VT218

36 Copper to Fiber Conversion with Loop-back Capabilities

VT218

Key Features

- 36 Copper to Fiber conversion in stand-alone unit
- Each RX input goes through ReDriver/Conditioner with Equalization
- Rate and Coding agnostic
- Allows host to loop-back on transmit and receive the data
- Rates up to 10.5Gbit supported
- Copper via OCuLink connector
- 36 Ports of fiber via 3 MTP/MPO Fiber

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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The VT218 is a standalone unit which supports 36 serialized data connections via copper and converts them to fiber. Fiber input/out is via three MTP/MPO connectors. The unit allows the host to do a loop-back to test the fiber link before connection to the source RX side.

The VT218 receives its power via a DSUB-9. The input power is +12V and there is a I2C bus that allows the host to manage the VT218 (i.e. such as initiating the loop-back, reading the temp sensors, configuring the ReDriver/Conditioner, etc.). The loop-back can be configured in groups of four lanes and can be simultaneous across all groups. Individual lane loop-back is not supported.

The unit has user defined LED's that the host can control via a I2C bus.

The VT218 has internal fans that cool the system. The fan speed is adjustable via a front panel knob.

Figure 1: VT218 Front View
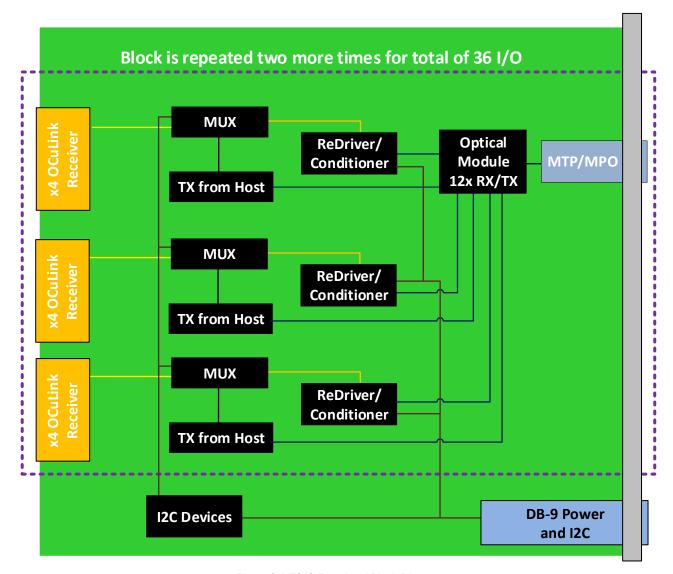

Figure 2: VT218 Rear View

Block Diagram

Block is repeated two more times for total of 36 I/O

- x4 OCuLink Receiver
- MUX
- ReDriver/Conditioner
- Optical Module 12x RX/TX
- MTP/MPO
- TX from Host
- x4 OCuLink Receiver
- MUX
- ReDriver/Conditioner
- TX from Host
- x4 OCuLink Receiver
- MUX
- ReDriver/Conditioner
- TX from Host
- I2C Devices
- DB-9 Power and I2C

Figure 3: VT218 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	Width: 10"
		Depth: 5.2"
		Height: 2"
Type	**Chassis**	Stand alone
Configuration		
Power	**VT218**	~20W
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +90°C
	Vibration	Operating 9.8 m/s^2 (1G), 5 to 500Hz on each axis
	Shock	Operating 325G/2 ms, 160G/1 ms
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	DB-9 with +12V
		x 3 MTP/MPO for fiber
		Fan knob
Rear Panel		x12 OCuLink
Software Support	**Operating System**	Agnostic
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

VT218 – 000-000-00J

		J = Temperature Range and Coating
		0 = Commercial (–5° to +55°C), No coating 1 = Commercial (–5° to +55°C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +55°C), Humiseal 1B31 Acrylic 3 = Industrial (–20° to +70°C), No coating 4 = Industrial (–20° to +70°C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70°C), Humiseal 1B31 Acrylic

Related Products

PCI597

- 72 fiber transceivers egress ports
- Optical speed choice of 10G or 28G per link
- Xilinx UltraScale+™ VU13P FPGA

PCI592

- PCIe FPGA carrier for FMC+ per VITA 57
- Xilinx Kintex UltraScale™ XCKU115 FPGA
- Active cooling for FPGA and FMC+

PCI596

- Xilinx UltraScale+™ VU13P FPGA
- Allows expansion of a daughter card on top of the FMC for more I/O
- Active cooling for FPGA, FMC+ and the daughter card module

Contact

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