

VPX Controller Board

PRODUCT DESCRIPTION

The VPX Controller board is an airborne conduction cooled board in 6U VPX form factor. This board receives information from external world and processes the data. It is capable of communicating with external world as well as other boards over the backplane and the Micro-D connectors.

Variants of this board are used in the following airborne Electronic Warfare application:

- Aerostat
 - Processing Electronics LRU (PE LRU)
 - Digital Processing LRU (DP LRU)
- Unmanned Aerial Vehicle
 - Processing Electronics LRU (LRU-UAV)

KEY FEATURES

- Control plane communication with other boards via backplane
- Health monitoring
 - Temperature
 - Various voltages generated on board
 - Functionality of FPGA interfaces such as DDR2 and Flash
- XILKERNEL ported on VPX controller board
- User friendly-GUI for board testing

SPECIFICATIONS

FPGAs / Processor

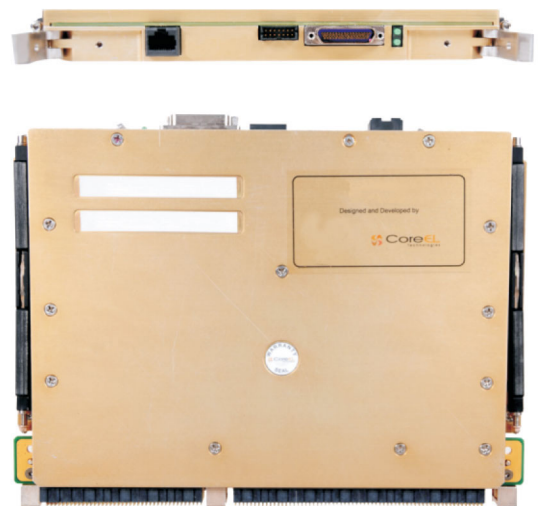
- Virtex-5 FX200T FPGA with PowerPC440 Embedded Processor

Interfaces

- RS232, RS422 , GPIO LEDs and DIP switches
- Upto eight Gigabit Ethernet interfaces
- JTAG interface on the fascia-plate
- 51 TTL lines on Micro-D connector on the fascia-plate
- VPX connector for high speed backplane communication

Software / IP

- User friendly-GUI for board testing
- Test software and RTL for validation
- XILKERNEL ported on the board



Additional Information

- 1 Gb DDR2 SDRAM (expandable upto 2 Gb)
- 256 Mb Flash memory (expandable upto 1 Gb)

MECHANICAL

- Airborne conduction cooled 6 U VPX board
- The board weighs 1 kg

POWER CONSUMPTION

- The unit consumes 40W (max)
- Input voltage is 5V

ENVIRONMENTAL

- Qualification : MIL-STD-810E
MIL-STD-461E
- Temperature range : -45°C and +85°C (Storage)
-40°C and +55°C (Operational)

PART NUMBER(S)

The following variants of this board are available:

Part numbers	Variants	Features
CH1070	Variant 1 (PE LRU)	<ul style="list-style-type: none"> ● One Gigabit Ethernet via backplane ● One 51 pin Micro-D connectors on fascia plate
CH1071	Variant 2 (LRU UAV)	<ul style="list-style-type: none"> ● Two Gigabit Ethernet via backplane ● Two Micro-D connectors on fascia plate <ul style="list-style-type: none"> ■ 51 pins ■ 37 pins
CH1072	Variant 3 (DP LRU)	<ul style="list-style-type: none"> ● One Gigabit Ethernet on fascia-plate ● Seven Ethernet via backplane ● One 51 pin Micro-D connectors on fascia plate

