

#### 16 × 1G/2.5G, RJ45 + 4 × 1G/10G SFP+ L2+ Managed Ethernet Switch





The next generation Ethernet switch in high-density port configuration leveraged NBase-T multigigabit technology, QSW-4416CM, is designed for enterprise or service provider to migrate to the reliable and secure Ethernet based high speed network access by connecting the existed Cat5e/Cat6 cabling infrastructure from 1Gbps to multigigabit speed. It is ideal solution to save your investment without disruptive and expensive wiring reconstruction required for offering more bandwidth capacity.

The latest content richer application and technology such as WiFi 6E/7 wireless access and 4K UHD video streaming or IP surveillance make the standard gigabit reveal the problem of bandwidth insufficiency. QSW-4416CM is equipped 16 ports 1G/2.5G RJ45 and 4 slots 1G/10G SFP+ uplink. It offers 2.5Gbps and 10Gbps connectivity to fulfill the bandwidth consumed popular network gears.

It is featured completely L2+ switch functionality which guarantees high network availability, robust network access and security as well as comprehensive QoS in the network edge. It will deliver the benefits of optimal traffic transportation performance and lower ownership cost while maintaining the network deployment simply.

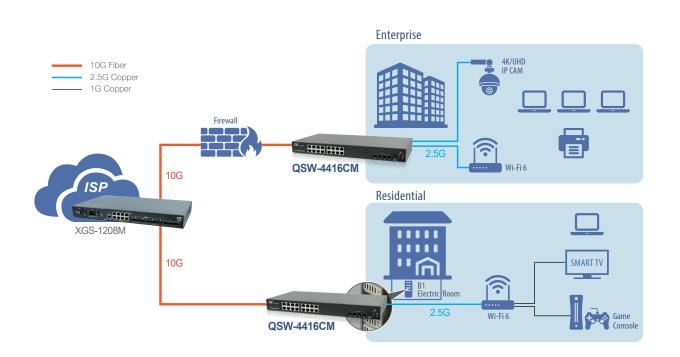
Specifications			
Interface	Fiber port: 4x 1G/10G SFP+		
	Copper port: 16x 1G/2.5G RJ45		
	Console port: RS-232 ir	n USB type C	
Packet Forwarding Rate	14880pps	@10Mbps	
	148800pps	@100Mbps	
	1488000pps	@1000Mbps	
	3720000pps	@2.5Gbps	
	14880000pps	@10Gbps	
Switching Fabric Capacity	160Gbps		
Transmission Method	Store and Forward Swite	shing	
Packet Buffer	32M bits		
MAC Table Size	32K		
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 iso	plation, VLAN translation, GVRP(GARP VLAN registration protocol)	
Link Aggregation	Static trunk (SA, DA, IP,	TCP/UDP port), IEEE 802.1AX	
	IEEE 802.3ad LACP, 10	LACP trunk groups Max; 8 port Max. per LACP trunk group	
L2 switching Protection	IEEE 802.1D STP/IEEE 8	802.1w RSTP/IEEE 802.1s MSTP, Loop Protection	
QoS Feature	Hard wired IEEE 802.1p	8 priority queues per port, Traffic scheduling based on strict/WRR priority	
	CoS based traffic classif	ication on switch port, VLAN ID, DSCP, TCP/UDP port	
	IEEE 802.1p priority tag re	emarking, DSCP remarking, Per port/queue based ingress/egress rate limit in steps of 100kbps	
	IEEE 802.3x flow contro	I, IEEE 802.1Qbb priority based full-duplex flow control	
	Multicast/Broadcast/Uni	cast storm control with flooding control	
Security	Static port security (MAC based), Per port limited MAC learning		
	Port based/MAC base/s	ingle/multiple IEEE 802.1x access control	
	512 ACL rules based on	L2~L4 information, RADIUS/TACACS+ AAA	
	HTTPs & SSH v2, IP/MAC binding, IP source guard & ARP inspection		
IP Multicasting	IGMP snooping v1/v2/v3	3, IGMP proxy, MLD snooping v1/v2, IGMP fast leave	
	IGMP query, IGMP filteri	ng/throttling, MVR (Multicast VLAN Registration)	

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# L2+ Managed 2.5G Ethernet Switch

t WebGUI/Telnet CLI interface, SNMP v1/v2c/v3, RMON I (1,2,3,9 groups) & RFC1213 MIB II, Private MIB	
t/snooping/relay option 82	
P based firmware and configuration upgrade, Port mirroring, RSPAN	
g server, DNS client/proxy, NTP client, UPnP, IPv4/IPv6 management	
DDMI, IEEE 802.1ab LLDP	
AC; 36~60VDC	
-25~70 °C	
5%~95% (non-condensing)	
$440 \times 220 \times 43.5 \text{ mm} (W \times D \times H)$	
CE, FCC class A	
F ()	

## Application



## **Ordering Information**

Model Name	Description
QSW-4416CM-AC	$16 \times 1G/2.5G$ RJ45 + 4 × 1G/10G SFP+ Slots Managed Ethernet Switch with Single AC Power Supply
QSW-4416CM-DC	$16 \times 1G/2.5G$ RJ45 + 4 × 1G/10G SFP+ Slots Managed Ethernet Switch with Single DC Power Supply
QSW-4416CM-AA	$16 \times 1G/2.5G$ RJ45 + 4 × 1G/10G SFP+ Slots Managed Ethernet Switch with Dual AC Power Supply
QSW-4416CM-DD	$16 \times 1G/2.5G$ RJ45 + 4 × 1G/10G SFP+ Slots Managed Ethernet Switch with Dual DC Power Supply
QSW-4416CM-AD	$16 \times 1G/2.5G$ RJ45 + 4 × 1G/10G SFP+ Slots Managed Ethernet Switch with AC + DC Power Supply

#### **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