VALIANT COMMUNICATIONS

VCL-MX-XW-5014

16 Ports Industrial Grade Ethernet Switch

IEC 61850-3 Compliant

Product Overview

VCL-MX-XW-5014, is an IEC 61850-3 compliant, sub-station hardened, industrial grade 16 Port Ethernet Switch that is packaged in a 1U high, 19-inch rack-mountable shelf that can be installed in harsh operational environments. It requires no external fans or forced air cooling.

It offers a wide choice of 1+1 redundant power supply options which include 48V DC, 110V DC and 220V AC.

Interfaces

Total Number of Gigabit Interfaces	16
4 x 1G Optical (SFP) Ethernet Interfaces (1000BaseSX / LX)	4
12 x 10/100/1000 BaseT RJ45 Electrical Ethernet Interfaces	12

Key Features

- Fully managed switch designed to operate in rugged environment.
- Sub-Station Hardened design
- Configurable Ethernet Ports
- Fully non-blocking wire-speed switching performance
- Support Jumbo frames with configurable MTU per port.
- 802.1Q VLAN support up to 4096
- IEEE 802.3X Flow Control
- IEEE 802.3az Energy Efficient Ethernet Mode
- Port Mirroring and Monitoring
- Port Trunk group
- IEEE 802.3ad Link Aggregation
- IEC 61850-3 and IEEE 1613 complied
- Support SMNP v2 and v3
- Ethernet port statistics

Security Features

- Storm Controller for flooded Unicast, Broadcast and Multicast traffic
- Port based and MAC based Access control (IEEE 802.1X)
- Support Link Layer Discovery Protocol (LLDP) table and statistics
- Secure Password Protected Access
- Secure Access via RADIUS
- SNMP v2, SNMP v3
- Secure CPU based learning

Switch Features

- 16 Port Sub-Station Hardened Switch
- All Copper Gigabit Ethernet Ports support auto-negotiation, auto-MDI/MDIX
- All Optical Gigabit Ethernet Ports are Full-Duplex SFP based Gigabit Ethernet ports.
- Ethernet packet forwarding at wire-speed, non-blocking
- Web based management
- Password protected access control.
- L2 multicast group
- IPv4/IPv6 multicast groups
- IGMPv2 , IGMP Snooping
- Multicast Listener Discovery support
- IEEE 802.1ad VLAN Q-in-Q
- IEEE 802.1p QoS, Traffic Prioritization
- Differentiated Services (DiffServ), Packet Priority Classification for Traffic Management and Optimization
- QoS queues per port with scheduling.
- DSCP translation, both ingress / egress
- Policing and Shaping per port and per queue
- Reliable Store-and-Forward operation with data integrity checking
- Web Based Management and Configuration
- System, Access and Event Logs
- Power and Alarm Indicator
- Backup and Restore configuration

Environmental Parameters

Operating Temperature	-20°C ~ 55°C
Storage Temperature	-40°C ~ 85°C
Operating Humidity	10% ~ 95% R.H. ; non condensing
Storage Humidity	10% ~ 95% @40°C; non condensing

1+1 Dual redundant Power Supply Options: (select any one option)

2 x 48 V DC	2 x 110 V DC	2 x 220 V AC

CE Compliance

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility 2014/30/EU

Other Regulatory Compliances

- RoHS,
- CE Marking
- Complies with FCC Part 68 and EMC FCC Part 15

EMI, EMC, Surge Withstand and other Compliances

EN 50081-2	EN 50082-2	IEC 60068-2-29
IEC 61000-4-6 (Conducted Immunity)		IEC 60068-2-6
IEC 60068-2-2	IEC 60068-2-78	IEC 60068-2-1
CISPR 32 / EN55032 Class A (Conducted Emission and Radiated Emission)		
IS 9000 (Part II Sec. 1-4, Part III Sec. 1-5, Part IV, Part 14 Sec.1-3)		
IEC 60068-2-14	IEC 60870-2-1	IEC 61000-4-5
IEC 61000-4-3	IEC 61000-4-8 (Radiated Immunity)	
IEC 61000-4-2	IEC 61000-4-11	IEC 61000-4-4

Physical Dimension

- 19 Inch, 1U High Rack Mount
- H x W x D: 44mm x 480mm x 300mm
- Net Weight: 2.3 Kgs
- Gross Weight: 5.0 Kgs

Ordering Information

Part #	Description
VCL-MX-XW-5014	16 Ports, Industrial Grade Ethernet Switch (IEC 61850-3 compliant) 19-inch, Rack Mount version **Supports :** - 12xGigabit Ethernet Electrical Ports (Rj45) (10BaseT / 100BaseT / 1000BaseT full-duplex) - 4 x Gigabit Ethernet Optical Ports (SFP based / without SFP) (1000BaseSX / LX) **Management:** Web access login, USB, Serial Port, Telnet/SSH Ethernet Management Port **Installation Kit:** System Core Cables, Mounting Hardware, Documentation ** Add Power Supply Option*

* Power Supply Options (select any one option)

Part #	Description
DC048R	2 x 48V DC Power Supply Input [Redundant]
DC220R	2 x 110~250V DC Power Supply Input [Redundant]
AC220R	2 x 100 ~ 240V AC Power Supply Input, 50/60 Hz, IEC C14 Inlet Connector [Redundant]

Gigabit Ethernet (GE) SFP Options

Part #	Description
VCL-EMOD 0206-XW	SFP Transceiver, Gigabit, Duplex LC, 7.5dB, 850nm, 0.34 Miles / 550m, MMF (Multi-Mode)
VCL-EMOD 0205-XW	SFP Transceiver, Gigabit Ethernet, Duplex LC, 1310nm, 10Km, SMF
VCL-EMOD 0482-XW	SFP Transceiver, Gigabit, Duplex LC, 14dB, 1310nm, 12.42 Miles / 20Km, SMF (Single-Mode)
VCL-EMOD 0255-XW	SFP Transceiver, Gigabit, Duplex LC, 22dB, 1310nm, 24.85 Miles / 40Km, SMF (Single-Mode)
VCL-EMOD 0155-XW	SFP Transceiver, Gigabit Ethernet, Duplex LC, 1550nm, 40Km, SMF
VCL-EMOD 0256-XW	SFP Transceiver, Gigabit Ethernet, Duplex LC, 24dB, 1550nm, 49.70 Miles / 80Km, SM (Single-Mode)

© Copyright: Valiant Communication
Technical specifications are subject to changes without notice.

Revision – 1.6, June 22, 2026

U.K.

Valiant Communications (UK) Ltd
Central House Rear Office
124 High Street, Hampton Hill
Middlesex, TW12 1NS, U.K.

E-mail: gb@valiantcom.com

U.S.A.

Valcomm Technologies Inc.
4000 Ponce de Leon Blvd.,
Suite 470, Coral Gables,
FL 33146, U.S.A.

E-mail: us@valiantcom.com

INDIA

Valiant Communications Limited
71/1, Shivaji Marg,
New Delhi - 110015,
India

E-mail: mail@valiantcom.com