

EPC® -3305

PENTIUM® III COMPACTPCI® PERIPHERAL PROCESSOR



FEATURE SUMMARY

- Intel 500 MHz Pentium III Low Power Module with 256K on-die L2 cache
- Three available 100MHz SDRAM, ECC memory sizes (128MB, 256MB, and 512MB)
- Two 32-bit PMC expansion slots
- Compatible with major operating systems including Linux, Solaris, Windows NT 4.0 Embedded
- CompactPCI PICMG R3.0 and CompactPCI Hot Swap PICMG R2.1 compliant
- Optional Rear Transition Module (RTM) supports flexible I/O configurations
- Intel Pentium III chipset (82443BX and PIIX4E) and Intel 21554 PCI-PCI non-transparent bridge
- Front panel interface with Reset button, Ethernet and COM-1
- Hot swappable
- Dual Ethernet, one port through the front panel and both in the RTM
- 100MHz Processor System Bus (PSB) for quicker memory access
- Two year warranty

The incredible growth and development in the Internet combined with the convergence of voice, video and data is rapidly altering the global telecommunications industry. Development of next generation infrastructure is driving the demand for products that provide exceptional performance as applications become more memory intensive and require more flexibility in telecommunications systems.

As the Internet continues its advance into real-time, high-reliability, high-availability applications, customers are looking for products that solve their infrastructure challenges and shorten their time to market. RadiSys Corporation's CompactPCI embedded computers are the ideal choice for today's telecommunication customers.

APPLICATIONS

The next generation communication infrastructure will be a packet oriented one in which application or services such as voice over IP, voice messaging, voice recognition, and a multitude of media servers co-exist in a seamless, unified network. Such applications demand powerful processing capabilities that scale as more powerful processors are introduced. Additionally, as software content in these applications increase, memory requirements go up and performing tasks such as voice recognition and text-to-speech in real-time require

larger memory blocks. The EPC-3305, designed as a peripheral processor, is ideally suited to address processor and memory intensive applications such as voice recognition and text-to-speech, as well as additional applications such as media gateways, switching and advanced call center applications.

PRODUCT DESCRIPTION

The EPC-3305 is a high performance single slot CompactPCI module that operates as a peripheral processor. It incorporates two PMC sites for flexibility allowing use of a variety of PMC modules such as SVGA, LAN adapter or WAN adapters. It offers a choice of three memory configurations to address different needs up to 512 MB.

PROCESSING POWER

Designed for applications that require lightning-fast performance for increased throughput, the EPC-3305 is powered by a Pentium® III 500MHz Low Power Module (LPM) processor with 256K L2 cache and a passive heat sink for processor cooling.

MEMORY OPTIONS

The EPC-3305 offers three high-reliability Error Correcting Code (ECC)

SDRAM memory configurations (128MB, 256MB, and 512MB) for carrier grade applications that require intensive memory and data integrity.

CONFIGURATION FLEXIBILITY

Users can customize the EPC-3305 through the use of two PMC sites, eliminating the need for an additional slot and making the architecture more powerful. These PMC sites accommodate custom or off-the-shelf-modules (64-bit PMCs run in 32-bit mode). This gives customers modular-enhanced functionality and flexibility by providing standard interface capabilities such as IDE or SCSI, T1/E1, Ethernet, digital and serial I/O, as well as video/mouse/keyboard out the front of the system. An optional Rear Transition Module (RTM) allows for I/O accessibility from the rear of the CompactPCI chassis.

SOFTWARE CAPABILITIES AND SUPPORT

The EPC-3305 has the capability to retain main system memory after a reset. This type of reset is referred to as a soft reset. The front panel reset switch, RTM, and watchdog timer each can be independently programmed to produce

either a hard or soft reset. This allows for data recovery from the main system memory, a critical feature for a telecommunications CPU.

The EPC-3305 is compatible with major operating systems including Linux®, Solaris® and Windows NT® 4.0 Embedded and contains a PC-compatible PhoenixBIOS™.

COMPACTPCI FORM FACTOR

The EPC-3305's rugged CompactPCI, open, established industrial form factor provides a unique combination of functionality and reliability that fits the needs of today's telecommunications customers. Fully compliant with PICMG 2.0 R3.0 CompactPCI and CompactPCI Hot Swap PICMG 2.1 R1.0 specifications, the EPC-3305 resides in a peripheral slot and is hot swappable

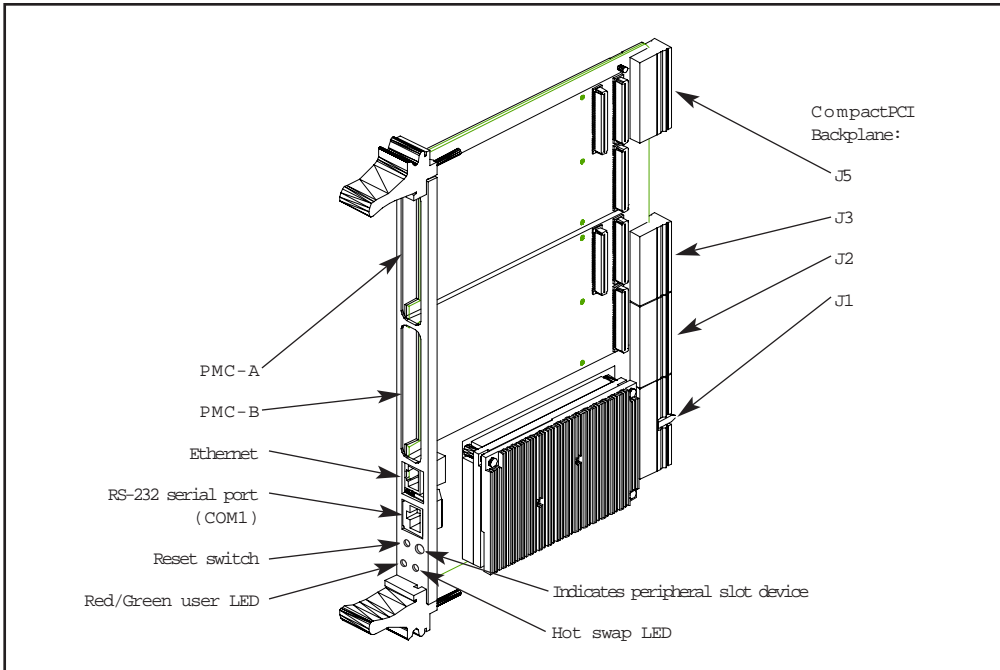
As a peripheral processor, the EPC-3305 relies on a system controller to provide CompactPCI clocking for communications over the CompactPCI bus. However, when no system controller is present, the EPC-3305 employs on-board PCI clocks to operate all on-board devices without requiring a functional CompactPCI bus.

ENVIRONMENTAL SPECIFICATIONS

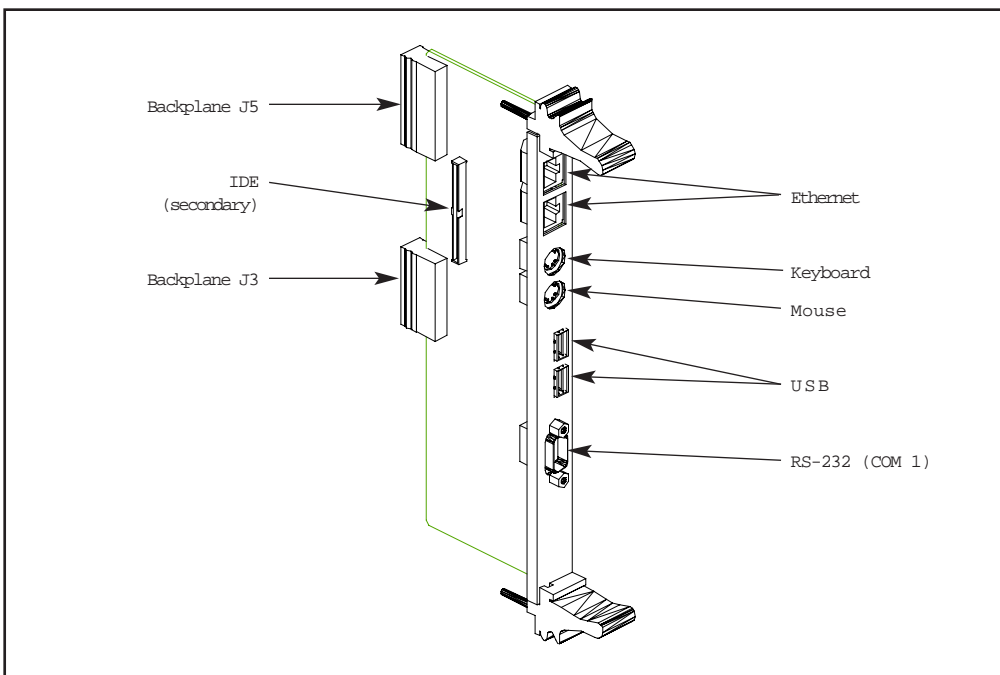
The EPC-3305 with the 500MHz Low Power Module Pentium III Processor has been designed to meet the following environmental specifications:

Temperature (Ambient)	Operating	5°C - 50°C derated 2°C per 1000 ft (300 m) over 6600 ft (2000m) with 200 LFM airflow
	Non-operating	- 20°C to 60°C
Humidity	operating	5 - 85% RH noncondensing 25°C - 45°C
	non-operating	5 - 85% RH noncondensing 25°C - 45°C
Altitude	operating	0 - 10,000 ft (3000 m)
	non-operating	0 - 40,000 ft (12,000 m)
Airflow	operating	200 LFM (linear feet per minute)
ESD Susceptibility ¹	operating	IEC801-2/EN50082-1 (1992) Performance Criteria B: 4KV direct contact, 8KV air
EMC	operating	Designed to pass CE Mark and FCC Class B (untested)
Radiated Susceptibility ¹	operating	IEC801-3 1984/EN50082-1 (1992): 3V/m performance criteria A
Vibration (Unpackaged)	operating	0.04g ² /Hz from 5 - 1,000 Hz random, 10 minute per sweep cycle
	non-operating	0.06g ² /Hz from 5 - 1,000 Hz random, 10 minute per sweep cycle
Shock (Unpackaged)	operating	30g, 11ms duration, half-sine shock pulse
	non-operating	50g, 11ms, half-sine shock pulse

¹Note that these tests are system level tests. Conformance of the product to these specifications may be effected by the ability of the rest of the system to conform.



EPC-3305 CompactPCI Peripheral Processor



EPC-3305 Optional Rear Transition Module

SPECIFICATIONS

FEATURE	FUNCTION	DESCRIPTION
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ORDERING INFORMATION

Call for pricing and availability.
Refer to the order codes below.

DESCRIPTION

EPC3305-128-500MHz Pentium III LPM processor,
128MB w/ECC
EPC3305-256-500MHz Pentium III LPM processor,
256MB w/ECC
EPC3305-512-500MHz Pentium III LPM processor,
512MB w/ECC

Options

- RTM-Rear Transition Module
- SVGA-SVGA C&T 69000

Board Style		One Slot CompactPCI, Eurocard Size "B"
CPU		500MHz Low Power Module Pentium III EMC-2 processor
Cache		256KB L2 cache
PCI Chipset		Intel 82440BX PCIset
System Memory	Capacity Size	128MB, 256MB, or 512MB SDRAM ECC soldered memory 128Mb chips in an 8-bit format using 4 banks of 9 chips
System BIOS	BIOS Type Special Features	PC-compatible Phoenix BIOS with 4MB Bootblock Flash Linux, Solaris and Windows NT 4.0 Embedded, compatible
Integrated PCI IDE	Number of Devices Connectors	Two independent channels Access through J5 backplane; header on EPC-3305; second EIDE channel on RTM
Integrated Super I/O	Controller Serial Ports Floppy Controller Keyboard Controller	National Semiconductor 87309 Two RS-232 ports (300 - 115,200 baud) 26-pin header on EPC-3305 8042A-compatible
RTC	Real Time Clock Battery	Accurate to ±13 minutes/yr Field replaceable 3.0V, 200mAH CR2032 lithium battery
Ethernet	10/100BaseTX	Two Intel 82559 controllers
SVGA Graphics Module	Chipset	Supported through optional SVGA PMC on EPC-3305 CHIIPS 69000
Connectors, Front Panel	Ethernet Serial	One RJ-45 Ethernet port connector for Ethernet One RS-232 serial port RJ-45 connector for COM-1
Connectors, Rear Transition Module (RTM)	Keyboard/Mouse USB RJ-45 COM-1 Reset Switch	Two PS/2 style mouse and keyboard port connectors Two Universal Serial Bus connectors Two connectors with Link/Activity LEDs for 10/100Base-TX Ethernet ports One DB-9 serial port connector for COM-1 One reset switch
EPC-3305 Header Connectors		One floppy drive header One debug port header One Primary Channel EIDE header
EPC-3305 RTM Header Connectors		One Secondary EIDE Channel header and one COM-2 header One 10-pin header connector for COM-2
Watchdog Timer		A two-stage configurable for either "soft" reset (main memory contents retained) or "hard" reset.
Environment	Operating Temperature	5°C - 50°C
Power Requirement	Typical w/SVGA, 128MB, 256 MB or 512MB Memory	33 Watts
UL	Listed	In-process

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