MERIDIAN
T E C H N O L O G I E S
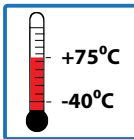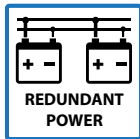
HARDENED 20-PORTS MANAGED LAYER 2 GIGABIT ETHERNET SWITCH WITH
16X10/100/1000BASE-T(X) RJ45 PORTS + 4X1000BASE-X SFP PORTS

FC CE ROHS ✓

REDUNDANT POWER	FULL GIGABIT	+75°C / -40°C

P.S.E
PoE+

MANAGED ETHERNET SWITCH

FEATURES

- 16x10/100/1000Base-T(X) and 4x100/1000Base-X SFP ports
- M-Ring (recovery time<15ms), RSTP/STP, and MSTP for network redundancy
- Support for IPv4 and IPv6
- Ethernet Ring Protection with STP/RSTP/MSTP/ITU-TG.8032
- IGMP v1/v2/v3 and MLD v1/v2 Snooping for filtering multicast traffic
- IEEE802.1Q VLAN/MAC based VLAN/Protocol based VLAN/ IP subnet based VLAN/QinQ/GVRP/MVR is supported
- DHCP Server/Client/Relay/Snooping for IP security management
- Port-based IEEE802.1X/Single and multiple IEEE802.1X/ MAC-based authentication/VLAN Assignment/ IP source guard/ RADIUS/TACACS+/ACL/SSHv2/HTTPS
- DNS client/proxy is supported
- LACP/Link Aggregation Static for increases throughput
- Supports Port mirroring, port speed limits, broadcast, Storm control
- Two 2.5G fiber ports with backward 1G compatability
- WEB interface Management, CLI-Console/Telnet can be utilized
- SNMPv1/v2/v3 RMON/System Syslog for traffic monitoring
- Wide working temperature(-40°C~+85°C)
- Fanless, low consumption design
- IP40 protection, metal housing
- Redundant power input design (optional)

DESCRIPTION

The Meridian MS20GT16GX4 is a managed redundant ring Ethernet switch with 16x10/100/1000Base-TX and 4x1000Base-X Ports with complete support of Ethernet redundancy protocol. M-Ring (recovery time≤15ms).

The MS20GT16GX4POEH is the P.S.E. version of the switch and supports Power over Ethernet, ability to transmit electrical power with data to remote devices over standard twisted-pair cable. This switch has sixteen 1000Base-T(X) 30Watts P.S.E. (Power Sourcing Equipment) ports and four 1000Base-X ports, which are fully compliant with IEEE 802.3at, IEEE802.3 af standard.

This switch can be managed using web browser interface or optional windows utility - SpectraVISION.

The switch is designed to work in wide operating temperature from -40 °C to 75 °C, to make it completely suitable for harsh environments

MARKETS

* Highway monitoring/communication systems
* City intelligent transportation systems
* Rail transportation monitoring/communication systems
* Large-scale industrial communication systems
* Railway electric industry control systems
* Thermal power industrial control systems
* State grid industrial communication systems

SPECIFICATIONS

Physical Ports	
10/100/1000Base-T(X)Ports in RJ45, Auto MDI/MDIX	16
100/1000Base-X SFP port	4

Technology	
Ethernet Standards	IEEE802.3i/802.3u/802.3ab/802.3z/802.3x/802.3ad/802.1p/802.1q/802.1d/802.1w/802.1s/802.1ad/802.3az/802.1x/802.1ab, IEEE802.3af-2003, IEEE802.3at-2009
Protocol	M-Ring, IGMP v1/v2/v3 Snooping, GVRP, SNMPv1/2/3, MLD v1/v2 Snooping, DHCP Server/Client/Relay/snooping, RMON, HTTPS, Telnet, System syslog, SSHv2, DNS client/proxy, CLI-Console, Q-in-Q, RADIUS, TACACS+, ACL
MIB	MIB-II, Ethernet-Like MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9
DDM Function	Tx/Rx Optical Power and Temperature control
Flow Control	IEE802.3x flow control, back pressure flow control

Switch Properties	
MAC Table Size	8K
Packet Buffer Size	4Mbit
Packet Forwarding Rate	29.76 Mpps
Switching delay	<5μS

Interfaces	
SFP Port	100/1000Base-X, SFP interface
RJ45 Port	10/100/1000Base-T(X) auto negotiation
Console Port	Micro USB connector, RS232 TX/RX
Alarm Contact	3 pin 3.81mm terminal block

Transmission Distance	
Twisted pair	100m(Adopt standard CAT5, CAT5e)
Multi-mode	1310nm 5KM(100M), 850nm 550M(1000M)
Single mode	1310nm 40KM/60KM(100M) 1550nm 60KM/80KM(100M) 1310nm 10KM/40KM(1000M) 1550nm 60KM/80KM(1000M)

LED indicators	
Power	Green LED: On - Power is On, Off - Power is Off.
System Indicator	Green LED: On - The system is On, Off - The system is Off.
POE Indicator	Green LED: On - POE is active, Off - POE is not active.
10/100/1000Base-T(X) RJ45 Port Indicator	Yellow LED: On - The port speed is 1000Mbps. Off - The port speed is 10 or 100Mbps Green LED: On and Blinking - Port LINK UP, data is transmitted. On - No Blinking - Port LINK UP Off - Port LINK DOWN
1000Base-X SFP Port	Green LED: On-Port LINK UP On and Blinking-Data is transmitted. Off-Port LINK DOWN

Power	
Input Voltage	48VDC redundant inputs
Full Load	15W max
Overload Current Protection	Yes
Reverse Polarity Protection	Yes
Connection	7 pin 5.08 mm terminal block

Physical Characteristic	
Enclosure	IP40 rated metal enclosure, fanless
Dimension (W x D x H)	75(W)x128(D)x155(H) mm (2.95 x 5.03 x 6.10 inch)
Weight (g)	2700 g (5.95 lb)
Mounting	DIN-Rail / Panel

Environmental	
Storage Temperature	-40 to 85ºC (-40 to 185ºF)
Operating Temperature	-40 to 75ºC (-40 to 167ºF)
Operating Humidity	5% to 95% Non-condensing

Ordering Information	
Description	MS20GT16GX4 - Hardened 20-ports managed Gigabit Ethernet switch with 16x10/100/1000Base-T(X) RJ45 ports + 4x1000Base-X SFP ports
SFP Options	refer to Optical SFP Data Sheet for complete part numbers and ordering information
SpectraVISION Software	Consult factory for pricing and availability

Packing List	
Ethernet Switch	1
Wall-Mount Kit	1
Manual CD	1
Din-Rail Kit (attached)	1

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