MSW-4204SE

4 × GbE/RJ45 + 2 × 1G/10G SFP+ L2+ Carrier Ethernet Switch with SyncE/PTP

SyncE IEEE 1588v2

The next generation Carrier Ethernet Network Interface Device (NID) is designed for mobile backhaul transportation of 4G LTE-A/5G network. The MSW-4204SE is equipped with 2 SFP+ slots, dual rate 1G/10Gbps and 4 ports Gigabit RJ45 network interfaces. It can be configurable as either UNI or NNI device which are CE(Carrier Ethernet) 2.0 compliant for Metro Ethernet network deployments.

The MSW-4204SE is positioned as an universal network interface device (NID) for most carrier Ethernet access applications. It has built-in hardware based Ethernet OAM engine and is compliant to the latest OAM standards to deliver the committed SLA performance KPIs measurement on a per service basis.

Precise Time synchronization

Every Ethernet copper or fiber port on MSW-4204SE except management port can be configured to deliver the timestamp messages of SyncE or IEEE 1588v2 inside Ethernet packets for the precision time purpose of mobile backhaul network. MSW-4204SE is built-in 1PPS/ToD input and output SMA connectors. The output SMA interface supports the waveform measurement of IEEE 1588v2 via external instrument as well as the input SMA interface can be connected to external time source as the reference clock for the network.

Features

- The next generation Ethernet demarcation device, at customer premise, fulfills the large-scale carrier Ethernet deployment for intelligent business connection and mobile backhaul services compliant to CE 2.0 standard.
- CE2.0 standards compliant product guarantees the full interoperability with other MEF certified equipment and reduces the risks and cost of Carrier Ethernet network deployment for operators and service providers.
- Advanced clock synchronization features for carrier Ethernet network allows operators to deliver time sensitive services with optimal stability and continuity in the end-to-end connectivity.

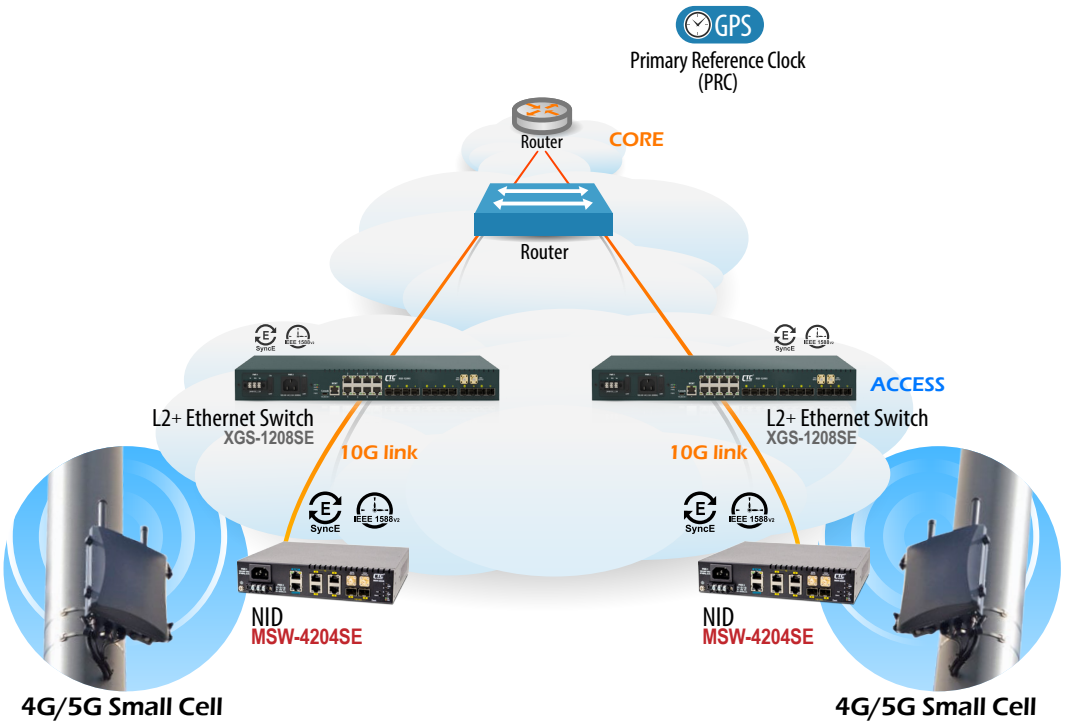
Specifications

Interface	Fiber port: 2x 1G/10Gbps SFP+	
	Copper port: 4x 10/100/1000Mbps RJ45	
	1PPS port: 2x SMA connector (input/output)	
Console/ToD Port	1x RJ45 (RS-232)	
Management Port	1x 10/100/1000Base-T RJ45	
Switching Fabric Capacity	48Gbps	
Packet Forwarding Rate	14880pps	@10Mbps
	148800pps	@100Mbps
	1488000pps	@1000Mbps
	14880000pps	@10Gbps
Transmission Method	Store and Forward Switching	
Packet Buffer	8M bits	
MAC Table Size	16K	
Jumbo Frame Size	10K Bytes	
VLAN Feature	IEEE 802.1Q tagged VLAN (4K VLAN groups), IEEE 802.1ad QinQ VLAN, Voice VLAN	
	MAC based VLAN, Protocol based VLAN, IP subnet based VLAN, Private VLAN for port isolation	
	VLAN translation, GVRP (GARP VLAN registration protocol)	

Link Aggregation	Static trunk (SA, DA, IP, TCP/UDP port)
	IEEE 802.3ad LACP, 3 LACP trunk groups Max; 6 port Max. per LACP trunk
L2 Switching Protection	IEEE 802.1D STP/IEEE 802.1w RSTP/IEEE 802.1s MSTP, ITU-T G.8031 ELPS/G.8032 ERPS
QoS Feature	Hierarchical QoS, IEEE 802.1Qbb priority based flow control, Hard wired IEEE 802.1p 8 priority queues per port
	IEEE 802.1p priority tag remarking, DSCP remarking
	CoS based traffic classification on switch port, VLAN, ID, DSCP, TCP/UDP port
	Per port/queue based ingress/egress rate limit in steps of 100kbps, 3 colors marker – CIR/EIR/Burst bandwidth control
Storm Control	Multicast/Broadcast/Unicast storm suppression with flooding control
Security	Static port security (MAC based), Per port limited MAC learning
	Port based/MAC base/single/multiple IEEE 802.1x access control
	128 ACL rules based on L2~L4 information, RADIUS/TACACS+ AAA, IP/MAC binding
	DHCP client/snooping/relay option 82, IP source guard & ARP inspection
IP Multicasting	IGMP snooping v1/v2/v3, IGMP proxy, MLD snooping v1/v2, IGMP fast leave
	IGMP query, IGMP filtering/throttling, MVR (Multicast VLAN Registration)
Management	WebGUI/Telnet CLI interface, HTTPs, SSHv2, SNMP v1/v2c/v3
	RMON I (1,2,3,9 groups) & RFC1213 MIB II, Private MIB, Dying gasp in SNMP trap message
	DHCP client/snooping/relay option 82, TFTP/HTTP based firmware and configuration upgrade
	Port mirroring, Event syslog, DNS client/proxy, NTP client, UPnP, IPv4/IPv6 management, SFF-8472 DDMI
	Text based CLI configuration upload and download
Ethernet OAM	IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731, RFC2544, ITU-T Y.1564
SyncE	ITU-T G.8261/G.8262/G.8264 on all Ethernet interfaces, Sync status message support
IEEE 1588v2 PTP	ITU-T G.8263 slave clock, ITU-T G.8273.2 boundary clock, ITU-T G.8273.4 transparent clock
	ITU-T G.8265.1/ITU-T G.8275.1 telecom profile (optional)
Power Input	100V~240VAC, 18~60VDC
Power Consumption	13.65 Watts Max.
Operating Temperature	0~50°C
Storage Temperature	-25~70°C
Humidity	5%~90% (non-condensing)
Dimension	215 × 190 × 44 mm (W×D×H)
Certification	CE, FCC class A

Application

Mobil Backhaul Application



Ordering Information

Model Name	Description
MSW-4204SE-AC	4 × 1G RJ45 + 2 × 1G/10G SFP+ slots L2+ Carrier Ethernet Switch with SyncE and Single AC Power Supply Built-In
MSW-4204SE-DC	4 × 1G RJ45 + 2 × 1G/10G SFP+ slots L2+ Carrier Ethernet Switch with SyncE and Single DC Power Supply Built-In
MSW-4204SE-AD	4 × 1G RJ45 + 2 × 1G/10G SFP+ slots L2+ Carrier Ethernet Switch with SyncE and AC & DC Power Supply Built-In

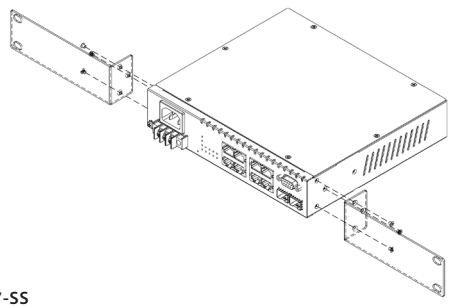
Optional Accessories

■ 10G SFP+ Transceiver Module

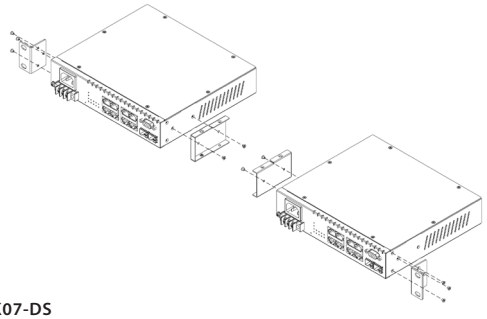
Model Name	Description
SFM-1000-SR85	10G SFP+ SR/SW MMF 300m, 850nm VCSEL, 10G Ethernet/FC/SDH/SONET
SFS-1010-LR31	10G SFP+ LR/LW SMF 10km, 1310nm DFB DML, 10G Ethernet/FC/SDH/SONET
SFS-1040-ER55	10G SFP+ ER/EW SMF 40km, 1550nm DFB EML, 10G Ethernet/FC/SDH/SONET
SFS-1080-ZR55	10G SFP+ ZR/EW SMF 80km,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

■ Rack Mount Kit

Model Name	Description
RMK07-SS	Rack Mounting Kits for GSW-4208CM/MSW-4204 Series Single Unit Chassis Mounting in 19" Rack
RMK07-DS	Rack Mounting Kits for GSW-4208CM/MSW-4204 Series Two Units Chassis Mounting in 19" Rack



RMK07-SS



RMK07-DS