VPX
(OpenVPX)

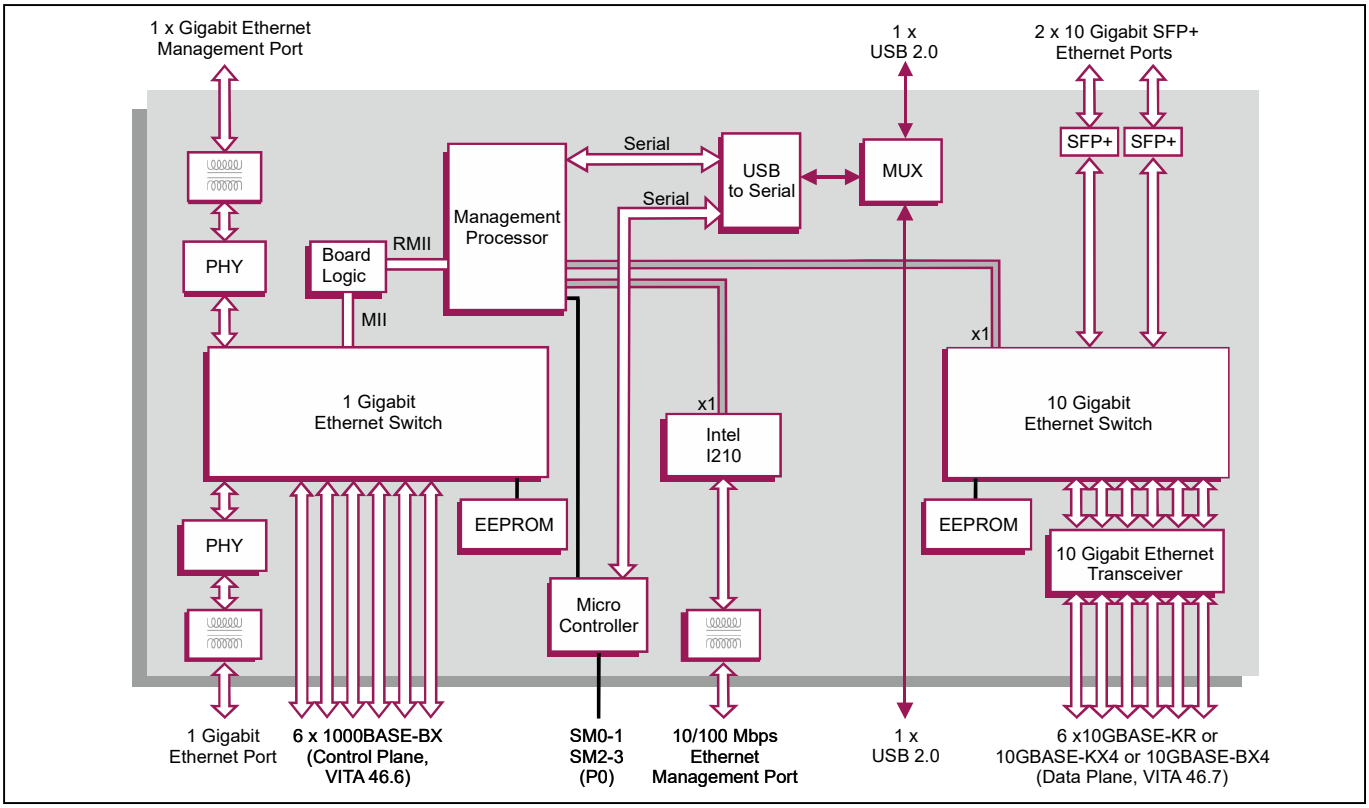
FR 351/m06
N, E - Series

10 Gigabit Ethernet Switch for 3U VPX™ Systems

Key Features

FR 351/m06 is a 10 Gigabit Ethernet switch designed to provide high bandwidth communication between VPX™ modules for server, storage and processing applications. It includes an on-board management processor for easy configuration and supports the latest VITA 46.11 management specification.

- 80 Gbps non-blocking switch supporting 10 Gigabit Ethernet data plane connection to each payload slot
- Gigabit Ethernet control plane connection to each payload slot
- Switch management via Gigabit Ethernet ports (front & rear)
- Data plane and control plane separation
- Air-cooled versions include two 10 Gigabit Ethernet uplinks
- Extended temperature and rugged conduction-cooled versions available



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Specification

VPX Fabric Switch Board

- air-cooled L2 managed 3U VPX fabric switch board:
  - supports 6 payload slots
  - 10 Gigabit links to each payload slot, Data Plane (VITA 46.7). Supporting 10GBASE-KX4, 10GBASE-KR, 10GBASE-BX4
  - 1000BASE-BX Control Plane (VITA 46.6)
  - user configurable setup via a USB port or Ethernet port
- OpenVPX (VITA 65) backplane profiles supported:
  - BKP3-CEN07-15.2.3-3
- OpenVPX module profiles supported:
  - MOD3-SWH-6F6U-16.4.1-4
  - MOD3-SWH-6F6U-16.4.1-5
- OpenVPX slot profile supported:
  - SLT3-SWH-6F6U-14.4.1

VPX Data Plane Switch, 10G Ethernet

- high performance 80 Gbps non-blocking 10 Gigabit Ethernet switch:
  - implemented by 8-port single-chip device
- 6 x ports utilized for Data Plane (VITA 46.7)
- 2 x uplink ports via front panel
- non-volatile storage for switch configuration data

VPX Control Plane Switch, 1G Ethernet

- high performance full line rate IEEE 802.1 Gigabit Ethernet switch:
  - implemented by 8-port single-chip device
- 6 x ports utilized for Control Plane (VITA 46.6)
- 1 x Ethernet port via P2 (with on-board magnetics)
- 1 x Ethernet port via front panel
- EEPROM storage for switch configuration data

Front Panel I/O

- 2 x 10 Gigabit Ethernet SFP+ uplink ports (via Data Plane switch)
- 1 x Gigabit Ethernet RJ45 port (via Control Plane switch) used for board configuration
- 1 x USB 2.0 port for board configuration

Board Configuration

- board configuration using Ethernet or USB ports with an on-board management processor
- web browser interface, configuration menus via Ethernet management ports:
  - HTML interface provides web browser menus to configure the two switches and other board setup options
  - 1 x Gigabit port via front panel RJ45 connector
  - 1 x 10/100 Mbps port via P2 connector (with on-board magnetics)
- serial console, command line interface via USB port:
  - on-board USB to serial device provides serial port to configure the two switches and other board setup options
  - 1 x USB 2.0 port is available via either the front panel or the P1 connector (user switch selectable)

LED Status Indicators

- front panel LED status indicators:
  - Link/Activity LEDs for all VPX backplane 10 Gigabit Ethernet ports
  - Link/Activity LEDs for all VPX backplane 1000BASE-BX Ethernet ports

System Management Interface

- System Management interface:
  - implements SM0-3 hardware
- on-board System Management Controller
- supports VITA 46.11 management:
  - Tier 2 IPMC
  - Tier 1 Chassis Manager

Safety

- PCB (PWB) manufactured with flammability rating of UL94V-0

Electrical Specification

- typical current figures:
  - +5V @ 5.7A, voltage +5% / -2.5%
  - +3.3V @ 1.8A, voltage +5% / -2%

Environmental Specification

- operating temperature:
  - VITA 47 Class AC1, 0 C to +55 C (N-Series)
- option for extended operating temperature:
  - -25 C to +70 C (E-Series)
- non-operating temperature:
  - VITA 47 Class C1, -40 C to +85 C
- operating altitude:
  - 0 to 15,000 feet (0 to 4,572 meters)
- relative humidity:
  - 5% to 95%, non-condensing
- rugged conduction-cooled (VITA 48.2) VPX-REDI (RCx-Series) version (contact sales office)

Mechanical Specification

- 3U VPX form-factor (VITA 46.0, VITA 48.0)
- 3.9 inches x 6.3 inches (100mm x 160mm)
- slot width (N-Series, E-Series):
  - 1.0-inch (IEEE 1101.10 as per VITA 46.0)
  - 1.0-inch (VITA 48.1 as per VITA 65)
- connectors to VITA 46.0, P0, P1 and P2
- operating mechanical:
  - shock - VITA 47 Class OS1, 20g
  - random vibration - 0.002g/Hz

Concurrent Technologies Support

- FR 351/m06 operates with a range of Concurrent Technologies VPX processor boards
- contact your local sales office for further details

Please contact your local Concurrent Technologies sales office for further details on board build options and accessories.

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