VT974

Rugged 10GbE Layer 2/3 switch 48 ports with SyncE and IEEE 1588

VT974

Key Features

- Managed Layer 2 and Layer 3 GbE Switch
- VadaTech Shelf Management
- 48 ports 10GbE via SFP+
    - Each of port can run at 1G/2.5G and/or 5G
- 1U, 19” rackmount and very low depth 14.6”
- Front to rear integrated intelligent cooling
- Integrated removable and redundant AC or DC power supply
- SyncE support w/ option for internal master clock

Benefits

- Compact rack mount fully integrated solution
- Continuous control and alarm reporting for ease of maintenance
- Highest level of quality and manufacturing standard AS9100 and ISO9001 certified company

vadatech
THE POWER OF VISION

VT974

The VT974 is a rugged 10GbE layer 2 and layer 3 switch with 48 10GbE ports via 48 front panel SFP+. It supports Synchronous Ethernet (SyncE) and IEEE 1588 v1/v2.

Each port could be configured as 10G/5G/2.5G and/or 1G.

Figure 1: VT974

Cooling and Temperature Sensors

The VT974 has an embedded intelligent Cooling Unit. The cooling airflow is from front to back. Temperature sensors fitted throughout the chassis monitor intake and outtake air temperature and report to the embedded Shelf Manager. The Shelf Manager controls fan speeds for optimized tradeoff between power consumption, noise and cooling. The fans are removable, the power modules are hot-swappable and redundant.

Synchronous Ethernet

The VT974 provides a Synchronous Ethernet (SyncE) on the 10GbE fabric ports. With this feature, ports on the 10G Ethernet switch can be designated as master or slave ports and the Ethernet fabrics within the chassis can be synchronized from end-to-end with external equipment. This feature utilizes advanced telecom-grade network synchronization PLLs to provide exceptional SyncE performance.

Block Diagram

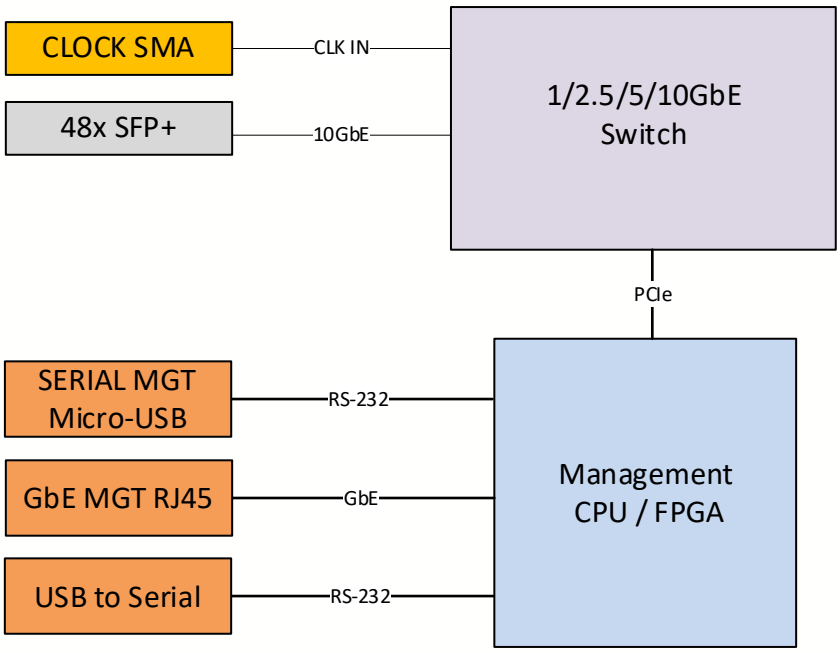

Figure 1: VT974 Functional Block Diagram

Block Diagram

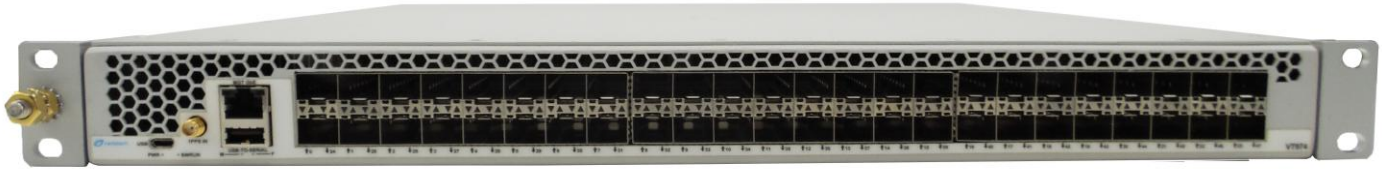

Figure 3: VT974 Front View

Figure 4: VT974 Rear View

Specifications

Architecture		
Physical	**Dimensions**	Width: 19”
		Depth: 14.6”
		Height: 1U
Type	**Chassis**	L2 / L3 switch 10G 48 ports with SyncE and IEEE1588
Configuration		
Power	**VT974**	Dual 460W DC -36V to -75V or Dual 500W Universal AC
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –45° to +85°C
	Vibration	JIS E 3014 Class 1 kind C
	Shock	JIS E 3015 Class 1
	EMC/EMI (*)	Designed to meet IEC61000-4-2 level 3; IEC6100-4-4 Level 3; IEC61000-4-5 level 3; JIS E 3021; NECA TR-28 - JEMA JEM-TR177 2kV rectangular wave impulse noise
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	48x SFP+ networking / 1x SMA clocking / 1x RS232 microUSB, 1x RS232 USB and 1x GbE management controller console
Rear Panel	**Power**	Dual Power Input
Software Support	**Operating System**	Agnostic / Linux based Shelf Management

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 ISO9001:2000 and AS9100B:2004 standards
Warranty	Two (2) year, see VadaTech Terms and Conditions

(*) Partial sections of the specification may apply only, does not include transceivers, contact Sales for details

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

VT974 – A00-D00-00J

A = Transceivers Modules x48 (*)	D = Power	
0 = None 1 = 10GBASE-ER (40km) 2 = 10GBASE-LR (10Km) 3 = 10BASE-SR 4 = Reserved 5 = Reserved	0 = Dual 500W Universal AC 1 = Dual 460W DC -36V to -75V	
		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 6 = Industrial (–40° to +75°C), Humiseal 1A33 Polyurethane 7 = Industrial (–40° to +75°C), Humiseal 1B31 Acrylic

Notes: * When 'None' is selected the SFP+ cages are shipped empty and customer may need to adjust tuning parameters according to transceivers/cables fitted.

Related Products

AMC240

- Dual KR/KR4 to QSFP+ Translation (40GbE/10GbE), AMC
- Support for IEEE802.3ab and IEEE802.3ap
- AS9100 and ISO9001 certified company

VT954

- MTCA Chassis with 6 AMC Slots, 10/40GbE, Dual PSU
- Dual DAC 12-bit @ 2.5 GSPS (DDS AD9915)
- Ruggedized 1U chassis in 19" rackmount

VT982

- 34-Port SRIO Top-of-Rack Switch
- Dual switch complex with ability to isolate each half
- Front-panel inputs trigger Multicast Event Control Symbols (MECS)

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhu Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

Choose VadaTech

We are technology leaders

- First-to-market silicon
- Constant innovation
- Open systems expertise

We commit to our customers

- Partnerships power innovation
- Collaborative approach
- Mutual success

We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

We manufacture in-house

- Agile production
- Accelerated deployment
- AS9100 accredited

XILINX
ALLIANCE PROGRAM
CERTIFIED

vadatech
THE POWER OF VISION

DOC NO. 4FM737-12 REV 01 | VERSION 1.3 – SEP/25