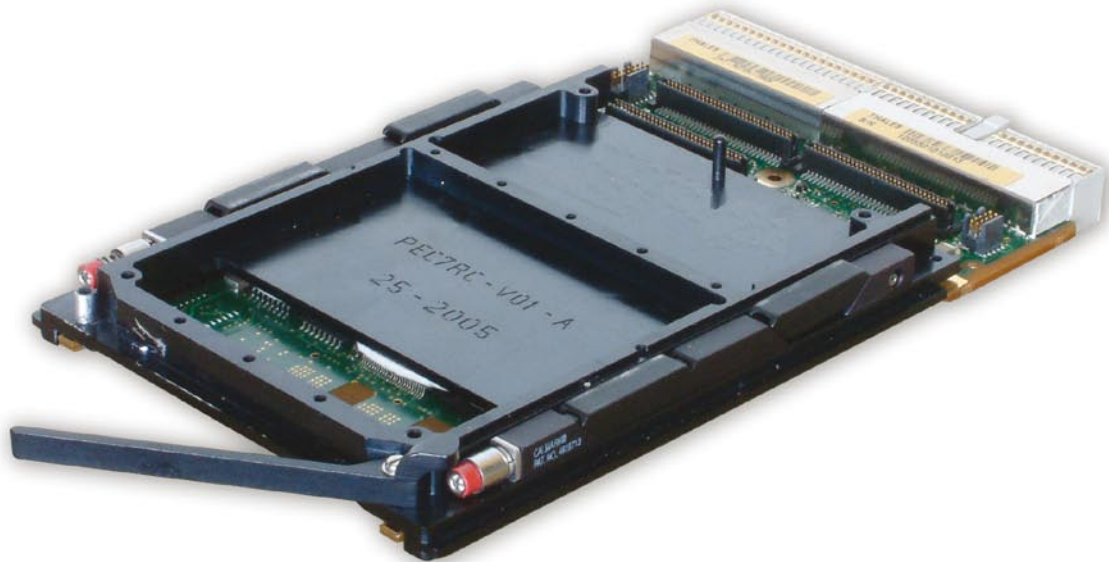


➤ PowerEngineC7

3U Single-Slot PowerPC 750FX CompactPCI Embedded Computer

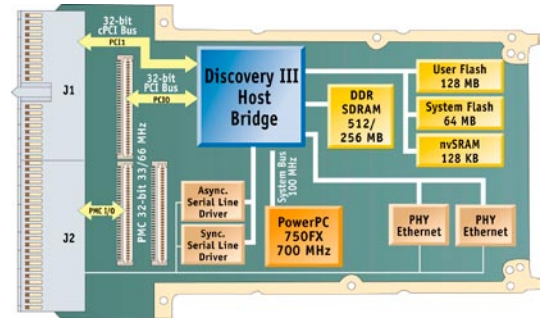


All-In-One 3U Rugged Conduction-Cooled CompactPCI Embedded Computer

- Low-power PowerPC 750FX at 700 MHz
- 512 KB L2 Cache Clocked at Processor Frequency
- Up to 512 MB DDR SDRAM
- 64 MB System and 128 MB User Flash
- 128 KB nvSRAM with RT clock
- Dual Ethernet 10/100 Ports
- PCI Mezzanine Card (PMC) Slot
- Rugged Conduction-Cooled (-40°C to +85°C)
- Supports VxWorks 6.2 & 5.5.1

Product Overview

The PowerEngineC7 is a new member of the Kontron family of rugged 3U CompactPCI embedded computers. Designed to meet the requirements of compact, real-time systems for the most demanding defense, aerospace, industrial, transportation, and communications applications, the PowerEngineC7 is a result of the combined expertise of Kontron, provider of high-performance, low-power SBCs such as the flagship 6U VME PowerEngine7, and of Thales Airborne Systems, provider of airborne mission computers.



Technical Information

PowerPC 750FX Processor

- PowerPC 750FX processor operating at 700 MHz
- Dual issue superscalar control processor
- L1 cache: 32 KB, 32-byte line, 8-way set associative instruction cache and, 32 KB, 32-byte line, 8-way set associative data cache
- Dual Integer Unit
- IEEE-754 Floating Point Unit, one madd/cycle
- Instruction and Data Memory Management Units (MMU)
- Internal 512 KB L2 cache with ECC operating at processor frequency
- Very low power implementation
- CPU cop port

SDRAM Memory

- 512 or 256 MB of DDR SDRAM with error correction (ECC)
- High-speed 200 MHz memory access
- Rugged design with soldered chips
- Supports code execution copied from Flash memory
- A predefined area of the memory is protected from the PCI and Ethernet accesses and allows the definition of a dedicated PPC communications area.

Flash

- 64 MB for System Flash; 128 MB for User Flash

nvSRAM

- 128 KB with RT clock. No Battery.

PMC Expansion Slot – IEEE P1386/1386.1

- 32-bit 33/66 MHz PCI bus interface
- 3.3V PCI signaling, 5V tolerant
- Supports CCPMC Draft Standard VITA 2.0
- 46 I/O pins are routed to the cPCI J2 connector
- cPCI PMC Carrier Board, to fit in adjacent PCIbus slot

User I/O Available on cPCI J1 or J2 Connectors

- Dual Ethernet 10/100 port
- Asynchronous serial line, EIA-232
- Simplified synchronous serial line, EIA-422/485
- JTAG access on J1

Environmental Specifications

Temperature range

- VITA47-Class CC4
- Operating -40° to +85°C
- Storage -45° to +100°C

Conformal Coating

- Standard

Relative Humidity

- 95% without condensing

Altitude

- -1,000 to 50,000 ft (-500 to 15,000m)

Mechanical

- Vibration Sine 22-2000 Hz - 5g Peak
- Random VITA47-Class V3
- Shock 40g Peak 20 ms Half Sine Pulse 6 directions

Voltage Requirement

- +3.3V +5% -2.5%: 2.6A typical

Ordering Information

CPC7-		7	4	000
Environment Class	Conduction-Cooled	RC		
	Ambient Temperature	DC		
PowerPC 750FX 700 Mhz		7		
SDRAM	256 MB		3	
	512 MB		4	
User Flash	128 MB			4
PMC Slot, Dual Ethernet 10/100, Dual Serial Lines				000

Options Order Code	Description
PB-CP7-000	I/O transition module for rear I/O routing
COP-PN3-A	Cop JTAG cable
CPMC1-RC-000	cPCI Carrier Board

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