# VT982

## 34-Port SRIO Top-of-Rack Switch

VT982

## Key Features

- Dual switch complex with ability to isolate each half
- Two sets of six quad-lane SRIO 2.0
- Two sets of eleven single-lane SRIO 2.0
- Integrated IPMI 2.0 platform manager
- Front-panel inputs trigger Multicast Event Control Symbols (MECS)
- Front to back cooling

## Benefits

- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply by industry leader
- AS9100 and ISO9001 certified company

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# VT982

The VT982 is a 1U 19” rack mount switch providing 34 Serial RapidIO (SRIO) Ports, 22 x1 lane and 12 x4 lane. The internal switch cluster comprises two CPS-1848 and the status of both switches, together with each SRIO Port, are reported via front-panel LEDs.

The unit includes a VT040 platform manager to implement an Intelligent Platform Management Interface (IPMI v2.0) and manage the switch cluster. This provides a service interface via front-panel GbE, allowing the user to configure the SRIO switches, enable/disable Ports, and monitor power, temperature and SFP/SFP+ and QSFP/QSFP+ transceivers. The VT040 can isolate the two CPS-1848 from each other by disabling the port between them.

Front-panel LEDs indicate rack and interface status

(Q)SFP/(Q)SFP+ – disabled/enabled/link detected
Power – off/on/error
SRIO Switch – not enumerated/enumerated

Cooling is front-to-back, actively managed by the VT040. Fan noise is below 40dB(A) during normal operation.

*Figure 1: VT982*

# Block Diagram

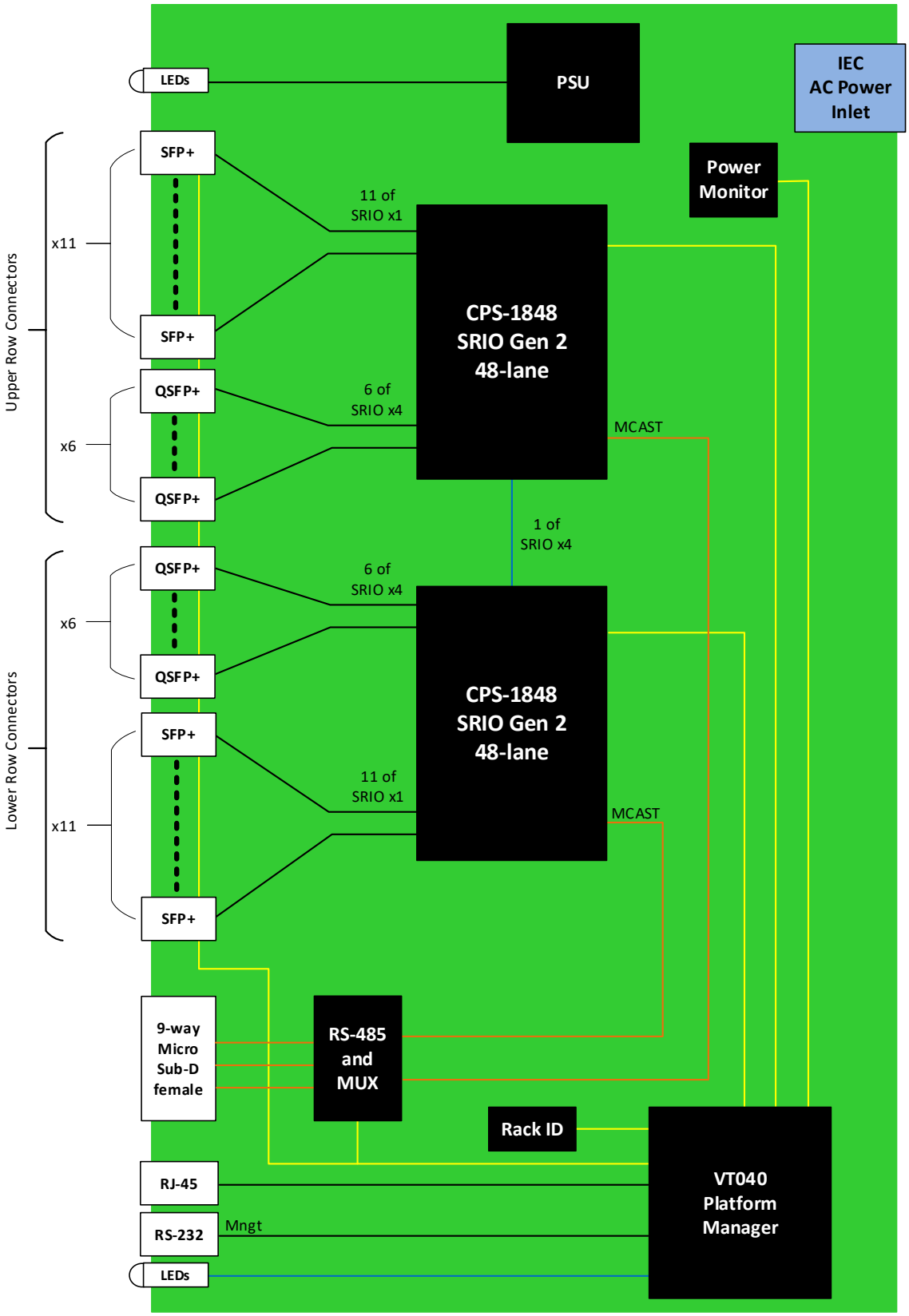


*Figure 2: VT982 Functional Block Diagram*

*Figure 3: VT982 Front Panel*

*Figure 4: VT982 Rear Panel*

# Specifications

| | | |
|---|---|---|
| **Architecture** | | |
| **Physical** | **Dimensions** | Width: 17.65” excluding mounting (19” rack mount) |
| | | Depth: 11.8” |
| | | Height: 1.72” (1U) |
| | | Mass: <4 kg, excluding transceivers |
| **Type** | **Chassis** | SRIO Switch |
| **Configuration** | | |
| **Power** | **VT982** | ~100W (transceiver dependent) |
| **Environmental** | **Temperature** | See Ordering Options |
| | | Storage Temperature: –40° to +90°C |
| | **Vibration** | Operating 9.8 m/s$^2$ (1G), 5 to 500 Hz on each axis |
| | **Shock** | Operating 325G/2 ms, 160G/1 ms |
| | **Relative Humidity** | 5 to 95% non-condensing |
| **Rear Panel** | **Interface Connectors** | AC Mains inlet (universal input) IEC C14 |
| | | Earth grounding stud |
| **Front Panel** | | 22x SFP/SFP+ for single-lane SRIO |
| | | 12x QSFP/QSFP+ for quad-lane SRIO |
| | | 1x RJ-45 for 1000BASE-TX |
| | | 1x RS-232 Mngt port |
| | | 1x 9-way Micro Sub-D for RS-485 |
| | | Status LEDs |
| **Software Support** | **Operating System** | Linux |
| **Other** | | |
| **MTBF** | MIL Hand book 217-F@ TBD hrs | |
| **Certifications** | Designed to meet FCC, CE and UL certifications, where applicable | |
| **Standards** | VadaTech is certified to both the ISO9001:2015 and AS9100D standards | |
| **Warranty** | One (1) year, see VadaTech Terms and Conditions | |

### INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

# Ordering Options

### VT982 – ABB-DEE-G0J

| A = SFP+ TXCVR Type | D = QSFP+ TXCVR Type | G = RS-485 Termination |
|---|---|---|
| 0 = 10GBASE-SR<br>1 = 10GBASE-LR<br>2 = 1 Gb LC/SX<br>3 = 1 Gb LC/LX<br>4 = 1000Base-T | 0 = No QSFP+<br>1 = SR<br>2 = LR<br>3 = LC Style CWDM (LM4 140 Meter)<br>4 = LC Style CWDM (LR4 2 km)<br>5 = LC Style CWDM (LR4 10 km) | 0 = Sync2/1/0 not terminated<br>1 = Sync0 terminated<br>2 = Sync1 terminated<br>3 = Sync1/0 terminated<br>4 = Sync2 terminated<br>5 = Sync2/0 terminated<br>6 = Sync2/1 terminated<br>7 = Sync2/1/0 terminated |
| **BB = Number of SFP+** | **EE = Number of QSFP+** | |
| 00 = No SFP+<br>XX = Number of SFP+ Transceivers | 00 = No QSFP+<br>XX = Number of SFP+ Transceivers | |
| | | **J = Temperature Range and Coating** |
| | | 0 = Commercial (–5° to +55°C), No coating<br>1 = Commercial (–5° to +55°C), Humiseal 1A33 Polyurethane<br>2 = Commercial (–5° to +55°C), Humiseal 1B31 Acrylic<br>3 = Industrial (–20° to +70°C), No coating<br>4 = Industrial (–20° to +70°C), Humiseal 1A33 Polyurethane<br>5 = Industrial (–20° to +70°C), Humiseal 1B31 Acrylic |

# Related Products

AMC702

- Processor AMC with QorIQ T4240 or T4241
- Single-module, mid-size per AMC.0
- Three banks of 64-bit DDR3 memory (up to 24 GB total)

AMC759

- Single module, mid-size (option for full-size) per AMC.0
- Processor AMC Intel® Xeon® ProcessorE3-1505M v6 (Kaby Lake)
- SRIO Gen2 on Ports 4-7 and 8-11 (AMC.4)

UTC004

- Non-blocking PCIe Gen 3, SRIO Gen 2, 10GbE/40GbE, or Crossbar Switch option to AMC fat pipes with options for up to 40GbE uplink
- Low-jitter M-LVDS clock distribution crossbar matrix
- PLL synthesizer for generating any clock

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