

# P4040 Computing Board

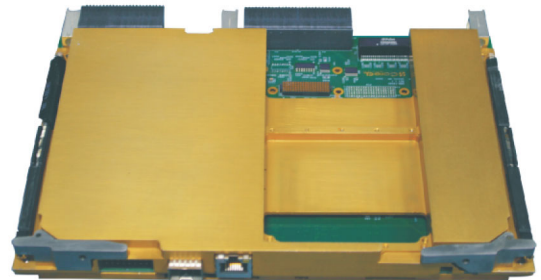
## PRODUCT DESCRIPTION

The P4040 Computing Board is a 6U VPX card based on P4040 quad core processor. The board can be used for high end data processing, signal processing and display processing for sonar / radar applications. It has two x4 lane SRIO terminating at backplane as well as 10G optical Ethernet connectivity on the front panel.

The board is used for electronic warfare application in the Frequency Hopping and Burst Intercept Monitoring System.

## KEY FEATURES

- P4040 processor with four e500 cores
- 128 KB L2 cache with ECC on each core
- One 10G Ethernet XAUI Interface
- One XMC slot for future expansion
- Two RGMII Ethernet Interface
- 6U VPX card
- Two x4 lane SRIO links over backplane with speeds upto 2.5 GHz per lane
- Health monitoring - temperature and voltage



## SPECIFICATIONS

### FPGAs / Processor

- P4040 processor with four e500 cores running up to 1GHz
- Spartan-3AN 200 FPGA

### Interfaces

- Two x4 lane SRIO version 1.2 controllers/ports running at 2.5 GHz per lane
- Two 64-bit DDR3 interface with 8-bits ECC running at 400 MHz (data rate)
- 16-bit 32 MByte NOR Flash
- Two 1G Ethernet Ports (RGMII)
- One 10G SFP+ optical Ethernet (XAUI)
- RS232 interface, 5RX and 5TX RS422 interface
- One RS232 ports accessible on board and backplane
- Four RS422 ports terminating at back plane

### Software / IP

- U-Boot loader
- VxWorks kernel

### Expansion slots

- One XMC slot

**Additional Information**

- 64 KB EEPROM
- COP connector for P4040 debug
- Real Time Clock (RTC)
- Thermal and voltage monitors

**MECHANICAL**

- 6U VPX board available as:
  - Air-Cooled board
  - Conduction-cooled Board

**POWER CONSUMPTION**

- The unit consumes 40W
- Input voltage is 5V and 3.3V

**ENVIRONMENTAL**

- Qualification : JSS 55555  
MIL-STD-461E
- Temperature range : -20°C and +70°C (Storage)  
-10°C and +55°C (Operational)

**PART NUMBER(S)**

The following variants of this board are available:

CB10K0	Air-Cooled P40404 Computing Board
CB10K1	Conduction-Cooled P4040 Computing Board

