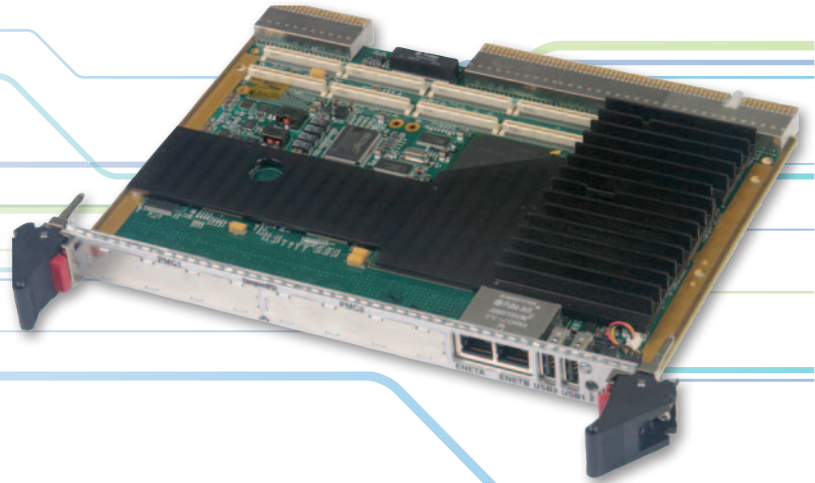


## CPU 31-10 (CPD2/CRD2)

- PICMG 2.0 R3.0 Compliant CompactPCI
- Core™2 Duo Mobile Processor
- MIL-STD-810F versions
- Convection and Conduction cooled
- RTM available for rear I/O support



### FEATURES

**CPCI Compatible** – PICMG 2.0 R3.0 Compliant, supports hot swapping, can be system controller or peripheral slot module.

**High Performance and Low Power** – Dual core processing at 30W typical power consumption (1.5 GHz processor) enables cool operation, even at extended temperature operation.

**Gigabit Ethernet** – Four Gb Ethernet ports are provided, two on the front and two on the rear, including support for PICMG 2.16 backplane fabric switching

**MIL-STD Versions** – The CPU 31-10 is offered in versions that support wedge locks for high shock and vibration immunity, and conduction-cooling. Conformal coating is available for all versions.

- Defense
- Homeland Security
- Aerospace
- Industrial
- Transportation

The CPU 31-10 is a 6U single-slot Compact PCI (PICMG 2.16 compatible) platform based on the Intel® Core™2 Duo Mobile Processor L7400 at 1.5 GHz or the T7400 at 2.16 GHz. The CPU 31-10 takes advantage of the Core2-Duo's low 17 W power consumption (at 1.5 GHz) as a rugged Single Board Computer (SBC) and it is optionally available as a conduction-cooled Compact PCI module with wedge locks and a full-board heat sink for high shock/vibration environments and temperature extremes.

The E7520 Memory Controller Hub (MCH) and 6300ESB I/O Controller Hub (ICH) chipset supports PCI-X and PCIe expansion, USB 2.0, ATA/100, and Serial ATA (SATA). Two Gb Ethernet ports and two USB 2.0 ports are accessible from the front panel in addition to two PMC bezels. 16 GB of on-board Flash permits single-slot booting. Two PICMG 2.16-compliant, 10/100/1000BaseTX ports are routed to the backplane. Two SATA ports, VGA video, up to four COM ports, an optional IDE interface, PS/2 mouse & keyboard, and two more USB 2.0 ports are routed to the backplane. Two PMC-X site is provided for additional I/O expansion. One of the sites is XMC compatible and supports x8 PCIe express. Conventional PC I/O is accessible with industry-standard connectors on optional rear I/O modules.

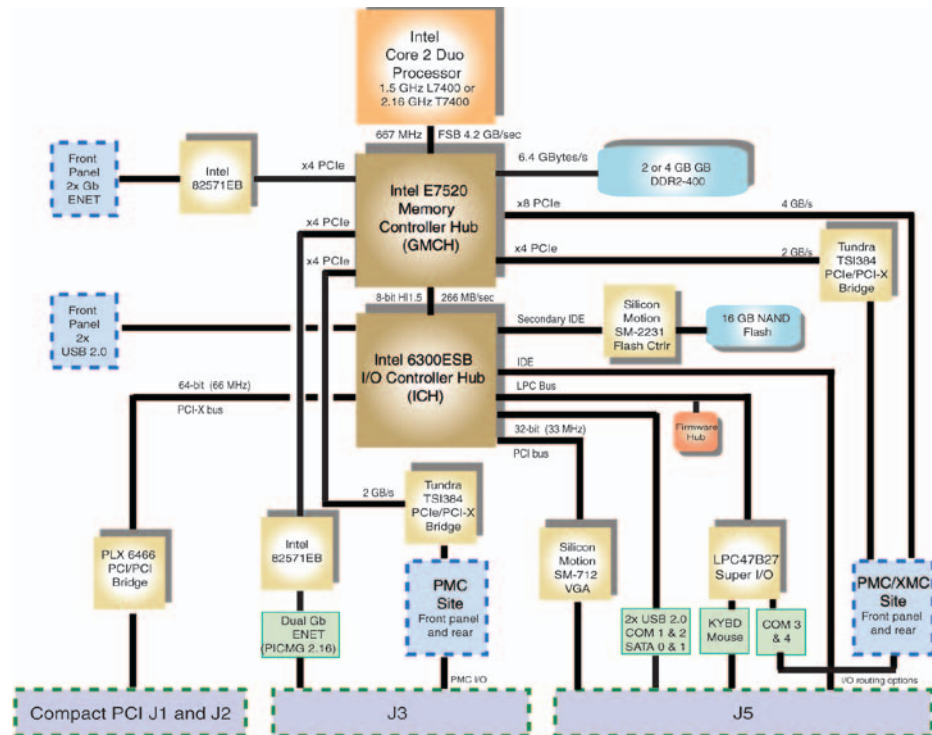
## Specifications



## System Architecture

CPU	1.5 GHz, 479-pin uFC-BGA Core 2 Duo 2.16 GHz Core2 Duo
RAM	2 or 4 GB GBytes DDR-400
Flash	Support for 16 GB of SATA NAND Flash
J3 INTERFACES	2x 10/100/1000BaseTX
J5 INTERFACES	PS/2 keyboard mouse 2x COM ports (+2x optional) 1x VGA graphics 2x USB 2.0 2x SATA IDE (optional)
XMC/PMC	1x XMC/PMC x8 PCIe 64-bit, 133 MHz PCI-X, front and J5 access 1x PMC 64-bit, 133 MHz PCI-X, front and J3 access
FRONT PANEL	2x 10/100/1000BaseTX (Convection cooled only) 2x USB 2.0 (Convection cooled only)
DIMENSIONS	6U CPCI single slot
POWER	1.5 GHz L7400: +5VDC @5.5A peak, 3.3VDC@2.0A steady 3.0VDC Lithium Coin Cell @3.4 μA 2.16 GHz T7400:+5VDC @8.0A peak
IPMI	ATmega 128L IPMI controller runs Pigeon Point IPM Sentry Software
OPERATING TEMPERATURE	0°/70°C, special versions to -40°/+85° C
COOLING	Conduction and convection cooling options

## Block Diagram



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