Pentium III-based CPCI-760/761 System Slot Single Board Computer

**Highlights**

The Force CPCI-760/761 CompactPCI® single board computer provides OEMs with ongoing access to the latest Intel® low-power consumption, mobile technologies, coupled with maximum system-slot computing functionality on a single 6U CompactPCI board. Use of the Intel Pentium® III processor – Low Power and new Intel BGA-2 packaging position OEMs to take immediate advantage of future Pentium III clock-speed advances while providing the power and functionality required for the most advanced embedded applications in the areas of telecommunications, data communications, and command and control. Backward compatibility with the Force CPCI-720 single board computer means OEMs can quickly update their CPCI-720 based products to take advantage of the most current Intel Pentium III processor technology.

**Features**

- Latest Pentium III processor – Low Power technology – enables rapid time-to-market and easy upgrade path for OEM products
- Small-footprint Intel BGA-2 packaging – enables maximum system-slot functionality on a single 6U CompactPCI board
- Up to 500MHz and more clock speed to power demanding telecom and data comm applications
- Supports full 16-slot CompactPCI bus-based system (via optional I/O board)
- CompactPCI Hot-Swap support
- Form-Fit-Function compatible with popular Force CPCI-720

**Datacommunications**

**Industrial Control**

**Government**

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Powerful and flexible system-slot solution

- Two models to meet your requirements
  - CPCI-760 – two-slot solution provides integrated hard and floppy drives on second 6U board
  - CPCI-761 – one-slot solution
- Full forward and backward compatibility
- CPCI-760 model is Form-Fit-Function compatible with previous-generation Force CPCI-720 for easy upgrades
- More the dollar – space-saving BGA-2 packaging enables maximum onboard functionality and an excellent price/performance ratio
- Powers a full 16-slot CompactPCI system – optional IO-720 companion board provides PCI-to-PCI bridge for 16-slot solutions

High-performance platform

- Built for speed
  - Pentium III processor, 400MHz, 500MHz, or higher
  - Up to 256MBytes on-board SDRAM
  - Up to 768MBytes SDRAM via optional memory module
  - 256KB Level 2 cache on chip at full processor clock
- Low power consumption for embedded applications
**Flexible configuration**

- One PMC slot
- Two independent Fast Ethernet interfaces on-board
- Two serial interfaces on-board
- Optional interfaces (via the PMC slot)
  - On-board PMCIA interface for Type II cards (optional)
  - EIDE interface
  - Optional hard disk drive or floppy disk drive

**Full compatibility—forwards and backwards**

The first CompactPCI single board computer to feature the low-power consumption Pentium III processor in small-footprint BGA-2 packaging, the Force CPCI-760/761 is designed both to put OEMs and their products on the leading edge of embedded processing power and to keep them there. Fully forward compatible, CPCI-760/761 places customers solidly on Intel's embedded computing roadmap. Exchanging the CPU board is all that is required for OEM products to benefit from anticipated Pentium III clock speed advances to 1GHz and higher.

In addition, current Force customers using the Force CPCI-720 single board computer can immediately and confidently introduce the Form-Fit-Function compatible CPCI-760 model in their products in order to increase performance and to stay on Intel's embedded computing roadmap.

**Ready for demanding applications**

The CPCI-760/761's formidable processing capabilities join with its BGA-2 packaging-enabled design to deliver all the power and functionality demanded by such advanced telecommunications and data communications applications as Network Switching, CTI, Voice over IP Gateways and PBXs. Similarly, the CPCI-760/761 is ideal for use in exacting Command and Control, Governmental, and Imaging products.

Full support of the PICMG 2.1 Hot Swap specification positions the CPCI-760/761 as an excellent system-slot solution for applications requiring minimal downtime.

**Scalability across multiple dimensions**

The CPCI-760/761 not only scales in terms of processing speeds, but also in terms of I/O capabilities. For example, pairing the CPCI-760/761 with the companion Force IO-720 board provides the necessary PCI-to-PCI bridge that allows a CPCI-760/761 to control a full 16-slot CompactPCI bus system. Additionally, the IO-720 provides two PMC slots, a SCSI-2 port and an optional VGA interface.

**Flexible networking and communications interfaces**

The CPCI-760/761's onboard networking capabilities are also scalable and highly flexible. Two onboard Fast Ethernet controllers are provided – one that transitions to the front panel and one that can be switched between the board's front and rear panels.

There are also two serial interfaces, one LTP interface, and EIDE interfaces.
### Processor/Memory

**CPU type**
- Intel Pentium III processor – Low Power
- Core frequency 400MHz, 500MHz or higher

**L2 cache**
- 256MByte L2 cache (on chip, full speed)

**Main memory**
- Up to 256MByte SDRAM on-board, PC100 compliant with ECC support

**User upgradable/stackable memory modules**
- Up to 768MByte SDRAM via an optional memory module

**User Flash memory**
- Up to 1MByte Flash, 512KByte for user extension

### I/O capabilities

**PMC slot**
- One PMC slot

**IDE Flash disk**
- 16MBytes Flash Disk at primary EIDE (optional)

**Ethernet**
- Two Ethernet 10/100 Base TX at the front panel, one is switchable to the rear I/O connector (J5)

**Serial ports**
- Two serial ports, one LPT port

**Additional I/O**
- Keyboard/PS2 mouse interface
- USB interface, one at the front panel, one at J5
- Floppy interface

### Miscellaneouss

**RTC/Battery**
- Real Time Clock Motorola 146818 compatible
- RTC and CMOS RAM (for storing factory settings) backup via on-board battery
- Lifetime five years
- Operation without battery is possible

**BIOS**
- Headless' boot
- LanBoot, PXE 2.0 (optional)
- I/O redirection
- Modern remote support (optional)

**Software**
- Windows NT 4.0
- Tornado 2.0
- LynxOS
- Linux

### Environmental

**Operating Range**
- Temperature: 0°C to +55°C
- Relative Humidity: 5% to 95% non-condensing at 40°C
- Shock: 15g/11ms half sine

**Storage**
- Temperature: -40°C to +85°C
- Relative Humidity: 5% to 95% non-condensing at 40°C
- Shock: 15g/11ms half sine

### Board size
- Single-slot 6U CompactPCI (160.00mm x 233.35mm)

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