# **MSW-4424A**



### 24x GbE, SFP + 4x 10GE SFP+ L2+ Carrier Ethernet Switch





MSW-4424A L2+ managed Gigabit Ethernet switches are positioned as a Carrier Ethernet access switch solution. They are equipped with 24 SFP based 100Base-FX/1000Base-X dual speed optical ports and 4 10G Base-X SFP+ or 1000Base-X SFP uplink ports. The MSW-4424A offers the best flexibility and scalability for operators and service providers to deploy their Metro Ethernet networks. Aimed specifically at Metro Ethernet deployment, the specifications of MSW-4424A fully meet the attributes of Carrier Ethernet proposed by the Metro Ethernet Forum. The switches comply with MEF 9 standard to support E-Line/E-Access services and MEF 14 standard to enable the bandwidth profile configuration for delivering SLA (Service Level Agreement) with predictable end-to-end performance characteristics. MSW-4424A also supports advanced service OAM management to rapidly detect and recover from the network incidents in real time.

### **Features**

### Front access and hot swappable design

All of the system modules are front accessible, the hot swappable power and FAN module are designed to keep high network availability without service interruption when components fail

#### Fully dual rate architecture of fiber link port

Dual speed fiber ports offer scalable physical connections for Metro Ethernet network operators

### Fully Ethernet OAM enable

Ethernet OAM features (IEEE 802.3ah/802.1ag/ITU-T Y.1731) help to rapidly detect and recover network faults and save OPEX for operators as well as increase customer satisfaction

<b>Specifications</b>	
Interface	24x 100/1000Mbps SFP slots + 4x 1G/10Gbps SFP+ slot
Console Port	1x RJ-45 console port
Management Port	1x 10/100/1000Base-T RJ45
Filter & Forward Rate	14880pps at 10Mbps, 148800pps at 100Mbps, 1488000pps at 1Gbps, 14880000pps at 10Gbps
Switching Fabric Capacity	128Gbps
Packet Forwarding Capacity	95Mpps
Transmission Method	Store and Forward Switching
Standards	IEEE 802.3u, IEEE 802.3z, IEEE 802.3ae, IEEE 802.1p
	IEEE 802.1Q, IEEE 802.1ad, IEEE 802.1D, IEEE 802.1w
	IEEE 802.1s, IEEE 802.1x, IEEE 802.3ad, IEEE 802.3ah
	IEEE 802.3az, IEEE 802.1ag, ITU-T Y.1731
Packet Buffer	32M bits
Mac Table Size	32K
Max. Packet Size	10K Bytes
VLAN Feature	IEEE 802.1Q tagged VLAN (Max. 4K VLAN groups)
	Port based VLAN, MAC based VLAN, Protocol based VLAN
	Private VLAN, IEEE 802.1ad Q-in-Q, VLAN translation, GVRP
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 bandwith control
L2 switching Protection	STP, RSTP, MSTP, ITU-T G.8031/G.8032
Trunking	IEEE 802.3ad LACP (Max. 14 trunking group; Max. 8 ports per trunking group)

## **L2+ Gigabit Carrier Ethernet Switch**

Security	IEEE 802.1x port based access control, MAC based access control authentication
	RADIUS authentication, Per port limited MAC address learning, IP/MAC binding, ACL rule based filtering
	TACACS+, IP source guard, DHCP client/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, SNTP, IEEE 802.3az, Energy, Efficient, Ethernet (EEE) power management
SNMP Agent	SNMP v1/v2c/v3, RMON Group 1,2,3 and 9
Software upgrade	TFTP / HTTP
Ethernet OAM	IEEE 802.3ah / IEEE 802.1ag / ITU-T Y.1731
LED display	Power, System, Console, Link/Act, Speed
Power input	100~240VAC; 36~60VDC

## **Application**

**Operating Temperature** 

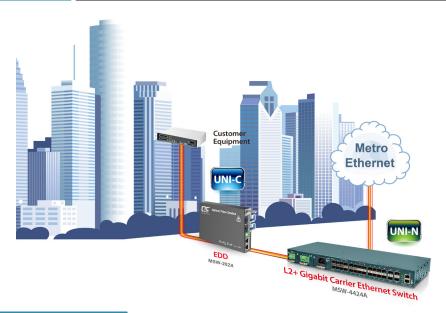
Power Consumption 39 Watts Max.

Certification FCC, CE

Storage Temperature  $-25 \sim 70^{\circ}\text{C}$ 

-10 ~ 60°C

**Humidity**  $5\% \sim 90\%$  (non-condensing) **Dimensions**  $270.3 \times 437.5 \times 43.5 \text{ mm (D } \times \text{W } \times \text{H)}$ 



## **Ordering Information**

Model Name	Description
MSW-4424A-AC	L2+ 10G Fiber Access Switch and Build-in Single AC Power Module
MSW-4424A-DC	L2+ 10G Fiber Access Switch and Build-in Single DC Power Module
MSW-4424A-AA	L2+ 10G Fiber Access Switch and Build-in Dual AC Power Module
MSW-4424A-DD	L2+ 10G Fiber Access Switch and Build-in Dual DC power Module
MSW-4424A-AD	L2+ 10G Fiber Access Switch and Build-in AC + DC Power Module

### **Optional Accessory**

### • 10G SFP+ Transceiver Module

Model Name	Description
SFM-1000-SR85	10G SFP+ SR/SW MMF 300m, 850nm VCSEL, 10G Ethernet/FC/SDH/SONET
SFS-1010-LR31	10G SFP+ LR/LW SMF 10km, 1310nm DFB DML, 10G Ethernet/FC/SDH/SONET
SFS-1040-ER55	10G SFP+ ER/EW SMF 40km, 1550nm DFB EML, 10G Ethernet/FC/SDH/SONET
SFS-1080-ZR55	10G SFP+ ZR/EW SMF 80km, 1550nm DFB EML, 10G Ethernet/FC/SDH/SONET