 x RS-232 – 1 x RS-232/422/485 selectable port – 4 x USB 2.0 – 1 x LPT – 1 x FDD channel support 1.44/ 2.88MB and 3-mode – 2 x ATA-100 IDE channel (1 x 40-pin, 1 x 44-pin) – 2 x Serial-ATA parallel to serial (NOVA-8890MSFG)
Audio	AC' 97 Codec
Digital I/O	TTL Level, 4 inputs and 4 outputs
WDT	Software programmable support 1~255 second system reset
Expansion slot	1 x PCI slot, 1 x PC104+ (Only PCI)
Hardware monitoring	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function.
Power Consumption	+5V@ 4.2A ; +12V@4.85A (P4 2.4 GHz/ DDR266 512MB SDRAM)+5V@ 3.9A ; +12V@4A (P4-M 2.4 GHz/ DDR266 512MB SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

Ordering Information

- **NOVA-8890M** 5.25" Socket 478 533MHz FSB CPU Board with LCD/ CRT VGA, LAN, USB 2.0
- **NOVA-8890MSFG** 5.25" Socket 478 533MHz FSB CPU Board with LCD/ CRT VGA, LAN, GbE, S-ATA, 1394, USB 2.0

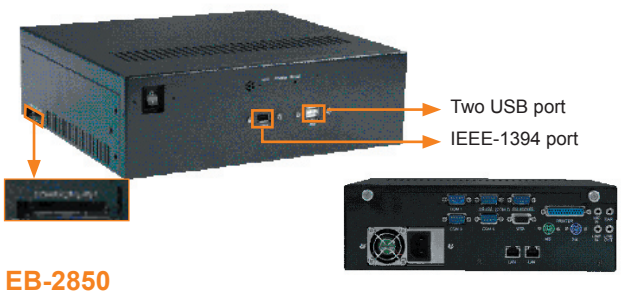
IEI Option

- **CF-512** CPU cooling fan Supports P4 CPU up to 2.5GHz
- **CF-513** CPU cooling fan Supports P4 CPU up to 3.06GHz
- **CF-515** Skiving CPU cooling fan support P4-M CPU up to 2.6 GHz

page 5-5

Feature

- Intel P4/Celeron with HT support.
- CRT/LCD integrated in i845GV, support 48-bit LVDS
- 1x DDR 333 support up to 1GB
- Support PCI and PC104+ (PCI only)
- CFII, Dual LAN(MSFG), USB2.0, Multi-COM, Audio, SATA integrated



EB-2850

Industrial Embedded chassis for NOVA-8890 Series

Specifications

- Multi-Mounting design solution for wall-mount/Desk Top/RACK-moumt application
- 2 x USB and 1 x IEEE 1394 ports supported on front panel
- User friendly design for Compact Flash using easily
- Drive space for one internal 2.5" HDD
- Support one PC/104 Plus module space
- Standard equipped with Power Supply :
  ACE-816A 150W ATX Power Supply
  ACE-916A 150W AT Power Supply
- Optional Power Supply :UPF200-AA 200W ATX Power Supply with PFC function
  ACE-916AP 150W AT Power Supply with PFC function
- Color: Dark Blue (PANTONE 433C)
- Dimension: 280mm(W) x 88mm(H) x 251mm(D)

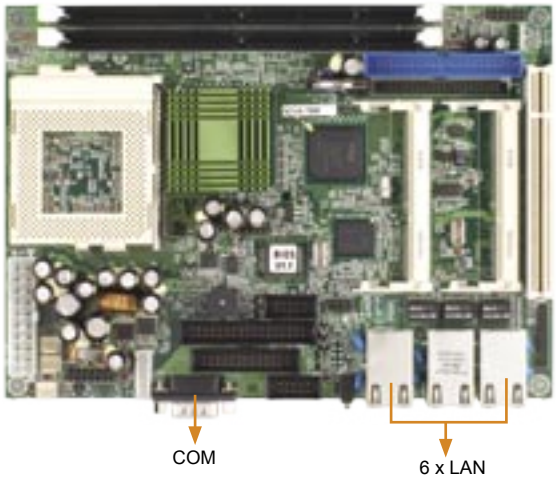
Ordering Information

- **EB-2850/ACE-816A**
  Industrial NOVA-8890 Embedded chassis with ACE-816A 150W ATX Power Supply
- **EB-2850/ACE-916A**
  Industrial NOVA-8890 Embedded chassis with ACE-916A 150W AT Power Supply

NOVA-7898

5.25” Socket 370 CPU Board with VGA, Up to 6 LAN, LPT by Pin header

Dual Gigabit LAN Support



NOVA-7898
(Printer port, VGA port by pin header)

Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT display integrated in i815E
- 2x PC133 SDRAM support up to 512MB
- Support 1x PCI and 2x expansion socket for LAN module up to 6 LAN
- CFII, Dual LAN integrated

Specifications

CPU	Supports Intel® Tualatin Socket-370 PIII/ Celeron™ 133MHz FSB and VIA C3 Nehemiah (PPGA Celeron is not support)
System Chipset	Intel 815E-B step
System Memory	2 x PC100/133 SDRAM up to 512 MB
Display	Chipset integrated AGP 4X V-RAM: share with system memory by Dynamic Video Memory Technology Resolution: max.1600 x 1200, 8 bit colors for CRT Connector: external DB-15 for CRT display
I/O	External: One RS-232, one VGA, one LPT port connector Internal: One RS-232, IrDA port, two USB by pin-header IDE: Two ATA-100 channel (1x40 pin header), 1x44 pin header
Ethernet	External RJ-45x6 Intel 82562 and 82559 10/100Mbps Ethernet controllers onboard up to 6x LAN with LAN module daughter board, LM-102N (Dual i82559/i82550), LM-2G (Dual Broadcom 5701/5703 Gigabit chip) or LM-2GN (Dual Intel 82540 Gigabit chip)
Expansion Slot	1x PCI 32bit/33MHz slot 2x socket PCI connector for LAN Module daughter board
WDT	Software programmable, support 1~ 255 sec. system reset
Power Control	Supports ATX power
Power Connector	ATX 2.03 1x20pin ATX connector
Power Consumption	5V@9A, 3.3V@3.1A, 12V@0.2A, -12V@0.02A(933MHz CPU with 256MB)
Relative Humidity	5~95%, non-condensing
Operating Temperature	0~60ºC
GW	900g

IEI Option

LM module (Socket PCI connector)

LM-102N-x59	Dual i82559 LAN Module
LM-102N-x50	Dual i82550 LAN Module with IPsec Engine
LM-102R	Dual Realtek 8100 LAN Module
LM-2G	Dual Broadcom 5701/5703 Gigabit LAN Module
LM-SSLA	SSL Accelerator Module
LM-2GN	Dual Intel 82540/82541 Gigabit Ethernet Module

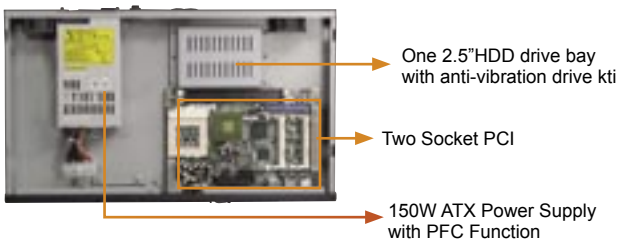
CB-USB02 Dual ports USB cable with bracket page 5-6

CF-504
Slim Type Copper Socket-7/370 CPU Cooler page 5-5

Ordering Information

NOVA-7898 5.25” Socket 370 CPU Board with VGA, Up to 6 LAN, LPT by Pin header

FWAP-3680L
Rackmount Internet Security Platform with 6 Ethernet Ports and LCD Display



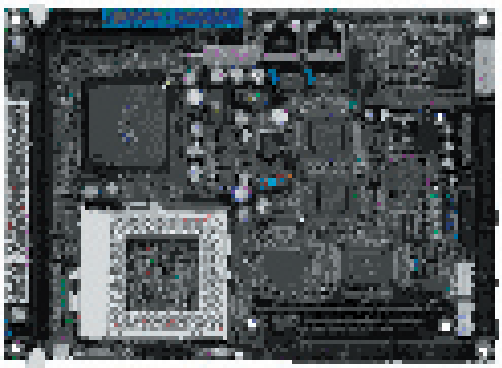
Specifications

- Management: Console on the front panel
- FWAP-3680L supports one A125 16x2 characters LCD display module with RS-232 interface
- Ethernet FWAP-3680:
  External RJ-45 x 6, socket PCI add-on LAN module supports system up to 6 LAN ports. Standard equipped with dual Intel 10/100 Mbps LAN controllers onboardUp to 6x LAN with LAN module daughter board: LM-102R (Dual Realtek 8100), LM-102N (Dual i82559/i82550), LM-2G (Dual Broadcom 5701/5703 Gigabit chip)
- WDT: Software programmable, support 1~ 255 sec. system reset
- Vibration: 5 ~ 17Hz, 0.1” double amplitude displacement
  17 ~ 640Hz, 1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Operation temperature: 0 ~ 50°C
- Color: Dark Blue (PANTONE 433C)

ITEM	FWAP-3680L
Mount Solution	RACK-mount
Embedded board	NOVA-7898
CPU	Pentium III (133MHz FSB)
System Chipset	Intel 815B-E
System Memory	DIMM Up to 512MB DRAM
SSD	N/A
System FAN	Two 40 x 40 x 28 mm
CPU Cooling FAN	CF-507
Power Supply	ACE-816APS
DC Power Supply	ACE-815C / ACE-815T
Dimension	431(W)x44(H)x251(D)mm
Drive Bay	One 2.5” HDD

NOVA-7896

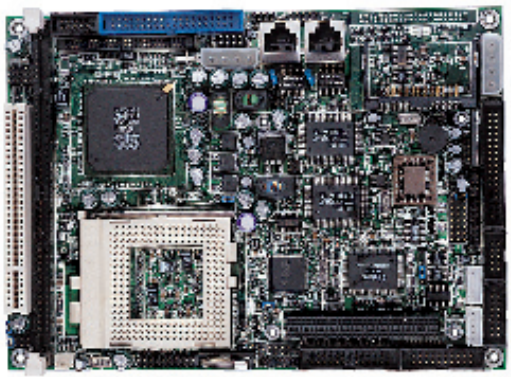
5.25" Socket 370 CPU Board with LCD/ CRT VGA, LAN, 1394 & Audio



NOVA-7896

NOVA-7895

5.25" Socket 370 CPU Board with LCD/ CRT VGA, LAN, 1394 & Audio



NOVA-7895

Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT/LCD, support 24-bit TTL LCD,TV-Out(Optional) shared system memory up to 64M SDRM
- 1x PC133 SDRAM support up to 512MB
- Support PCI and PC/104(7896) or PC/104+(7895 PCI only)
- CFII, Dual LAN, USB, Multi-COM, Audio integrated

Specifications

CPU	Supports Intel Tualatin Scoket-370 66/100/133MHz FSB
System Chipset	SiS 630ST, PCI 2.2 compliant
System Memory	1x PC 100/133 SDRAM support to 512MB
Display	SiS630ST chipset integrated 2D/3DGraphic Core Resolutions: up to 1920x1440 V-RAM: Share system memory up to 64MB SDRAM
Optional LCD Interface	by SIS630ST chipset 50-pin connector to support 24-bit LCD panelequipped with FP24-02V10 for 44-pin 24-bit Panel connection
Ethernet	2x 10/100Mbps fast Ethernet controller onboard (Intel 82559 / Realtek RTL8100BL)
SSD	1x Compact Flash Type II socket onboard
I/O	– 3x RS-232 series port by pin header (16C550 UARTs Compatible) – 1xRS-232/422/485 selectable port – 1x LPT by pin header (support SPP/EPP/ ECP mode) – 1x IrDA (SIR mode) – 2xUSB port by pin header (USB 1.1 Compliant) – 1x FDD channel support 1.44MB, 2.88MB and 3-mode – 2x ATA-100 IDE channel, support CD-ROM; ZIP and LS-120 bootable.(NCF version only, standard version support one IDE ATA-100 channel)
Audio	AC'97 compliant Audio CODEC with 6W Amplifer (Line-in, Line-out, Mic-in by pin header)
IEEE-1394	2x IEEE-1394a 400Mbps port onboard (FW Version)
WDT	software programmable support 1~255 second system reset
Expansion Slot	One PCI slot PC/104 Plus (NOVA-7895), PC/104 (NOVA-7896)
Isolated Digital I/O	4 Inputs and 4 Outputs
Hardware Monitoring	CPU Vcore; Vcc; CPU/System Fan speed and Thermal
ATX power control function	Meets ACPI 1.1
Power Consumption	+5V@7.5A, +12V@0.3A (Pentium III 1.4GHz/256MB)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5-95%, non-condensing
GW	900g
Remark	8-bit limited ISA (LPC-ISA)

IEI Option

- **CF-504**
  Slim Type Copper Socket-7/370 CPU Cooler

page 5-5

IEEE-1394 Tualatin Supports

EB-2820
Embedded Chassis for NOVA-7895/7896

Specifications

- Supports one PC/104 module space
- Equipped with ACE-916A PSU
- Optional ACE-816/916 series PSU
- Support two 2.5" drive bay
- Two cooling fans
- Dimension: 325mm(W)x 50mm(H)x 300mm(D)

Ordering Information

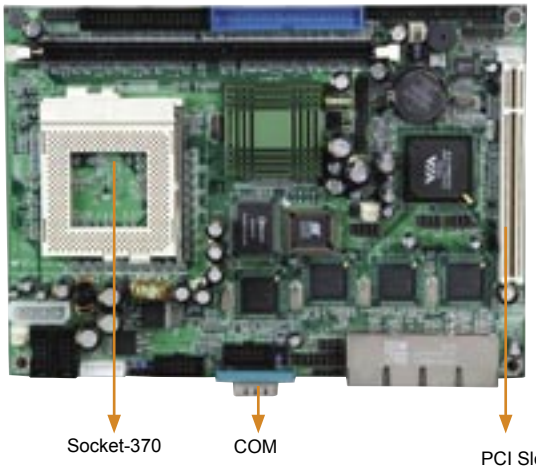
- **EB-2820/ACE-916A**
  Embedded chassis with ACE-916A 150W AT power supply
- **EB-2820/ACE-816A**
  Embedded chassis with ACE-816A 150W ATX power supply

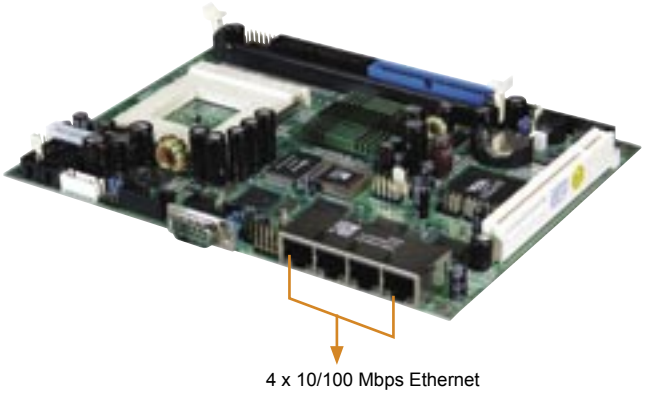
Ordering Information

- **NOVA-7896R** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Realtek LAN & Audio
- **NOVA-7896RFW** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Realtek LAN, 1394 & Audio
- **NOVA-7895R** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Realtek LAN, PC/104+ & Audio
- **NOVA-7895RFW** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Realtek LAN, PC/104+, 1394 & Audio
- **NOVA-7895N** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Intel LAN, PC/104+ & Audio
- **NOVA-7895NFW** 5.25" Socket 370 CPU Board with LCD/ CRT VGA, Intel LAN, PC/104+, 1394 & Audio

NOVA-7894

5.25” Socket 370 CPU Board,with VGA, 4 LAN, 2 COM, USB 2.0





Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT display integrated in CLE266
- 1x DDR 266 dupport up to 1GB
- support 1x PCI expansion slot
- CFII, 4x LAN, USB2.0, Multi-COM, Audio integrated

DDR 266 USB Tualatin Supports

Specifications

CPU	Supports Intel FCPGA/FCPGA2 Pentium III / Tualatin / Celeron/ VIA C3 processor up to 1.4 GHz with 133 MHz FSB
System Chipset	VIA CLE266 + VT8235
System Memory	1 x DDR 266 SDRAM Socket up to 1GB
Display	Chipset integrated – 1 x DB-15/Pin-header for VGA display
SSD	1 x Compact Flash™ Type II socket on rear side
Ethernet	4 x 10/100Mbps Intel 82551QM/Realtek RTL8100BL Ethernet LAN Controller
I/O	– 2 x RS-232 serial ports – 6 x USB2.0 – 1 x LPT by pin header (supports SPP/EPP/ECP mode) – 1 x PS/2 for Keyboard – 1 x PS/2 for Mouse – 2 x IDE ATA-100/133 by pin header (40-pin with 2.54mm pitch) – 1 x Floppy by pin header (26-pin with 2.54mm pitch) – 1 x IrDA
Digital I/O	TTL Level 4 input & 4 output
WDT	Software programmable supports 1 ~ 255 sec, system reset
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Consumption	+5V@6.1A, +12V@0.3A (P3 1.2GHz, 512MB SDRAM)
Operation Temperature	0º~60ºC
Relative Humidity	5~95%, non-condensing

Ordering Information

- **NOVA-7894N**
  5.25” Socket 370 CPU Board,with VGA, 4 Intel LAN, 2xCOM, USB 2.0
- **NOVA-7894R**
  5.25” Socket 370 CPU Board,with VGA, 4 Realtek LAN, 2 COM, USBx2.0

IEI Option

- **CF-504**
  Slim Type Copper Socket-7/370 CPU Cooler

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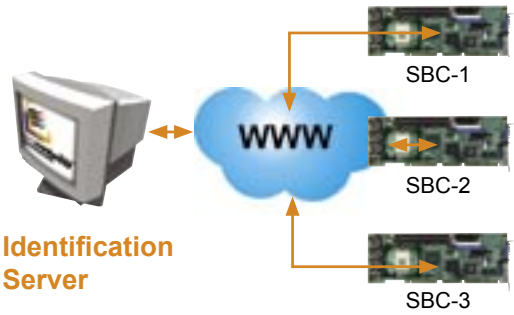
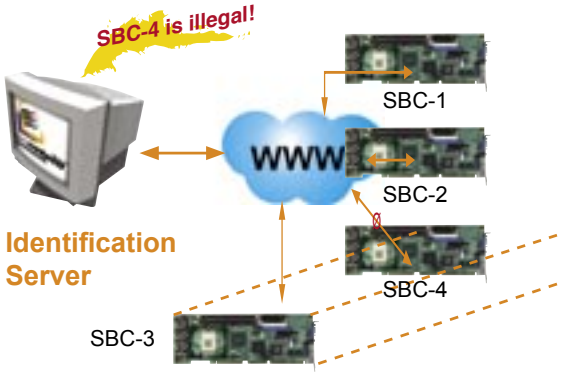
Application Example:



You can identify most of IEI series SBC board which is embedded both your f/w and iButton™ device support inside…



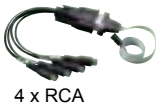
If some hackers cloned any of your iButton™ implemented series board, the identification server can deny its service request…

NOVA-7820/7830

5.25" S-370 / EDEN with LCD/ CRT VGA, LAN, Video Capture, 1394 & Audio

4 vedio input for surveillance system

NOVA-7820



4 x RCA
Connector Cable

VIN-KIT-01
4 x BNC Connector Board

NOVA-7830

Feature

- Intel PIII / Tualatin / Celeron CPU support up to FSB 133 MHz
- CRT/LCD integrated in Smartasic SP1015 support 36-bit TTL LCD
- 1x PC133 SDRAM support up to 512MB
- support 1x PCI expansion slot
- CFII, LAN, USB, Multi-COM, Audio, IEEE1394, Video-in Multiplexer integrated

Specifications

	NOVA-7820	NOVA-7830
CPU	VIA low power Eden 400MHz	Intel Socket 370 Tualatin Pentium III/Celeron, up to 133MHz FSB
System Chipset	Intel 815E + ICH2 PCI 2.2 compliant	Intel 815E + ICH2 PCI 2.2 compliant
System Memory	1 x DIMM up to 512MB SDRAM	1 x DIMM up to 512MB SDRAM
CRT Display	Intel 815 chipset AGP 4X V-RAM: shared with system memory (DVMT) Connector: DB-15 for CRT display	Intel 815 chipset AGP 4X V-RAM: shared with system memory (DVMT) Connector: DB-15 for CRT display
LCD Display	Controller: Smartasic SP1015 Resolution: up to 1024 x 768, 36bit Connector: 50 pin by pin-header	Controller: Smartasic SP1015 Resolution: up to 1024 x 768, 36bit Connector: 50 pin by pin-header
Ethernet	1 x 10/100 Mbps Fast Ethernet (Intel 82562)	1 x 10/100 Mbps Fast Ethernet (Intel 82562)
SSD	1 x Compact Flash™ type II socket	1 x Compact Flash™ type II socket
Audio	C-Media 5.1 channels PCI 6W Amplifier	C-Media 5.1 channels PCI 6W Amplifier
Multiplexer	Video-in Multiplexer	Video-in Multiplexer
IEEE-1394	2 x IEEE-1394a 400MHz ports (TI TSB43AB22)	2 x IEEE-1394a 400MHz ports (TI TSB43AB22)
I/O	3 x RS-232 1 x RS-232/422/485 1 x LPT 2 x USB 1.1 1 x FDD 1 x ATA-100	3 x RS-232 1 x RS-232/422/485 1 x LPT 2 x USB 1.1 1 x FDD 1 x ATA-100
WDT	Programmable 1~255 seconds system reset	Programmable 1~255 seconds system reset
Expansion Slot	1 x 32bit PCI 1 x Card Bus I/F for PCMCIA module	1 x 32bit PCI 1 x Card Bus I/F for PCMCIA module
Operation Temperature	0oC ~ 60oC	0oC ~ 60oC (CPU cooler required)
Relative Humidity	5 ~ 95%, non-condensing	5 ~ 95%, non-condensing
Power Consumption	5V@3.0A, 12V@0.22A (EDEN 400MHz with 256MB SDRAM)	5V@5.0A, 12V@0.076A (PIII 550MHz with 512MB SDRAM)

Video capture: 4 x AV input by cable with bracket

- Chip: Conexant Fusion 878A
- Frame speed: 30FPS
- Video format: NTSC/PAL/SECAM
- OS support: Windows 98SE/2000/ME/XP
- Standard equipped with one 4 x RCA connector cable, optional one 4 x BNC

IEI Option

- **CF-504**
  Slim Type Copper Socket-7/370 CPU Cooler (NOVA-7830)

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EB-2830
Embedded chassis for NOVA-7800 series

Specifications

- Support Embedded SBC: NOVA-7800 series
- Support Power Supply: Equipped with ACE-816A, Optional, ACE-815T,ACE-815C PSU
- Drive bays: Two internal 2.5" HDD drive bays
- Accept one half-size PCI add-on card
- Color: Dark Blue (PANTONE 433C)
- Dimension: 350mm(W) x 64mm(H) x 251mm(D)

Ordering Information

- **EB-2830/ACE-816A**
  Embedded chassis for NOVA-7800 series with ACE-816A150W ATX power supply
- **EB-2830/ACE-815T**
  Embedded chassis for NOVA-7800 series with ACE-815T 150W ATX power supply
- **EB-2830/ACE-815C**
  Embedded chassis for NOVA-7800 series with ACE-815C 100W ATX power supply

Ordering Information

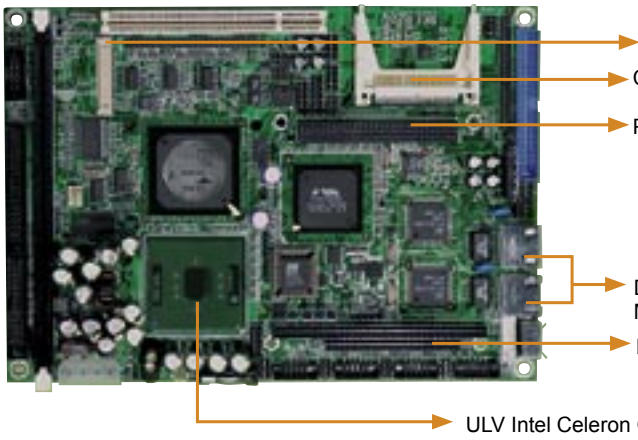
- **NOVA-7830**
  5.25" Socket 370 CPU Board with LCD/ CRT VGA, LAN, Video Capture, 1394 & Audio
- **NOVA-7830B**
  5.25" Socket 370 CPU Board with LCD/ CRT VGA, LAN, Video Capture, 1394, Audio & VIN-Kit-01
- **NOVA-7820-E400**
  5.25" VIA EDEN 400MHz CPU Board with LCD/ CRT VGA, LAN, Video Capture, 1394 & Audio
- **NOVA-7820B-E400**
  5.25" VIA EDEN 400MHz CPU Board with LCD/ CRT VGA, LAN, Video Capture, 1394, Audio & VIN-Kit-01

NOVA-C400

5.25” ULV Intel Celeron-400MHz CPU Board, with VGA/LCD, USB 2.0, Dual LAN & Audio

Intel Lowpower Consumption CPU Ready!!

All-in One



4 x RS-232 Serial Ports

USB

Fanless

Specifications

CPU	Ultra Low Voltage Intel Celeron 400MHz
System chipset	VIA VT8606T (PN133T) + VT82C686B
System Memory	1 x PC100/133 SDRAM up to 512MB
Display	– On-chip ProSavageTM VGA controller – Bus: AGP 4X – V-RAM: Shared with system memory up to 32MB (SMA Technology) – Resolution: Up to 1920 x 1440 CRT display – Connector: DB-15 for CRT display – LCD: DF 14-20F for 36-bit LVDS and 1 x 50-pin by pin-header for TTL – TV-Out: Both NTSC and PAL output signal are supported
SSD	1x onboard Compact Flash™ type II socket
Ethernet	2 x onboard 10/100Mbps Intel 82551 / Realtek RTL8100BL fast Ethernet controller
Audio	AC’97 compliant Audio CODEC
I/O	– 3 x RS-232 serial port by pin-header – 1 x RS-232/422/485 port by pin header – 1 x LPT parallel port by pin-header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 4 x USB 2.0 and 2 x USB 1.1 ports by pin-header – 2 x ATA/100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable (IDE 1: 40-pin, IDE 2: 44-pin) – 1 x PS/2 for Keyboard / Mouse – 1 x FDD connector, support 1.44 / 2.88 and 3-mode floppy drive
WDT	Software programmable supports 1~255 seconds system reset
PC/104 and PC/104 Plus	For PCI and ISA device modules expansion
Digital I/O	TTL Level 4-input and 4-output
Hardware Monitoring	Provides CPU Vcore / Vcc; CPU / System Fan speed and temperature detecting function
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	+5V@3.6A, +12V@500mA (512MB SDRAM)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing

Ordering Information

- **NOVA-C400N**
  5.25” ULV Intel Celeron-400MHz CPU Board, with VGA/LCD, USB 2.0, Dual Intel LAN & Audio
- **NOVA-C400R**
  5.25” ULV Intel Celeron-400MHz CPU Board, with VGA/LCD, USB 2.0, Dual Realtek LAN & Audio

For ULV Intel Celeron 650MHz / LV PIII 800 MHz CPU supports, please contact supplier

Feature

- Embedded ULV Intel Celeron 400 CPU for Fanless system support
- CRT/LCD integrated in VT8606, support 36-bit LVDS/TTL, TV-Out
- 2x PC133 SDRAM support up to 512MB
- Support 1x PCI and (ISA+PCI), PC/104+ extension slots
- CFII, Dual LAN, USB2.0, Multi-COM, Audio integrated

Coming Soon

EBC-2700
Industrial Embedded Chassis with NOVA-C400 and NOVA-EDEN-733 SBC

Specifications

- Designed to mount on Desk top and Wall mount application
- Front panel equipped with two USB ports
- Drive space for one internal 2.5” HDD
- Equipped with one 4cm system
- Support one PC/104 or PC/104 Plus module space
- Standard equipped with power supply: ACE-890A 90W AT power supply
- Optional power supply: ACE-890AP/C/T/V/P AT power supply
- Color: Dark Blue (PANETONE 433C)
- Dimension: 180mm (W) x 88mm (H) x 230mm (D)

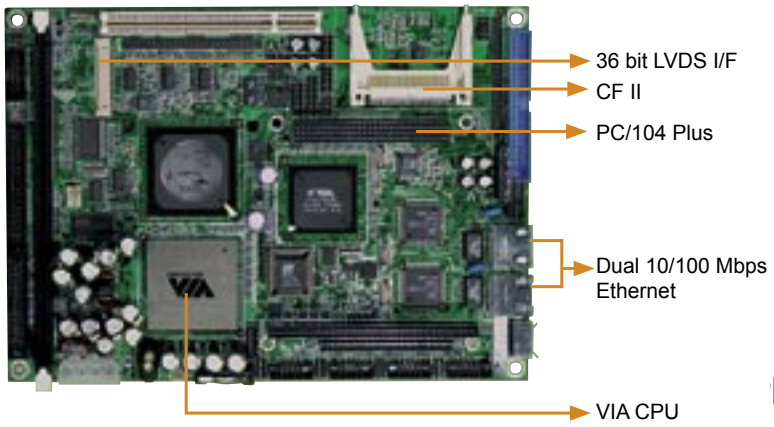
Ordering Information

- **EBC-2700/ACE-890A**
  Industrial Embedded chassis with ACE-890A AT power supply
- **EBC-2700/ACE-890C**
  Industrial Embedded chassis with ACE-890C AT power supply

NOVA-EDEN-733

5.25" VIA EDEN 733MHz CPU Board, with VGA/LCD, USB 2.0, Dual LAN & Audio

All-in One Embedded Solution



Fanless 4 x RS-232 Serial Ports USB

Specifications

CPU	Embedded low power consumption VIA Eden CPU (EBGA package)
System chipset	VIA VT8606T (PN133T) with VT82C686B
System memory	1x PC100/133 SDRAM up to 512MB
Display	– On-chip ProSavage™ VGA controller – Bus: AGP 4x – V-RAM: Shared with system memory up to 32MB (SMA technology) – Resolution: Up to 1920x1440 (CRT) – Connector: DB-15 for CRT display – DF 14-20F for 36-bit LVDS, 50 pin header for LCD digital signal output – TV-OUT: Both NTSC and PAL output signal are supported
SSD	1x on board Compact Flash type II socket
Ethernet	– 2x on board 10/100Mbps fast Ethernet controller – Dual Intel 82551: NOVA-EDEN-733N – Dual Realtek RTL8100BL: NOVA-EDEN-733R
Audio	On board AC'97 codec with 6W amplifier
I/O	– 3 x RS-232 serial ports by pin-header – 1 x RS-232/422/485 selectable port – 1 x LPT parallel port by pin-header (supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 4 x USB 2.0 + 2 x USB 1.1 by pin-header – 2 x ATA/100 IDE channel, supports CD-ROM, ZIP and LS-120 drive bootable (IDE1: 40-pin, IDE2: 44-pin). – 1 x FDD connector, supports 1.44/2.88MB and 3-mode floppy drive
WDT	Software programmable supports 1~255 seconds system reset
PC/104 and PC/104 Plus	For PCI and ISA device modules expansion
Expansion slot	– 1x 32-bit/33MHz PCI expansion slot for PCI devices expansion – 1x PC/104 for ISA device modules expansion – 1x PC/104 Plus for PCI device modules expansion
Digital I/O	4 Inputs and 4 outputs
Hardware Monitoring	Provides CPU Vcore, Vcc; CPU/System fan speed and temperature detecting function.
ATX power control function	Meets ACPI 1.1 specification
Power Consumption	5V@3.1A; 12V@160mA (with 256MB SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

Ordering Information

- **NOVA-EDEN-733N** 5.25" VIA EDEN 733MHz CPU Board, with VGA/LCD, USB 2.0, Dual Intel LAN & Audio
- **NOVA-EDEN-733R** 5.25" VIA EDEN 733MHz CPU Board, with VGA/LCD, USB 2.0, Dual Realtek LAN & Audio

Notes:
Contact Supplier about other VIA CPU's

Feature

- Embedded VIA Eden 733Mhz CPU for Fanless system support
- CRT/LCD integrated in VT8606, support 36-bit LVDS/TTL, TV-Out
- 2x PC133 SDRAM support up to 512MB
- support 1x PCI and (ISA+PCI), PC/104+ extension slots
- CFII, Dual LAN, USB2.0, Multi-COM, Audio integrated

Coming Soon

EBC-2700
Industrial Embedded Chassis with NOVA-C400 and NOVA-EDEN-733 SBC

Specifications

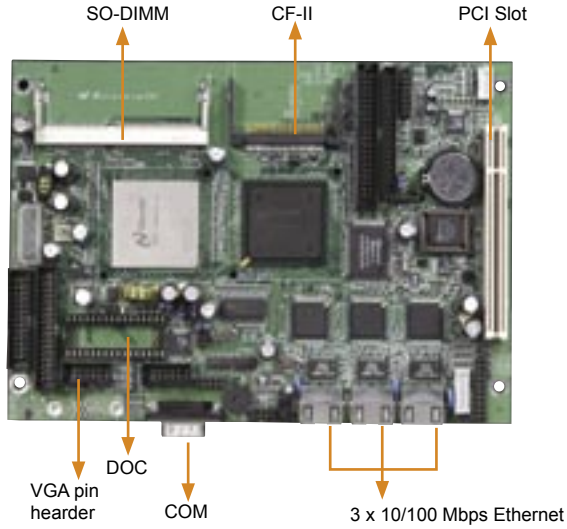
- Designed to mount on Desk top and Wall mount application
- Front panel equipped with two USB ports
- Drive space for one internal 2.5" HDD
- Equipped with one 4cm system
- Support one PC/104 or PC/104 Plus module space
- Standard equipped with power supply: ACE-890A 90W AT power supply
- Optional power supply: ACE-890AP/C/T/V/P AT power supply
- Color: Dark Blue (PANETONE 433C)
- Dimension: 180mm (W) x 88mm (H) x 230mm (D)

Ordering Information

- **EBC-2700/ACE-890A**
  Industrial Embedded chassis with ACE-890A AT power supply
- **EBC-2700/ACE-890C**
  Industrial Embedded chassis with ACE-890C AT power supply

NOVA-4899

5.25” GX1-300MHz CPU Board with VGA, 3 LAN, VGA, CFII



Feature

Fanless

- Embedded AMD Geode GX1-300 CPU for Fanless system support
- CRT display integrated in CS5530A, support 18-bit TFT LCD, LVDS(optional), TV-Out
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- support 1x PCI expansion slot
- CFII, DOC, Triple LAN, USB, Audio integrated

Specifications

CPU	AMD Geode GX1-300MHz
BIOS	Award PnP Flash BIOS
System Chipset	AMD Geode GX1 + CS5530A
System Memory	One 168-pin DIMM socket up to 512MB SDRAM
Display	– Built-in CS5530A chipset, supports TFT LCD & CRT display – V-RAM: Share with system memory (up to 4MB), setting in BIOS – Resolution: 1280 x 1024 for CRT display – Connector: 10-pin pin-header for CRT display (Shipping with cable for DB-15 connector) 50-pin pin-header for 18-bit TFT LCD 44-pin pin-header for 18-bit LCD (With FP24-01A board) Built-in TV out function supports NTSC and PAL signal Optional LVDS-01 LVDS module for LVDS LCD panel
Ethernet	3 x 10/100Mbps Intel i82551/Realtek RTL8100BL Ethernet controller
SSD	1 x Compact Flash™ Type II socket and 1 x DiskOnChip socket
Audio	AC’97 Codec (Realtek ALC 202A)
I/O	– 2 x RS-232 serial port – 1 x LPT parallel port supports SPP/ECP/EPP Mode – 2 x USB 1.1 – 2 x ATA-33 IDE (40/44-pin by pin header) – 1 x Floppy (34-pin with 2.54mm pitch)
Digital I/O	TTL level, 4 x inputs and 4 x outputs
Expansion slot	1 x PCI slot
WDT	Software programmable supports 1 ~ 255 sec system reset
Power Supply Input	4-pin power housing (5.25” Drive Connector)
Power Consumption	5V@2A, 12V@100mA (With 64MB SDRAM)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

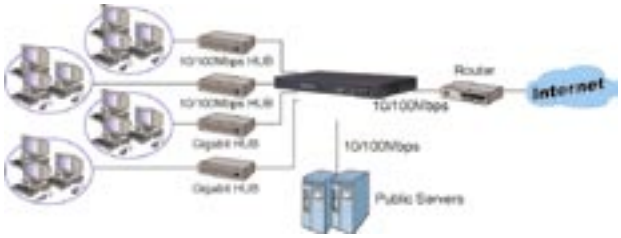
Ordering Information

- **NOVA-4899N**
  5.25” GX1-300MHz CPU Board with VGA, 3 Intel LAN, VGA, CFII
- **NOVA-4899R**
  5.25” GX1-300MHz CPU Board with VGA, 3 Realtek LAN, VGA, CFII

Networking Platform Integrated Solution Ready!

FWAP-2680L
Desktop Solution

One 2.5”HDD drive bay



Specifications

- Management: Console on the front panel
- FWAP-2680L supports one A125 16x2 characters LCD display module with RS-232 interface
- Ethernet: FWAP-2680: External RJ-45 x 3,
- WDT: Software programmable, support 1~ 255 sec. system reset
- Vibration: 5 ~ 17Hz, 0.1” double amplitude displacement
  17 ~ 640Hz, 1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Operation temperature: 0 ~ 50°C
- Color: Dark Blue (PANTONE 433C)

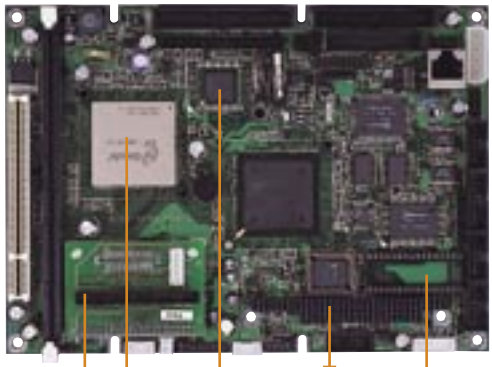
ITEM	FWAP-2680L
Mount Solution	Desktop and Wall mount
Embedded board	NOVA-4899
CPU	NS Geode GX1-300MHz
System Chipset	NS CS5530A
System Memory	SO-DIMM Up to 512MB DRAM
SSD	1 x Compact Flash™ type II
System FAN	One 40 x 40 x 10 mm
CPU Cooling FAN	Fan-less
Power Supply	AC Input 46W Adapter
DC Power Supply	N/A
Dimension	320(W)x44(H)x165(D)mm
Drive Bay	One 2.5’ HDD

Ordering Information

- **FWAP-2680**
  Rackmount Internet Security Platform with 3 Ethernet Ports
- **FWAP-2680L**
  Rackmount Internet Security Platform with 3 Ethernet Ports and LCD Display

NOVA-4898

5.25” GX1-300MHz CPU Board with LCD/ CRT VGA, TV Out, LAN & Audio



Rear Side

Feature

- AMD Geode GX1-300 CPU for Fanless system support
- CRT display integrated in CS5530A, support LVDS module (optional), TV-Out
- 1x PC133 SDRAM support up to 512MB
- Support 1x PCI and PC/104 extension slots
- CFII,DOC,LAN, USB, Multi-COM, Audio integrated

Specifications

CPU	Embedded AMD Geode GX1 300MHz
BIOS	Award PnP Flash BIOS
System Chipset	AMD Geode™ GX1 + CS5530A
System Memory	1 xPC100/133 SDRAM up to 512MB
Display	– Built-in CS5530A chipset, supports TFT LCD & CRT display – V-RAM: Share with system memory (up to 4MB), setting in BIOS – Resolution: 1280 x 1024 for CRT display – Connector: 10-pin pin-header for CRT display (Shipping with cable for DB-15 connector) 50-pin pin-header for 18-bit TFT LCD 44-pin pin-header for 18-bit LCD (With FP24-01A board) Built-in TV out function supports NTSC and PAL signal Optional LVDS-01 LVDS module for LVDS LCD panel – Ethernet : Intel 82551 or Realtek RTL-8100BL 10/100Mbps Ethernet Controller on board
SSD	One DiskOnChip socket and one CF Type II socket (Support IBM Microdrive compact size HDD)
Audio	AC’97 compliant Audio CODEC
I/O	– 3 x RS-232 port – 1 x RS-232/422/485 selectable port – Serial ports provides +5V & +12V power supply – 1 x parallel port (support SPP/EPP/ECP mode) – 2 x USB 1.1 (pin header) – 1 x IrDA port – 1 x FDD port – 2 x ATA-33 IDE channel (40-pin/44-pin)
Digital I/O	TTL level, 4 x inputs and 4 x outputs
WDT	software programmable, support 1~ 255 sec. system reset
Power Control Function	Support ATX function
Expansion Slot	One PCI slot and one PC/104 connector for add-on card
Power Consumption	+5V@2A, +12V@100mA (GX1 300MHz CPU and 32MB SDRAM)
Operating Temperature	0~60ºC
Relative Humidity	5~95%, non-condensing
GW	700g
Note	Equipped with a standard FP24-01A board

IEI Option

- **LVDS-01-R7**
  One channel LVDS module, 18-bit Work withNEC 15” NL1027BC30-04F LCD Panel,...etc.
- **CB-USB02**
  Dual ports USB cable with bracket

page 5-6

EB-2810
Embedded Chassis for NOVA-4898

Specifications

- Support one PC/104 module space
- Equipped with ACE-916A PSU
- Optional ACE-816/916 series PSU
- Support two 2.5” drive bay
- Two cooling fans
- Dimension: 325mm(W)x 50mm(H)x 300mm(D)

Ordering Information

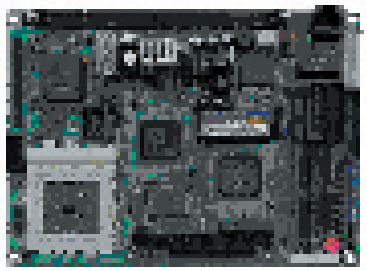
- **EB-2810/ACE-916A**
  Embedded chassis with ACE-916A 150W AT power supply
- **EB-2810/ACE-816A**
  Embedded chassis with ACE-816A 150W ATX power supply

Ordering Information

- **NOVA-4898N-300-R4**
  5.25” GX1-300MHz CPU Board with LCD/ CRT VGA, TV Out, Intel LAN & Audio, R4
- **NOVA-4898R-300-R4**
  5.25” GX1-300MHz CPU Board with LCD/ CRT VGA, TV Out, Realtek LAN & Audio, R4

NOVA-600

5.25” Socket-7 CPU Board with LCD/ CRT VGA (2MB), LAN, 4 COM



NVCB-01

NVCB-02

Feature

- Intel PentiumMMX CPU supports up to FSB 66 MHz
- CRT/LCD integrated in Asiliant 69000, support 36-bit TTL LCD, LVDS(Optional)
- 1x PC133 SDRAM support up to 128MB
- support 1x PCI expansion slot
- DOC,LAN, USB, Multi-COM integrated

Specifications

CPU	Socket-7 base support Intel® Pentium® MMX, AMD K6, IDT WinChip .... up to 66MHz FSB
External Cache Memory	512KB
System Memory	1 x PC100/133 up to 128MB
System Chipset	ALi Aladdin 4+
Display	– Chip: Asiliant 69000 LCD/CRT VGA – Bus: PCI – V-RAM: 2MB RAM – Resolution: 1280 x 1024 (256 colors) – Connectors: DB-15 for CRT display 50-pin pin-header for 36-bit LCD panel 44 pins pin-header for 24-bit LCD panel (With FP24-01A board) Supports 3.3V and 5V LCD panel – Optional LVDS-01 & LVDS-02 module for LVDS interface
I/O	– 3 x RS-232 ports – 1 x RS-232/422/485 selectable port – 1 x parallel port (support SPP/EPP/ECP mode) – 1 x IrDA – 2 x USB Ports (USB 1.1 compliant) – 2 x IDE channel (1x40pin, 1x44pin) pin header – 1 x FDD
Ethernet	Realtek RTL8100BL 10/100Mbps Ethernet chip with RJ-45 connector
Isolated Digital I/O	– Digital Input : 4 channels – Digital output : 4 channels – Isolated channel with common power
WDT	Software programmable supports 1~ 255 seconds system reset
SSD	One DiskOnChip socket
Expansion Slot	One PC/104 expansion connector for add-on cards
E²Key	A non-volatile 1Kbit EEPROM is provided to retain application critical read/write data
Power Connector	Molex 26-60-4080
Power Consumption	+5V@5.1A (Pentium® MMX 233MHz and 32MB SDRAM)
Operating Temperature	0~60°C (CPU cooler required)
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

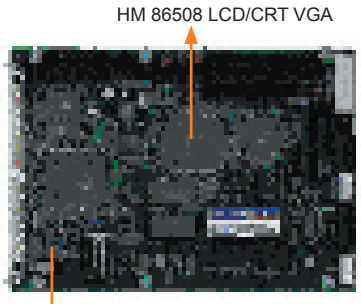
- **NOVA-600-R2** : 5.25” Socket-7 CPU Board with LCD/ CRT VGA (2MB), LAN, 4 COM, R2

IEI Option

- **NVCB-01** Cable kit for NOVA-600 SBC
- **NVCB-02** Power cable kit to ACE-855 series and HDD/FDD for NOVA-600 SBC

NOVA-300

5.25” 386SX-40 CPU Board with LCD/ CRT VGA (1MB), 4MB DRAM



NVCB-03

Feature

- Embedded ALi 386SX-40 CPU for Fanless system support
- CRT/LCD intergated in HM86508, support 24-bit LCD
- 1x SIMM socket up to 16MB EDO RAM, onboard 4MB
- Support PC/104 extension slot
- DOC, Multi-COM integrated

Specifications

CPU	386SX-40 on board (Embedded in ALi M6117 chipset)
System Chipset	ALi M6117C
System Memory	One 72-pin SIMM socket up to 16MB EDO RAM; optional 4 MB on board for OEM requirement
Display	– Chip: HM86508 LCD/CRT VGA – V-RAM: 1MB EDO RAM – Resolution: 1024 x 768 (256 colors) – Connectors: DB-15 for CRT display – 44-pin pin-header for LCD panel
I/O	– 3 x RS-232 ports – 1 x RS-232/422/485 selectable port COM3 & COM4 supplies +5V & +12V DC – 1 x parallel port (support SPP/EPP/ECP mode) – 1 x IDE channel : 40-pin pin-header, supports PIO-4 mode – 1 x FDD port
WDT	software programmable, support 1~ 255 seconds system reset
SSD	One DiskOnChip™ ocket
Expansion Slot	One PC/104 expansion connector for add-on card
E²Key™	A non-volatile 1Kbit EEPROM is provided to retain application critical read/write data
Power Consumption	+5V@1.6A
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

- **NOVA-300-M4** : 5.25” 386SX-40 CPU Board with LCD/ CRT VGA (1MB), 4MB DRAM

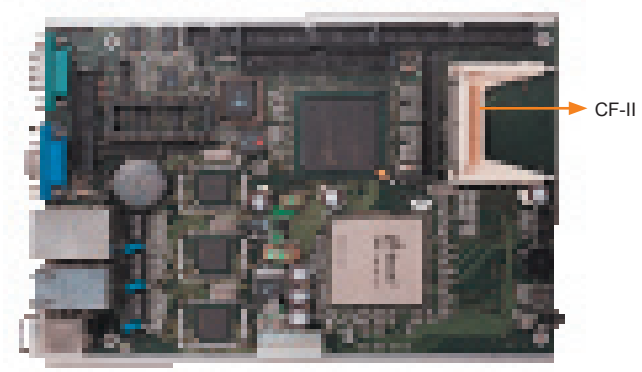
IEI Option

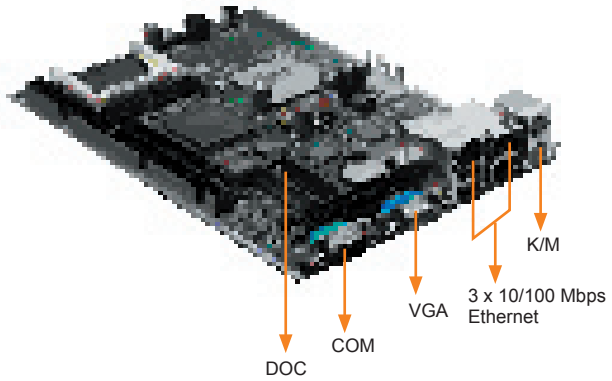
- **MB-3200W/ACE-855A**
  NOVA-600 compact chassis with ACE-855A power supply
- **NVCB-03**
  Cable set for NOVA-300

page 3-28

ISS-102

5.25” GX1-300MHz CPU Board with three Realtek LANs





Feature

Fanless

- AMD Geode GX1-300 CPU for Fanless system support
- CRT/LCD integrated in CS5503A, support 18-bit LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- CFII, DOC, USB integrated

Specifications

CPU	AMD Geode GX1-300MHz
System Chipset	AMD CS5530A
System memory	Supports up to 512MB (1 x 144pin SO-DIMM)
BIOS	Award PnP BIOS
Display	– CS5530A chipset integrated – V-RAM: share with system memory (up to 4MB) setting by BIOS – Resolution: 1280 x 1024, 256 colors for CRT; 1024 x 768, 64K color for LCD – Connector: DB-15 for CRT, 18-bit 44-pin by pin-header for LCD display
I/O	– 1 x RS-232 port – 2 x USB 1.1 – 1 x Printer port – 1 x IrDA – 2 x IDE (2x40-pin by pin-header) – 1 x FDD
Digital I/O	TTL Level, 4 inputs and 4 outputs
Ethernet	3 x Intel 82559 or Realtek RTL8100B 10/100Mbps Chip on board, supports WOL, AOL (Intel only) function
SSD	Compact Flash Type II socket supports Flash Disk, IBM MicroDrive + DiskOnChip socket
WDT	Software programmable, support 1~ 255 sec. system reset
Power Control Function	support ATX power functions with power adapter
Power Consumption	5V@2A, 12V@100mA (12v@100mA for LCD display only) (with 64MB SDRAM)
Operating Temperature	0-60°C
Dimensions	192 x 139.98 (mm)
GW	718g

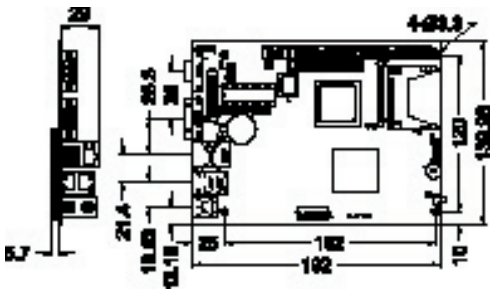
Packing list

IDE Flat Cable	32200-000005	X1
Floppy Cable	32200-000017	X1
Printer Cable	32200-000040	X1
Serial Port Cable	32200-000015	X1
Connecting Cable	32100-047900	X1
CD Utility and driver	--	
User’s Manual / QIG	--	

Ordering Information

- **ISS-102R-300-R2**
  5.25” GX1-300MHz CPU Board with three Realtek 8100B LANs

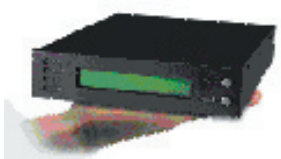
Dimensions



IEI Option

EB-3800/3820

5.25” Drive Compatible Case for ISS-102



EB-3800

EB-3820

SPECIFICATIONS

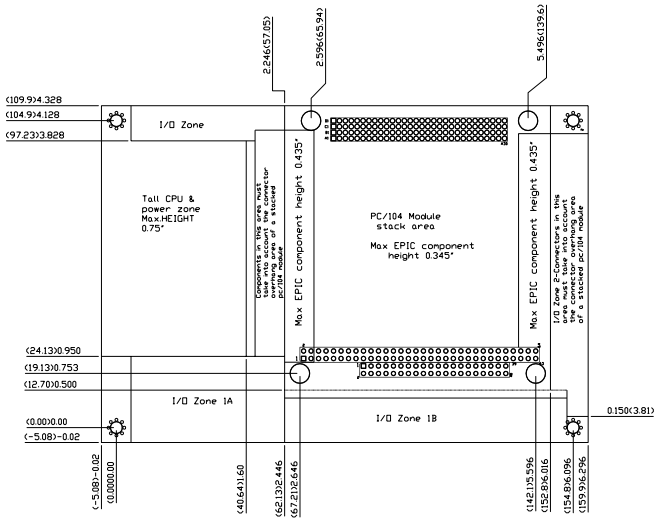
- Mounts directly in the 5.25” drive bay
- Power, Alarm, LAN and HDD LEDs
- One internal 2.5” HDD Drive Bay
- EB-3800 power requirement 5V and 12VDC
- Equipped with power adaptor 12V@3.8A (EB-3820)
- Optional A78 built-in 2 x 20 characters LCD display module

ORDERING INFORMATION

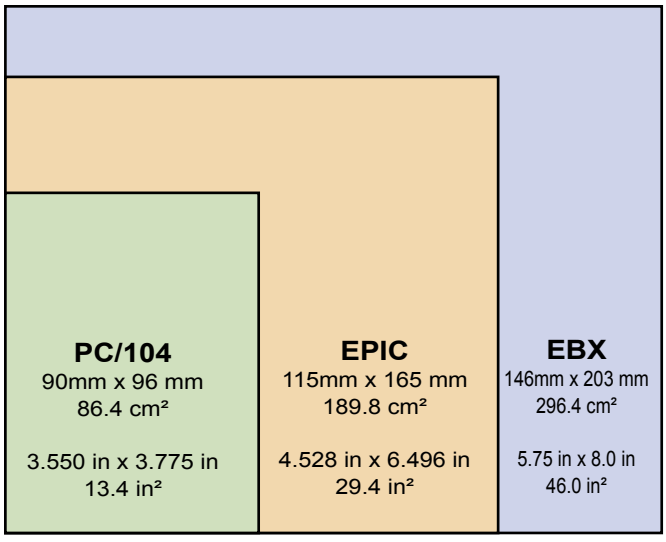
- **EB-3800/XXXX**
  5.25” Drive Compatible case for ISS-102
- **EB-3820/XXXX**
  5.25” Drive Compatible case for ISS-102 with Power adaptor

EPIC Form Factor Introduction

EPIC – NANO is to define a new industry open standard for small form factor embedded computer boards, called **E**mbedded **P**latform for **I**ndustrial **C**omputing™ or EPIC. Single Board Computers with multiple I/O expansion options. Its size is midway between the industry standard PC/104 module and EBX board. This size board will support advanced processors plus complex I/O functions for applications involving data acquisition, video processing, telecommunications, networking, motion control plus the associated field wiring termination, I/O circuit protection, etc. The initial specification defines PC/104 expansion; however, future updates will embrace PCI Express and/or other fabrics. The EPIC standard provides a platform on which to build the next generation of feature-rich, embedded systems for industrial, medical, military, transportation, and commercial applications.



Dimension and Mounting Holes



Size Comparison of PC/104 vs. EPIC vs. EBX

•Why need EPIC ?

- Embedded global market is growing up
- 3.5" form factor is too small to feature more functionality
- 5.25" form factor has difficult management on I/O pin headers

•Who needs EPIC ?

Customers who require faster CPU and more I/O functions, especially for applications which do not allow larger EBX-size.

•Key Feature:

- A board that is a small, industrial-grade, embedded SBC with the option of I/O expansion via PC/104, PC/104-Plus, USB, Ethernet, etc.
- Mid-Size between the EBX and WAFER
- A board that will emphasize I/O connector area
- A board based upon open industry standards that could be administered by an independent technical standards body
- A board that can bridge from current technology into the future. That means that it would be able to support PCI Express, Express Card, and other technologies, as they become available and supported in the embedded systems domain.

•EPIC History

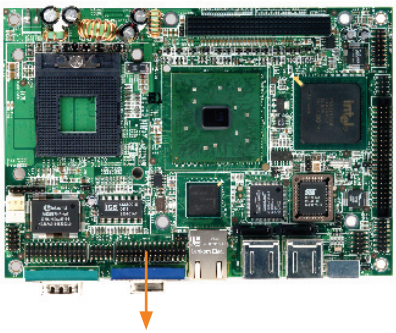
A new platform for embedded Single Board Computer with multiple I/O expansion options.
Defined by 5 leading SBC manufactures: Micro/sys, Octagon Systems, VersaLogic, WinSystems, Ampro Computers.
Specification released on March 23, 2004

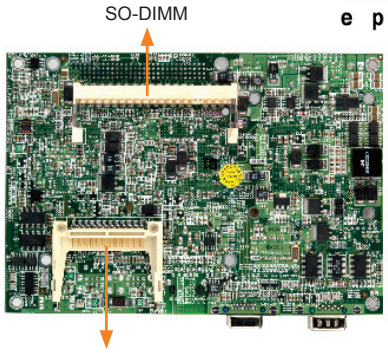
•Benefit from NANO Board

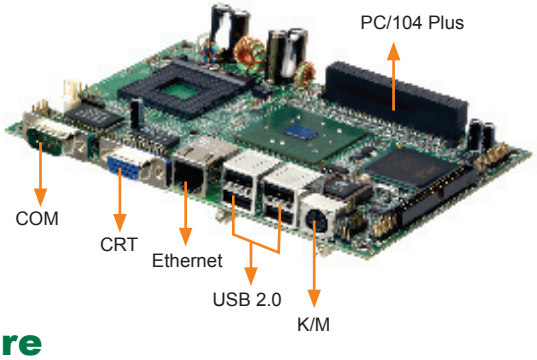
- Allow additional space to support advanced processors and technologies
- Complex I/O functions based on customers' requirements
- Keep small form factor
- Saving money and space from cables

NANO-7270

EPIC Intel Pentium M / Celeron M CPU
with LCD/CRT VGA, LAN, Audio







Long Term Supports

Feature

- Intel Pentium M / Celeron M CPU support up to FSB 400MHz
- CRT/LCD VGA integrated in i852GM, support 48-bit LVDS for independent dual display
- 1x DDR200/266 SO-DIMM support up to 1GB
- Support PC/104+(PCI only) extension slot

Specifications

CPU	Socket 479 base support Intel Pentium M CPU up to 400MHz FSB (NANO-7270G) On board ULV Intel Celeron M 600MHz with 512KB L2 Cache (NANO-7270-600)
System Chipset	Intel 852GM + ICH4
System Memory	1x DDR200/266 SO-DIMM support up to 1GB
Display	Display controller Intel GMCH Integrated Graphics controller Integrated AGP 4X 2D/3D engine One VGA port for CRT monitor 1600X1200@8bpp; 1280X1024@16bpp 48-bit LVDS port Dual independent displays Shared system memory up to 32MB (DVMT)
Ethernet	Intel 82541ER for 10/100/1000Mbs Ethernet or Intel 82551ER for 10/100Mbs Ethernet
SSD	1x Compact Flash™ Type II Socket
I/O	1 x IDE port 1 x Parallel port 1 x PS2 Keyboard/Mouse support 3 x RS-232 Serial port 1 x RS-232/422/485 port 2 x SATA port 6 x USB 2.0 port (4 by connector) 1 x PS/2 for Keyboard/Mouse 1 x IrDA by pin header (SIR mode)
Audio	AC'97 CODEC
Digital I/O	4 inputs / 4 outputs
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	1x PC/104 + (PCI interface)
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification Single voltage +12V only
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

Ordering Information

- **NANO-7270G-R10**
  EPIC Socket 479 Intel Pentium M 533MHz FSB with LCD/CRT VGA, GbE, USB2.0, Audio
- **NANO-7270-600-R10**
  EPIC on board ULV Intel Celeron M CPU with LCD/CRT VGA, LAN, USB2.0, Audio

Tech Talk

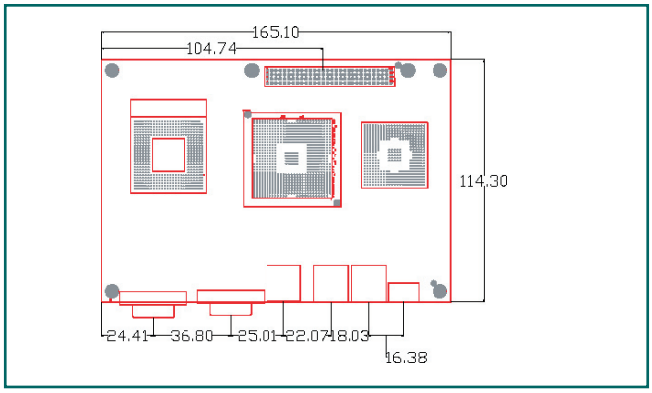
Intel® 852 Chipset Dual-Display Feature Introduction

Intel® 852 chipsets are integrated with high performance 2D/3D graphic engine called Intel® Extreme Graphics 2. Intel® 852 has two independent display pipelines which allow for users to operate the system with up to two displays driven by the integrated graphics device. The displays can be driven in a few different configurations, which are detailed in the following sections.

1. Independent Mode
This mode is used to drive multiple displays with the different content. Each display device can be configured independently, allowing each to have a different refresh rates for optimum display on each device. Independent mode is beneficial when using displays of various types, such as one pipe driving a Digital display while the other drives an analog overhead projector that may only support specific refresh rates.

2. Mirror Mode
This mode is driven by a single pipe, which only allows same content, color depth, resolution, and refresh rate.

Dimensions

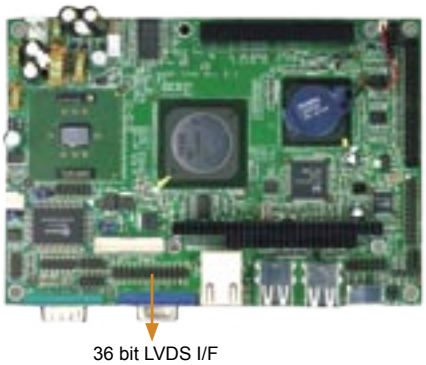


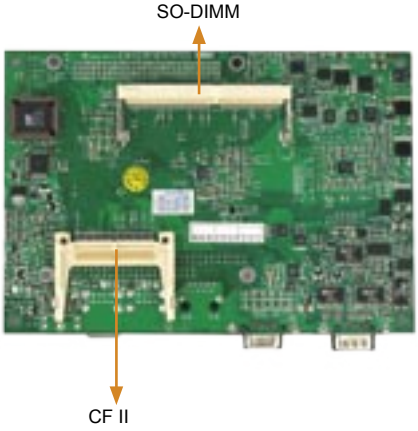
NANO-7240

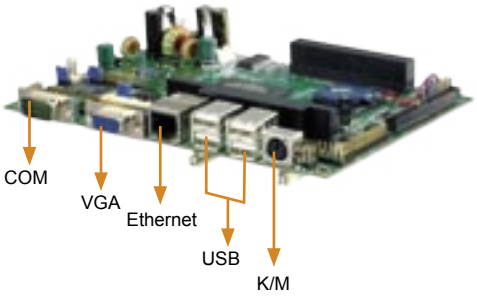
EPIC Onboard ULV Intel Celeron 400MHz CPU based with LCD/CRT VGA, LAN, Audio

Coming Soon

Long Term Supports







12V only

Fanless

Feature

- Embedded ULV Intel Celeron 400 MHz CPU for Fanless system support
- CRT/LCD VGA integrated in VT8606, support 36-bit LVDS/TTL LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PC/104+(ISA+PCI) expansion slot
- CFII, LAN, USB, Multi-COM, Audio integrated

Specifications

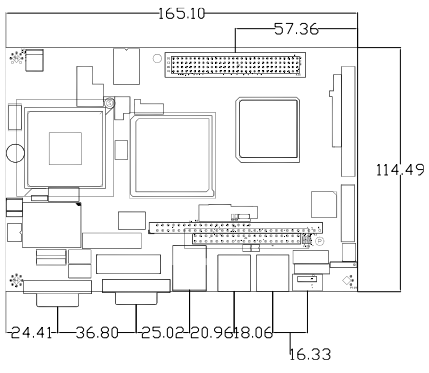
CPU	ULV Intel Celeron 400 MHz CPU
System Chipset	VIA VT8606 + VT82C686B
System Memory	1x PC133 SO-DIMM support up to 512MB SDRAM
Display	Display controller VIA VT8606 on chip ProSavage TM VGA controller Bus: AGP 4X One VGA port for CRT monitor 1920x1400 36-bit LVDS/TTL LCD interface Shared system memory up to 32 MB (SMA technology)
Ethernet	Realtek 8100BL 10/100 Mbs Ethernet
SSD	1x Compact Flash™ Type II Socket
I/O	1 x IDE port 1 x Parallel port 1 x PS2 Keyboard/Mouse support 3 x RS-232 Serial port 1 x RS-232/422/485 port 4 x USB 1.1 port (4 by connector,) 1 x PS/2 for Keyboard/Mouse 1 x IrDA by pin header (SIR mode)
Audio	AC'97 CODEC
Digital I/O	4 inputs / 4 outputs TTL lever
WDT	Software programmable support 1 ~ 255 sec system reset
Expansion slot	PC/104 and PC/104+
Hardware Monitoring	CPU voltage / Temperature / FAN speed monitor
Power control function	Meets ACPI 1.1 specification Single voltage +12V only
Operation Temperature	0 ~ 60 °C
Relative Humidity	5 ~95%, non-condensing

Tech Talk

ULV Intel Celeron CPU Product List

Model Name	Chipset	Form Factor
ROCKY-C400 series	VIA 8601T	Full size PICMG Bus SBC
PCISA-C400 series	VIA 8601T	Half size PCISA Bus SBC
JUKI-C400	VIA 8606T	Half size PCISA Bus SBC
NOVA-C400	VIA 8606T	5.25" Embedded Board
WAFER-C400	VIA 8601T	3.5" Embedded Board
ETX-C400	VIA 8606T	ETX CPU Module
NANO-7240	VIA 8606T	EPIC Embedded Board
ICPMB-2660	VIA CLE266	ATX Motherboard

Dimensions

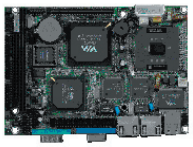


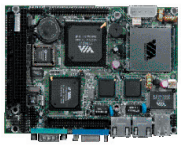
Ordering Information

- **NANO-7240-400-R10**
  EPIC On board ULV Intel Celeron 400MHz with LCD/CRT VGA, LAN, Audio

Note:
For ULV Intel Celeron 650 MHz / LV P III 800MHz CPU support, please contact supplier.

3.5” WAFER Embedded Board Selection Guide

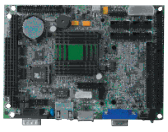
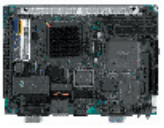





Model Name	WAFER-6820-800-733	WAFER-C400E2V	WAFER-C800EV-1G WAFER-E667EV-733	WAFER-E669E2V
CPU	Transmeta Crusoe TM5800 733MHz/800MHz	ULV Intel Celeron 400MHz	VIA C3 1GHz VIA EDEN 733MHz	VIA EDEN 400MHz
Chipset	VIA VT82C686B (South Bridge)	VIA VT8601T + VT82C686B	VIA VT8606 + VT8231	VIA VT8601T + VT82C686B
Memory	Equipped with 128MB and 1 x SO-DIMM socket upto Max. 512MB SDRAM	1 x SO-DIMM socket upto 512MB SDRAM	1 x SO-DIMM socket upto 512MB SDRAM	1 x SO-DIMM socket upto 512MB SDRAM
Graphic	CHIPS 69000 2MB V-RAM 50-pin for LCD I/F DB-15 VGA	Integrated VT8601T 50-pin 24-bit LCD I/F DB-15 VGA	Integrated VT8606 50-pin 36-bit LCD I/F DB-15 VGA	Integrated VT8601T 50-pin 24-bit LCD I/F DB-15 VGA
Ethernet	One 10 / 100 Mbps Ethernet	Dual 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet	Dual 10/100 Mbps Ethernet
Drive Interface	1 x IDE ATA-66/33 1 x FDD	1 x IDE ATA-100/66/33 1 x FDD	2 x IDE ATA-100/66/33 1 x FDD	1 x IDE ATA-100/66/33 1 x FDD
I/O Interface	1 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	1 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 2.0 1 x IrDA	1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	1 x RS-232 1 x RS-232/422/465 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 2.0 1 x IrDA
Audio	AC’97 CODEC	AC’97 CODEC	AC’97 CODEC	AC’97 CODEC
SSD	CF Type II	CF Type II	N/A	CF Type II
Power Consumption	+5V@1.7A (128MB SDRAM)	+5V@3A 12V@0.1A	+12V@0.17A, +5V@4.08A (512MB SDRAM)	+12V@40mA, +5V@3A (128MB SDRAM)
Watchdog Timer	Software Programmable 1-255 sec system reset			
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function			
Operation Environment	Temperation Range 0 ~ 60°C Relative Humidity 5 ~ 95 %, non-condensing			
Expansion slot	1 x PC/104	1 x PC/104	1 x PCMCIA type-II socket	1 x PC/104

3.5” WAFER Embedded Board Selection Guide

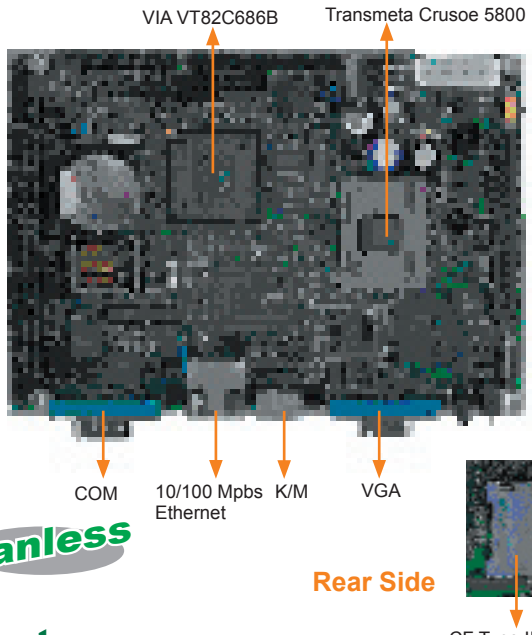



Model Name	WAFER-5823R	WAFER-5822	WAFER-5820	WAFER-4826EV-32M	WAFER-4823	WAFER-4821
CPU	AMD Geode GX1-300MHz			STPC ATLAS 5x86	Maple 486DX4-100	Maple 486DX4-
Chipset	AMD Geode GX1 + CS5530A	AMD Geode GX1 + CS5530A	AMD Geode GX1 + CS5530A	STPC ATLAS	ACC Maple	ACC Maple
Memory	144-pin SO-DIMM socket upto 512MB SDRAM	144-pin SO-DIMM socket upto 512MB SDRAM	144-pin SO-DIMM socket upto 512MB SDRAM	On board 32MB 144-pin SO-DIMM socket upto 128MB SDRAM	1 x SIMM upto 32MB EDO RAM	1 x SIMM upto 32MB EDO RAM or 4MB RAM on-board
Graphic	CS5530A integrated 44-pin LCD I/F DB-15 VGA	CS5530A integrated 44-pin LCD I/F DB-15 VGA TV output	CS5530A integrated 44/20-pin LCD I/F DB-15 VGA	Chipset integrated 50-pin LCD I/F DB-15 VGA	HM86508, 1MB RAM 44-pin LCD I/F DB-15 VGA (WAFER-4823)	N/A
Ethernet	Dual 10/100 Mbps Ethernet	One 10/100 Mbps Ethernet			One 10Mbps Ethernet	
Drive Interface	1 x IDE ATA-33 1 x FDD	1 x IDE ATA-33 1 x FDD	1 x IDE ATA-33 1 x FDD	1 x IDE ATA-33 1 x FDD	1 x IDE ATA-33 1 x FDD	1 x IDE ATA-33 1 x FDD
I/O Interface	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	2 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA 4xDI 4xDO	1 x RS-232/422/485 1 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA	3 x RS-232 1 x RS-232/422/485 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 2 x USB 1.1 1 x IrDA 4xDI 4xDO	1 x RS-232/422/485 1 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4xDI 4xDO	1 x RS-232/422/485 3 x RS-232 1 x PS/2 KB/MS 1 x LPT(SPP/EPP/ECP) 4xDI 4xDO
Audio	N/A	AC’97 CODEC	AC’97 CODEC	N/A	N/A	N/A
SSD	CF Type II	DiskOnChip	DiskOnChip	CF Type II	DiskOnChip	DiskOnChip
Power Consumption	+12V@0.1A, +5V@2A, (64MB SDRAM)	+12V@0.1A, +5V@2A (64MB SDRAM)	+12V@0.1A, +5V@2A (64MB SDRAM)	+5V@2.6A (32MB SDRAM)	+5V@1.92A (32MB EDO RAM)	+5V@1.85A (32MB EDO RAM)
Watchdog Timer	Software Programmable 1-255 sec system reset					
Hardware Monitor	CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function					
Operation Environment	Temperation Range 0 ~ 60 °C Relative Humidity 5 ~ 95 %, non-condensing					
Expansion slot	1 x PC/104	1 x PC/104	1 x PC/104	1 x PC/104	1 x PC/104	1 x PC/104

WAFER-6820

3.5" TM5800/733MHz CPU Board with 128MB SDRAM, LCD/ CRT VGA, LAN & Audio



Feature

- Embedded Transmeta Cursoe CPU support up to 800MHz
- CRT/LCD integrated in Asilliant 69000, support 36-bit TTL LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PC/104 expansion slot
- CFII, LAN, USB, Audio integrated

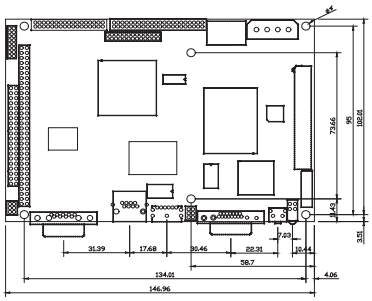
Specifications

CPU	Transmeta Crusoe Processor Model TM5800 733MHz/800MHz
South Bridge Chipset	VT82C686B
System Memory	One 144-pin SO-DIMM Socket (128MB SDRAM Attached)
Display	– 69000 LCD/CRT VGA – BUS: PCI – V-RAM: 2MB RAM on CHIP – Resolution: 1280X1024 (256 colors) for CRT display – Connector: DB-15 for CRT display 50-pin pin-header for 36-bit LCD panel
Ethernet	Realtek RTL8100B 10/100Mbps Ethernet chip with RJ-45 connector
SSD	One Compact Flash Type II socket (rear side)
WDT	Software programmable, support 1~ 255 sec. system reset
I/O	– 1 x RS-232 port – 1 x RS-232/422/485 selectable port – 1 x Parallel port (support SPP/EPP/ECP mode) – 2 x USB 1.1 (pin header) – 1 x IrDA port – 1 x FDD port – 1 x ATA-66 IDE channel (44-pin header) (optional 44 to 40 connector) CB-HD32
Audio	AC'97 compliant Audio CODEC
Expansion	One PC/104 expansion connector for add-on modules
Power Consumption	+5V@1.7A (with 128MB SDRAM)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

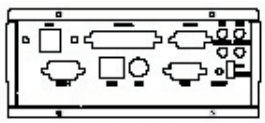
- **WAFER-6820-733-R3/SDM-128SD-100-A**
  3.5" TM5800/733MHz CPU Board with 128MB SDRAM, LCD/ CRT VGA, LAN & Audio, R3
- **WAFER-6820-800-R33/SDM-128SD-100-A**
  3.5" TM5800/800MHz CPU Board with 128MB SDRAM, LCD/ CRT VGA, LAN & Audio, R33

Dimensions



Customized-I/O solution for compact size and flexible!!

EBC-1000
Industrial 3.5"Embedded Chassis



BK-6820 for WAFER-6820

Specifications

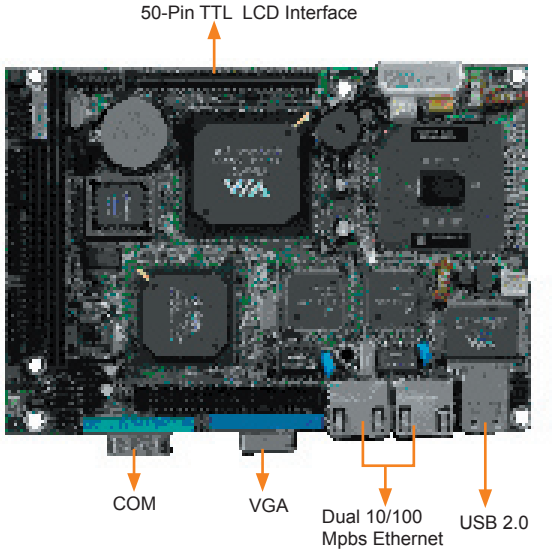
- Designed to Wall-mount application
- Designed to IEI 3.5"WAFER series SBC
- Drive Bays: One 2.5" Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50°C
- Vibration: 5~17Hz, 0.1"double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5" Embedded Chassis with 90W AT Power supply Without I/O Bracket
- **BK-6820**
  WAFER-6820 I/O Bracket and Cable set

WAFER-C400

3.5” Intel ULV 400MHz CPU Board with LCD/ CRT VGA, Dual LAN, USB 2.0 & Audio

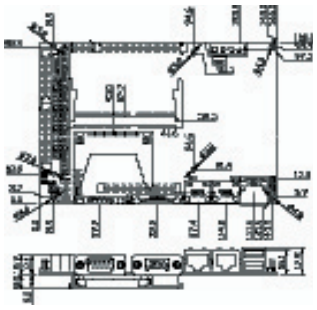


Rear Side

Feature

- Embedded ULV Intel Celeron 400 MHz CPU for Fanless system support
- CRT/LCD integrated in VT8601, support 24-bit TTL LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PC/104 extension slot
- CFII, Dual LAN, USB2.0, Audio integrated

Dimensions



Specifications

CPU	Embedded Ultra Low Voltage Intel® Celeron 400MHz
System chipset	VIA VT8601T + VT82C686B
System Memory	1 x 144-pin SO-DIMM socket up to 512MB
Display	– VT8601T Chipset Integrated – AGP 4X bus – Resolution support up to 1600x1200 for CRT with DB-15 connector – 24-bit TTL LCD interface with 50-pin header
Ethernet	2 x on-board 10 / 100Mbps Intel 82551 / RTL8100B fast Ethernet controller
SSD	1x onboard Compact Flash™ Type II socket
I/O	– 1 x RS-232 / 422 / 485 selectable – 1 x RS-232 – 1 x LPT parallel port by pin-header (Supports SPP/EPP/ECP mode) – 1 x IrDA (SIR mode) – 2 x USB 2.0 – 1 x ATA / 100 IDE channel – 1 x PS/2 for Keyboard/Mouse – 1 x FDD connector, support 1.44 / 2.88 and 3-mode floppy drive
Audio	AC’97 compliant Audio CODEC
WDT	Software programmable supports 1~255 seconds system reset
Expansion Slot	One PC/104 expansion connector for add-on modules
Power Consumption	+5V@3A, +12V@100mA (256MB SDRAM)
Operating Temperature	0 ~ 60ºC
Relative Humidity	5 ~ 95 %, non-condensing
GW	700g

Ordering Information

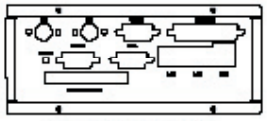
- **WAFER-C400E2VN-R10**
  3.5” Intel ULV 400MHz CPU Board with LCD/ CRT VGA, Dual Intel LAN, USB 2.0 & Audio
- **WAFER-C400E2VR-R10**
  3.5” Intel ULV 400MHz CPU Board with LCD/ CRT VGA, Dual Realtek LAN, USB 2.0 & Audio

Note: For ULV Intel Celeron 650MHz/P3-M 800MHz CPU supports, please cotact supplier

Customized-I/O solution for compact size and flexible!!

EBC-1000
Industrial 3.5”Embedded Chassis

Wall mount kits



BK-5823 for WAFER-5823/E669EV2/C400

Specifications

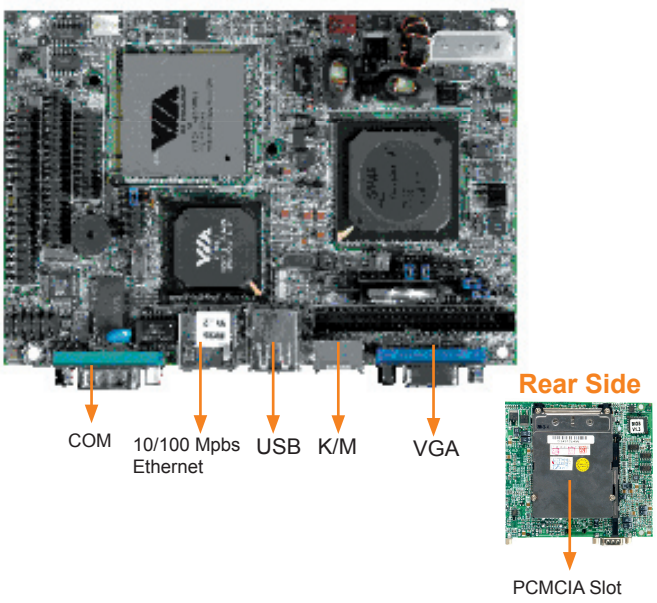
- Designed to Wall-mount application
- Designed to IEI 3.5”WAFER series SBC
- Drive Bays: One 2.5” Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50ºC
- Vibration: 5~17Hz, 0.1”double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5” Embedded Chassis with 90W AT Power supply Without I/O Bracket
- **BK-5823** WAFER-5823/E669/C400 I/O Bracket and Cable set

WAFER-C800EV/E667EV

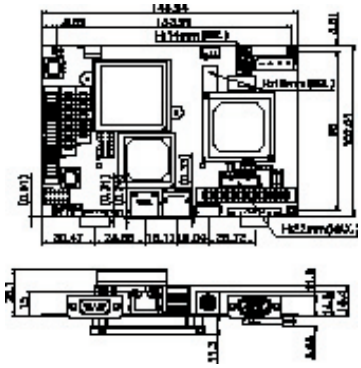
3.5" VIA C3 / EDEN CPU Board with LCD/ CRT VGA, LAN, PCMCIA & Audio



Feature

- Embedded VIA C3/Eden CPU for Fanless system support
- CRT/LCD integrated in VT8606, support 36-bit TTL LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PCMCIA type II socket
- LAN, USB, Audio integrated

Dimensions



Specifications

CPU	Embedded VIA C3 1GHz (WAFER-C800EV-1G) EDEN 733MHz CPU (WAFER-E667EV-733)
System Chipset	VIA VT8606 + VT8231
System Memory	One 144-pin SODIMM socket up to 512MB SDRAM
Display	128-bit Single Cycle 2D/3D Graphics Engine (VIA VT8606) – AGP 4X bus bandwidth up to 1066 MB/sec – V-RAM: shared with system memory – Resolution: up to 1920 x 1440 – Integrated 32-bit True Color DAC – Connector: DB-15
LCD Interface	– 36-bit DSTN/TFT flat panel for TTL interface supports 256 shades of gray – Connector: 50 pin-header
Ethernet	1 x 10/100Mbps Fast Ethernet (VIA 8231 Chipset integrated + VT6103 PHY)
I/O	– 1 x RS232 – 1 x RS232/422/485 – 1 x LPT – 2 x USB 1.1 – 1 x PS/2 – 1 x IrDA – 2 x ATA-100 IDE channel, supports CD-ROM; ZIP and LS-120 bootable
Audio	AC' 97 Codec
Expansion Slot	1 x PCMCIA type II socket
Power Supply Input	4-pin power housing (5V only, 5.25" Drive Connector)
Power Consumption	– WAFER-C800EV: 12V@170mA; 5V@4.08A – WAFER-E667EV: 12V@50mA; 5V@2.6A (with 512MB SDRAM Windows 2000)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

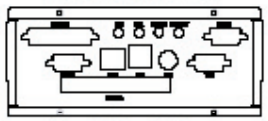
Ordering Information

- **WAFER-C800EV-1G**
  3.5" VIA C3 1GHz CPU Board with LCD/ CRT VGA, LAN, PCMCIA & Audio
- **WAFER-E667EV-733**
  3.5" VIA EDEN 733MHz CPU Board with LCD/ CRT VGA, LAN, PCMCIA & Audio

Customized-I/O solution for compact size and flexible!!

BC-1000
dustrial 3.5"Embedded
nassis

Wall mount kits



BK-C800 for WAFER-C800EV/E667EV

Specifications

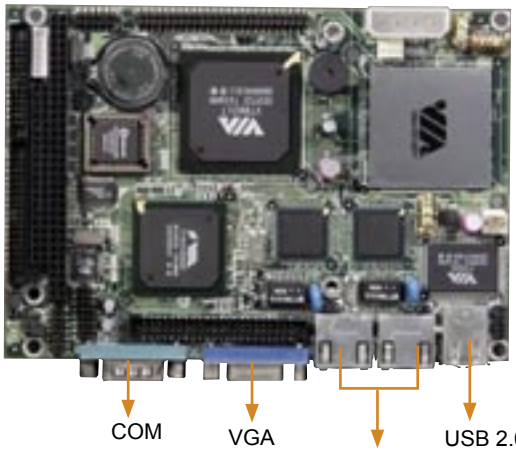
- Designed to Wall-mount application
- Designed to IEI 3.5"WAFER series SBC
- Drive Bays: One 2.5" Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50°C
- Vibration: 5~17Hz, 0.1"double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5" Embedded Chassis with 90W AT Power supply
  Without I/O Bracket
- **BK-C800** WAFER-C800/E667 I/O Bracket and Cable set

WAFER-E669

3.5” VIA EDEN 400MHz CPU Board with LCD/ CRT VGA, Dual LAN, USB 2.0 & Audio



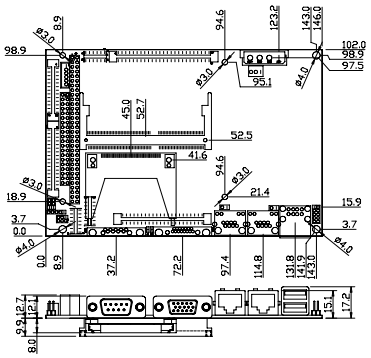
Rear Side

Fanless

Feature

- Embedded VIA C3/Eden CPU for Fanless system support
- CRT/LCD integrated in VT8601, support 24-bit TTL LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- LAN, USB, Audio integrated

Dimensions



Specifications

CPU	Embedded VIA Eden 400MHz CPU
System Chipset	VIA 8601T + VT82C686B
Display	– VT8601T Chipset Integrated – AGP 4X bus – Resolution support up to 1600x1200 for CRT with DB-15 connector – 24-bit TTL LCD interface with 50-pin header
Ethernet	2 × 10/100Mbps Fast Ethernet (Realtek8100B / Intel 82551)
SSD	CompactFlash™ Type II socket
I/O	1 × RS232 1 × RS232/422/485 2 × USB2.0 1 × FDD 1 × IDE ATA-100 1 × LPT 1 × IrDA 1 × PS/2 for Keyboard/Mouse
Audio	AC’97 Codec
Expansion Slot	1 × PC/104
Digital I/O	4 x input and 4 x output TTL level
E2Key	Support
WDT	Software programmable 1~255 sec
Power Consumption	12V@40mA; 5V @3A (128MB SDRAM)
Operation Temperature	0~60ºC
Relative Humidity	5~95%, non-condensing
GW	700g

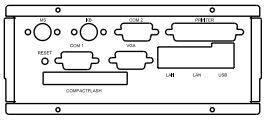
Ordering Information

- **WAFER-E669E2VR-400**
  3.5” VIA EDEN 400MHz CPU Board with LCD/ CRT VGA, Dual Realtek LAN, USB 2.0 & Audio
- **WAFER-E669E2VN-400**
  3.5” VIA EDEN 400MHz CPU Board with LCD/ CRT VGA, Dual Intel LAN, USB 2.0 & Audio

Customized-I/O solution for compact size and flexible!!

EBC-1000
Industrial 3.5”Embedded Chassis

Wall mount kits



BK-5823 for WAFER-5823/E669EV2

Specifications

- Designed to Wall-mount application
- Designed to IEI 3.5”WAFER series SBC
- Drive Bays: One 2.5” Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50ºC
- Vibration: 5~17Hz, 0.1”double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

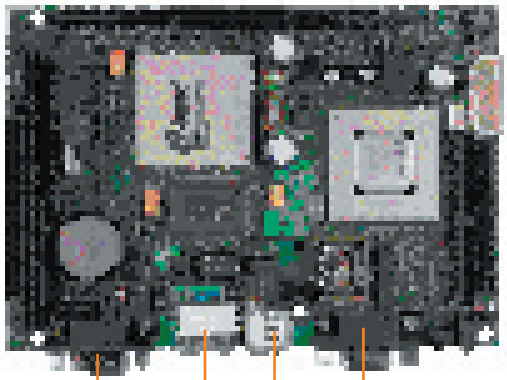
Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5” Embedded Chassis with 90W AT Power supply Without I/O Bracket
- **BK-5823** WAFER-5823/E669/C400 I/O Bracket and Cable set

WAFER-5820/5822

3.5" GX1-300 MHz CPU Board with LCD/CRT VGA, LAN, TV out & Audio

WAFER-5820



300MHz NOW

Fanless

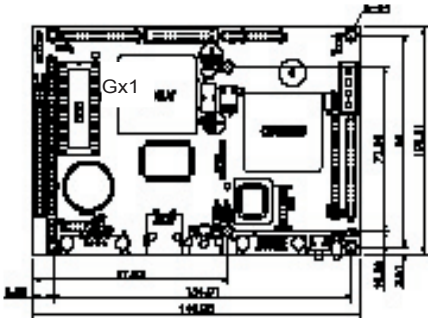
Rear Side

SO-DIMM Socket

Feature

- Embedded AMD Geode GX1-300 CPU for Fanless system support
- CRT/LCD integrated in CS5530A, support 18-bit TFT LCD, LVDS (5820), TV-Out(5822)
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PC/104 extension slot
- DOC, LAN, USB, Audio integrated

Dimensions



Specifications

CPU	Embedded AMD Geode GX1 300MHz
System Chipset	AMD Geode GX1 + CS5530A
System Memory	One 144-pin SO-DIMM socket supports up to 512MB SDRAM
Display	– Built-in CS5530A chipset, supports TFT LCD & CRT display – V-RAM : Share with system memory (up to 4MB), setting in BIOS – Resolution :1280 x 1024 (256 colors) – Connector :DB-15 for CRT display 44-pin pin-header for TFT LCD 20-pin pin-header for LCD LVDS interface(WAFER-5820) TV Out (Both NTSC & PAL) (WAFER-5822)
Ethernet	Realtek RTL8100BL 10/100Mbps Ethernet controller
SSD	One DiskOnChip socket
WDT	Software programmable, support 1~ 255 sec. system reset
I/O	– 1 x RS-232 port & 1 x RS-232/422/485 selectable port (WAFER-5820) – 2 x RS-232 ports (WAFER-5822) – 1 x parallel port (support SPP/EPP/ECP mode) – 2 x USB 1.1 (by pin-header) – 1 x IrDA port – 1 x FDD port – 1 x ATA-33 IDE channel (44-pin by pin-header)
Audio	AC'97 compliant Audio CODEC
Digital I/O	4 x input and 4 x output, TTL Level (WAFER-5822)
Expansion	One PC/104 expansion connector for add-on modules
Power Consumption	+5V@2A, +12V@100mA (32MB SDRAM), WAFER-5820-300-R3 (+5V only)
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

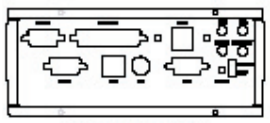
Ordering Information

- **WAFER-5820-300-R3**
  3.5" GX1-300MHz CPU Board with LCD/ CRT VGA, LAN & Audio, R3
- **WAFER-5822-300-R3**
  3.5" GX1-300MHz CPU Board with LCD/ CRT VGA, LAN, TV Out & Audio, R3

Customized-I/O solution for compact size and flexible!!

EBC-1000
ndustrial 3.5"Embedded
Chassis

Wall mount kits



BK-5820 for WAFER-5820/5822

Specifications

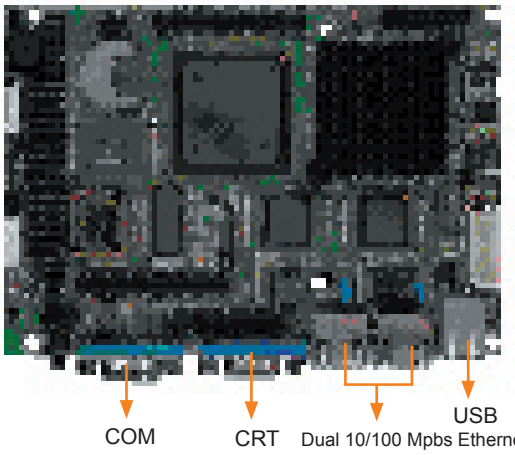
- Designed to Wall-mount application
- Designed to IEI 3.5"WAFER series SBC
- Drive Bays: One 2.5" Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50°C
- Vibration: 5~17Hz, 0.1"double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

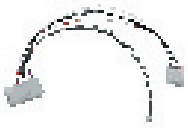
Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5" Embedded Chassis with 90W AT Power supply
  Without I/O Bracket
- **BK-5820** WAFER-5820/5822/ I/O Bracket and Cable set

WAFER-5823

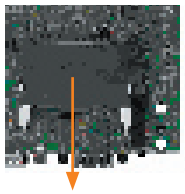
3.5” GX1-300 Embedded Board with
Dual LAN and LCD/CRT VGA





WAFER-5823 ATX
PowerCable Kit
32100-052100

Rear Side



Fanless

Specifications

CPU	AMD Geode GX1-300MHz
System Memory	Supports up to 512MB SO-DIMM
Display	– Built-in CS5530A chipset – V-RAM: share with system memory (up to 4MB) setting by BIOS – Resolution: – 1280 x 1024, 256 colors for CRT; 1024 x 768, 64K color for LCD – Connector:External DB-15 for CRT and one internal 18-bit 44pin pin header for LCD
Ethernet	Dual Intel 82559 or Realtek RTL8100B 10/100 Ethernet controllers supports WOL, AOL (Intel only) function
SSD	CompactFlash TypeII socket support Flash Disk, IBM MicroDrive
I/O	– 2 x RS-232 (16C550 UARTs compatible) – 1 x Parallel (SPP/EPP/ECP) – 2 x USB 1.1 – 1 x IrDA (SIR) – 1 x FDD – 1 x IDE channel (1 x 44-pin header)
PC/104	one for PC/104 add-on modules
WDT	Software programmable, supports 1~255 sec. system reset
Power Control Function	supports ATX power functions
Power Consumption	5V@2A (with 64MB SRAM)
Operating Temperature	0-60°C
Relative Humidity	5~95%, non-condensing
Dimensions	145 x 102 mm (5.7” x 4”)
GW	700g

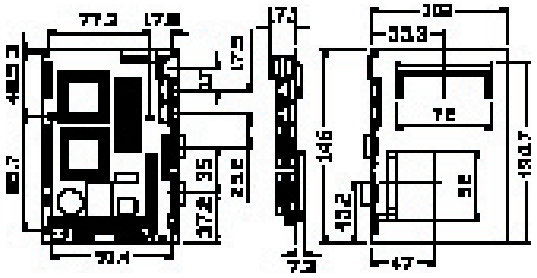
Ordering Information

- **WAFER-5823R-300-R2**
  3.5” GX1-300MHz CPU Board with LCD/ CRT VGA, Dual Realtek 8100BL LAN, R2

Feature

- Embedded AMD Geode GX1-300 CPU for Fanless system support
- CRT/LCD integrated CS5530A, support 18-bit TFT LCD
- 1x PC133 SDRAM SO-DIMM support up to 512MB
- Support PC/104 extension slot
- CFII, Dual LAN, USB, Audio

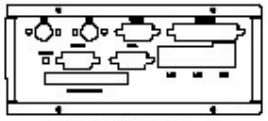
Dimensions



Customized-I/O solution for compact size and flexible!!

BC-1000
ıdustrial 3.5”Embedded
ıassis

Wall mount kits



BK-5823 for WAFER-5823/E669EV2

Specifications

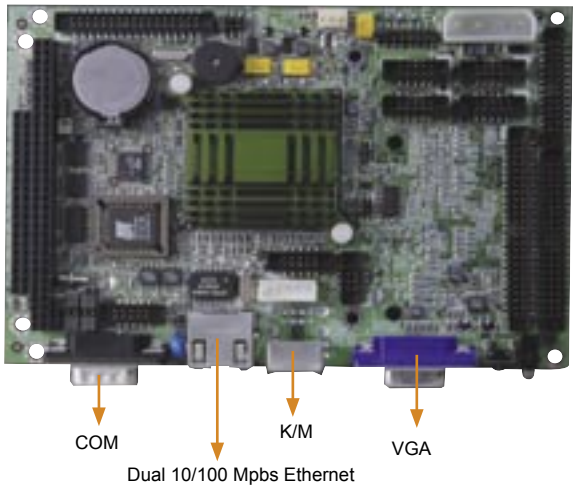
- Designed to Wall-mount application
- Designed to IEI 3.5”WAFER series SBC
- Drive Bays: One 2.5” Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50°C
- Vibration: 5~17Hz, 0.1”double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5” Embedded Chassis with 90W AT Power supply
  Without I/O Bracket
- **BK-5823** WAFER-5823/E669/C400 I/O Bracket and Cable set

WAFER-4826

3.5” STPC Atlas 133MHz CPU Board with 32MB DRAM, LCD/ CRT VGA, LAN



Rear Side

Fanless

Memory on board

+5V Only

Specifications

CPU	Embedded STPC ATLAS 5x86 133MHz FSB base CPU
System Memory	On board 32MB with 1 x SO-DIMM Socket support up to 128MB SDRAM
Display	Chipset integrated – 1 x DB-15 for VGA display – 1 x 50-pin header for LCD connector (optional)
SSD	1 x Compact Flash™ Type II socket
Ethernet	1 x 10/100Mbps Realtek 8100BL Ethernet LAN Controller
I/O	– 3 x RS-232 by pin header – 1 x RS-232/422/485 – 1 x LPT by pin header (supports SPP/EPP/ECP mode) – 2 x USB 1.1 – 1 x PS/2 for Keyboard/Mouse – 1 x IDE by pin header (44-pin with 2.0mm pitch) – 1 x Floppy by pin header (26-pin with 2.0mm pitch) – 1 x IrDA
WDT	Software programmable supports 1 ~ 255 sec, system reset
E²Key™	Support
Digital I/O	TTL Level 4 input & 4 output
Expansion Slot	One PC/104 expansion connector for add-on modules
Power Supply Input	4-pin power housing (5V only, 5.25” Drive Connector)
Power Consumption	+5V@2.6A(STPC Atlas with on board 32MB SDRAM)
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

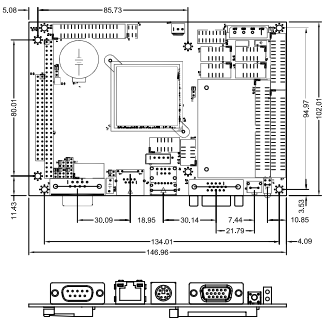
- **WAFER-4826EV-32M**
  3.5” STPC Atlas 133MHz CPU Board with 32MB DRAM, LCD/ CRT VGA, LAN

Note:
LCD display support please contact supplier

Feature

- Embedded STPC ATLAS CPU for Fanless system support
- CRT/LCD display integrated in STPC
- 1x PC133 SDRAM SO-DIMM up to 128MB, on board Memory 32M support
- Support PC/104 extension slot
- CFII, LAN, USB, Multi-COM integrated

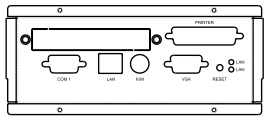
Dimensions



Customized-I/O solution for compact size and flexible!!

EBC-1000
Industrial 3.5”Embedded Chassis

Wall mount kits



BK-5821 for WAFER-4821/4823/4826

Specifications

- Designed to Wall-mount application
- Designed to IEI 3.5”WAFER series SBC
- Drive Bays: One 2.5” Internal HDD Drive Bay
- Standard equipped with Power Supply
  ACE-890A 90W AC Input AT Power Suupply
- Optional Power Supply:
  ACE-890AP AC Input AT Power Supply with PFC Function
  ACE-890V 12V DC Input AT Power Supply
  ACE-890C 24V DC Input AT Power Supply
  ACE-890T 48V DC Input AT Power Supply
  ACE-890P 100V DC Input AT Power Supply
- Operating temperature: 0~50°C
- Vibration: 5~17Hz, 0.1”double amplitude displacement
  17~640 Hz,1.5G acceleration peak to peak
- Shock: 10G acceleration peak to peak (11ms)
- Color: Dark Blue (PANTONE 433C)
- Dimension: 172mm(W)x 116mm(H)x 129mm(D)

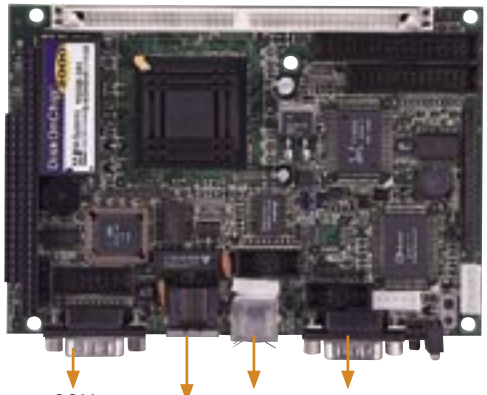
Ordering Information

- **EBC-1000/ACE-890A**
  Industrial 3.5” Embedded Chassis with 90W AT Power supply Without I/O Bracket
- **BK-4821**
  WAFER-4821/4823/4826 I/O Bracket and Cable set

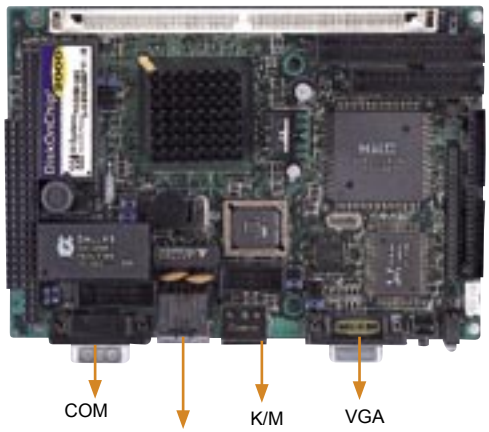
WAFER-4821/4823

3.5” 486DX4-100 CPU Board

WAFER-4821



WAFER-4823



Specifications

CPU	486DX4-100 CPU on board, embedded in ACC Maple chipset
System Chipset	ACC Maple
System Memory	– WAFER-4821:One 72-pin SIMM socket up to 32MB EDO RAM or 4MB EDO RAM on board for OEM requirement – WAFER-4823: One 72-pin SIMM socket up to 32MB EDO RAM
Display	(WAFER-4823) – Chip: HM86508 LCD/CRT VGA – Bus: ISA – V-RAM: 1MB EDO RAM – Resolution: LCD: 800 x 600 CRT: 1024 x 768 – Connectors: DB-15 for CRT display / 44-pin pin-header for LCD panel
Ethernet	Realtek RTL8019 10Mbps Ethernet chip with RJ-45 connector
SSD	One DiskOnChip socket
I/O	– WAFER-4823: 1 x RS-232 port and 1 x RS-232/422/485 selectable port – WAFER-4821: 3 x RS-232 ports and 1 x RS-232/422/485 selectable port – 1 x parallel port (support SPP/EPP/ECP mode) – 1 x FDD channel – 1 x IDE channel 44-pin pin-header
Digital I/O	4 x Input and 4 x Output TTL Level
Exansion Slot	One PC/104 expansion connector for add-on cards
WDT	Software programmable, support 1~ 255 sec. system reset
E²Key	A non-volatile 1Kbit EEPROM is provided to retain application critical read/write data (WAFER-4821)
Power Consumption	– WAFER-4823 : +5V@1.92A (32MB EDO RAM) – WAFER-4821 : +5V@1.85A
Operating Temperature	0~60°C
Relative Humidity	5~95%, non-condensing
GW	700g

Ordering Information

- **WAFER-4823** 3.5” 486DX4-100 CPU Board with LCD/ CRT VGA, LAN
- **WAFER-4821** 3.5” 486DX4-100 CPU Board with LAN, 4COM
- **WAFER-4821-M4** 3.5” 486DX4-100 CPU Board with 4MB DRAM, LAN, 4 COM

IEI Option

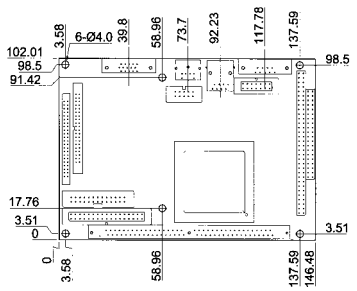
- **SM-8E/16E/32E-MAPLE**
  8/16/32MB EDO RAM Module

Note: WAFER-4821-M4 will limite on maximum 4MB on board DRAM due to the limitation of the Maple chipset

Feature

- CRT/LCD display integrated in HM86508(WAFER-4823)
- 1x SIMM socket up to 32MB EDO RAM, onboard 4MB (4821)
- Support PC/104 expansion slot
- DOC, LAN, Multi-COM (4821) integrated

Dimensions



MB-1200
Compact Chassis for WAFER 4821/4823/4826

Specifications

- Compact chassis for WAFER-4823/4821/4826
- Drive Bays: 1 x 2.5” HDD
- Reserved space for PC/104 module
- Power supply : ACE-855 series
- Dimensions: 184(W) x 81 x 138(D)mm; (7.2” x 3.2” x 5.4”)
- Net/GW: 1/2 (kg)

Ordering Information

- **MB-1200W/ACE-855A**
  For WAFER-4821/4823/4826 compact chassis with ACE-855A power supply

ETX Series

Best choice for Embedded Solutions

ETX Pentium-M CPU Module coming soon !!

ETX, Embedded Technology Extended, is a new architecture for industrial applictions. It fulfills the requirements for embedded technology by a compact module of most PC functions:
ETX divides a complete motherboard system into two parts physically:

– ETX MODULE - as small as 4.5 x 4 size, carries CPU system and core ASICs
– BASEBOARD including all I/O connectors, plus some supplementary functions.

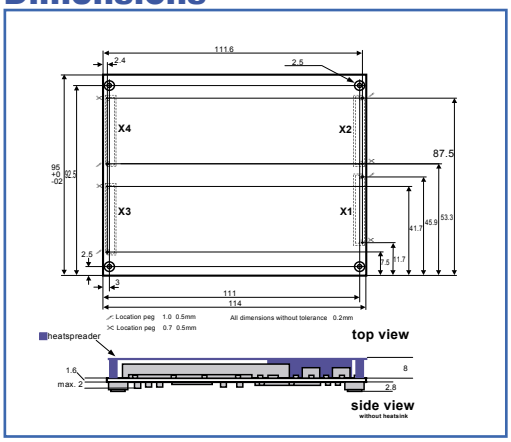
ETX Advantages

– ETX architecture is widely used
– Minimum engineering & evaluation cost sangs & reduced business risks
– Faster time-to-market
– The systems are scalable by just upgrading the CPU module
– Flexible customer solution board design

APPLICATIONS

- Digital Content Preview KIOSK
- Portable Instrument Computers
- Human Machine Interface Products
- Point Of Sale (POS)
- Home Automation
- Multimedia Entertainment
- Security Control Terminator
- Transportation Operation Console

Dimensions



Fitting Solution for Embedded Application

It occurs a lot that a CPU board doesn't meet industrial PC- based applications, due to unsuitable board size, improper connectors location or missing functions. The only alternative solution was to develop a completely new design, which is expensive and very time-consuming. Now, IEI presents to you FSEA (Fitting Solution for Embedded Application) which is based on the open standard of ETX technology and designed by JUMPtec.

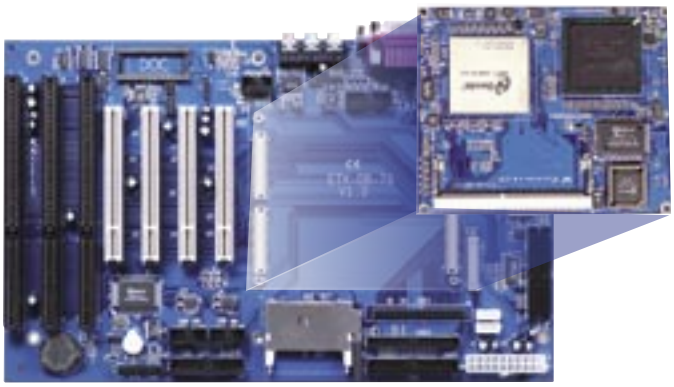
Basic Concept of IEI FSEA

ETX modules are scaleable and interchangeable. Thus with a single baseboard, several products can be launched in the same time by the aid of a wide choice of CPU modules.

M (ETX CPU Module) + N (ETX Baseboard) ⟶ M x N Products

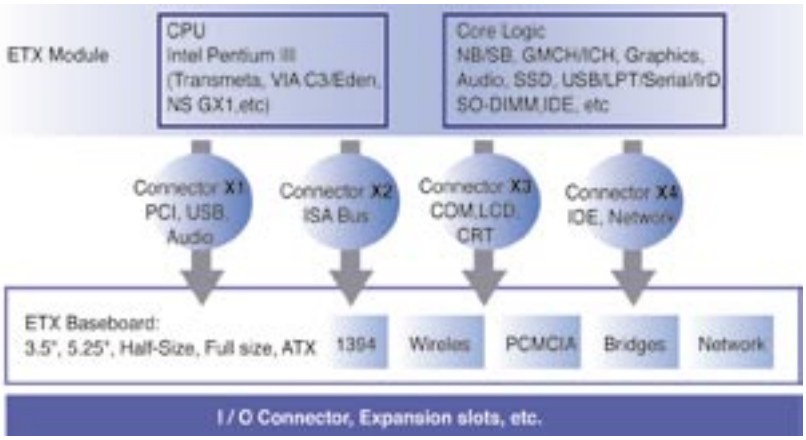
In order to enhance the reliability and flexibility of ETX solutions, IEI moves the Ethernet interface from the CPU module to the baseboard. Testing performance reveals that IEI's innovative design produces outstanding results.

ETX CPU MODULE



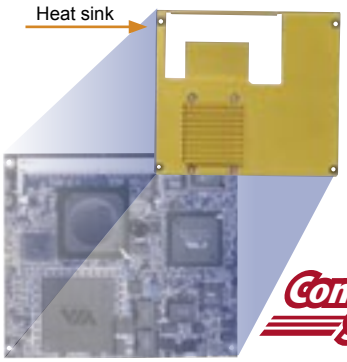
ETX Baseboard

ETX Module Architecture



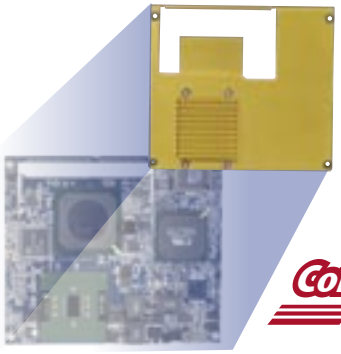
ETX Series

IEI ETX CPU Module Series



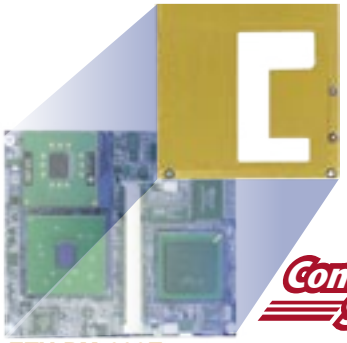
ETX-EDEN-400E

Coming Soon



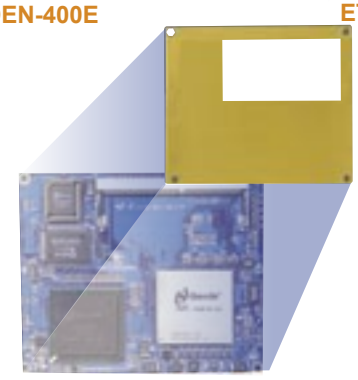
ETX-C400E/C400-650E

Coming Soon



ETX-PM-600E

Coming Soon



ETX-GX-300E

ETX-5800-733

Model Name	ETX-GX-300/300E	ETX-5800-733/800	ETX-EDEN-400/400E	ETX-C400E/C400-650E	ETX-PM-600E
CPU Level	AMD Geode GX1 300MHz	Transmeta TM5800 733 /800MHz	VIA EDEN 400MHz	ULV Intel Celeron400MHz/ ULV Intel Celeron 650MHz	Intel® Celeron-M 600MHz
System Chipset	AMD CS5530A	VT82C686B	VIA VT8606/VT82C686B	VIA VT8606/VT82C686B	Intel® 852GM + ICH4
Graphic Controller	On-Chip VGA	Asiliant 69030	On-Chip VGA	On-Chip VGA	On-Chip VGA
Graphic Memory	Share system memory Max. 4MB	4MB RAM on chip	Share system memory Max. 32MB	Share system memory Max. 32MB	Share system memory Max. 32MB
LCD Interface	18bit Single Channel LVDS	36bit Single Channel LVDS	36bit Dual Channel LVDS	36bit Dual Channel LVDS (TV Out optional)	48bit Dual Channel LVDS(TV Out optional)
DRAM	Up to 512MB	Up to 512MB	Up to 512MB	Up to 512MB	Up to 1GB
Ethernet	Realtek 8100BL (300E)	N/A	Realtek 8100BL (400E)	Realtek 8100BL	i82562ET
I/O Interface	2*IDE ATA-33 1*LPT/FDD 2*RS-232 2*USB 1.1 1*PS/2	2*IDE ATA-100 1*LPT/FDD 2*RS-232 4*USB 1.1 1*PS/2	2*IDE ATA-100 1*LPT/FDD 2*RS-232 4*USB 1.1 1*PS/2	2*IDE ATA-100 1*LPT/FDD 2*RS-232 4*USB 1.1 1*PS/2	2* IDE ATA-100 1*LPT/FDD 2*RS-232 6*USB 2.0 1*PS/2
Audio	AC'97 Codec	AC'97 Codec	AC'97 Codec	AC'97 Codec	AC '97 Codec
WTD	Software Programmable 1~255 sec.	Software Programmable 1~255 sec.	Software Programmable 1~255 sec.	Software Programmable 1~255 sec.	Software Programmable 1~255 sec.
Power Management	APM	ACPI	ACPI	ACPI	ACPI
Power Consumption	5V@1.4A; 5VSB@0.2A (NS GX1-300MHz, 128MB DRAM)	5V@1.0A; 5VSB@0.1A (TM-5800-733MHz, 128MB DRAM)	5V@2.6A; 5VSB@250mA (VIA EDEN400MHz, 128MB DRAM)	5V@3A; 5VSB@180mA (ULV Celeron400MHz, 128MB DRAM)	--
Operation Temperature	0°C~60°C	0°C~60°C	0°C~60°C	0°C~60°C	0°C~60°C
Relative Humidity	0-95%, Non-condensing	0-95%, Non-condensing	0-95%, Non-condensing	0-95%, Non-condensing	0-95%, Non-condensing

Note:

- ETX-GX-300E, ETX-EDEN-400E, ETX-C400E, ETX-C400-650E, ETX-PM-600E are compatible with iEi Baseboard Model name: ETX-DB-7S-R20
- ETX-GX-300, ETX-5800-733/800, ETX-EDEN-400 w/o LAN chip are compatible with IEI Baseboard Model name: ETX-DB-7S, ETX-DB-ATXR, ETX-DB-DVR1

Ordering Information

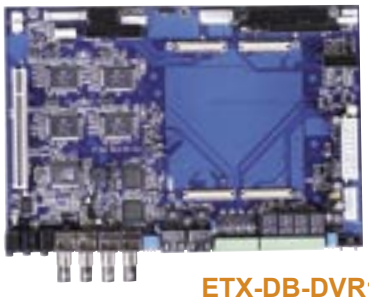
ETX-GX-300	AMD GX 1-300MHz ETX CPU Module
ETX-GX-300E	AMD GX 1-300MHz ETX CPU Module with LAN function
ETX-5800-733-128MB	Transmeta TM5800 733MHz ETX CPU Module with 128MB SDRAM
ETX-5800-733-256MB	Transmeta TM5800 733MHz ETX CPU Module with 256MB SDRAM
ETX-5800-733-512MB	Transmeta TM5800 733MHz ETX CPU Module with 512MB SDRAM
ETX-EDEN-400	VIA EDEN 400MHz ETX CPU Module
ETX-EDEN-400E	VIA EDEN 400MHz ETX CPU Module with LAN function
ETX-C400E-R10	ULV Intel Celeron 400 MHz ETX CPU Module with LAN function
ETX-C400-650E-R10	ULV Intel Celeron 650 MHz ETX CPU Module with LAN function
ETX-PM-600E-R10	ULV Intel Celeron-M 600 MHz ETX CPU Module with LAN function

ETX Series

IEI ETX Baseboard series

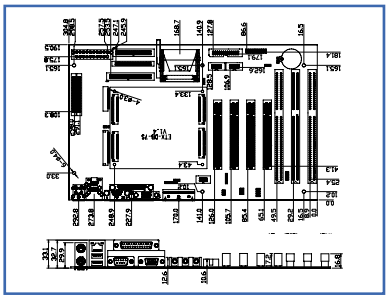
ETX-DB-7SR-R20
Full Function ETX Baseboard with LCD/CRT VGA, Audio, DOC, CF II & D I/O

ETX-DB-ATXR
ETX Evaluation Baseboard with LCD/CRT VGA, LAN, Audio & D I/O

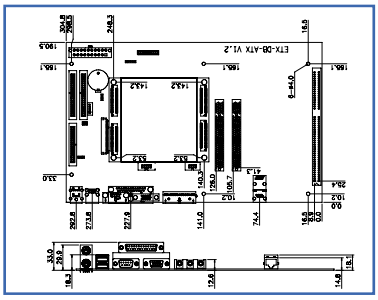


ETX-DB-DVR1
ETX Baseboard with 4 Capture Engine CF II, Dual LAN, Audio & D I/O

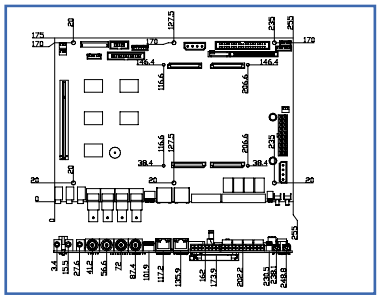
Dimensions



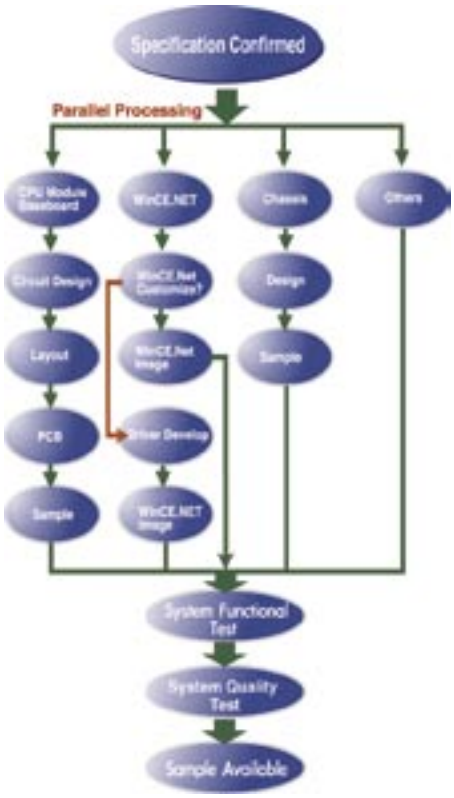
Dimensions



Dimensions



IEI ETX Customization Flow



IEI ETX Baseboard

	ETX-DB-7SR-R20	ETX-DB-ATX	ETX-DB-DVR1
CPU Module Interface	ETX Form Factor	ETX Form Factor	ETX Form Factor
LCD Connector Slot	1 x 20-pin 24bit DFP for LVDS 1 x 30-pin 48bit DFP for LVDS 1 x44-pin for 24bit TTL 1 x 44-pin for 18bit TTL	1 x 30-pin DFP for LVDS	1 x 20-pin 36bit DFP for LVDS
Extension Slot	4 x PCI, 3 x ISA	2x PCI, 1 x ISA	1 x PCI
Ethernet Chip	(ETX-DB-7SR-R20)N/A (ETX-DB-7SR) Realtek 8100BL	Realtek 8100BL	2 x Intel 82559
SSD	CompactFlash Type II socket	N/A	CompactFlash Type II socket
Audio	A'97	AC'97	C-Media (CMI 8738)
Ethernet Connector	N/A	1x RJ-45	2x RJ-45
RS232	3	2	1 (TX,RX only)
RS232,422,485	1	N/A	1
KB/MS	2	2	1
LPT	2	1	N/A
VGA	1	1	1
USB	4	4	2
IDE Connector	2	2	2
FDD	1	1	N/A
DOC	1	N/A	N/A
DIO	4 inputs, 4 outputs	4 inputs, 4 outputs	4 inputs, 4 outputs
IR connector	5 pin-header	5 pin-header	N/A
Video Capture Chip	N/A	N/A	4 x BT878A
Video Capture Connector	N/A	N/A	4 x BNC connector

Ordering Information

- **ETX-DB-7SR** ATX Size 7 Slots ETX Baseboard with Realtek 8100BL LAN
- **ETX-DB-7SR-R20** ATX Size 7 Slots ETX Baseboard w/o Realtek 8100BL LAN
- **ETX-DB-ATXR** ETX Evaluation Baseboard with Realtek 8100BL LAN
- **ETX-DB-DVR1** ETX DVR Baseboard with Dual Intel 82559 LAN

IEI ETX Module Connector Pin Definition

X1 (PCI-Bus, USB & Audio)

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	PCICLK3	4	PCICLK4
5	GND	6	GND
7	PCICLK1	8	PCICLK2
9	REQ3#	10	GNT3#
11	GNT2#	12	3.3V
13	REQ2#	14	GNT1#
15	REQ1#	16	3.3V
17	GNT0#	18	RESERVED
19	5V	20	5V
21	SERIRQ	22	REQ0#
23	AD0	24	3.3V
25	AD1	26	AD2
27	AD4	28	AD3
29	AD6	30	AD5
31	CBE0#	32	AD7
33	AD8	34	AD9
35	GND	36	GND
37	AD10	38	LINE-IN-L
39	AD11	40	MIC
41	AD12	42	LINE-IN-R
43	AD13	44	ASVCC
45	AD14	46	LINE-OUT-L
47	AD15	48	ASGND
49	CBE1#	50	LINE-OUT-R
51	5V	52	5V
53	PAR	54	SERR#
55	PERR#	56	RESERVED
57	PME#	58	USB2#
59	LOCK#	60	DEVSEL#
61	TRDY#	62	USB3#
63	IRDY#	64	STOP#
65	FRAME#	66	USB2
67	GND	68	GND
69	AD16	70	CBE2#
71	AD17	72	USB3
73	AD19	74	AD18
75	AD20	76	USB0#
77	AD22	78	AD21
79	AD23	80	USB1#
81	AD24	82	CBE3#
83	5V	84	5V
85	AD25	86	AD26
87	AD28	88	USB0
89	AD27	90	AD29
91	AD30	92	USB1
93	PCIRST#	94	AD31
95	INTC#	96	INTD#
97	INTA#	98	INTB#
99	GND	100	GND

X2 (ISA-Bus)

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	SD14	4	SD15
5	SD13	6	MASTER#
7	SD12	8	DRQ7
9	SD11	10	DACK7#
11	SD10	12	DRQ6
13	SD9	14	DACK6#
15	SD8	16	DRQ5
17	MEMW#	18	DACK5#
19	MEMR#	20	DRQ0
21	LA17	22	DACK0#
23	LA18	24	IRQ14
25	LA19	26	IIQR15
27	LA20	28	IRQ12
29	LA21	30	IRQ11
31	LA22	32	IRQ10
33	LA23	34	IOCS16#
35	GND	36	GND
37	SBHE#	38	MEMCS16#
39	SA0	40	OSC
41	SA1	42	BALE
43	SA1	44	TC
45	SA3	46	DACK2#
47	SA4	48	IRQ3
49	SA5	50	IRQ4
51	5V	52	5V
53	SA6	54	IRQ5
55	SA7	56	IRQ6
57	SA8	58	IRQ7
59	SA9	60	SYSCLK
61	SA10	62	REFSH#
63	SA11	64	REQ1
65	SA12	66	DACK1#
67	GND	68	GND
69	SA13	70	DRQ3
71	SA14	72	DACK3#
73	SA15	74	IOR#
75	SA16	76	IOW#
77	SA18	78	SA17
79	SA19	80	SMEMR#
81	IOCHRDY	82	AEN
83	5V	84	5V
85	SD0	86	SMEMW#
87	SD2	88	SD1
89	SD3	90	ZOWS#
91	DRQ2	92	SD4
93	SD5	94	IRQ9
95	SD6	96	SD7
97	IOCHK#.	98	RSTDRV
99	GND	100	GND

X3 (VGA,LCD,Video,COM1, COM2, LPT/Floppy, Irda, Mouse & Keyboard)

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	R	4	B
5	CRTHSYNC	6	G
7	CRTVSYNC	8	DDCSCL
9	N.C.	10	DDCSDA
11	TXCLK1-	12	TXOUT13-
13	TXCLK1+	14	TXOUT13+
15	GND	16	GND
17	TXOUT11+	18	TXOUT12+
19	TXOUT11-	20	TXOUT12-
21	GND	22	GND
23	TXOUT03-	24	TXOUT10+
25	TXOUT03+	26	TXOUT10-
27	GND	28	GND
29	TXOUT02-	30	TXCLK0+
31	TXOUT02+	32	TXCLK0-
33	GND	34	GND
35	TXOUT00+	36	TXOUT01+
37	TXOUT00-	38	TXOUT01-
39	5V	40	5V
41	N.C.	42	N.C.
43	N.C.	44	FPENABKL
45	N.C.	46	FPENAVDD
47	TV-CVBS	48	TV-Y
49	TV-SYNC	50	TV-C
51	LPT/FLPY#	52	RESERVED
53	5V	54	GND
55	STB#	56	AFD#
57	RESERVED	58	PD7
59	IRRX	60	ERR#
61	IRTX	62	PD6
63	RXD2	64	INIT#
65	GND	66	GND
67	RTS2#	68	PD5
69	DTR2#	70	SLIN#
71	DCD2#	72	PD4
73	DSR2#	74	PD3
75	CTS2#	76	PD2
77	TXD2	78	PD1
79	RI2#	80	PD0
81	5V	82	5V
83	RXD1	84	ACK#
85	RTS1#	86	BUSY#
87	DTR1#	88	PE
89	DCD1#	90	SLCT
91	DSR1#	92	MSCLK
93	CTS1#	94	MSDATA
95	TXD1	96	KBCLK
97	RI1#	98	KBDATA
99	GND	100	GND

X4 (IDE1, IDE2 & LAN Miscellaneous)

PIN	SIGNAL	PIN	SIGNAL
1	GND	2	GND
3	5VSB	4	PWGIN
5	PS_ON	6	SPEAKER
7	PWRBTN#	8	VBAT
9	KBINH	10	LINE LED
11	WDTACT#	12	ACT LED
13	ROMKBCS#	14	SPEED LED
15	ROMCS#	16	I2CCLK
17	5V	18	5V
19	OVRCUR	20	DIOCS#
21	EXTSMI#	22	I2CDATA
23	SMBCLK	24	SMBDATA
25	SIDE_CS3#	26	N.C.
27	SIDE_CS1#	28	DASP_S
29	SIDE_A2	30	PIDE_CS3#
31	SIDE_A0	32	PIDE_CS1#
33	GND	34	GND
35	PDIAG_S	36	PIDE_A2
37	SIDE_A1	38	PIDE_A0
39	SIDE_IRQ#	40	PIDE_A1
41	N.C.	42	N.C.
43	SIDE_DACK#	44	PIDE_IRQ#
45	SIDE_IORDY	46	PIDE_DACK#
47	SIDE_IOR#	48	PIDE_IORDY
49	5V	50	5V
51	SIED_IOW#	52	PIDE_IOR#
53	SIDE_DRQ	54	PIDE_IOW#
55	SIDE_D15	56	PIDE_DRQ
57	SIDE_D0	58	PIDE_D15
59	SIDE_D14	60	PIDE_D0
61	SIDE_D1	62	PIDE_D14
63	SIDE_D13	64	PIDE_D1
65	GND	66	GND
67	SIDE_D2	68	PIDE_D13
69	SIDE_D12	70	PIDE_D2
71	SIDE_D3	72	PIDE_D12
73	SIDE_D11	74	PIDE_D3
75	SIDE_D4	76	PIDE_D11
77	SIDE_D10	78	PIDE_D4
79	SIDE_D5	80	PIDE_D10
81	5V	82	5V
83	SIDE_D9	84	PIDE_D5
85	SIDE_D6	86	PIDE_D9
87	SIDE_D8	88	PIDE_D6
89	RING#	90	N.C.
91	RX-	92	PIDE_D8
93	RX+	94	SIDE_D7
95	TX-	96	PIDE_D7
97	TX+	98	IDERST#
99	GND	100	GND

Note: Red color for Ethernet function

PM-1045

PC/104 SiS552 CPU Board with on board DRAM, LCD/CRT VGA, LAN & Audio

Specifications

- CPU: Embedded SiS 552 x86 MMX compatible CPU
- System Memory: On board 64/128MB PC133 SDRAM
- Display: SiS552 embedded with Hardware 2D/Video/ Graphics
- Accelerators
  - AGP 4X Compliant / Fully DirectX 8 Compliant
  - Supports Shared System Memory up to 128 MB
  - Resolution supports up to 1920 x1440 true colors
  - 18-bit TTL for LCD display

SSD: 1 x DiskOnChip socket

- Audio: AC'97 CODEC
- Ethernet: 1 x 10/100Mbps RTL8100BL LAN controllers
- I/O:
  - 1 x RS-232 serial port
  - 1 x RS/232/422/485 serial ports
  - 1 x PS/2 connector for Keyboard/Mouse
  - 1 x LPT parallel port supports SPP/ECP/EPP Mode
  - 2 x USB 1.1
  - 2 x IDE ATA-100
  - 1 x Floppy
- WDT: Software programmable supports 1 ~ 255 sec system reset
- Digital I/O: TTL Level, 4 x inputs & 4 x outputs
- Power Source: Single +5V only
- Operation Temperature: 0~60°C
- Relative Humidity: 5~95%, non-condensing

Ordering Information

- **PM-1045-128MB**
  PC/104 SiS552 CPU Board with 128MB DRAM, LCD/CRT VGA, LAN & Audio
- **PM-1045-64MB**
  PC/104 SiS552 CPU Board with 64MB DRAM, LCD/CRT VGA, LAN & Audio

PM-1043

PC/104 STPC CPU Board with on board DRAM, LCD/ CRT VGA

Specifications

- CPU: Embedded STPC Elite/Consumer II CPU
- System Memory: On board 32/64MB SDRAM & 1xSO-DIMM slot totally support up to 128MB

Model	PM-1043VLCD Series	PM-1043V Series
VGA Controller	Asiliant (C&T) 69000 Resolution: 1024 x 768 @ 24-bit Connector: 16 pin-header for CRT	On Chip STPC Consumer II Resolution: 1280 x 1024 @ 24-bit Connector: 16 pin-header for CRT
LCD	HRS DF9 51 pin-header for 36-bit TFT LCD	N/A

- SSD: 1x DiskOnChip + 1 x CompactFlash Type II
- I/O:
  - 1 x PS/2 connector for keyboard/mouse
  - 2 x RS232, 1 x LPT
  - 1 x EIDE (ATA-2) channel, 1 x FDD
- WDT: Software programmable support 1~255 sec system reset
- Power Consumption: +5V@1.2A (STPC-DX2 / 64MB SDRAM)
- Operation Temperature: 0~60°C
- Relative Humidity: 5~95%, non-condensing

Cable kit

Ordering Information

- **PM-1043-32MB**
  PC/104 STPC Elite CPU Board with 32MB DRAM
- **PM-1043V-32MB**
  PC/104 STPC Consumer II CPU Board with 32MB SDRAM, VGA
- **PM-1043VLCD-32MB**
  PC/104 STPC Elite CPU Board with 32MB DRAM, LCD/ CRT VGA
- **PM-1043-64MB**
  PC/104 STPC Elite CPU Board with 64MB DRAM
- **PM-1043V-64MB**
  PC/104 STPC Consumer II CPU Board with 64MB SDRAM, VGA,
- **PM-1043VLCD-64MB**
  PC/104 STPC Elite CPU Board with 64MB DRAM, LCD/ CRT VGA

PM-1041

PC/104 STPC Client CPU Board with VGA

Specifications

- CPU: Embedded STPC Client support up to133MHz 486 core CPU
- System Memory: 1xSO-DIMM support up to 32MB EDO RAM
- Display: - On chip STPC Client
  - V-RAM: 512KB~4MB, share with system memory
  - Resolution: up to 1024 x 768 (64k colors)
- SSD: 1 x DiskOnChip
- I/O:
  - 2 x RS232
  - 1x LPT
  - 1 x IrDA port
  - 1 x FDD
  - 1 x IDE 44-pins by pin header
- Power Consumption: +5V@1.4A (STPC Client 32MB EDO RAM)
- Operation Temperature: 0~60ºC (CPU cooler needed)
- Relative Humidity: 5~95%, non-condensing

Ordering Information

- **PM-1041**
  PC/104 STPC Client CPU Board with VGA

PM-1021

PC/104 386SX-40 Module with LCD VGA/ 4MB DRAM

Power Cable

Specifications

- CPU : 386SX-40 class on-chip
- System Memory :
  4MB EDO RAM on board
- System Chipset : ALi M6117 chipset
- Video Controller :
  - HM86508
  - VRAM : 512KB
  - Resolution : 800 x 600 (256 colors)
- Super I/O :
  - 2 x serial ports (16550 compatible UART)
  - 1 x parallel port (support SPP/EPP/ECP)
- IDE : One 40-pin pin-header, support PIO-4 mode
- FDD : One port
- Watchdog timer
- Power Consumption : +5V@1.4A

Ordering Information

- **PM-1021**
  PC/104 386SX-40 Module with LCD VGA/ 4MB DRAM

PM-1058

PC/104 Plus Dual Channel MPEG 4 audio and video capture module

PM-1058

Coming Soon

VIN-KIT-03

Specifications

- PC/104 Plus form factor
- Dual MPEG-4 Encoder controllers
- ALi M5273 USB2.0 host controller
- Philips SAA7113 Video Decoder
- AKM 5355VT 16-Bit Stereo Audio A/D Converter
- On-board 16 MB SDRAM
- Video input: dual channel BNC Video/S-Video; NTSC/PAL/SECAM auto sensing
- Audio input: dual channel Stereo Audio
- PCI V2.1 Compliance; Plug & Play supported
- Ship with VIN-KIT-03 (2-channel BNC Video/S-Video + 2 Mic-phone jack Audio bracket board)

Ordering Information

- **PM-1058**
  PC/104 Plus Dual Channel MPEG 4 audio and video capture module

PM-1056

PC/104 Plus, Muilti-Channels Video Capture Module with GPIO function

PM-1056-16PG

PM-1056-4PG

4xRCA Connector Cable kit

25 Pins to 16xBNC input / 1xBNC output cable

Specifications

- Analog Video Capture Engine:
  - Conexant Fusion BT878A Capture Engine
  - NTSC/PAL/SECAM PCI Video Decoding
  - Flexible 24-bit wide GPIO (PM-1056-4PG/16PG)
- Functionality Support
  - NTSC: 720x480, 704x480, 640x480, 352x240, 320x240, 176x112
  - PAL: 720x576, 704x576, 640x576, 352x288, 320x288, 176x144
  - Video loss detection
- Multi-Screen/Image brightness/Resolution adjustment
- Capture Frame Rate :Max. 30 fps for 4 channels
- Provide WDM driver and SDK software development kits
- Support OS: Window 98, SE, ME, 2000, NT, XP and Linux
- Power Consumption: 3.5W@5V
- Operating Temperature: 0~50ºC

VIN-KIT-01
4xBNC Connector Board

- **PM-1056-4P**
  PC/104 Plus, 4 Channels Video Capture Module
- **PM-1056-4PB**
  PC/104 Plus, 4 Channels Video Capture Module with VIN-Kit-01
- **PM-1056-4PG**
  PC/104 Plus, 4 Channels Video Capture Module with GPIO function
- **PM-1056-4PGB**
  PC/104 Plus, 4 Channels Video Capture Module with GPIO, VIN-Kit-01
- **PM-1056-16P**
  PC/104 Plus, 16 Channels Video Capture Module
- **PM-1056-16PG**
  PC/104 Plus, 16 Channels Video Capture Module with GPIO function

PM-1002

PC/104 Plus Dual CAN & LAN module

Cable sets

Specifications

- PC/104 Plus form factor
- Dual CAN bus function, with Phillip SJA1000T CAN controller, Phillip 82C251 CAN transceiver
- One 10/100Mbps Realtek Rtl8100BL LAN
- Ship with dual DB-9 CAN ports and RJ45 LAN port cable sets
- O.S Supporting: Windows 98/NT/2000/XP, Linux & Win CE.NET

Tech Talk

CAN Applications

The industrial truck sector comprises elevating trucks, fork-lift trucks and high-lift trucks for a large variety of applications. The primary tasks of industrial trucks are thus the moving, raising, lowering, turning, tilting, gripping and releasing of goods. These complex movement patterns and the exact and safe positioning of the loads are ensured by the automatic control system. The potentiometers are installed either directly at the actuator of the steering system or – when driven indirectly by means of a pinion and toothed belt – at the lifting gear, or at the fork adjuster of a fork lift truck. The CAN-based control systems are fitted with interfaces recognizing the potentiometric output signals.

CAN is used as embedded network and as in-vehicle power-train network in many off-road and off-highway vehicles. The electronic control units (ECUs) connected to the CAN networks may control the diesel engine or the electrical drives if the vehicles are battery-powered. The range of vehicles using CAN includes agricultural and forestry vehicles as well as special vehicles for mining, aircraft towing, road construction, etc. In many of these vehicles the implements (add-on sub-systems such as harvester, cranes, etc.) are also connected to the CAN networks. Fork-lift and lift-trucks are also equipped with CAN-based networks for both drive-train ECUs and hydraulic components.

Ordering Information

- **PM-1002**
  PC/104 Plus Dual CAN & LAN module

PM-1055

PC/104 plus 3 x 10/100/1000Mbps Ethernet Module

Specifications

- PC/104 Plus Interface
- 3 x 10/100Mbps Intel 82551 (PM-1055E-3P)
- 3 x Gigabit LAN Intel 82540 (PM-1055G-3P)
- 3 x RJ-45 connectors
- Supports Teaming function
- Power Consumption: 1.5A@3.3V
- Driver support: Window 98, SE, ME, 2000, NT, XP and Linux

Tech Talk

Teaming Feature Introduction:

Teaming Features include Failover protection, increased bandwidth through aggregation, and balancing of traffic among team members.
Fault Tolerance
Uses one or more secondary adapters to take over for the primary adapter should the first adapter, its cabling or the link partner fail. Designed to ensure server availability to the network.
Link Aggregation
The combining of multiple adapters into a single channel provides greater bandwidth to multiple destination adresses. This increase bandwidth to multiple destination addresses. ALB mode provides aggregation for transmission only while RLB and LA/FEC/GEC/3ad modes provide aggregation in both directions. FEC/GEC/LA/3ad modes require a matching aggregation capable switch, while ALB and RLB modes can be used with any switch.
Load Balancing
The distribution of the transmission and reception load among the aggregated network adapters. An intelligent adaptive agent in the ANS driver repeatedly analyzes the traffic flow from the server and distributes the packets based on destination addresses. (In LA/FEC/GEC/3ad modes, the switch similarly provides load balancing on incoming packets.)

Ordering Information

- **PM-1055E-3P**
  PC/104 Plus, 3 x Intel 82551 LAN Module
- **PM-1055G-3P**
  PC/104 Plus, 3 x Intel 82540 GbE Module

PM-1004

PC/104 4-port RS-232/422/485 Module

PM-1028

PC/104 4/8-Port RS-232 Module

IEI Communication Module

● Specifications

- PC/104 form factor
- 16C554 UART Controller
- 4 x RS-232/422/485
- Supports shared IRQ or independent IRQ mode
- Jumper selectable interrupt level
- MAX. baud rate: 921.6kb/s
- Support O.S: Windows NT/2000/XP, Linux and windows CE.NET

Tech Talk

RS-422 & RS-485

The RS-422 standard allows only one differential way communicational mode, using a twisted media pair. The maximum data rate, not implemented at max cable length, is 10Mbps and its max cable length is 1200 meters. Each driver can drive up to 10 receivers.

The RS-485 is basically an update of the RS-422 specification for multipoint buses to be constructed. This standard meets and improves all the requirements of the RS-422, allowing up to 32 drivers and 32 receivers in addition, which can be connected to a single bus.

iEi's PM-1004 serial port communication module offers 4 independent RS-232/422/485 serial ports for connecting data acquisition equipment and many other serial devices to the PC and its compatible system. It provides a reliable communication link over a longer distance and optional surge protection make it suitable for industrial environments. Connections with point-to-point full-duplex or multidrop half-duplex are available to meet user's various needs.

Ship with 4-port RS-232/422/485 connection cable

P/N: 32200-026800

● Ordering Information

- **PM-1004**
  PC/104 4-port RS-232/422/485 Module

● Specifications

- PC/104 form factor
- 16C554 UART Controller
- Supports shared IRQ or independent IRQ mode
- Interrupt vector addressing setting
- Jumper selectable interrupt level
- COM port base I/O addressing setting
- MAX. baud rate: 921.6kb/s
- Supports O.S: Windows NT/2000/XP, Linux and windows CE.NET

Features:

- 4/8 independent COM channels
- Two 16C554-compatible quad UARTs
- 128-byte TX and RX receive FIFOs
- Programmable serial interface characteristics for each channel
- Shared interrupt capability with ID register

Ship with 4-port RS-232 connection cable

P/N: 32200-025400

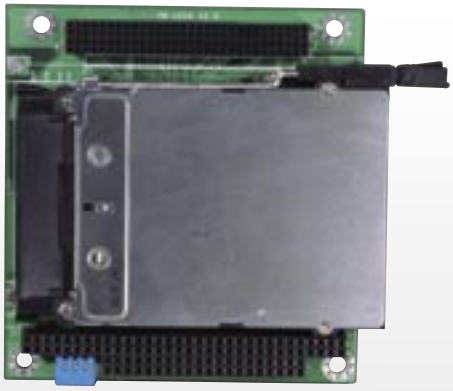
● Ordering Information

- **PM-1028-4**
  PC/104, 4-port RS-232 PC/104 Module

- **PM-1028-8**
  PC/104, 8-port RS-232 PC/104 Module

PM-1054

PC/104 Plus Card Bus PCMCIA module



Specifications

- Chipset: RICOH R5C478 Card Bus controller
- Data Bus: 32-Bit, 33MHz (133MB/s), DMA bus master (Compliant with PCI 2 .1)
- PC Card 95/97/98 32-bit CardBus compatible
- Supports Plug & Play auto-detected & configuration
- Driver support: Windows 98/ME/NT/2000
- Accepts PCMCIA Type I/II/III
- 2xPCMCIA slots

Tech Talk

CardBus Introduction

In early 1995, PCMCIA introduced the 32-bit CardBus standard. Although electrically different, the CardBus is architecturally identical to the PCI bus. The CardBus supports bus mastering and accommodates cards operating at different voltages. Its advanced power management features allows the computer to take advantage of CardBus cards designed to idle or turn off in order to increase battery life. The CardBus specification allows data transfer up to 132 Mbytes/sec over a 33MHz, 32-bit data path.

PCMCIA Key Features

- Hot swap capability for Type I, II & III cards
- Designed and developed for embedded systems

Ordering Information

- **PM-1054**
  PC/104 Plus Card Bus PCMCIA module (only work with IEI SBC)
- **PM-1054A**
  PC/104 Plus card bus PCMCIA with PC/104 (ISA Bus) connector module
  (Meets PC/104 Plus standard specification for general appliances)

PM-1038

PC/104 Dual PCMCIA Module

Specifications

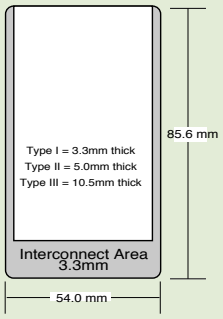
- Complies with PCMCIA2.1 and JEIDA4.2 standard
- Accepts TypeI/II/III PCMCIA cards
- 16-bit data bus
- Easy host interface using ISA I/O addresses 3E0h,3E1h
- Programmable IRQs to level mode or edge trigger mode
- PCMCIA-AT-A Disk interface support
- DMA mode support

Tech Talk

PCMCIA Introduction

The power and versatility of PC Cards quickly made them standard equipment in mobile computers. The rapid development and worldwide adoption of PC Card technology has been due in large part to the standards efforts of the Personal Computer Memory Card International Association (PCMCIA).

The association PC Card Standard is now bringing the benefits of these same PC Cards to a variety of industries and vertical applications, including smart cards, set-top boxes, automobiles, and others. The PC Card technology compact size and ruggedness make it the ideal technology for a wide variety of applications.



Ordering Information

- **PM-1038**
  PC/104 Dual PCMCIA Module

PM-1037

PC/104 Compact Flash Convert Board with 2S1P

Specifications

- 1 x CompactFlash™ Type II Socket
- Supports IBM Microdrive
- 1 x 44-pins & 1 x 40-pins IDE interface by pin-header
- 1 x RS-232
- 1 x RS-232/422/485
- Interrupt Selectable (IRQ 3/10 for COM1; IRQ 4/11 for COM2; IRQ 5/7 for LPT)
- I/O address Selectable (3E8H/3F8H for COM1; 2E8H/2F8H for COM2; 278H/378H for LPT)
- LPT port support SPP & EPP Mode
- Master/Slave jumper for IDE port
- Power Requirement: +5V DC

Ordering Information

- **PM-1037CS-R4**
  PC/104 Compact Flash with 2S/1P Module

PM-1033

HM86508 LCD/CRT VGA

Specifications

- Video Controller :
  - Chip : HM86508
  - VRAM : 1MB
  - Resolution : 1024 x 768 (64K colors)
  - Output :
    2x5 pin-header for CRT display
    2x22 pin-header for LCD panel
- One DiskOnChip socket on board
- HM86508 LCD/CRT VGA controller on board
- One DiskOnChip socket on board
- Standard PC/104 form factor

Ordering Information

- **PM-1033**
  PC/104 HM86508 LCD VGA (1MB) Module

PM-1031

10Mbps Ethernet & DOC Socket

Specifications

- Realtek RTL8019 10Mbps Ethernet chip on board with RJ-45 connector
- Two DiskOnChip sockets on board, which support a utility software to combine
  two SSD as one drive under DOS environment.
- Power Consumption : +5V@0.5A (Without DiskOnChip SSD)

Ordering Information

- **PM-1031**
  PC/104 LAN & DOC Socket Module

A104-KIT01

ISA & PC/104 Diagnostic Card

Specifications

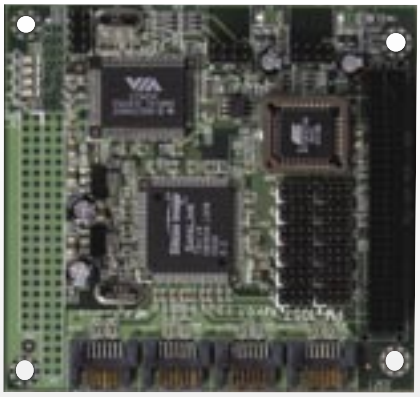
- Bus : ISA and PC/104
- 7-Segments LED display for port 80H BIOS error code
- Troubleshooting for POST (Power On Self Test) when system boot-up
- 8-pin external power connector for PC/104 system testing

Ordering Information

- **A104-4232P** PC/104 4 16550 RS232 Module
- **A104-KIT01A** ISA & PC/104 Test Card

PM-1057

PC/104 Plus Serial ATA & USB 2.0 Module



Specifications

- PC/104 Plus form factor
- 4 x Serial-ATA (Sil3114)
- 2 x USB 2.0 (VT6202)
- Use pin-header for PCI master selection

Ordering Information

- **PM-1057**
  PC/104 Plus Four Serial ATA and USB 2.0 Module

PM-1001

PC/104 Plus PCI to ISA Bridge Module

Specifications

- PC/104 Plus standard form factor
- IT8888F PCI to ISA bridge
- PCI 2.1 compliant
- Support 32-bit PCI bus up to 33MHz

Note: PM-1001 only support Intel chipset

Ordering Information

- **PM-1001**
  PC/104 Plus PCI to ISA Bridge Module

Tech Talk

Serial-ATA

Serial ATA is a new way of connecting your storage devices. For example, you are all used to the way we connect IDE devices to the motherboard. We have a wide 40/80 pins wire plugged into both the motherboard and the storage device. These wires are big and bulky and often get in the way of a lot of other components inside the chassis. They are also based on Parallel data transmission which sends data in parallel, causing interference with other signals. Serial connectors only have a send and receive, causing much less problems in that respect. The features of Serial-ATA is as below:

- Compact design of only 7-pin data cable.
- Supports up to a maximum transmission distance of 100CM
- High speed transmission rate from 150MB (V1.0) to 600MB (V3.0)
- Supports Plug & Play
- Supports RAID 0, 1

Benefits of Serial ATA

Serial ATA offers a number of benefits over Parallel ATA, including:

- Reductions in voltage and pin count
- Smaller, easier-to-route cables; longer cable-length limitation
- Improved data robustness
- Backward compatibility

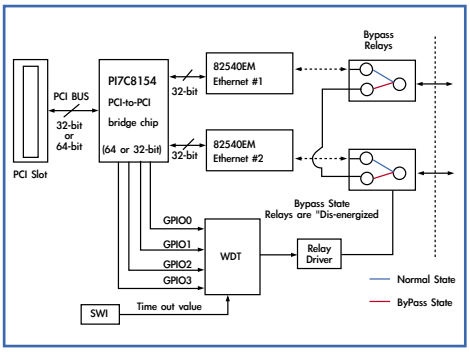
	Parallel ATA	Serial ATA
Bandwidth	100/133 MB/Secs	150/300/ 600 MB/Secs
Volts	5V	250mV
Pins	40	7
Length Limitation	18 inch (45.72cm)	1 meter (100cm)
Cable	Wide	Thin
Ventilation	Bad	Good
Peer-to-Peer	No	Yes

MLAN-1000

Quad Intel 82540 Gigabit LAN Card with Bypass function

MLAN-1000Q

MLAN-1000DBP



Specifications

- LAN Controller: Four Intel 82540EM 10/100/1000 Mbps Ethernet controller
- Bus Interface: 64-bit PCI interface (PCI 2.2 compliant)
- Bridge chips: Pericom PI7C8154 PCI bridge on board (Support 32/64/ bits up to 33/66 MHz)
- I/O Connection: Four RJ-45 connectors (Two RJ-45 connectors optional)
- Features: Built-In Watch-Dog Timer for Bypass function
- Panel-Free design: Reserved extra pin-header for LAN status LED display
- Software Utility: Software utility for doing functionality configuration

Bypass function

There are two communications states for the bypass function and default enabled in Normal State. A watch-dog-timer (WDT) is used to control and switch the communication between the two states. A relay array is controlled by the WDT for physically routing of the two Ethernet ports.

The block diagram shows the two Ethernet ports can still operate normally when the operation of the system suspends.

Ordering Information

- **MLAN-1000DBP:** Dual Intel 82540 Gigabit LAN with Bypass function Card
- **MLAN-1000Q:** Quad Intel 82540 Gigabit LAN Card

MLAN-104/104SSL

4 LAN Ports Carry Board

MLAN-104

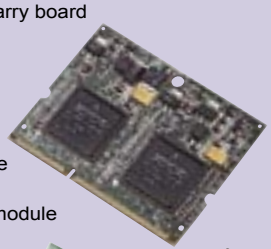
MLAN-104SSL

Specifications

- Bus interface: 32-bit PCI interface (PCI 2.1 compliant)
- Bridge chips: Intel 21150 or equivalent chip
- Expansion: Two socket PCI connectors
- LAN module: LM-102N (Intel 82559) / LM-2G (Broadcom 5701 GbE)/ LM-102R (Realtek RTL-8100) / LM-2GN(Intel 82540)
- SSL chips: Rainbow Fastmap SSL Accelerator onboard (MLAN-104SSL only)
- Comply with IEEE802.3; IEEE 802.3x Ethernet specifications
- I/O connection: Four RJ-45 connectors
- Power requirement: +5V@3A max
- Operating environment: 0 ~ 50ºC
- Relative humidity: 5 ~ 95%; non-condensing
- Dimensions: 177mm x 107mm

Ordering Information

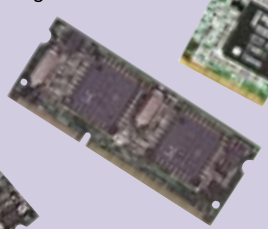
- **MLAN-104**
  4 LAN ports carry board
- **MLAN-104SSL**
  4 LAN ports with SSL Accelerator carry board
- **LM-102N-x50**
  Dual Intel i82550 LAN module
- **LM-102N-x59**
  Dual Intel i82559 LAN module
- **LM-102R**
  Dual Realtek RTL-8100 LAN module
- **LM-2G**
  Dual Broadcom 5701 Gigabit LAN module
- **LM-2GN**
  Dual Intel 82540 Gigabit LAN module



LM-2G

LM-2GN

LM-102R



LM-102R

PLC-508

ISA HM86508 LCD VGA Card/1MB

PLC-508

Specifications

- Bus: 16-bit ISA bus
- Connector:
  CRT : DB-15 for standard monitor
  LCD : 44-pin pin-header for TTL signal
- Video RAM : 1MB
- Video Chip : HM86508 LCD/CRT VGA
- Max. Resolution : 1024 x 768, 256 colors
- Driver Support : DOS, Windows 3.1/95/98/NT/2000
- Supports 3.3V and 5V LCD power
- Output 40V VEE for LCD panel needed
- Simultaneous CRT and LCD display
- One DiskOnChip Socket on board

PLC-69030

PCI CHIPS69030 LCD VGA Card/4MB

PLC-69030

Specifications

- Bus : 32-bit PCI bus
- Connector :
  CRT : DB-15 for standard monitor
  LCD : 50-pin pin-header for TTL signal
- Optional LVDS-01/02/03/04 Module
- Video Chip : CHIPS 69030 with 4MB V-RAM
- Max. CRT Resolution :
  1280 x 1024, 24 bit colors
  1600 x 1200, 16 bit colors
- Max. LCD Resolution: 1024 x 768, 36 bit colors
- Supports 3.3V and 5V LCD power
- Simultaneous CRT and LCD display
- Supports 24-bit and 36-bit data signals

PVGA-9970

PCI-bus VGA Card

PVGA-9970

Specifications

- Graphics Engine: Winbond W9970
  64-bit graphic acceleration, 8/16/24-bit
  per-pixel true-color acceleration Provide
  high level graphic commands
- Display Memory: 2MB V-RAM onboard
- Resolution: 800 x 600 (24-bit color), 1024 x 768 (16-bit color)
- RAMDAC: On-chip 24-bit true color RAMDAC with up to 135MHz pixel clock
- Bus: 32-bit PCI local Bus revision 2.1 specification
- OS driver support: Windows 3.1, Windows 95/98/Me, Windows NT4.0

Ordering Information

- **PVGA-9970** PCI-bus VGA card

ICAN-02

Dual port CAN Bus communication card

ICAN-02

Specifications

- CAN Bus: 2 x CAN Bus 2.0B (29 bits for message frame identifier)
- Supports baud rate up to 1MHz
- 32-bits PCI Bus
- Supports Plug & Play (PLX PCI9052)
- Isolation voltage: 2500Vrms
- CAN controller: Phillip SJA1000T
- CAN transceiver: Phillip 82C251(CAN transceiver for 24V systems)
- Provided Sample code and SDK(Software library DDL and Development Kits included)
- Driver supported Microsoft Windows 95/98/ME/NT/2000/XP

Ordering Information

- **ICAN-02** Dual port CAN Bus communication card with isolated protection

LCD LVDS Module / DOC Module

LVDS-01-R7 One Channel LVDS Module

- Supports 18-bit TFT LCD
- Compatible to TIA/EIA-644 LVDS standard
- Long distance drive capability
- 20-pin Hirose DF14A-20P-1.25H connector

LVDS-02 Two Channels LVDS Module

- Supports 24/36-bit TFT LCD
- Compatible to TIA/EIA-644 LVDS standard
- Long distance drive capability
- 20-pin Hirose DF14A-20P-1.25H connector

LVDS-03 Two Channels LVDS Module

- Supports 24/36-bit TFT LCD
- Compatible to TIA/EIA-644 LVDS standard
- Long distance drive capability
- 20-pin Hirose DF14A-20P-1.25H connector
- Designed for DELIGHT 913/915 portable workstation

FP24-01A LCD Connection Module

- 2.0 pitch 44-pin connector for 18/24-bit LCD panel
- Connecting to ICP series SBC 50-pin LCD connectot

FP24-02 LCD Connection Module

- 2.0 pitch 44-pin connector for 18/24-bit LCD panel
- Connecting to ICP series SBC 50-pin LCD connectot
- Designed with buffer for high quality output

Note: FP24-02-V10 support 3.3V LCD power

DOC-KIT01 DiskOnChip™ Carry Board

- Bus : 16-bit ISA bus
- Three DiskOnChip sockets on board
- Software utility to combine multi-DOC chip as one driver under DOS environment
- One 8K SRAM socket :
  - Support 3xAA battery to keeping data in SRAM memory, backup data up to 10 years
  - 8K memory address support directly data access
  - No software utility needed

DiskOnChip Flash Disk Chip

- Full boot operability
- Built-in TrueFFS which provides full hard disk read/write compatibility
- Extensive O/S support OS, Windows, Windows 95 and Windows CE Additional support offered: QNX, VxWorks and others
- Capacity: 8 (DOC-Millennium), 16, 24, 32, 48, 80, 112, 144, 192, 224, 256, 288 MB

DOC-KIT104 PC/104 DiskOnChip™ Carry Board

- Bus : PC/104
- Four DiskOnChip sockets on board
- Software utility to combine multi-DOC chip as one driver under DOS environment

IFD-KIT01 IDE Flash Disk Carry Board

- Bus : PCI and ISA
- Designed for 1.8" or 2.5" IDE flash disk (IDE-FD180/250)
- One 40-pin (3.5" HDD, 2.54mm pitch) pin-header and one 44-pin (2.5" HDD, 2.0mm pitch) pin-header to SBC
- Best solution for embedded system which no HDD drive space

Please refer to tables above for better Backplane PCI resources arrangement.

IFD-180A/250A/350A

1.8"/ 2.5"/ 3.5" IDE Flash Disk

IFD-180A/250A/350A

● Specifications

- Compatibility : Full IDE hard disk compatible
- IDE Controller: SST

Model	Capacity (Unit : Mbyte)
IFD-180	32, 64, 128, 192, 256, 512, 1024, 1536, 2048
IFD-250	32, 64, 128, 192, 256, 512, 1024, 1536, 2048
IFD-350	32, 64, 128, 192, 256, 512, 1024, 1536, 2048

- Reliability : MTBF : > 1,000,000 hours,
- Endurance : Write/Erase: 1 Million cycles (typ.)
  Read : Unlimited
- System Performance : Access time : < 0.1ms, Track to track seek time : < 0.1ms, Bus transfer speed : 16.7Mbytes/Sec.
- Power Requirement : DC input; +5V±10%
- Operating Temperature : -10°C ~ 70°C
- Storage Temperature : -25°C ~ 85°C
- Humidity : 5 ~ 95% non-condensing
- Shock : 1,000G max.
- Vibration : 15G peak-to-peak max.
- Acoustic Noise : 0dB
- Altitude : 50,000 feet

For other capacity flash disk, please contact supplier

● Ordering Information

- **IFD-180A-cap** : cap MB 1.8" IDE flash disk
- **IFD-250A-cap** : cap MB 2.5" IDE flash disk
- **IFD-350A-cap** : cap MB 3.5" IDE flash disk

cap Capacity size of each flash disk

IFM-405/445

Flash Disk Module

IFM-405/445

● Specifications

- Compatibility : Full IDE hard disk compatible
- IDE Controller: SST
- Capacity : 32MB, 64MB, 128MB, 192MB, 256MB, 512MB
- Connector : IFM-405 : 40-pin, 2.54mm pitch
  IFM-445 : 44-pin, 2.00mm pitch
- Reliability : MTBF : > 1,000,000 hours
- Endurance :Write/Erase: 1 Million cycles (typ.)
  Read : Unlimited
- System Performance : Access time : < 0.1ms
  Track to track seek time : < 0.1ms
  Bus transfer speed : 16.7Mbytes/Sec.
- Power Requirement : DC input; +5V ±10%
- Power Consumption (Typical):

Mode	@+3.3V±5%	@+5V±10%
Sleep	200μA	500μA
Read	21mA	34mA
Write	24mA	34mA

- Operating Temperature : -10°C~ 70°C
- Storage Temperature : -25°C ~ 85°C
- Humidity : 5 ~ 95% non-condensing
- Altitude : 50,000 feet
- Dimensions :58(W) x 38.8(H) x 9.1(D)mm (IFM-405)
  52.8(W) x 34.9(H) x 7.7(D)mm (IFM-445)

● Ordering Information

- **IFM-405-cap** MB
  cap MB IDE flash disk module, 40-pin
- **IFM-445-cap** MB
  cap MB IDE flash disk module, 44-pin

cap Capacity size of each flash disk

IVC-4300

4-Channel MPEG-4 Audio/Video Capture Card

IVC-4300 is an audio/video capture card designed for multi-channel applications. It includes 4-channel Video and Audio MPEG-4 hardware encoder to provide real-time VGA quality video and stereo audio capture for each channel.

Coming Soon

Key Features

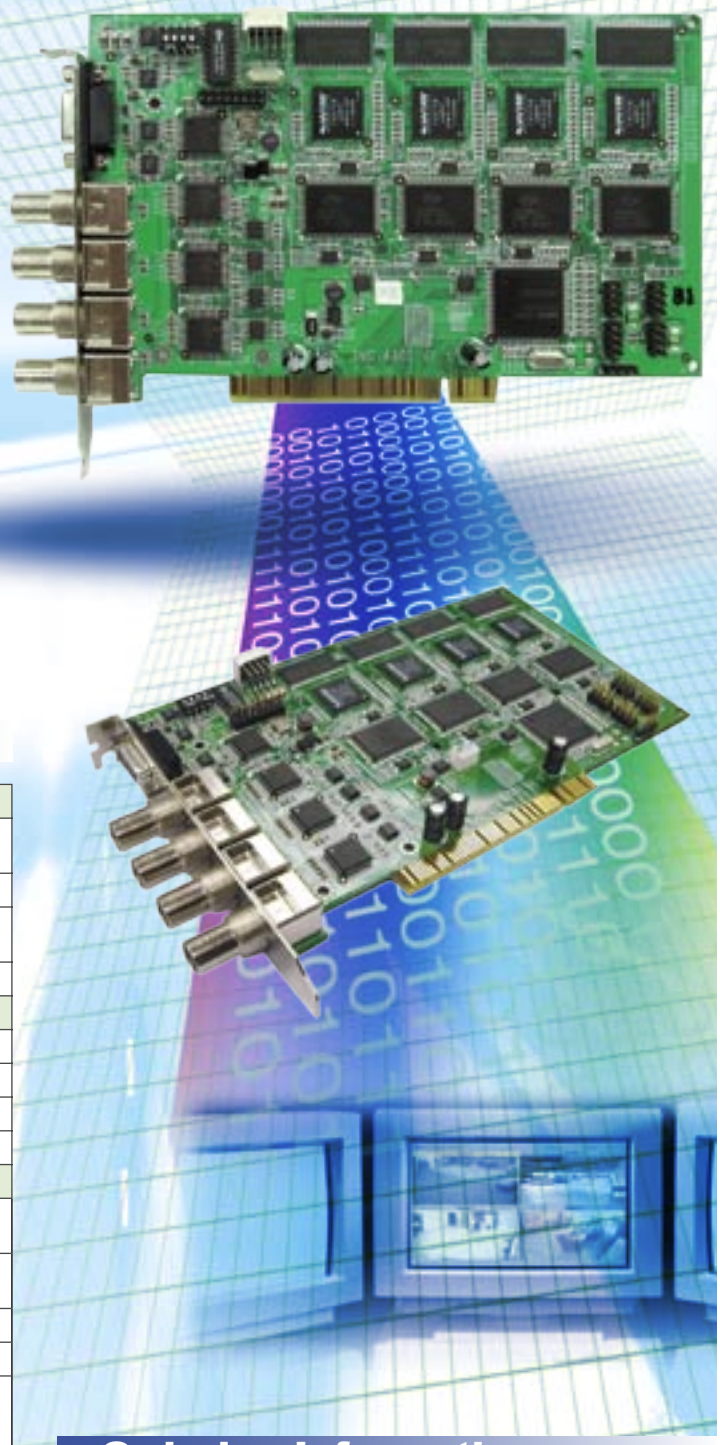
- 4-Channel Full-D1 resolution real-time recording
- 4-Channel Stereo Audio input
- NSTC/PAL Auto-Sensing
- Support up to total 120 VGA frames per second
- Support stereo audio with 16-bit data quantization
- Smart ID number supports for easy system maintenance
- Provide SDK and demo program for software application development

SDK

SDK of IVC-4300 offers 4-challel Audio/Video preview / recording function. You can adjust the detailed parameters, supporting various kinds of image file format, such as"MPEG-1", "MPEG-2" and "MPEG-4". So that you can easily develop your own software for DVR or streaming software.

GPIO Application

This is the integrating module as the event trigger, providing 4 independent general purpose input connectors, including 4 relays for output on/off signal to other hardwar.



Specifications

Interface:	
Video Input	4 Ch. BNC Composite Video, NTSC/PAL auto sensing
Audio Input	4 Ch. Stereo Audio
PCI Interface	PCI V2.1 Compliance, Plug & Play support
Card ID	Dip-switch with 7-segment LED
Audio Processing:	
Sampling Rate	44100 Hz and 48 KHz
Quantization	8 Bit data depth
Data Format	PCM, ADPCM
Video Processing:	
Video Compression	MPEG-4 Advanced Simple Profile @L3 MPEG-2 MP@ML ,MPEG-1
Video Resolution	720 x 480, 352 x 240 (NTSC) 720 x 576, 352 x 288 (PAL)
Frame Rate	Up to 30(NTSC), 25(PAL) FPS for each channel
Image Processing	Hardware control of brightness, contrast and saturation.
Video Quality	DVD quality full D1 video at 3 Mbps, High quality D1 video at 1 Mbps High quality CIF video at 384Kbps
Software Support:	
Device Driver	Provide driver for Window 2000 and Windows XP systems
SDK	Provide SDK and demo program for software application development.

Ordering Information

- **IVC-4300**
  4-Channel MPEG-4 Audio/Video Capture Card

IVC-4200

4-Channel MPEG4 video capture card

IVC-4200

The Easiest Way to Develop MPEG4 DVR Solution

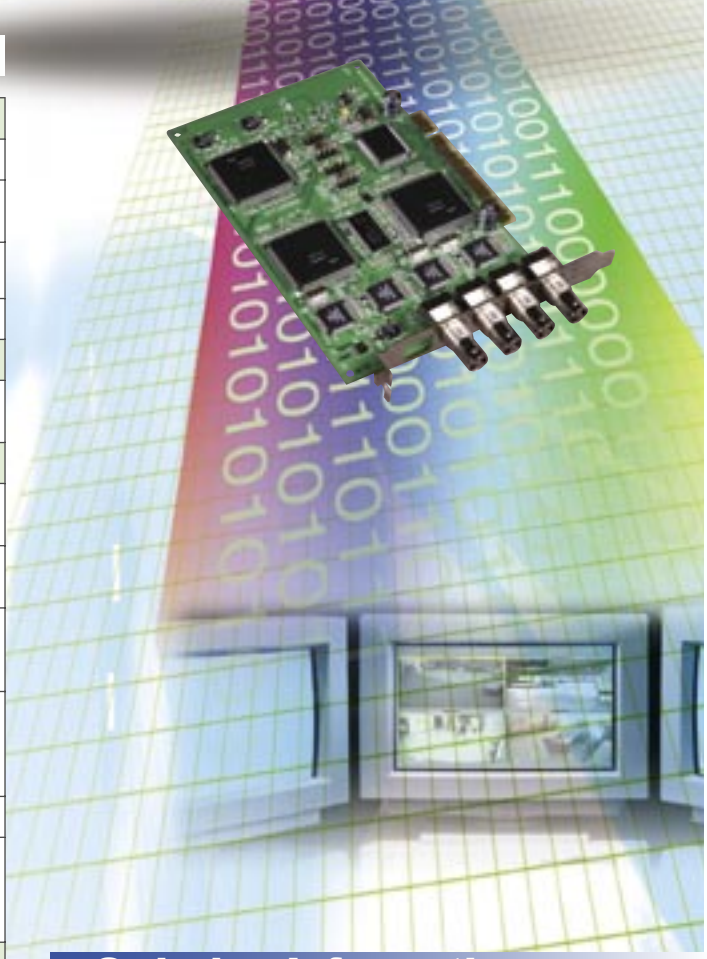
The first DVR solution that supports complete MPEG4 DVR software development! Preview/recording programs and SDK(Software Development Kits) with detailed documents are available.
Support "High" quality and "Low" bit rate image. You can adjust bit rate from 50Kb to 3M Kb, let you get perfect balance between image file size and quality. So that you can easily develop your own software for DVR or Streaming software.
Support various kinds of image file format. Such as "MPEG1" , "MPEG2" , "MPEG4" , "DivX" , "Microsoft WMV" , "Sigma Design MPEG4" , "H.263" , etc.

Overview:

IVC-4200 is a video capture card designed for multi-channel applications. It includes 4 channels MPEG-4 hardware encoder to provide real-time VGA quality video capture for each channel.

Key Feature:

4 Channels MPEG 4 Hardware Video Encoder
Video quality up to VGA (Full D1) size at real time (30 fps) for each channel
Programmable constant bit-rate control



Specifications

Hardware:	
PCI Interface	PCI V2.1 Compliance, Plug & Play support
Video Encoding	MPEG4 Encoder x 4 MPEG4 Advanced Simple Profile @L3
Analog Video Capture	Video Decoder x 4
SDRAM	16MB
Video Input	
Video Input	4 Ch. BNC Composite Video, NTSC/PAL/SECAM auto sensing
Output Stream:	
Multiple Video Resolution	720 x 480, 360 x 240, 180 x 120 (NTSC) 720 x 576, 360 x 288, 180 x 144 (PAL)
Frame Rate	30 FPS (NTSC) for each channel 25 FPS (PAL) for each channel
Output Format	DivX, Microsoft WMV, Sigma Design MPEG4, H.263 MPEG-2 MP @ ML MPEG-1
Compression	Programmable GOP structures of I, IP, IBP, IBBP Dynamically adjustable bit rate and frame rate to fit variable bandwidths (for Internet communication applications)
mage Processing	Hardware control of brightness, contrast and saturation.
Video Performance	DVD quality full D1 video at 3 ~ 16 Mbps, High quality CIF video at 384Kbps High quality QCIF video at 96Kbps High quality Full DI video at 1Mbps
Software Support:	
Device Driver	Provide driver for Window 2000 and Windows XP systems
SDK	Provide Window 2000, XP SDK with demo program for software application development.

Ordering Information

● **IVC-4200**
4-Channel MPEG-4 Video Capture Card

IVC-120G

16-Channel Video Capture Card with GPIO module

IVC-120G

The most cost-saving frame grabber

IVC-120G is an improved model of IVC-100G. With 4 multiplexers, IVC-120G can solve the problem of frame shaking upwards & down -wards. It also provides a lot amounts of video input channels (16 channels).

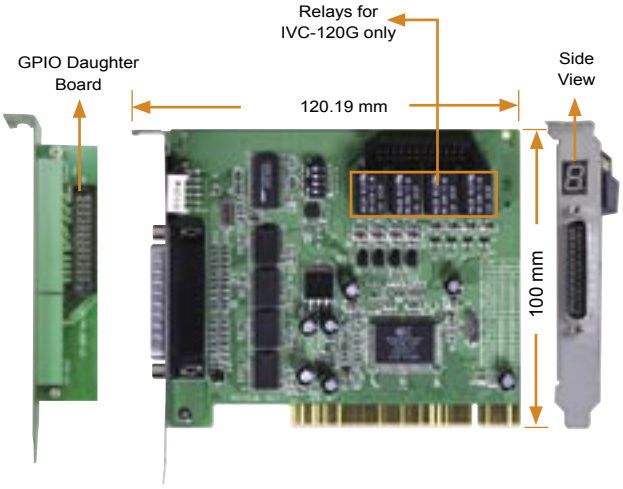
Features:

Pain-free extension for multi-card system:
When starting out with a DVR system, it can be surprising just what level of growth your surveillance system will reach. By choosing the IVC-120G, you can expand you surveillance area with no extra reconfiguration of your DVR system. As long as you have a free expansion slot for accommodating new cards, you can easily add more “eyes” watching wherever you most need them.

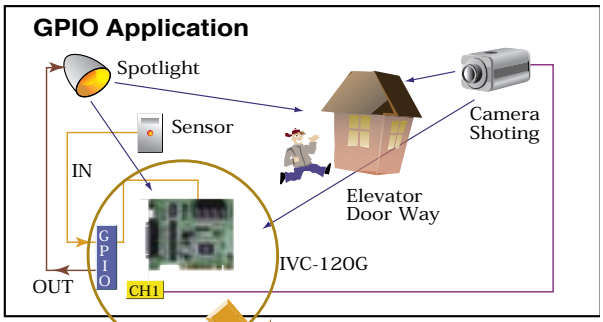
Smart ID number for easy system maintenance:
With an LED attached to each IVC-120G, you can assign a unique number to each card in you DVR system with which to associate the surveillance area. Should something go wrong in a specific area, you can easily check out the system and replace it with a new card.

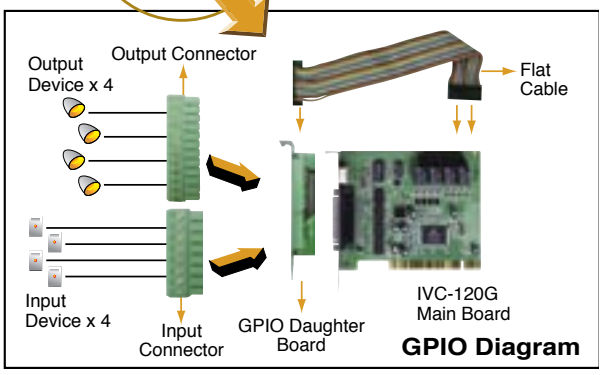
General Purpose Input Out (GPIO) (Optional)
The GPIO connector allows users to connect external I/O devices such as a sensor, light, alarm, switch, etc.... for any kind of external control that may be required.

GPIO Application
For example, you can control the spotlight over a doorway at nighttime via the GPIO connection whenever the motion detector has been triggered. Then you don’t have to worry about the recording quality when someone intrude the surveillance area at night time.



◆ **Please note that IVC-120 do not have GPIO module and have no relay on board**





The connection points of each output device are common, normal open (NO), normal closed (NC).
The connection points of each input device are input voltage and ground.

Technical Specification - IVC-120G

Hardware
- Function
  – PCI Single Universal Board
  – Plug and Play, 16 channel video capture card
- Analog Video Capture Engine
  – Conexant FusionTM 878A
  – NTSC/ PAL/ SECAM Video Decoding

Input/Output Interface
- Video Input : pin connector for 16 channels BNC Connector
- Video Output : One channel Video Output selected from the driver
- GPIO: 4 inputs and 4 outputs (use CT-800 GPIO daughter board)

Functionality Support
- Multiple Video Resolution
  – NTSC (720x480, 704x480, 640x480, 352x240, 320x240, 176x112)
  – PAL (720x576, 704x576, 640x576,352x288, 320x288, 176x144)
- Capture Frame Rate - Max 30 FPS for 16 channels
- Support Video Loss Detection
- Multi-screen support
- Support resolution adjustment
- Support image brightness, contrast,and saturation adjustment
- LED for card ID configuration and identification

Software Support
- Provide WDM driver and SDK for developer

Supporting OS
- Window 98 SE, ME, 2000, XP

Others
- Power Consumption: 3.5W@5V
- Operating Temperature: 0~ 50°C
- Board Size: 120.19mm x 100mm

Ordering Information

IVC-120 : 16 channels video Capture Card
IVC-120G : 16 channels video Capture Card with GPIO module.

IVC-100G

4-Channel Video Capture Card with GPIO Module

IVC-100G

Fullfill your basic need for surveillance

By adopting IVC-100G, you can save your money for baseline quality of surveillance video about 30 frames per second maximally shared by four channels.

Features:

Pain-free extension for multi-card system:

When starting out with a DVR system, it can be surprising just what level of growth your surveillance system will reach. By choosing the IVC-100G, you can expand your surveillance area with no extra reconfiguration of your DVR system. As long as you have a free expansion slotfor accommodating new cards, you can easily add more "eyes" watching wherever you most need them.

Smart ID number for easy system maintenance:

With an LED attached to each IVC-100G, you can assign a unique number to each card in your DVR system with which to associate the surveillance area. Should something go wrong in a specific area, you can easily check out the system and replace it with a new card.

Linux Application Development Support

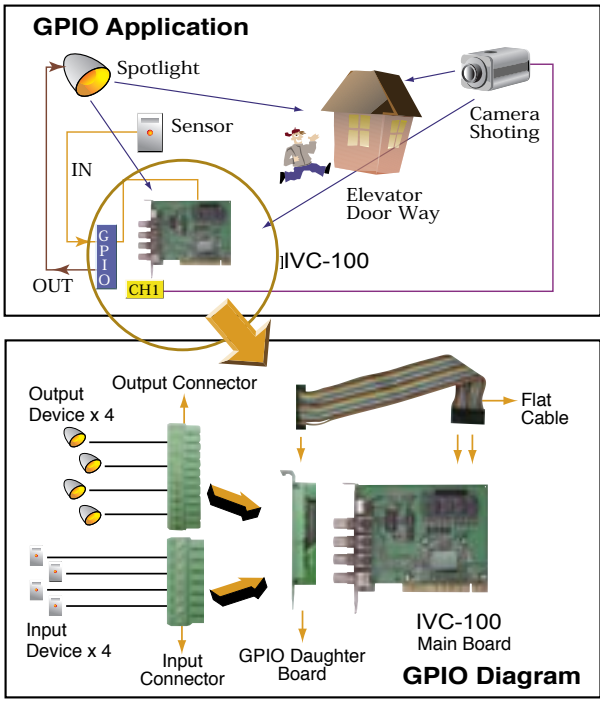
By offering system integrators a Linux driver and SDK, IEI has established a foundation for customers to develop competitive applications both quickly and cost-effectively.

General Purpose Input Output (GPIO):(Optional)

The GPIO connector allows users to connect external I/O devices such as a sensor, light, alarm, switch, etc...for any kind of external control that may be required.

GPIO Application

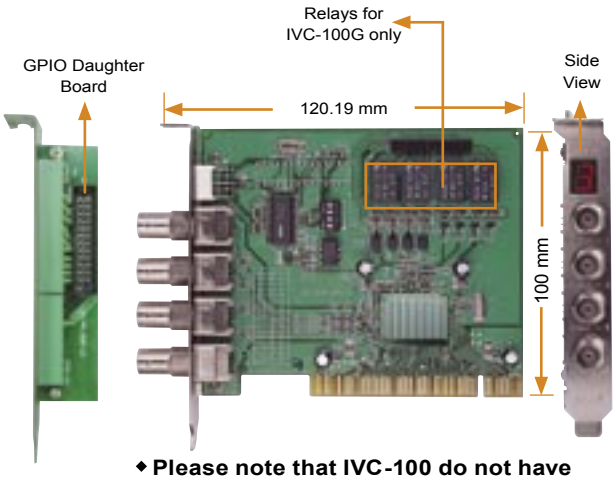
For example, you can control the spotlight over a doorway at nighttime via the GPIO connection whenever the motion detector has been triggered. Then you don't have to worry about the recording quality when someone intrude the surveillance area at night time.



The connection points of each output device are common, normal open (NO), normal closed (NC).
The connection points of each input device are input voltage and ground.

Ordering Information

IVC-100 :4 channels video capture card (30 FPS)
IVC-100G :4 channels video capture card (30 FPS) with GPIO module



- **Please note that IVC-100 do not have GPIO module and have no relay on board**
- **Linux driver for Red Hat 7.2, 7.3, 8.0**

Technical Specification - IVC-100G

Hardware

- Function
  - PCI Single Universal Board
  - Plug and Play, 4 channel video capture card
- Analog Video Capture Engine
  - Conexant FusionTM 878A x 1
  - NTSC/PAL/SECAM Video Decoding

Input/Output Interface

- Video Inputs x4 BNC Connector
- GPIO Module 4 inputs & 4 outputs

Functionality Support

- Multiple Video Resolutions
  - NTSC: 720x480, 704x480, 640x480, 352x240, 320x240, 176x112
  - PAL: 720x576, 704x576, 640x576, 352x288, 320x288, 176x144
- Capture Frame Rate
  - Max 30 FPS for 4 channels
- Support Video Loss Detection
- Multi-screen support
- Support resolution adjustment
- Support image brightness, contrast,and saturation adjustment
- LED for card ID configuration and identification

Software Support

- Provide WDM driver and SDK for developer

Supporting OS

- Window 98 SE, ME, 2000, XP, Linux

Others

- Power Consumption: 3.5W@5V
- Operating Temperature: 0~ 50°C
- Board Size: 120.19mm x 100mm

GPIO Module (Optional)

- General Items
  - 4 relay on IVC-100G PCI board
  - A GPIO daughter board
  - An GPIO output connector (12 pin-out male connector)
  - An GPIO input connector (8 pin-out male connector)
- General Input Specification
  - Input 5VDC
    Logic 0: 0.5V Max
    Logic 1: 4.5V Min
  - Input 12VDC
    Logic 0: 0.5V Max
    Logic 1: 11V Min
- Relay Coil Specification (At 20°C)
- Relay Contact Rating

Relay Contact Rating	1 FORM C (SPDT)
Contact Capacity Resistive Load (cos∂ =1) Inductive Load (cos∂ =0.4, L/R= 7ms)	Coil = 0.36W 1A/125VAC; 2A/24VDC 0.3A/30VDC
Rate Carrying Current	2A
Max. allowable voltage	AC 120V; DC 60V
Max. allowable current	2A
Max. allowable power	48W
Contact Material	Ag Alloy

Coil Voltage	Normal Voltage (VDC)	Normal Current (mA)	Coil Resistance (ohm 10%)
5V	5V	66.7	75
Power Consumption (W)	Pull-in Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)
About 0.36W	75% max 3.75V	10% min 0.5V	110% 5.5V

IVC-200G

High-end 4-Channel Video Capture Card with GPIO Module

IVC-200G

Bring you real time monitoring of surveillance.

With IVC-200G, you can build up your digital surveillance system with the real-time monitoring experience and quality of video. Having four Conexant 878 chips on board, IVC-200G supports a good quality of video up to 30 frames per second for each individual channel. With this quality of video, you don't have to worry about missing any important snapshot happening anytime.

Features:

Pain-free extension for multi-card system:
When starting out with a DVR system, it can be surprising just what level of growth your surveillance system will reach. By choosing the IVC-200G, you can expand your surveillance area with no extra reconfiguration of your DVR system. As long as you have a free expansion slot for accommodating new cards, you can easily add more "eyes" watching wherever you most need them.

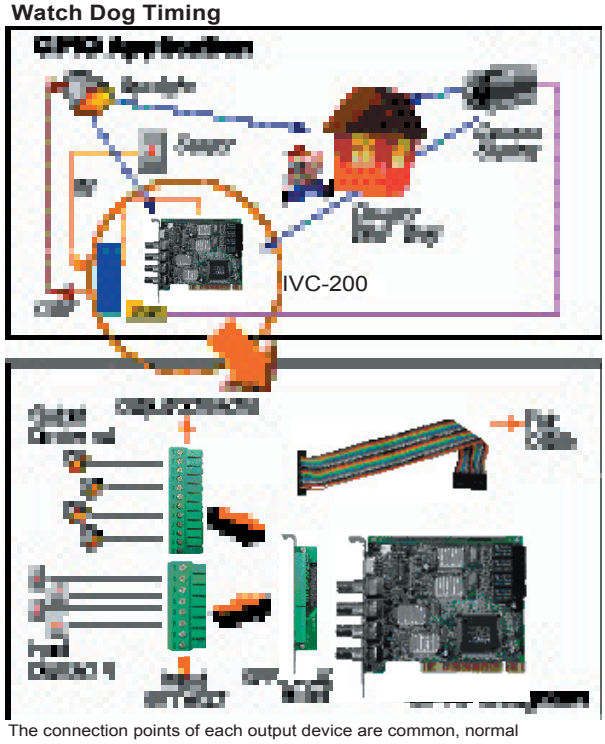
Smart ID number for easy system maintenance:
With an LED attached to each IVC-200G, you can assign a unique number to each card in your DVR system with which to associate the surveillance area. Should something go wrong in a specific area, you can easily check out the system and replace it with a new card.

Linux Application Development Support
By offering system integrators a Linux driver and SDK, IEI has established a foundation for customers to develop competitive applications both quickly and cost-effectively.

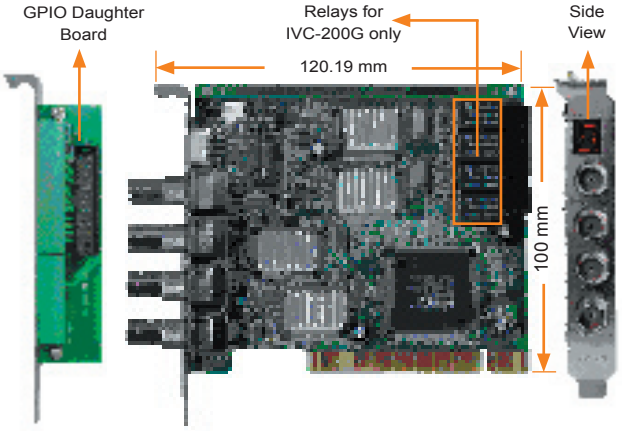
General Purpose Input Output (GPIO):(Optional)
The GPIO connector allows users to connect external I/O devices such as a sensor, light, alarm, switch, etc...for any kind of external control that may be required.

GPIO Application
For example, you can control the spotlight over a doorway at nighttime via the GPIO connection whenever the motion detector has been triggered. Then you don't have to worry about the recording quality when someone intrude the surveillance area at night time.

Watch Dog Timing



The connection points of each output device are common, normal open (NO), normal closed (NC).
The connection points of each input device are input voltage and ground.



- **Please note that IVC-200 do not have GPIO module and have no relay on board**
- **Linux driver for Red Hat 7.2, 7.3, 8.0**

Technical Specification - IVC-200G

Hardware

- Function
  - PCI Single Universal Board
  - Plug and Play, 4 channel video capture card
- Analog Video Capture Engine
  - Conexant FusionTM 878A x 4
  - NTSC/PAL/SECAM Video Decoding

Input/Output Interface

- Video Inputs x4 BNC Connector
- GPIO Module 4 inputs & 4 outputs

Functionality Support

- Multiple Video Resolutions
  - NTSC: 720x480, 704x480, 640x480, 352x240, 320x240, 176x112
  - PAL: 720x576, 704x576, 640x576, 352x288, 320x288, 176x144
- Capture Frame Rate
  - Max 120 FPS for 4 channels
- Support Video Loss Detection
- Multi-screen support
- Support resolution adjustment
- Support image brightness, contrast,and saturation adjustment
- LED for card ID configuration and identification

Software Support

- Provide WDM driver and SDK for developer

Supporting OS

- Window 98 SE, ME, 2000, XP, Linux

Others

- Power Consumption: 3.5W@5V
- Operating Temperature: 0~ 50°C
- Board Size: 120.19mm x 100mm

GPIO Module (Optional)

- General Items
  - 4 relay on IVC-100G PCI board
  - A GPIO daughter board
  - An GPIO output connector (12 pin-out male connector)
  - An GPIO input connector (8 pin-out male connector)
- General Input Specification
  - Input 5VDC
    Logic 0: 0.5V Max
    Logic 1: 4.5V Min
  - Input 12VDC
    Logic 0: 0.5V Max
    Logic 1: 11V Min
- Relay Coil Specification (At 20°C)
- Relay Contact Rating

Relay Contact Rating	1 FORM C (SPDT)
Contact Capacity Resistive Load (cos∂ =1) Inductive Load (cos∂ =0.4, L/R= 7ms)	Coil = 0.36W 1A/125VAC; 2A/24VDC 0.3A/30VDC
Rate Carrying Current	2A
Max. allowable voltage	AC 120V; DC 60V
Max. allowable current	2A
Max. allowable power	48W
Contact Material	Ag Alloy

Coil Voltage	Normal Voltage (VDC)	Normal Current (mA)	Coil Resistance (ohm 10%)
5V	5V	66.7	75
Power Consumption (W)	Pull-in Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)
About 0.36W	75% max 3.75V	10% min 0.5V	110% 5.5V

PCI Bus Routing Table of IEI's Backplanes

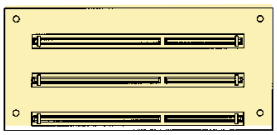
The following table dispalys IEI's Backplane resource usage for PCI.Please note that Yes stands for this PCI is reserved for CPU card, No means this PCI is un-useable. The number represents slots expended through PCI Bridge.

Backplane	PCI 1	PCI 2	PCI 3	PCI 4
PCI-2SD	No	Yes	No	No
PCI-4S	Yes	Yes	Yes	No
PCI-4SD	No	Yes	Yes	No
PCI-4SD2	No	Yes	Yes	Yes
PCI-5S	Yes	Yes	Yes	No
PCI-5S2	Yes	Yes	Yes	Yes
PCI-5S3	No	Yes	Yes	Yes
PCI-5SD3	Yes	Yes	No	No
PCI-5SD5-R2	Yes	Yes	Yes	Yes
PCI-5SD6	Yes	Yes	Yes	Yes
PCI-6S	Yes	Yes	Yes	Yes
PCI-6S2	Yes	Yes	Yes	No
PCI-6SR	Yes	Yes	No	No
PCI-6SD	No	Yes	Yes	No
PCI-7S	Yes	Yes	Yes	Yes
PCI-7S2	Yes	Yes	Yes	Yes
PCI-8S	Yes	Yes	Yes	Yes
PCI-10S	Yes	Yes	Yes	Yes
PCI-10S2	Yes	Yes	Yes	Yes
PCI-12S	Yes	Yes	Yes	Yes
PCI-13SD	Segment 1/2	Segment 1/2	Segment 1/2	Segment 1/2
PCI-14S	Yes	Yes	Yes	Yes
PCI-14S2	Yes	Yes	Yes	Yes
PCI-14S3	Yes	Yes	Yes	Yes
PCI-17SQ	Segment 1/2/3/4	Segment 1/2/3/4	Segment 4	No
PCI-18SD	Segment 1/2	Segment 1/2	Segment 1/2	Segment 1/2
PCI-18SQ	Segment 1/2/3/4	Segment 1/2/3/4	Segment 1/2/3/4	No
PCI-19S	Yes	Segment 1/2/3/4	Yes	Yes
PX-6SDA	No	Yes	3-1, 3-2, 3-3, 3-4	No
PX-8S	Yes	Yes	3-1, 3-2, 3-3, 3-4	No
PX-10S	Yes	Yes	3-1, 3-2, 3-3, 3-4	Yes
PX-14S	Yes	Yes	3-1, 3-2, 3-3, 3-4	Yes
PX-14S1	No	Yes	3-1, 3-2, 3-3, 3-4, 3-5, 3-6	No
PX-14S2	Yes	Yes	3-1, 3-2, 3-3, 3-4	Yes
PX-14S3	Yes	Yes	3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9	Yes
PX-14S5	No	Yes	3-1, 3-2, 3-3, 3-4, 3-5, 3-6	No
PX-19S	Yes	2-1, 2-2, 2-3, 2-4	3-1, 3-2, 3-3, 3-4	No
PX-20S	Yes	2-1, 2-2, 2-3, 2-4	3-1, 3-2, 3-3, 3-4, 3-5	Yes
PX-20S2	1-1, 1-2, 1-3, 1-4	2-1, 2-2, 2-3, 2-4, 2-5,	3-1, 3-2, 3-3, 3-4	4-1, 4-2, 4-3, 4-4, 4-5
PX-20S3	Yes	2-6, 2-7, 2-8	3-1, 3-2, 3-3, 3-4, 3-5,3-6, 3-7, 3-8	Yes
IPX-9S	Yes	Yes	3-1, 3-2, 3-3, 3-4, 3-5	Yes
IPX-13S	Yes	Yes	3-1, 3-2, 3-3, 3-4, 3-5	Yes

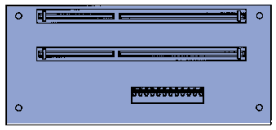
2U Chassis Backplane

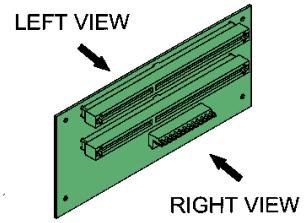
BP-5SD

LEFT SIDE



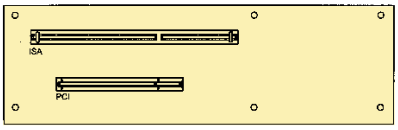
RIGHT SIDE



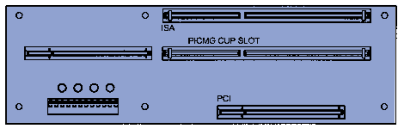


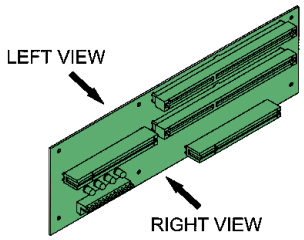
PCI-5SD

LEFT SIDE



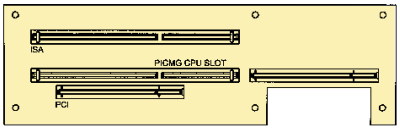
RIGHT SIDE



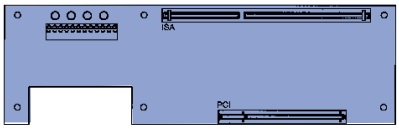


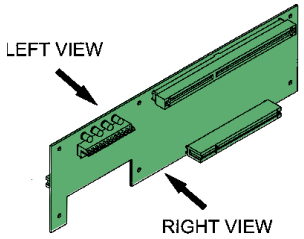
PCI-5SD3

LEFT SIDE



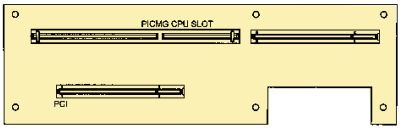
RIGHT SIDE



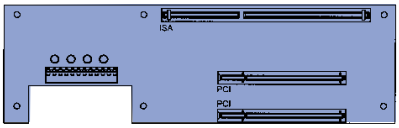


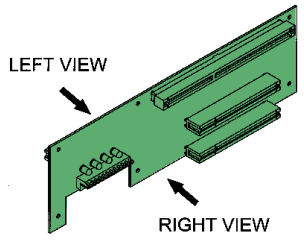
PCI-5SD4

LEFT SIDE



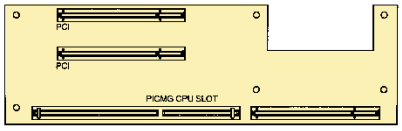
RIGHT SIDE



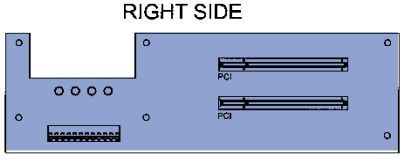


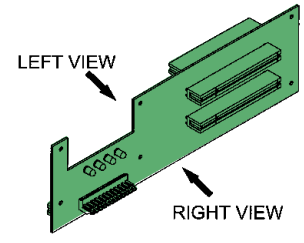
PCI-5SD5-R2

LEFT SIDE



RIGHT SIDE

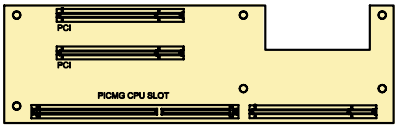


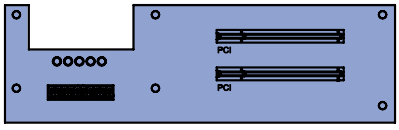


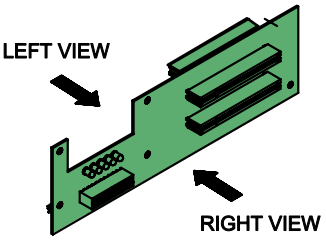
PCI-5SD6

(ATX Power)

LEFT SIDE



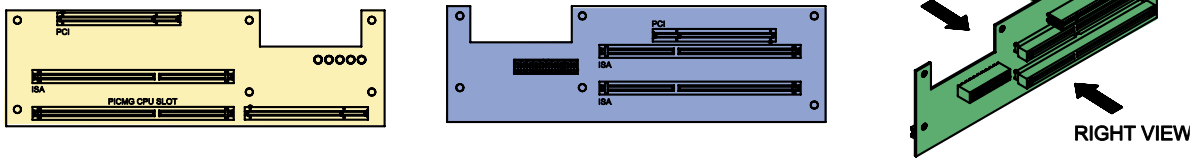




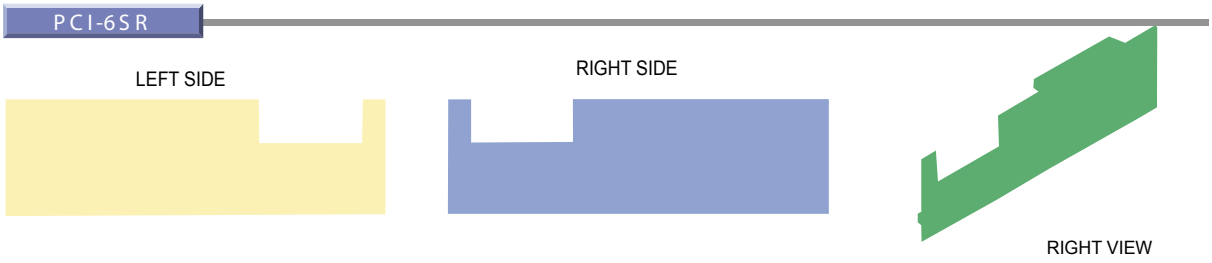
2U Chassis Backplane With Each Model

	RACK-200	RACK-210	RACK-220	RACK-2000	EC-1020
BP-5SD	Yes	Yes	Yes	Yes	Yes
IP-5SD3	Yes	Yes	Yes	Yes	Yes
IP-5SD5	Yes	Yes	Yes	Yes	Yes
PX-6SDA	No	No	No	Yes	Yes
PCI-5SD3	Yes	Yes	Yes	No	No
PCI-5SD5-R2	Yes	Yes	Yes	Yes	Yes
PCI-5SD6	Yes	Yes	Yes	No	No
PCI-6SR	Yes	Yes	Yes	No	No
PCI-6SD	No	No	No	Yes	Yes
PCI-6SDA	No	No	No	Yes	Yes
PCI-5SDA	No	No	No	Yes	Yes

PCI-6SD (ATX Power)

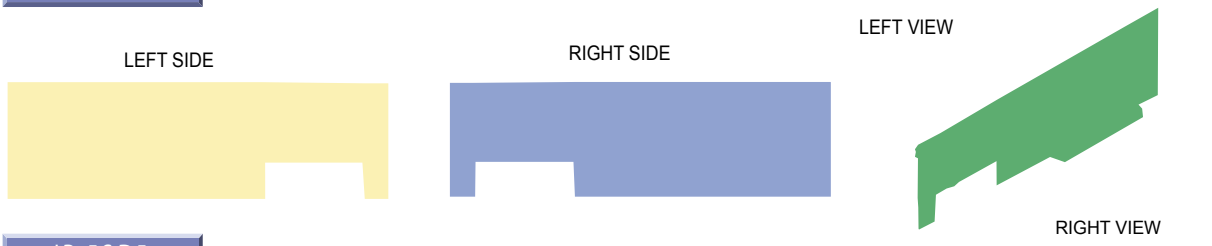


PCI-6SR

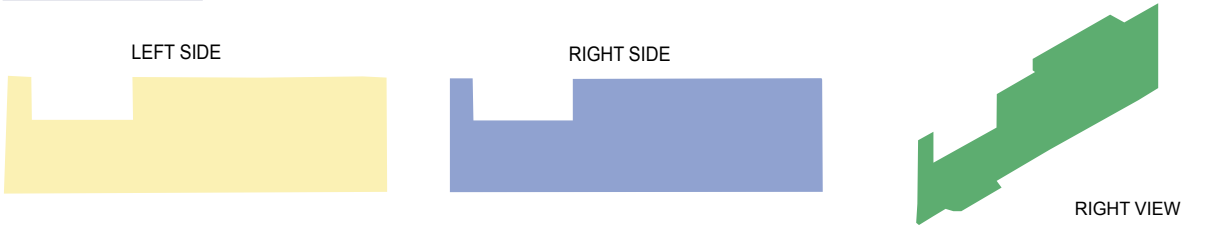


IP-5SD

IP-5SD3



IP-5SD5

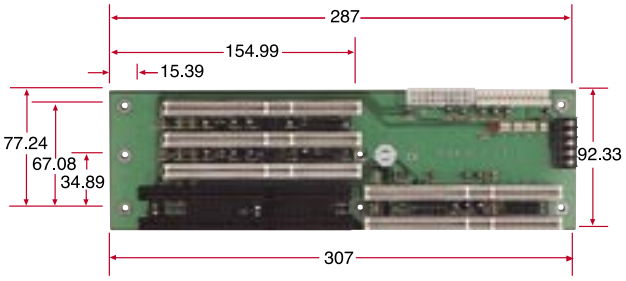


PCI-64 64-bit PCI Backplane

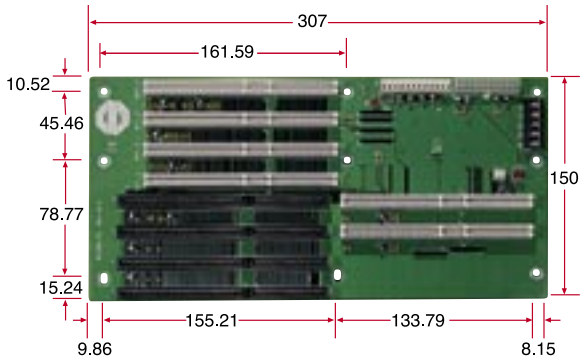
IEI Support

We provide various backplane configurations for communications applications, from our 2x 64bit PCI slot backplane to our 20x 64bit PCI slot backplane are made for rackmount chassis, industrial compact chassis, and workstation appliances. Our PCI 64bit backplane product line meets all PCI 64bit application requirements.

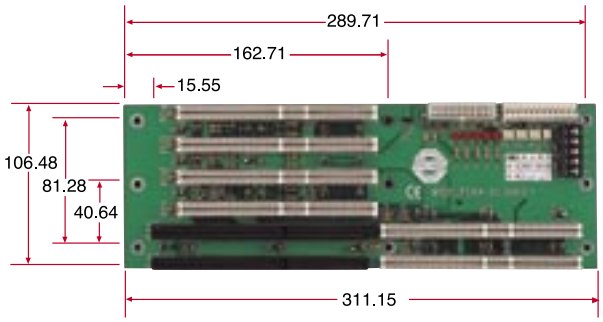
PCI64-4S



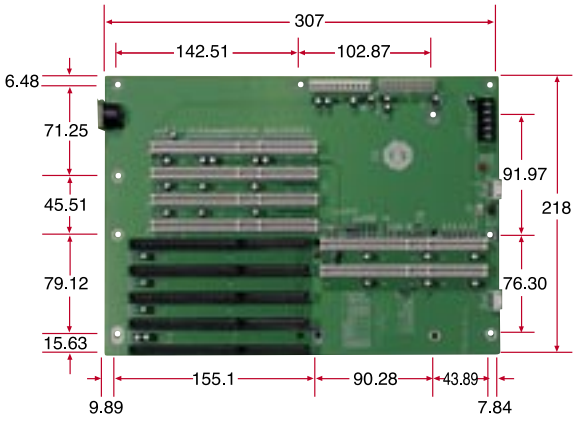
PCI64-7S



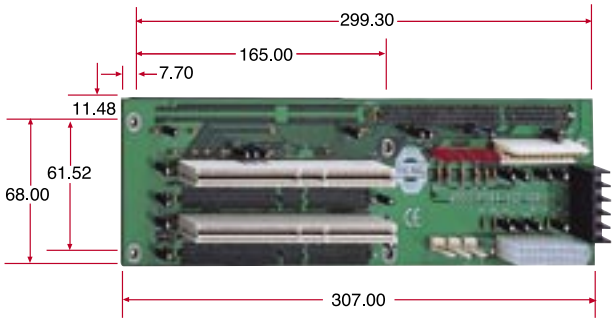
PCI64-5S



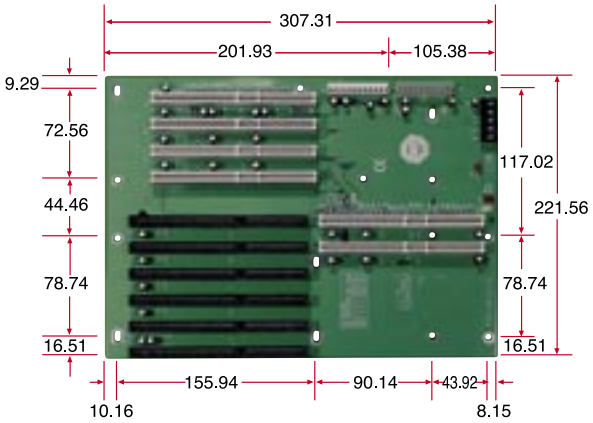
PCI64-8S



PCI64-5SD



PCI64-10S



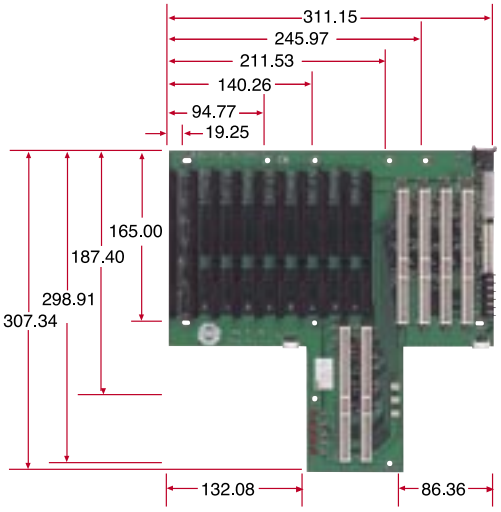
PCI-64 64-bit PCI Backplane

Why do you need PCI 64bit Backplane?

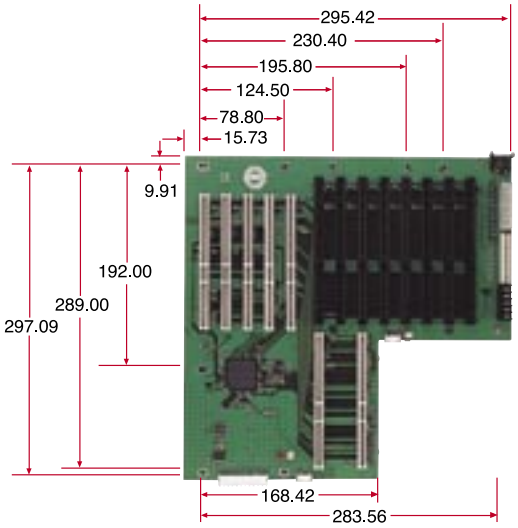
The convergence of voice, video and data traffic, the need for secure communications and the exploding demand for high-speed network access are placing communication infrastructure vendors under extreme demand for faster, well-managed bandwidth capable of integrating with their existing technology. ICP's PCI-64bit Backplane enables user to build standard-based network equipment, scalable to multi-Gigahertz speed ad beyond and also integrates easily and effectively with existing infrastructure.

PCI64-14S

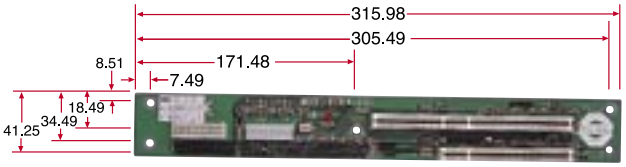
PCI64 bit High speed & performance SBC and Networking add-on card appliance

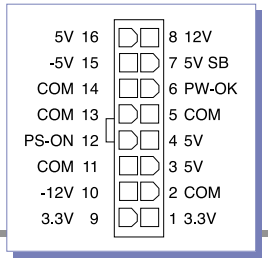


PX64-14S2



PCI64-2SD

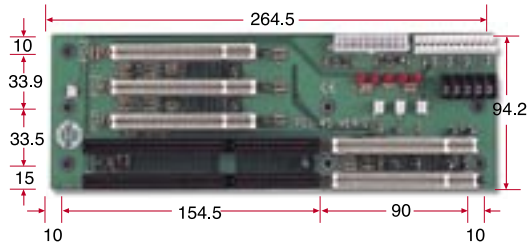




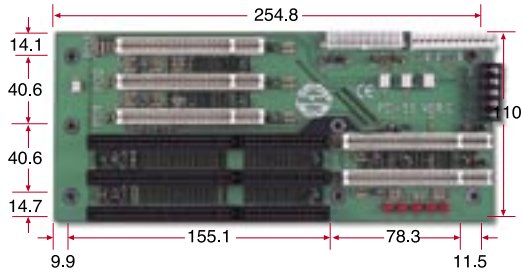
64-bit PCI Backplane	Chassis Support
PCI64-2SD	RACK-2300 / RACK-2320 / RACK-2330
PCI64-4S	RACK-3300
PCI64-5S	RACK-504 / PAC-1060A / PAC-1000
PCI64-5SD	RACK-2004
PCI64-7S	PAC-1700
PCI64-8S	PAC-1200
PCI64-10S	PAC-1200 / WS-855A
PCI64-14S	RACK-3000 / RACK-3100
PX64-14S2	RACK-814 / MPC-6022A / MPC-6010A / EC-1040 / RACK-305A / RACK-360

PICMG Bus Passive Backplane

PCI-4S

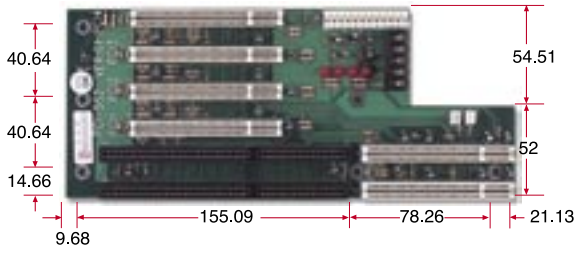


PCI-5S

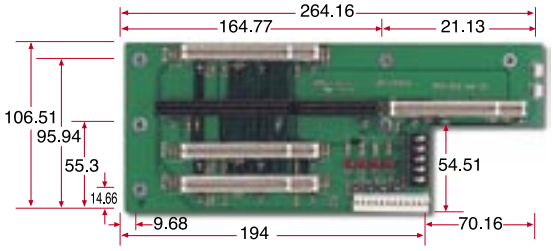


PCI-5S2

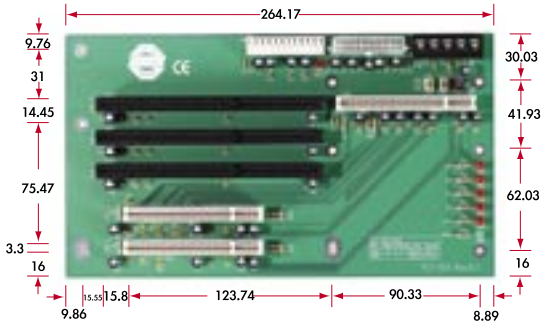
(For RACK-500 Chassis)



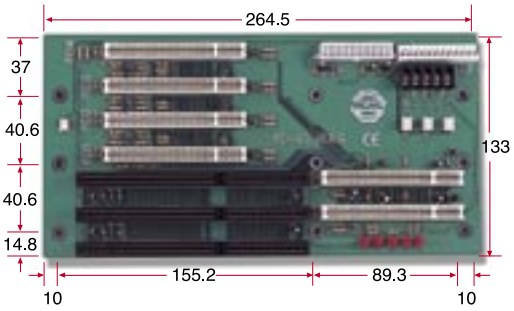
PCI-5S3



PCI-5S4

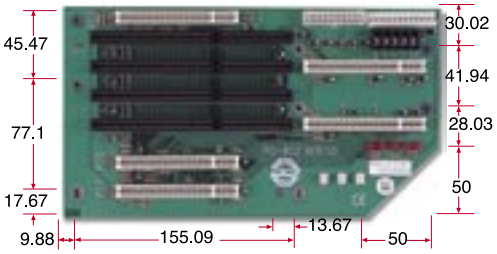


PCI-6S

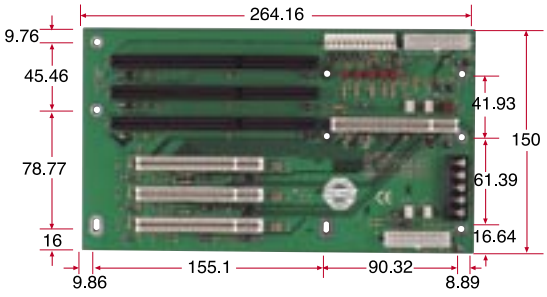


PCI-6S2

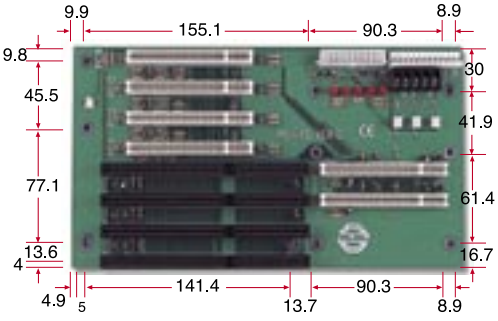
(For WS-615CD Workstation)



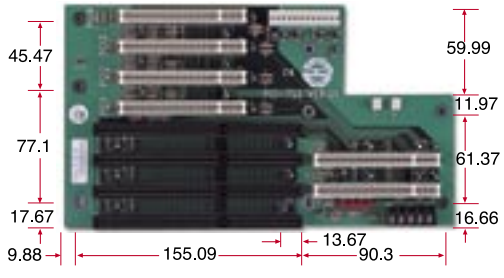
PCI-6S3



PCI-7S

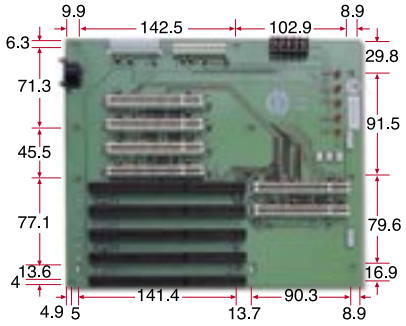


PCI-7S2

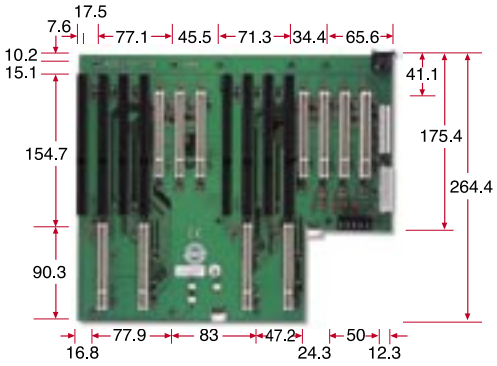


PICMG Bus Passive Backplane

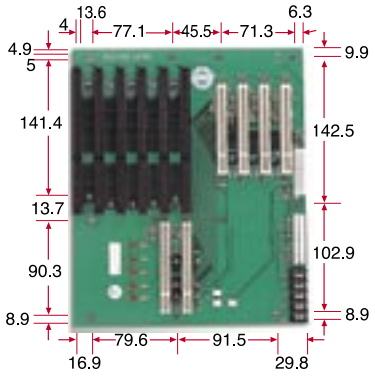
PCI-8S



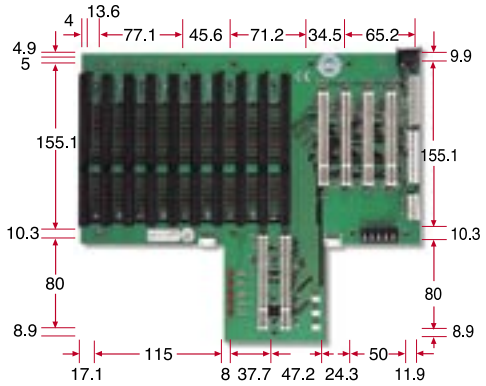
PCI-13SD



PCI-10S

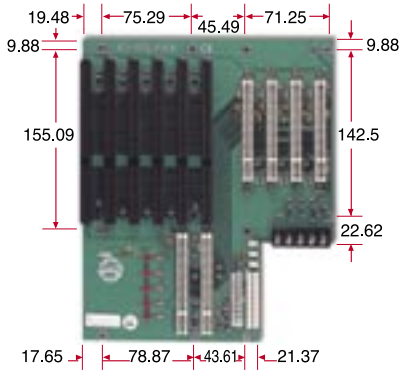


PCI-14S

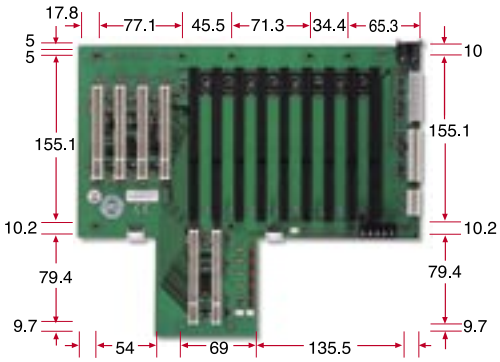


PCI-10S2

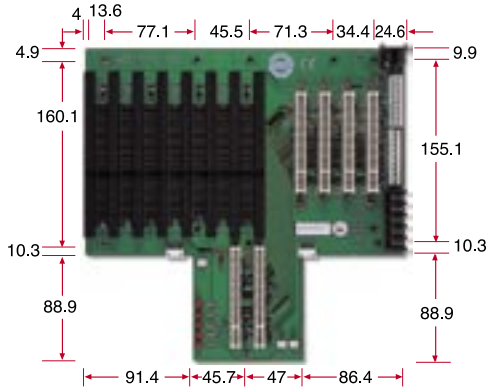
(For RACK-900 Chassis)



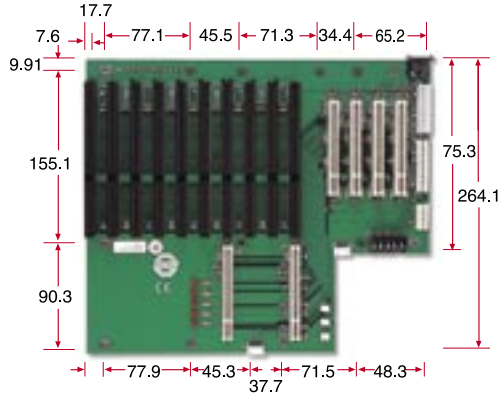
PCI-14S2



PCI-12S

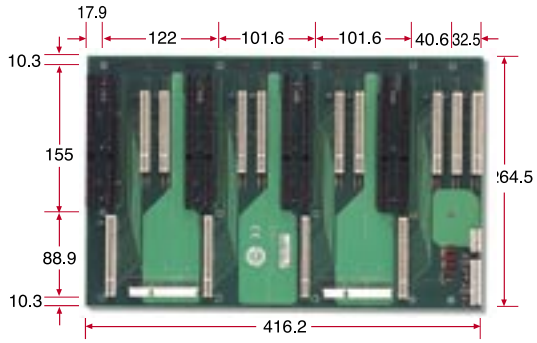


PCI-14S3

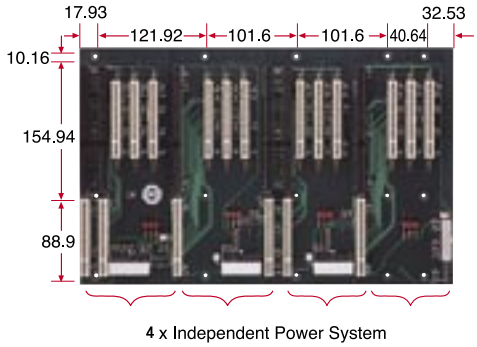


PICMG Bus Passive Backplane

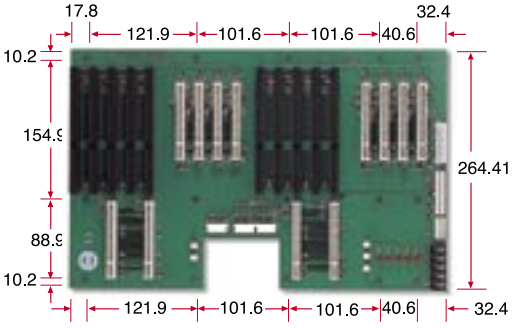
PCI-17SQ



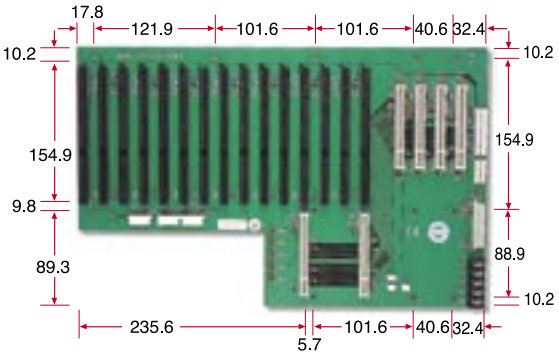
PCI-18SQ



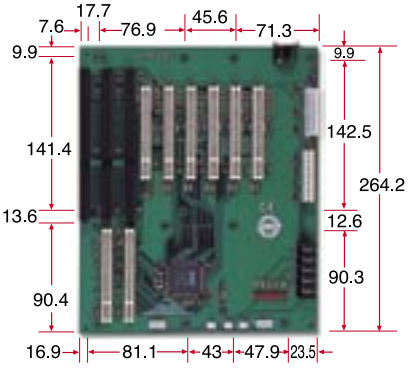
PCI-18SD



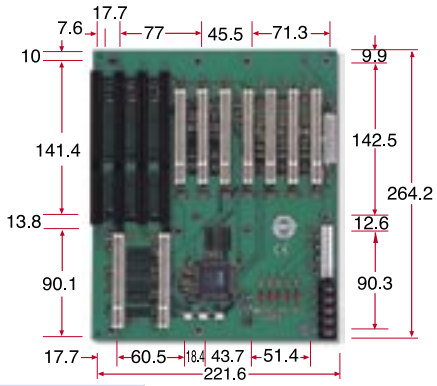
PCI-19S



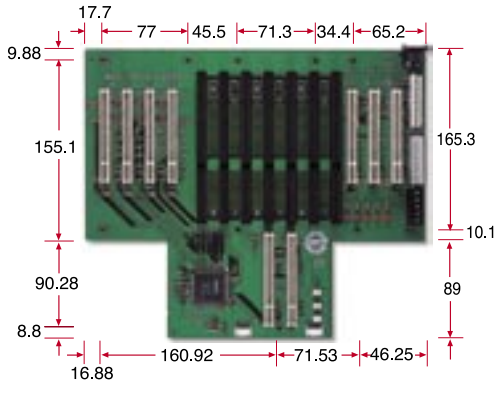
PX-8S



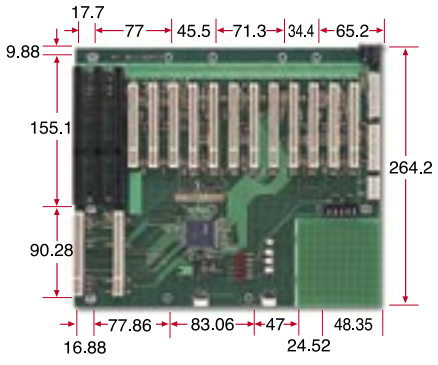
PX-10S



PX-14S2

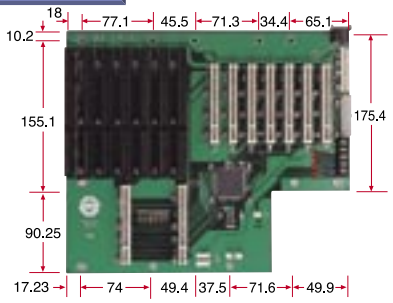


PX-14S3

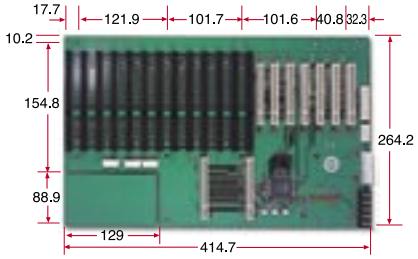


PICMG Bridged Backplane

PX-14S5

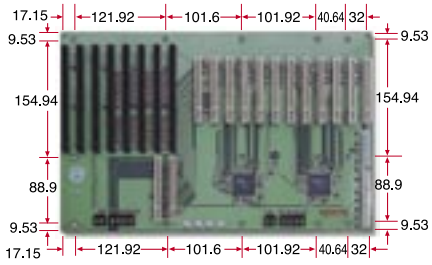


PX-19S



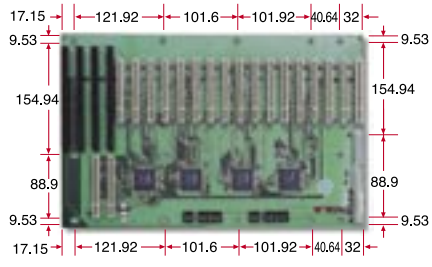
PX-20S

(Optimum PCI bus loading design !)

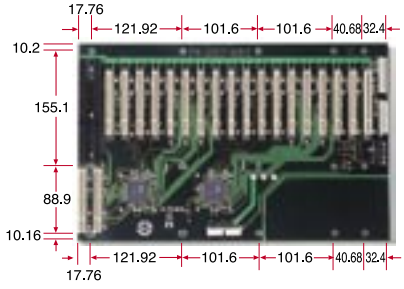


PX-20S2

(Optimum PCI bus loading design !)

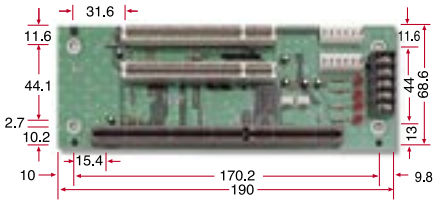


PX-20S3

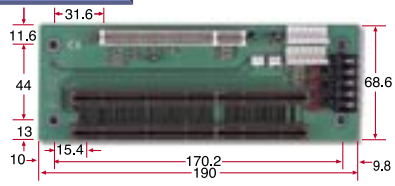


PCISA Backplane

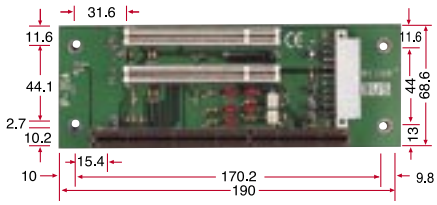
IP-3S



IP-3S2

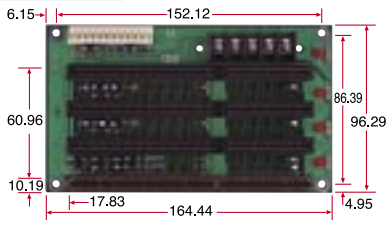


IP-3SA

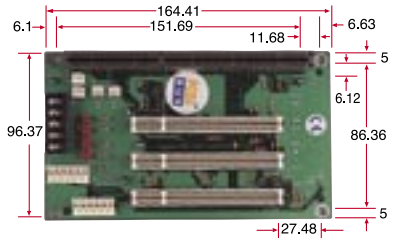


ATX Power Connector

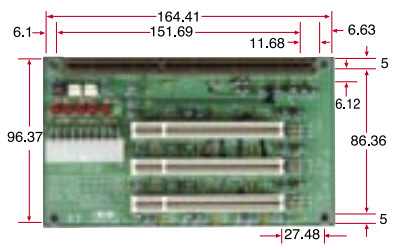
IP-4S3



IP-4S



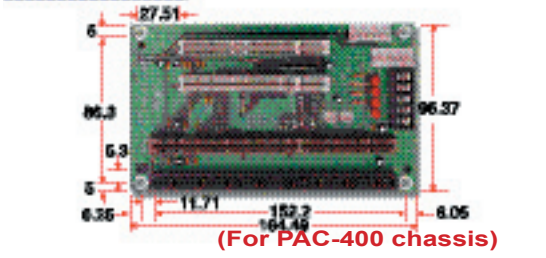
IP-4SA



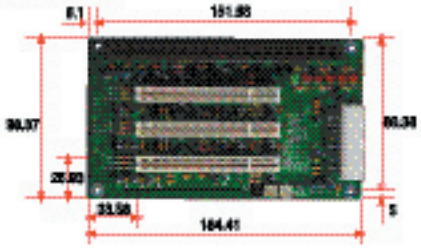
ATX Power Connector

PCISA Backplane

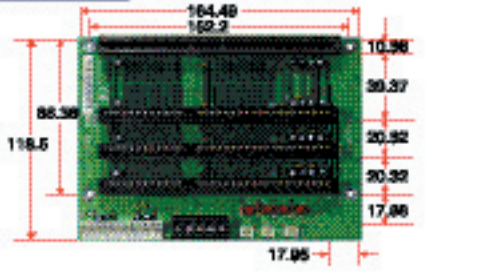
IP-4S2



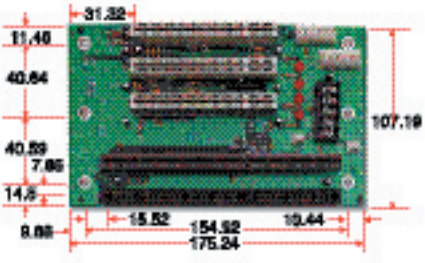
IP-4S2A



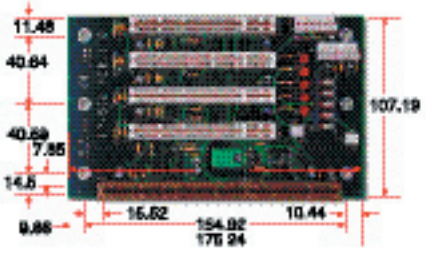
IP-4S4



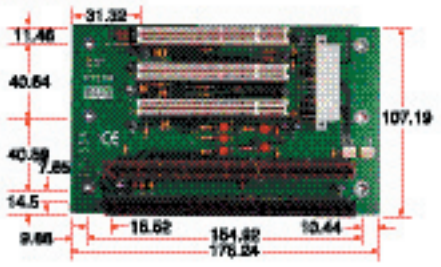
IP-5S



IP-5S2

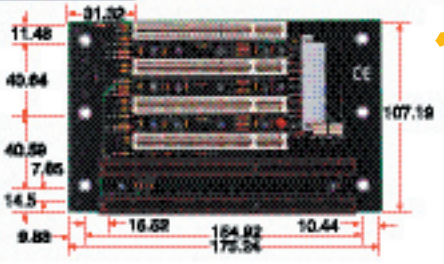


IP-5SA

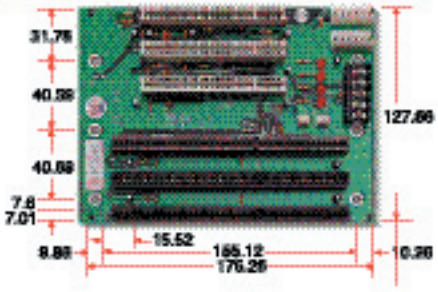


IP-5SA2

ATX Power Connector

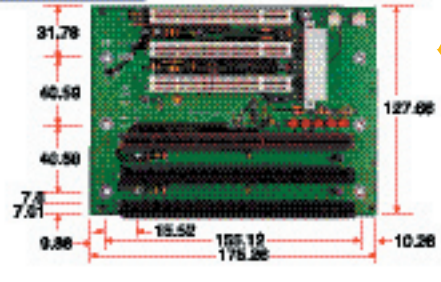


IP-6S

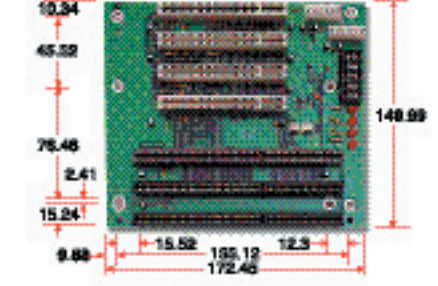


IP-6SA

ATX Power Connector



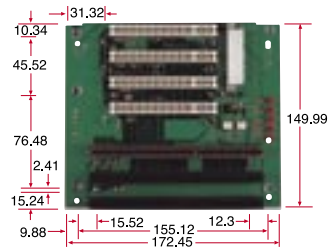
IP-7S



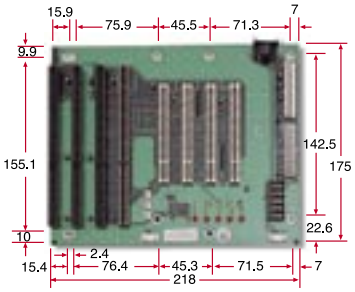
PCISA Backplane

IP-7SA

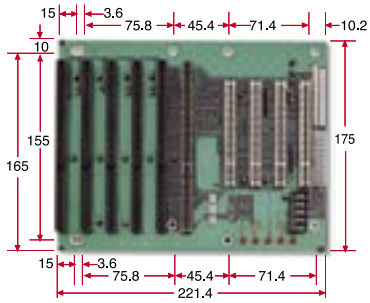
ATX Power Connector



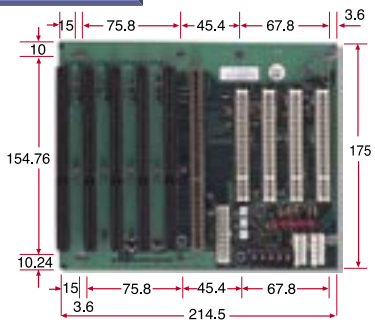
IP-8S



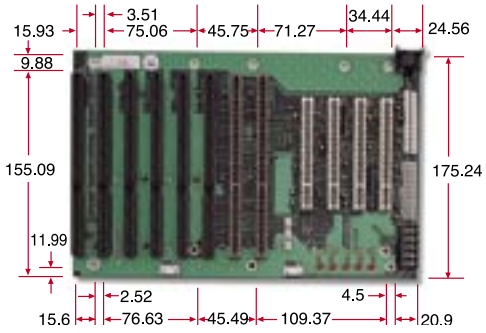
IP-10S



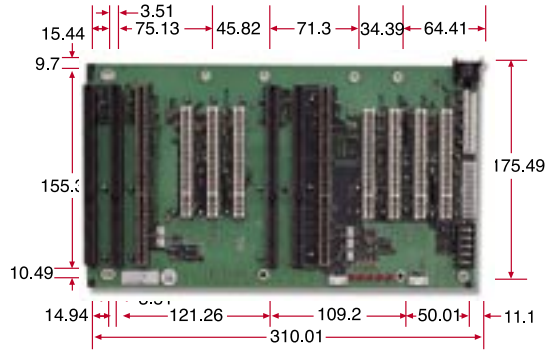
IP-10S2 (For RACK-900)



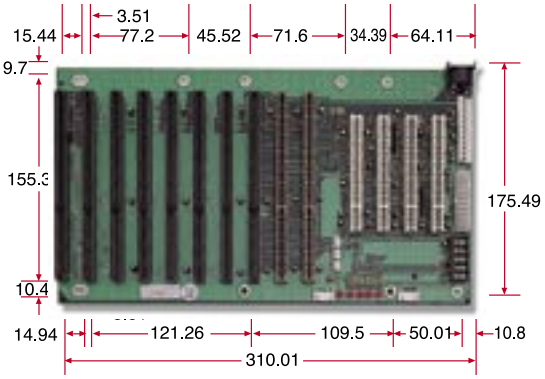
IP-12S



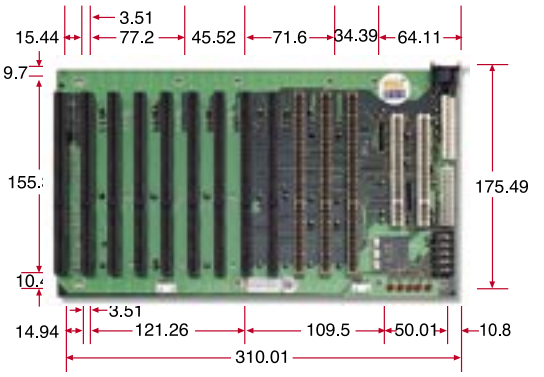
IP-13SD



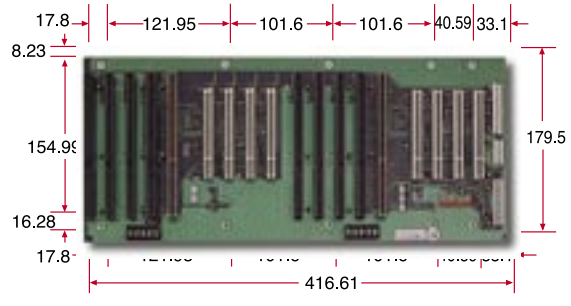
IP-14S



IP-14S3

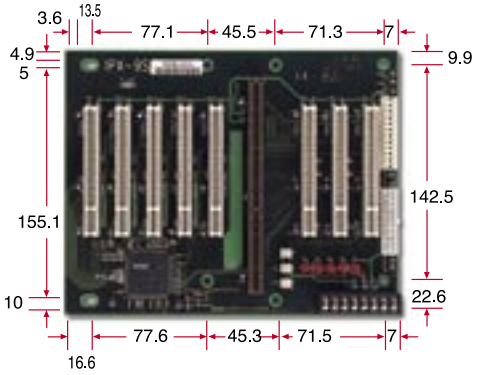


IP-18SD

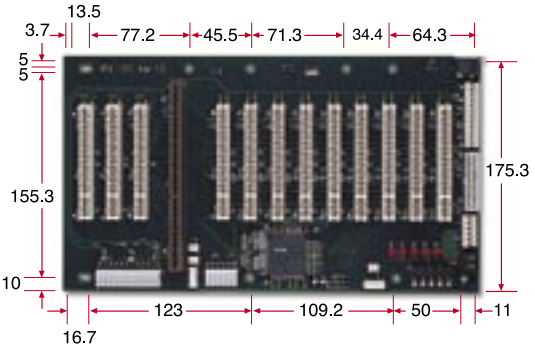


PCISA Backplane

IPX-9S (Pure PCI Bus)

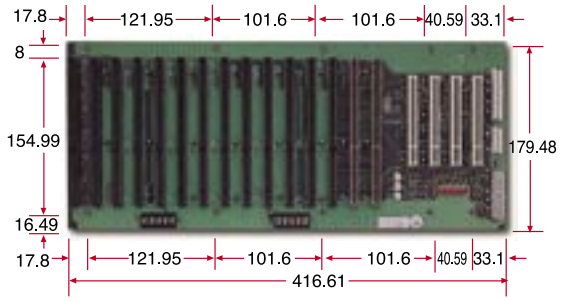


IPX-13S (Pure PCI Bus)

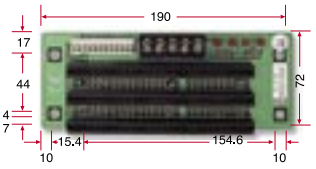


ISA Backplane

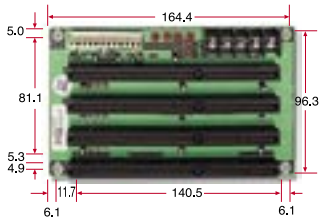
IP-19S



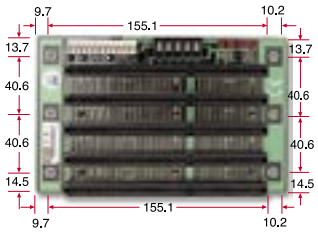
BP-3S



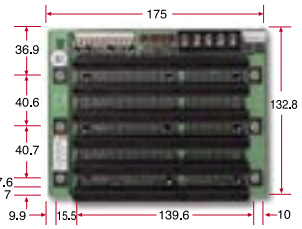
BP-4S



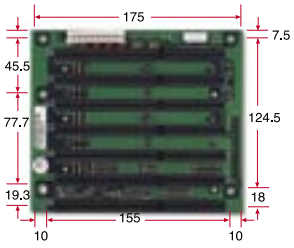
BP-5S



BP-6S



BP-7S



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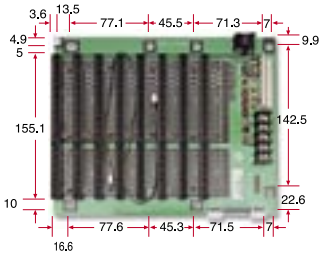
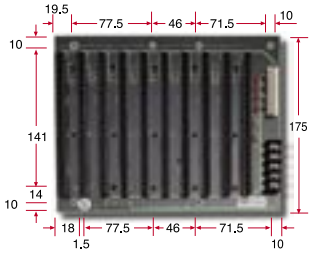
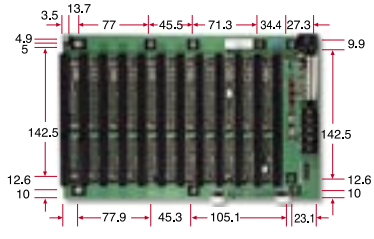


BP-10S/10SD

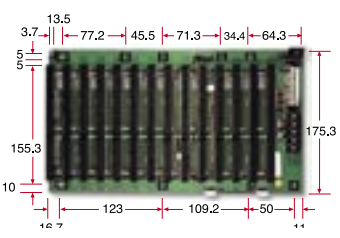


BP-10SD:
Dual Segments
5+5-slot

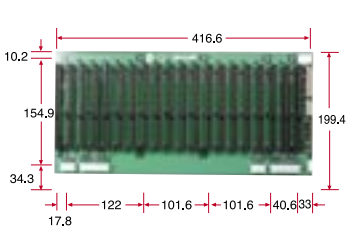
BP-12S



BP-14S/14SD/15S



BP-20S/20SD/20ST/20SQ

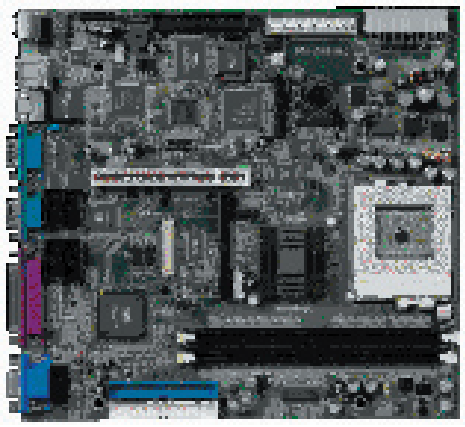


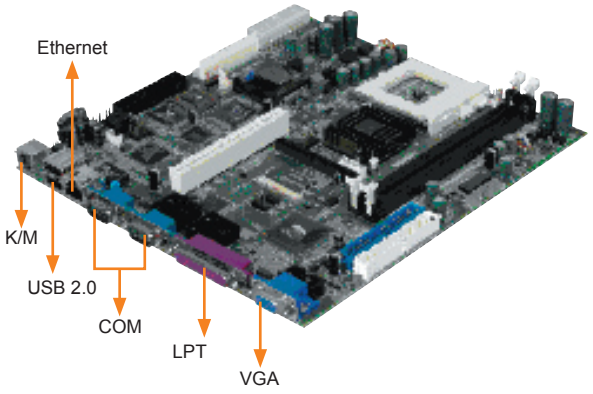
BP-20SD:
Dual Segments
10+10-slot
BP-20ST:
Three Segments
5+5+10-slot
BP-20SQ:
Four Segments
5+5+5+5-slot

POS-380

POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, LAN, USB 2.0, 6 COM & Audio

New Generation of POS Solution!!





DDR266 | Universal Socket-370 | SERIAL ATA | AUTO Realtek 5.1-channel | 6 COM | Tualatin Supports | Dual Display

Feature

- Intel PIII / Tualatin / Celeron CPU support upto FSB 133 MHz
- CRT/LCD integrated in VIA CLE266 support 24-bit TTL/LVDS, support dual independent display
- 2x DDR 266 support up to 2GB
- support 1x PCI expansion slot
- CFII, LAN, USB2.0, 6 COM ports, Audio integrated

Specifications

CPU	Socket-370 base supports up VIA C3, Intel® Tualutin Pentium® III/Celeron™ up to 133MHz FSB
System chipset	VIA CLE266 (VT8623+8235)
System memory	2 x DDR 200/266 SDRAM socket support up to 2GB
VGA Display	Integrated in VT8623 – Resolution: 1920x1440 for CRT display with DB15 and 2x5 box header – DF 14-20F connector for Supports single channel 24-bit TTL / LVDS LCD interface, support dual independent display
SSD	1 x Compact Flash™ Type II socket
Ethernet	– 1 x 10/100Mbps Realtek 8100BL Ethernet Controller (POS-380R)
Audio	AC'97 Codec (Realtek 5.1-channel)
I/O	– 5 x RS-232 (3 by pin header) – 1 x RS-232/422/485 selectable – 1 x LPT supports SPP/EPP/ECP mode – 6 x USB 2.0 (2 x USB connectors, others by 2 x 4 pin-header) – 1 x PS/2 for Keyboard/Mouse – 2 x IDE ATA 66/100/133 (40-pin with 2.54mm pitch) – 1 x Floppy (34-pin with 2.54mm pitch) – 1 x IrDA
Digital I/O	TTL Level, 4 x inputs and 4 x outputs
Extension Slot	1 x 32-bit PCI slot
WDT	Software programmable supports 1 ~ 255 sec, system reset
Hardware Monitor	Provides CPU Vcore, Vcc, CPU/ System fan speed and temperature detecting function
Power Consumption	+5V@8.1A, +5VSB@0.35A (STR), -12V@0.1A, +12V@0.26A (PIII 1GHz , 133MHz FSB 256MB DDR266)
Power Connector	AT & ATX
Operation Temperature	0~60°C
Relative Humidity	5~95%, non-condensing

IEI Option

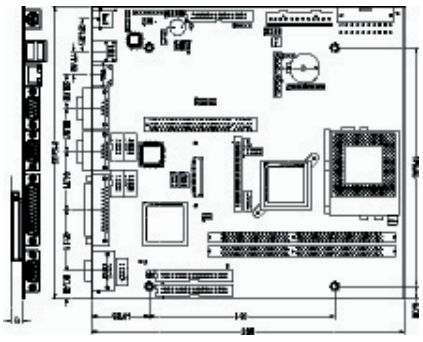
- **FP24-02-V10**: 3.3V Buffered LCD connection board
- **CF-504:** Socket-370 CPU Cooler

page 5-5

What benefits of POS-380

IEI's new generation of POS (Point of Sales) series product line in POS-380 is designed by VIA CLE266 solution within multi-function, low power consumption and cost effective features. It is design with universal Socket-370 CPU form factor to support most of VIA C3, Intel® Celeron™ and Pentium® III series CPU type. In the POS series market, usually, it has multi peripheral communication requirements such as, Scanner, Card reader and Goods perceptron. To be able to meet the next generation demand of POS market, iEi's POS-380 had been concerned the future requirements and design in totally six serial communication ports within USB2.0 and IEEE-1394 high speed transmission interface. It is capable to enhance the support ability in the near future and focused on popular peripheral applications. Moreover, following with the new demand on data displaying, POS-380 has also implemented DVI and TV-Out functions to be able to support various display type. On the other hand, the most new hard disk transmission interface Serial-ATA can be increase the storage performance by sending the data through out optional GbE LAN to remote server.

Dimensions



Ordering Information

- **POS-380R**
  POS Board, Socket 370 133MHz FSB with LCD/ CRT VGA, LAN, USB 2.0, 6 COM & Audio

Note:
For TV-out / IEEE-1394a / Serial-ATA / Intel LAN supporting demand, please contact supplier.