

CE 2.0



MSW-404

4x GbE/RJ45 + 4x 1G/SFP
L2+ Carrier Ethernet Switch (NID)

MSW-404 is a new generation of carrier grade Ethernet demarcation device for business connection and mobile backhaul transportation service delivered by carriers. The MSW-404 is equipped 4 SFP slots as dual rate 100/1000Base-X and 4 ports 10/100/1000Base-T RJ45 network interfaces. It is designed to enable E-Line, E-LAN, E-Tree services which are CE (Carrier Ethernet) 2.0 compliant for Metro Ethernet network deployments.

The MSW-404 device enables carriers and service providers to delivered SLA-based network service with extensive fault detection and diagnostic capabilities which are compliant with the latest Ethernet OAM standards such as IEEE 802.3ah, IEEE 802.1ag and ITU-T Y.1731. With built-in RFC2544 and ITU-T Y.1564 feature sets, the MSW-404 also enables the service providers to perform the SLA verification anytime to ensure the quantitative latency, jitter and throughput delivery performance indexes. The CE2.0 compliant functions support EVCs and 3 colors marker QoS traffic management to enable service providers management of bandwidth and to enforce SLA guarantees.

Features

- The next generation of Ethernet demarcation device, at customer premise, fulfilling the large-scale carrier Ethernet deployment for intelligent business connection and mobile backhaul services complied to CE 2.0 standard.
- CE2.0 standards compliant product guarantees the fully interoperability with other MEF certified equipment and reduces the risks and cost of Carrier Ethernet network deployment for operators and service providers.

Specifications

Interface	100/1000Mbps SFP slots × 4 + 10/100/1000Base-T RJ45 × 4	Software Upgrade	TFTP/HTTP
Switching Fabric capacity	16Gbps	Ethernet OAM	IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731, RFC2544 ITU-T Y.1564
Filter & Forward rate	14880pps at 10Mbps, 148800pps at 100Mbps, 1488000pps at 1Gbps	MPLS feature	MPLS-TP compliant to ITU-T G.8113.1
Switching Capacity	16Gbps	LED Display	Power, System, Console, Link, Speed/Act
Transmission Method	Store and Forward Switching	Power Input	100V ~ 240VAC, -18 ~ -75VDC
Standard	IEEE 802.3u, IEEE 802.3z, IEEE 802.3ae, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1ad, IEEE 802.1D, IEEE 802.1w, IEEE 802.1s, IEEE 802.1x, IEEE 802.3ad	Power Consumption	< 20W
Packet Buffer	8M bits	Operating Temperature	0 ~ 50°C
MAC Table Size	8K	Storage Temperature	-25 ~ 70°C
Max. Packet Size	10K Bytes	Humidity	5% ~ 90% (non-condensing)
VLAN Feature	IEEE 802.1Q tagged VLAN, port based VLAN, MAC based VLAN, protocol based VLAN, private VLAN, IEEE 802.1ad Q-in-Q, VLAN translation, GVRP	Dimensions	167.4 × 219.4 × 44.5 mm (WxDxH) (with CH02M Chassis)
QoS Feature	IEEE 802.1p 8 priority queues per port, CoS based on switch port; VLAN ID; DSCP; TCP/UDP port, IEEE 802.1p priority tag remarking, DSCP remarking, Port based ingress/egress rate limit 3 colors marker-CIR/EIR/Burst bandwidth control	Regulatory	FCC, CE
L2 switching protection	STP, RSTP, MSTP, ITU-T G.8031/G.8032 Ethernet ring protection, μ-Ring		
Trunking	IEEE 802.3ad LACP(Max. 4 trunking groups, Max. 8 ports per trunking group)		
Security	IEEE 802.1x port based access control, MAC based access control authentication, RADIUS authentication, limited MAC address learning, IP/MAC binding, ACL rule based filtering, TACACS+, IP source guard, DHCP snooping/relay option 82, ARP inspection		
IP Multicasting	IGMP throttling, IGMP filtering, IGMP fast leave, IGMP snooping v1/v2/v3, MVR, MLD snooping v1/v2		
Storm Control	Unknown Unicast/Broadcast/Multicast storm suppression		
Management	Web/Telnet CLI/SNMP/console interface, Web/CLI authentication, SSH v2, HTTPs, port mirroring, syslog, IPv6 management, NTP, SFF-8472 DDMI		
SNMP Agent	SNMP v1/v2c/v3, RMON Group 1,2,3 and 9		

Application

Figure 1 : Ethernet Backbone Application

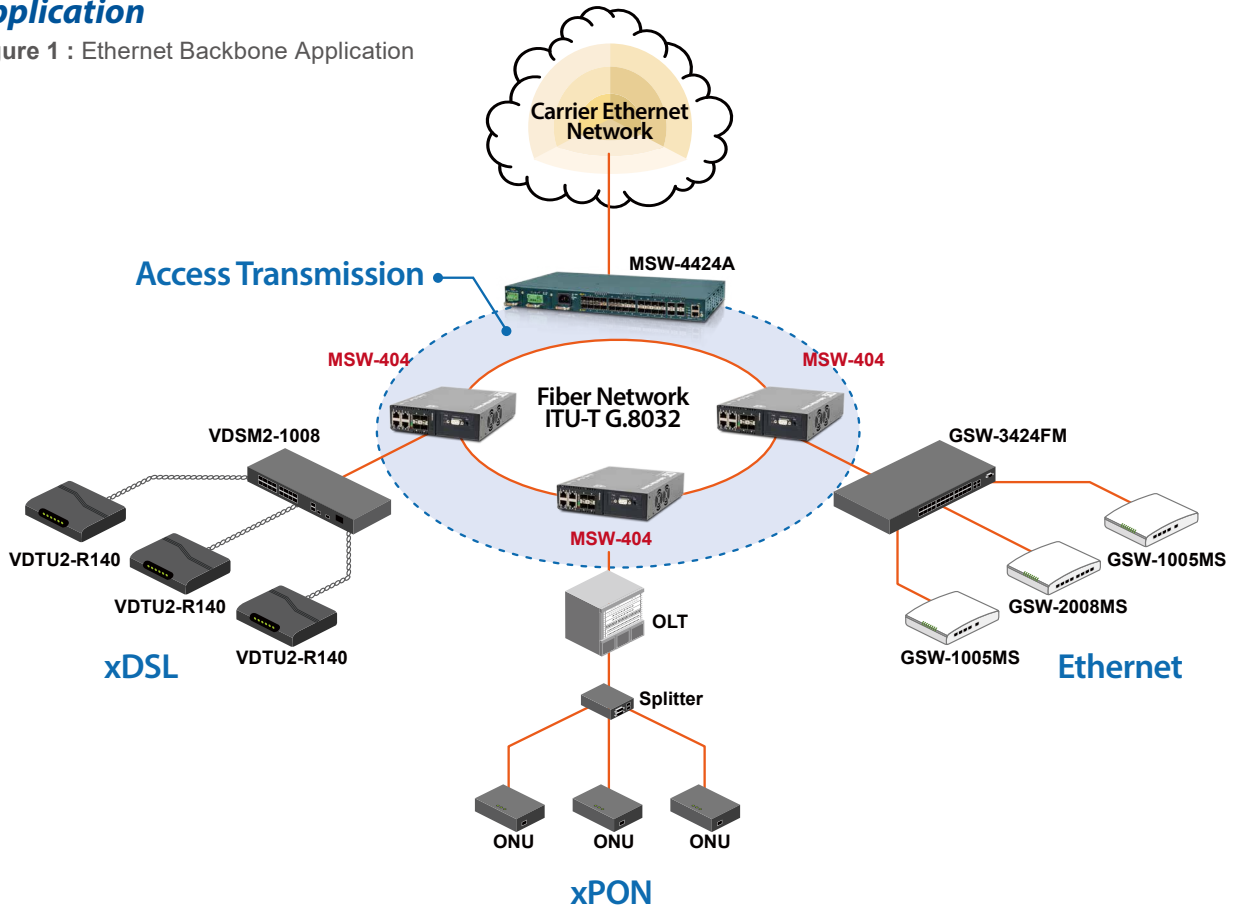
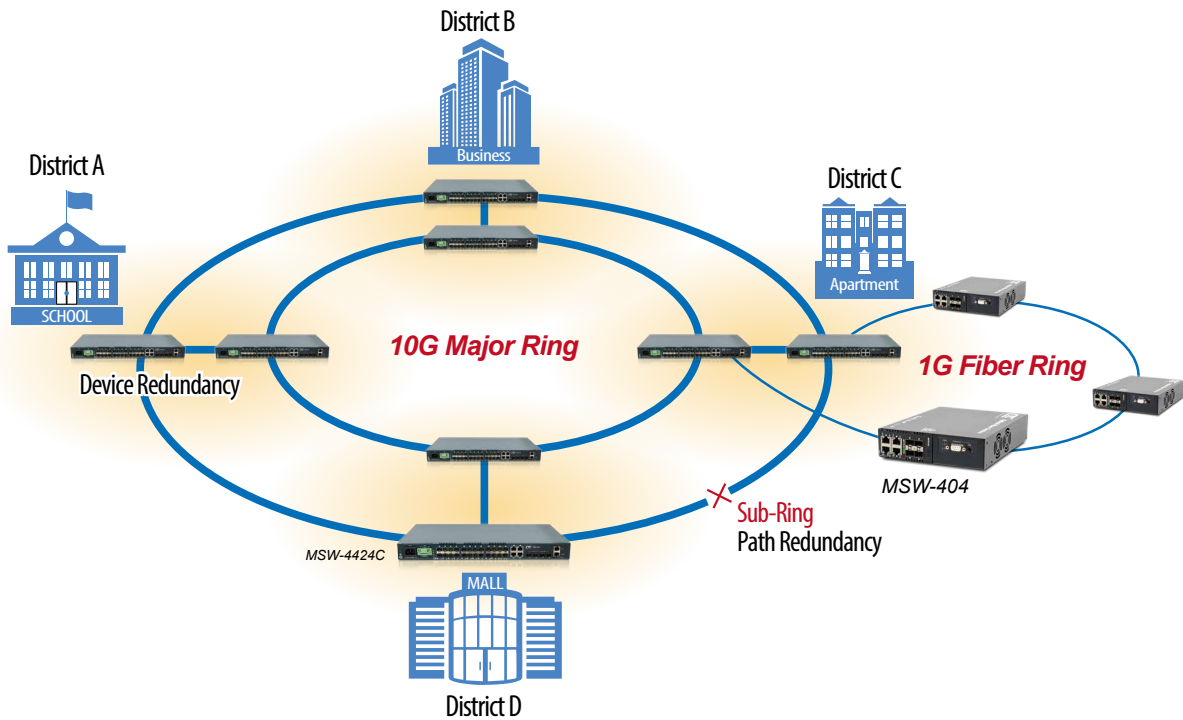


Figure 2 : μ -Ring Protected Ethernet Backbone Application



Ordering Information

Model Name	Description
MSW-404-AC	4x SFP Slots in Dual Rate 100/1000Base-X and 4x 10/100/1000Base-T RJ45 OAM Managed Carrier Ethernet Switch with single AC power supply
MSW-404-DC	4x SFP Slots in Dual Rate 100/1000Base-X and 4x 10/100/1000Base-T RJ45 OAM Managed Carrier Ethernet Switch with single DC power supply
MSW-404-AD	4x SFP Slots in Dual Rate 100/1000Base-X and 4x 10/100/1000Base-T RJ45 OAM Managed Carrier Ethernet Switch with AC & DC power supply

Power Type
MSW – 404 -
 Example: MSW – 404 - AC