Rackmount PoE Switch, 4 x Gbit/s SFP/C

Westermo i-line MRI-128-F4G-PSE/24/16 MRI-120-F4G-PSE/8

- 24-port Fast Ethernet and 4-port Gigabit SFP combo ports
- Up to 24 ports support both 15.4W IEEE 802.3af and the latest 30 W high power IEEE 802.3at
- Advanced network management features
- HV range 90 – 264 VAC / 127 – 370 VDC or Dual 24 V (12 – 48 V) DC input
- –25 to 70°C operating temperature
- Rugged aluminum case
- Fan-less design

CE FC RoHS

The i-line MRI-128-F4G-PSE series is a rack mount high port density PoE switch, designed for critical and large-scale PoE applications such as real time IP video surveillance with high resolution quality and the evolving wireless communication systems such as Wimax and 802.11 a/b/g/n Access Points.

All of the 24 Fast Ethernet PoE injector ports of the switch can deliver 15.4 W by IEEE 802.3af or 30 W by the latest High Power PoE IEEE 802.3at standard.

The 4 Gigabit Ethernet ports provide high speed uplink to connect with higher level backbone switches.
The switches can aggregate multiple fast Ethernet and 2 gigabit rings while providing high quality data transmission. Furthermore, to ensure the traffic switching without data loss and blocking, the I-line MRI-128-F4G-PSE provides backplane with the integrated non-blocking switching function.

Specifications

Technology	
Standard	IEEE 802.3 10Base-T Ethernet, IEEE 802.3u 100Base-TX Fast Ethernet, IEEE 802.3ab 1000Base-TX, IEEE 802.3z Gigabit Ethernet Fiber, IEEE 802.3x Flow Control and Back-pressure, IEEE 802.1p class of service, IEEE 802.1Q VLAN and GVRP, IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP), IEEE802.3ad Link Aggregation Control Protocol (LACP), IEEE802.1X Port based Network Access Control, IEEE802.1AB Link Layer Discovery Protocol (LLDP), IEEE 802.3af Power Over Ethernet(PoE), IEEE 802.3at Power Over Ethernet Plus (PoE Plus)

Performance	
Switch Technology	Store and Forward Technology, 12.8 Gbit/s Switch Fabric
System Throughput	14,880 pps for 10M Ethernet, 148,800 pps for 100M Fast Ethernet, 1,488, 100 for Gigabit Ethernet
Transfer packet size	64 bytes to 1536 bytes
Jumbo Frame Enabled	Up to 9,216 bytes
MAC Address	16K
Packet Buffer	32 Mbits
PoE Technology	End-Span wiring architecture, fully IEEE802.3af-2003 compliant, and support IEEE802.3at, including 2-event and LLDP classification

Management	
Configuration	Cisco-Like CLI, HTTP, HTTPS, SSL, SSH and WeDashboard.
Jumbo Frame Enable/Disable	Up to 9,216 KBytes
LLDP	Link Layer Discovery Protocol to advertise system / port identity and capability on the local network
SNMP	SNMP V1, V2c and V3
Time synchronization	NTP – Network time protocol IEEE 1588 – High-precision time protocol
Port Mirroring	Online traffic monitoring
Port Trunk	Static Trunk and 802.3ad LACP , Up to 9 Trunk Group, 2 – 8 ports per trunk
Rate Control	Ingress and Egress rate limiting
VLAN	IEEE802.1Q VLAN and GVRP. Up to 256 VLANs
Quality of Service	IEEE802.1p COS and Layer 3 TOS/DiffServ
IGMP Snooping	IGMP Snooping V1/V2/V3 for multicast filtering and IGMP Query V1/V2
GMRP	GARP Multicast Registration Protocol
Network Security	Port Security – Assign authorized MAC to a specific port 802.1x – Port-based Network Access Control (PNAC) Access Control List – Permit/Deny access control lists
	RADIUS – Remote Authentication Dail In User Service
DHCP	DHCP-Server – Support 255 Dynamic IP poll DHCP Option 82 – Relay the DHCP request to remote server
E-mail Warning	Automatic warning by pre-defined events
Syslog	Message logged with server and client mode

Network Redundancy	
Rapid Spanning Tree Protocol	IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy STP and IEEE802.1w
Multiple Super Ring (MSR)	Ring Redundancy Technology Failover less than 300 ms, Restoration time 0 ms,
Includes Rapid Super Ring, Rapid Dual Homing, TrunkRing, MultiRing	
Rapid Dual Homing (RDH)	Support multiple node to node, multiple path to one node to obtain more
flexible and reliable architecture	
TrunkRing	Provides port aggregate function in ring path to get more bandwidth for higher throughput ring architecture
MultiRing	New generation of ring coupling technology without extra control port – TangentRing

Interface	
Number of Ports	10/100Base-TX: 16/24 x RJ-45 with 8/16/24 PoE injector 10/100/1000Base-TX: 4 x RJ-45, combo with SFP 1000Base-X: 4 x SFP with Hot Swappable
Cables	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable (100 m) 100 Base-TX: 2/4-pair UTP/STP Cat. 5 cable (100 m) 1000 Base-T: 4-pair UTP/STP Cat. 5e, 6, 7 cable (100 m)
MSR status LED	1. MSR in Normal State (Lit Green) 2. MSR in Abnormal State (Lit Amber) 3. MSR function not active (Not Lit) 4. Incorrect configuration of MSR, ex. ring not connected to ring port (Flashes Green) 5. The break has been detected to be local to one of the ports (Flashes Amber)
PoE LED	PoE mode: Detection/Powering (Green) PoE+ mode: Detection/Powering (Blue)
Port LED	10/100 RJ-45: Link/Activity (Lit Green/Flashes Green) Gigabit Copper/SFP: Link/Activity (Lit Green/Flashes Green)
Diagnostic LED	PSU/DC Power (Green), RDY (Green), Alarm (Red)
RS-232 Console	DB-9 type, Pin: (2: TxD, 3: RxD, 5: GND)
Power Connector	1 Standard 3-pronged AC plug + 4 pin DC Terminal Block
Relay Alarm	1 set of relay output with current carrying capability of 1 A @ 24 V
Alarm Events	Power (PSU, DC1, DC2) failure, port failure, ping failure, login failure, RSR topology change

Power Requirements	
Rated voltage	PSU: 90 – 264 VAC / 127 – 370 VDC, 300 W DC1/DC2: 53 VDC (46 – 57 VDC), redundant dual inputs
Power Consumption	Max. 28 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present
PoE Power	36 – 57 VDC, 0.6 A Supply – 48 VDC
PoE Protection	over-temp, over-current, over/undervoltage & transient

Mechanical	
Installation	19-inch, 1U Rack Mount
Dimension	44 mm (H) x 438 mm (W) x 170 mm (D)
Chasing	IP31 protection, Metal case
Weight	Appr. 5kg

Environmental	
Operating Temperature	–25 to +65°C
Operating Humidity	5% to 95% (non-condensing)
Storage Temperature	–40 to +85°C
Hi-Pot	1.5 KV for ports and power

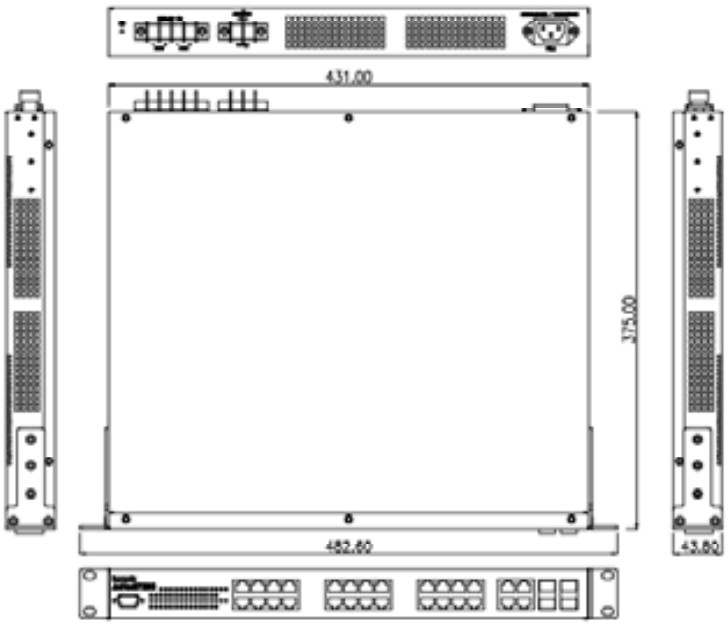
Regulatory Approvals	
EMI	FCC Class A, CE/EN55022. Class A
EMS	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11
Traffic	NEMA TS2 (Pending)
Marine	DNV (Pending), GL (Pending)
Safety	UL, cUL, EN60950
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Free Fall	IEC60068-2-32
MTBF	Above 200,000 Hours, MIL-HDBK-217F GB standard
Warranty	5 years

Optional Accessories

100 Mbit/s SFP			
MLC2-DDM	Multi-mode 100 Mbit/s 2 km Fibre Transceiver with DDM, LC, Operating Temp. –10 to +70°C	Art. number	1100-0431
SLC30-DDM	Single-mode 100 Mbit/s 30 km Fibre Transceiver with DDM, LC, Operating Temp. –10 to +70°C		1100-0432

1 Gbit/s SFP			
GMLC2-DDM	I-line, Multimode, LC-connector, 2 km, DDM, Operating Temp. –10 to +70°C	Art. number	1100-0442
GSLC10-DDM	I-line, Singlemode, LC-connector, 10 km, DDM, Operating Temp. –10 to +70°C		1100-0441

Dimensions (Unit – mm / In)



Ordering Information	
Art.no	**Description**
3624-0370	Westermo i-line MRI-128-F4G-PSE/24 (without SFP transceivers) 28-port Rackmount Switch, 4 x Gbit/s SFP/C, 24 port PoE
	Rack Mount Kit
	Power Cord
	Console Cable
	Document CD
3624-0360	Westermo i-line MRI-128-F4G-PSE/16 (without SFP transceivers) 28-port Rackmount Switch, 4 x Gbit/s SFP/C, 16 port PoE
	Rack Mount Kit
	Power Cord
	Console Cable
	Document CD
3624-0300	Westermo i-line MRI-120-F4G-PSE/8 (without SFP transceivers) 20-port Rackmount Switch, 4 x Gbit/s SFP/C, 8 port PoE
	Rack Mount Kit
	Power Cord
	Console Cable
	Document CD