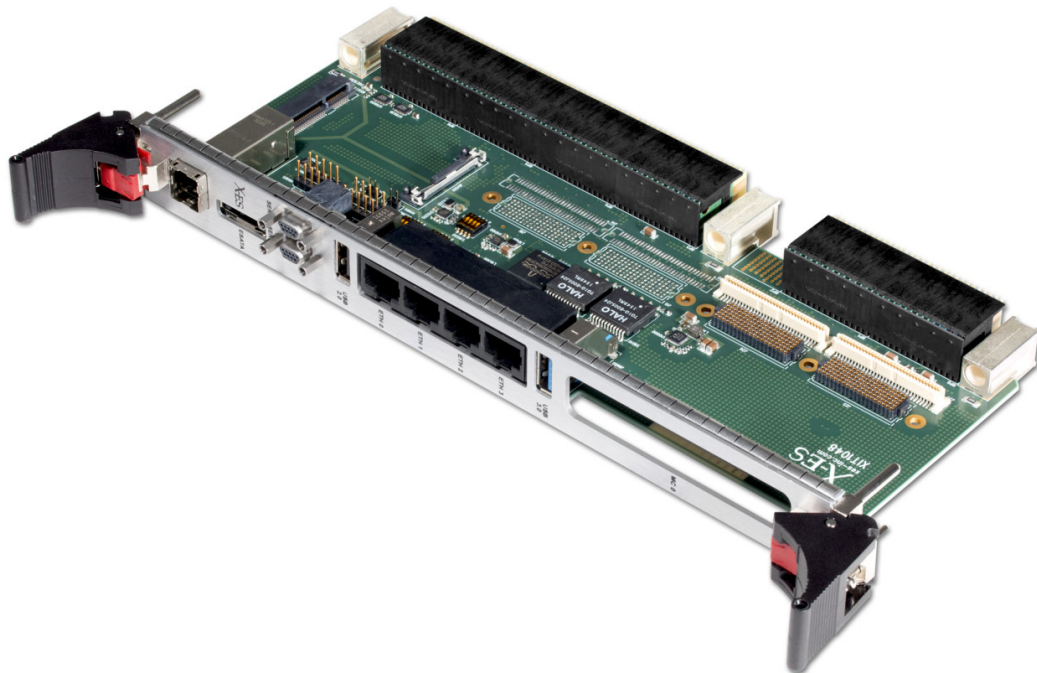# XIt1048

6U VPX Rear Transition Module with Gigabit Ethernet, SATA, USB, Audio, and Serial

- ❯ 6U VPX Rear Transition Module (RTM)
- ❯ Four 10/100/1000BASE-T Ethernet ports
- ❯ Two 10GBASE-T Ethernet ports via dataplane breakout modules
- ❯ Four serial ports to two micro-DB-9 connectors
- ❯ Two USB 3.0 ports
- ❯ One eSATA port (optional)
- ❯ Two mSATA ports
- ❯ One SFF-8644 mini-SAS port
- ❯ One audio jack (optional)

XIt1048

The XIt1048 is a 6U VPX Rear Transition Module (RTM), which supports I/O breakout from select X-ES 6U VPX single board computers. When installed in an RTM slot of an appropriate 6U VPX backplane, the XIt1048 routes I/O signals from an associated SBC's rear panel P1 and P3-P6 connectors through the VPX backplane to connectors on the XIt1048 to allow connection of these signals to external equipment.

The XIt1048 routes four 10/100/1000BASE-T Ethernet ports to RJ-45 connectors; one USB 3.0 interface to two USB Type A connectors; four SATA interfaces to two mSATA ports, a SFF-8644 mini-SAS connector, and one optional eSATA port; and four serial interfaces available as two RS-232/422/485 and two RS-232 to two micro-DB-9 connectors. Default configuration supports RS-232 from RP6 to the front panel, with an optional hardware configuration to alternatively support RS-232 from RP2 to the front panel. An optional configuration is also available to route a USB 2.0 interface from RP6 to a line-level audio jack; in this configuration, the front panel eSATA port is unavailable.

A dataplane breakout site connects two x4 Fat Pipes from the P1 connector to breakout modules that convert the signals to standard connectors. This facilitates rapid prototyping of complex system topologies using standard, off-the-shelf equipment.

Ethernet

- Four 10/100/1000BASE-T Ethernet ports to RJ-45 connectors
- Two 10GBASE-T Ethernet ports via dataplane breakout modules

Serial

- Two micro-DB-9 connectors, each containing two serial interfaces
- Two RS-232/422/485 serial interfaces from RP5
- One RS-232 serial interface from RP1
- One RS-232 serial interface from RP6 with optional hardware configuration to alternatively support RS-232 from RP2

USB

- One USB 3.0 interface to two USB Type A connectors on front panel

SATA

- Two SATA ports to mSATA connectors
- One eSATA port (optional; mutually exclusive with audio jack)
- One SFF-8644 with four SATA channels

Audio

- Integrated USB audio CODEC
- 3.5 mm TRRS jack (optional; mutually exclusive with eSATA port)
- Analog line-level audio output

Dataplane Breakout

- One dataplane breakout site
- Two 10GBASE-T Ethernet ports to RJ-45 connectors via XIt3000 breakout modules (optional)

Physical Characteristics

- 6U VPX Rear Transition Module (RTM)

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1
- Conformal coating available as an ordering option

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g²/Hz (maximum), 5 to 2000 Hz	0.04 g²/Hz (maximum), 5 to 2000 Hz	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing
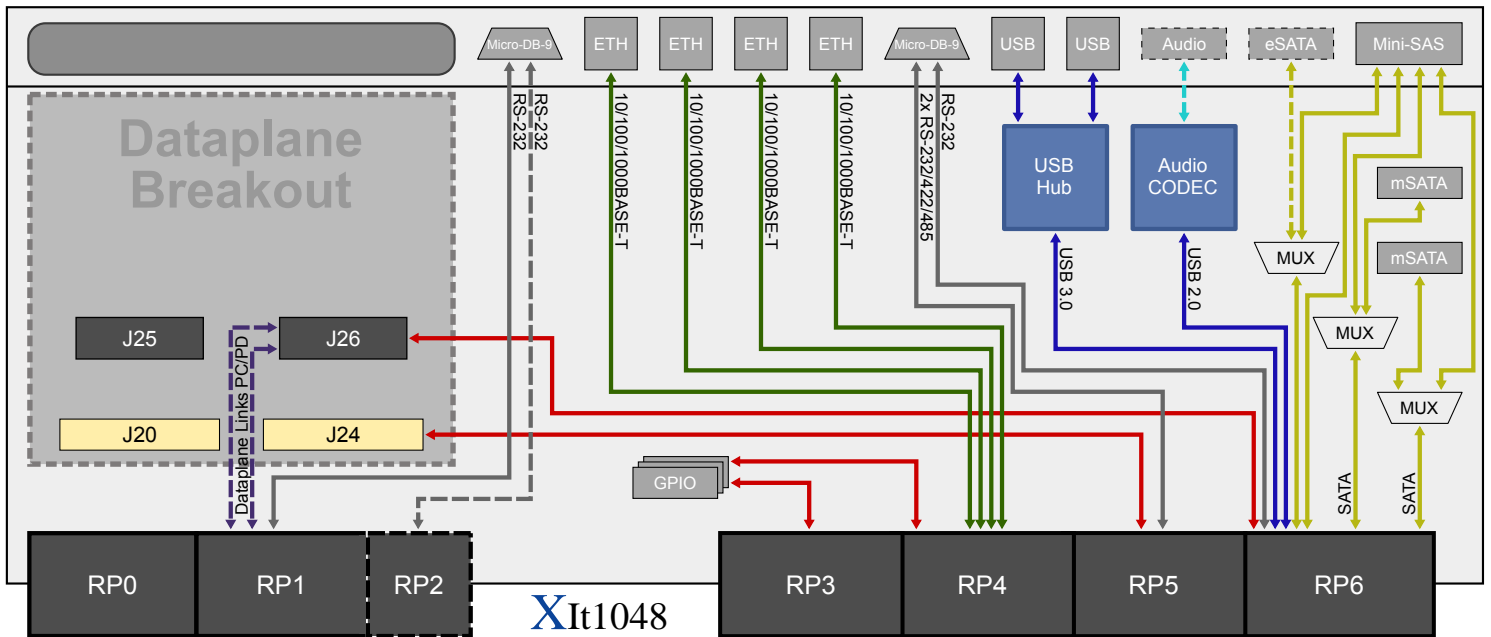
* Not shown: optional J10/J14, J15/J16 connectors for an additional XIM/PIM site without front panel access