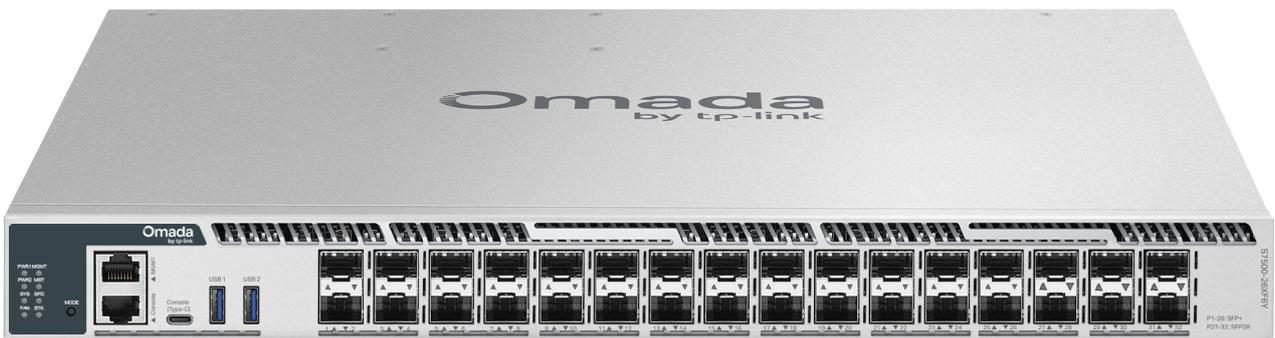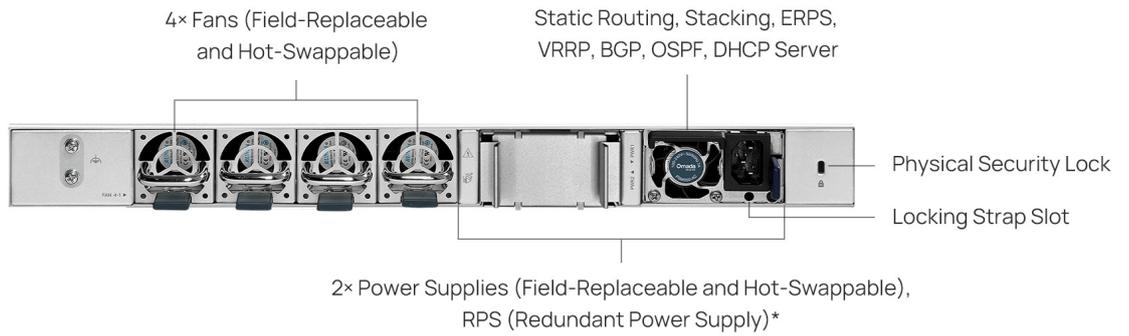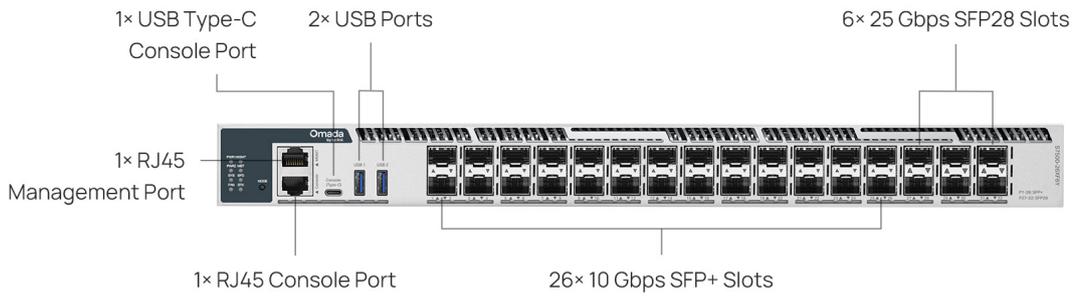# Omada Switch | Datasheet

S7500-26XF6Y V1.20

Omada Campus 26-Port 10G SFP+ Stackable L3 Managed Aggregation Switch with 6× 25G Slots

Highlights

- 26× 10 Gbps SFP+ slots and 6× 25 Gbps SFP28 slots

- Physical stacking for built-in redundancy and performance

- M-LAG improve link reliability from the card level to the device level.

- L3 Features: OSPF, BGP, IS-IS, VRRP, VRF, PIM-SM/PIM-DM/PIM-SSM, ECMP, PBR, PTPv2

- Security Strategies: Secure Boot, RADSEC, IMPB, SFTP, 802.1X, Port Security

- Highly available with two field-replaceable power supplies, VRRP, ERPS, and BFD

- Easy O&M: NETCONF, Configuration Rollback, Hot Patching, and RSPAN

- Centralized cloud management via the web or the Omada app[†]

Product Pictures

1× USB Type-C Console Port

2× USB Ports

6× 25 Gbps SFP28 Slots

1× RJ45 Management Port

1× RJ45 Console Port

26× 10 Gbps SFP+ Slots

4× Fans (Field-Replaceable and Hot-Swappable)

Static Routing, Stacking, ERPS, VRRP, BGP, OSPF, DHCP Server

Physical Security Lock

Locking Strap Slot

2× Power Supplies (Field-Replaceable and Hot-Swappable), RPS (Redundant Power Supply)*

Rackmountable

1.7 in (44 mm)

17.3 in (440 mm)

15.0 in (380 mm)

*Ships with one field-replaceable power supply module by default, and another field-replaceable power supply module for redundancy requires a separate purchase.

Specifications

Hardware Features & Performance

Model		S7500-26XF6Y V1.20
General	Interface	26 × 1/10Gbps SFP+ Slots* 6 × 1/10/25Gbps SFP28 Slots
	Console Ports	1 × RJ45 + 1 × USB Type-C
	Management Port	1 × RJ45
	USB Ports	2 × USB 3.0
	Flash	2×4 MB Nor + 8 GB EMMC
	DRAM	8GB DDR4
	Processor	Quad-Core ARM @1.2GHz CPU
Performance	Switching Capacity	820 Gbps
	Forwarding Bandwidth	410 Gbps
	Packet Forwarding Rate	610.1 Mpps
	MAC Address Table	128 K
	Packet Buffer	64 Mbit
	Stacking Port	25G SFP28 slot (all uplink ports can be used as stacking ports)**
	Stacking Bandwidth	Up to 300 Gbps (6 stacking ports)
	Max Stacking Number	12 in standalone mode, 4 in Omada controller mode
	Compatible Models for Stacking	S7500-26XF6Y
	Transmission Method	Store and Forward
	Jumbo Frame	9 KB
Physical & Environment	Power Supply	100-240 V ~50/60 Hz
	Redundant Power Supply	Max 2 hot swappable power supply module, N+1 redundant (shipping with one PSM550-AC module by default)***
	Suitable Power Supply Module	PSM550-AC
	Max Power Consumption	86.7 W (110 V/60 Hz)
	Max Heat Dissipation	295.85 BTU/hr (110 V/60 Hz)
	Standby Power Consumption	31.4 W (220 V/50 Hz)
	Noise	1× PSM550-AC power supply module: Min: 34.9 dBA @ 1m 25 °C Max: 61.7 dBA @ 1m 25 °C
	Fan Quantity	4 hot swappable fan modules N+1 redundant
	Airflow	Front-to-back
	Surge Protection	Service port: ±6 kV in common mode
	ESD Protection	Air: ±15 kV, Contact: ±8 kV
	MTBF	632,865 h @ 25 °C
	Dimensions (W x D x H)	17.3 × 15.0 × 1.7 in (440 × 380 × 44 mm)
	Net Weight	6.68 kg (14.73 lbs)
	Installation	Rackmount
	Operating Temperature & Altitude	-5 °C to 50 °C (23 °F to 122 °F) @ 300 meters -5 °C to 45 °C (23 °F to 113 °F) @ 2,000 meters -5 °C to 40 °C (23 °F to 104 °F) @ 3,000 meters****
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
	Operation Humidity	10% to 90% RH, non-condensing
	Storage Humidity	5% to 90% RH, non-condensing
	Certification	CE, FCC, RoHS

*No more than six 10G RJ45 SFP+ modules are supported. And it is recommended to have one column interval between every two 10G RJ45 SFP+ modules.
**The 25G SFP28 slots support stacking only through 25G DAC/25G SFP28 modules rather than 10G DAC/10G SFP+ modules.
***An additional power supply module needs to be purchased separately.
****The supported altitude is sea level to 5000 m. It should be noted that when the altitude is above 2000 m, for every 220 meters of altitude increase, the maximum operating temperature will drop by 1°C (1.8°F).

Software Features[△]

Model	S7500-26XF6Y V1.20	

System	**System Info**	• Device Description - Name - Location - System Contact • System Time - Manual - Synchronize with PC's Clock - SNTP Client • DST - Predefined Mode - Recurring Mode - Date Mode	• LED - LED on/off • System IP - Static IP/DHCP/BOOTP • System IPv6 - Link-local Address Config - Global Address Autoconfig via RA Message - Global Address Autoconfig via DHCPv6 Server - Add a Global Address Manually
	User Management	• User Settings • Access Level: 4 levels	• Password Recorvery Settings
	System Tools	• Config Restore/Backup - Web: HTTP - CLI: TFTP/Flash/USB • Firmware Upgrade - Web: HTTP - CLI: TFTP/Flash/USB	• System Reboot • System Reset • Boot Config (Dual Image) • Reboot Schedule • Config Rollback • Hot Patch
	Access Security	• Access Control Config - IP-based - MAC-based - Port-based - IPv6-based • HTTP Config - Enable/Disable - Session Config - Access User Number - Port Setting • SSL Config - SSLv3/TLSv1 Enable/Disable - CipherSuite Config - IPv6 SSL	• SSH Config - Enable/Disable - v2 - Encryption Algorithm - Data Integrity Algorithm - Port Setting - IPv6 SSH • Telnet Config - Enable/Disable - Port Setting - IPv6 Telnet • Console Port - Baud Rate setting
	Stack	• Stack Setting • Stack-port LAG: up to 6 groups, each group supports a maximum of all stackable-ports • Stackable Devices: up to 12 devices	• Stack MAC Address Switching Delay • Multi-active Detection (MAD) • Virtual MAC
	M-LAG	• M-LAG domain configuration • Dual-Active Detection • M-LAG Config Consistency Check	• Peer-link-port LAG: 1 Group, each group supports a maximum of all peerLinkable-ports • M-LAG Member Interface MAC Address Switching Delay
	SDM Template	• Default Template - IPv4 ACL Rules: 900 entries - MAC ACL Rules: 900 entries - Combined ACL: 900 entries - IPv4 Source Guard: 899 entries • IPv4 Access - IPv4 ACL Rules: 0 entries - MAC ACL Rules: 900 entries - Combined ACL: 1500 entries - IPv4 Source Guard: 1024 entries • IPv6 Access - IPv4 ACL Rules: 0 entries - MAC ACL Rules: 600 entries - IPv6 ACL: 750 entries - IPv6 Source Guard: 749 entries	• Omada - IPv4 ACL Rules: 0 entries - MAC ACL Rules: 0 entries - Combined ACL: 1800 entries - IPv6 ACL: 450 entries - IPv4 Source Guard: 0 entries • Extacl Access - IPv4 ACL Rules: 1500 entries - MAC ACL Rules: 1500 entries - Combined ACL Rules: 1500 entries - IPv6 ACL Rules: 500 entries - IPv4 Source Guard: 0 entries - IPv6 Source Guard: 0 entries
	Time Range	• Time Range Config	• Holiday Config
	PTP	• Profile: IEEE 1588v2 (PTPv2), IEEE 802.1AS	• Clock-type: oc, bc, e2etc, p2ptc
	File System	• File Operation • FTP • SFTP	• SCP • TFTP • USB Storage

Software Features[A]

	Model	S7500-26XF6Y V1.20	

L2 Features	Port	• Auto Negotiation/Auto MDI/MDIX
		• Port config
		  - Status
		  - Speed and Duplex
		  - Flow Control (802.3x)
		  - Jumbo Frame: 1518-9216 KB
		• Port Mirror
		  - Ingress (Many to One)
		  - Egress (Many to One)
		  - RSPAN
			• Port Security
			  - Learn mode: Dynamic/Static/
			    Permanent/Sticky
			  - Port Max Learned MAC: 64
			  - Current Learned Number
			  - Status
			  - Exceed Max Learned Trap
			• Port Isolation
			• Loopback Detection
			  - Alert
			  - Port Based
			  - VLAN Based

	Digital Diagnostic Monitoring (DDM)		

	LAG	• Hash Algorithm: SRC MAC/DST
		    MAC/SRC MAC +
		    DST MAC/SRC IP/
		    DST IP/SRC IP +
		    DST IP
			• Static LAG: Up to 120 groups, up to
			  8 ports per group
			• LACP (802.3ad)

	Traffic Monitor	• TX Packets/Bytes • RX Packets/Bytes • TX Unicast/Multicast/Broadcast • RX Unicast/Multicast/Broadcast	• TX Errors • RX Errors • RX Packet Size Analysis
	MAC Address	• MAC Address Table: 128K entries • IVL/SVL: IVL • Create Static Unicast Address	• Bind Dynamic Address • Create Filtering Address • MAC Notification Settings

	VLAN	• 802.1Q VLAN(802.1q): 4K VLANs
		• MAC VLAN: 200 entries
		• Protocol VLAN
		  - 16 Protocol VLAN Template
		  - 12 Protocol VLAN Group
			• QinQ(VLAN VPN): 256 entries
			• Private VLAN
			• GVRP

	L2 Multicast	• Max Multicast Groups: 4K (IGMP
		  Snooping & Multicast Listener
		  Discovery (MLD) Snooping & MVR)
		• IGMP Snooping
		  - IGMP V1/V2/V3
		  - Report Message Suppression
		  - Fast Leave
		  - Unknown Multicast Discard
		  - Static Multicast Groups
		  - IGMP Snooping Querier
		  - IGMP Packet Statistics
		  - IGMP Authentication
		  - Multicast Filtering: 256 profiles
		    and 16 entries per profile
		  - Router Port Setting: Static Router
		    Port/Forbidden Router Port
		• MVR
			• MLD Snooping
			  - MLD V1/V2
			  - Report Message Suppression
			  - Unknown Multicast Discard
			  - Fast Leave
			  - Static Multicast Groups
			  - MLD Snooping Querier
			  - MLD Packet Statistics
			  - Multicast Filtering: 256 profiles and
			    16 entries per profile
			  - Router Port Setting: Static Router
			    Port/Forbidden Router Port

	STP	• STP (802.1d)
		• RSTP (802.1w)
		• MSTP (802.1s)
		• MSTI instances: 64
			• STP Security
			  - Loop Protect
			  - Root Protect
			  - TC Protect
			  - BPDU Protect
			  - BPDU Filter

	Per-VLAN Spanning Tree	• PVST • PVST+	• RPVST • RPVST+
	LLDP (802.1ab)	• Local Info • Neighbor Info	• Statistic Info • LLDP-MED
	L2PT		
	PPPoE ID Insertion	• Circuit-ID Type	• Remote-ID
	ERPS	• Ring: 64	
	Virtual MAC		
	Sticky MAC		

Software Features[△]

Model	S7500-26XF6Y V1.20	
L3 Features	IPv4 Interfaces: 4094 IPv6 Interfaces: 4094	
	IPv4 Static Routes: 2048 (shared with IPv6 Static Routes) IPv6 Static Routes: 1024 (shared with IPv4 Static Routes)	
	IPv4 Host Routes: 15300 (shared with IPv4 Host Routes) IPv6 Host Routes: 15300 (shared with IPv6 Host Routes)	
	IPv4 Network Routes: 102400 (shared with IPv6 Network Routes) IPv6 Network Routes: 51200 (shared with IPv4 Network Routes)	
	ECMP	• Max ECMP Routes: 256 • Max ECMP Nexhops per Destination: 32
	ARP	• Static ARP: 1024 • Dynamic ARP: 24576
	ND: 7680	

	DHCP	• DHCP Server
		  - IP Pools: 64
		  - Max Leases: 8000
		  - Manual Binding Entries: 1000
		  - Exclude IP range Entries: 100
		
		• DHCP Relay
		• DHCP L2 Relay
		• DHCPv6 Relay
		• DHCPv6 L2 Relay

	VRRP	• VRRP V2/V3 • VRRP Instance: 64 • VRRP Virtual IP: 32 per instance

	OSPF	• OSPFv2
		  - OSPF Process: 16
		  - Graceful Restart
		  - OSPFv2 BFD
		
		• OSPFv3
		  - OSPFv3 Instance: 1
		  - OSPFv3 BFD

	RIP	• RIPv1/v2 • RIPng
	VRF	• VRF Instance: 1024
	IS-IS	• IS-ISv4 • IS-ISv6 • IS-IS BFD • IS-IS Instance: 16 • IS-IS Graceful Restart
	BGP	• BGPv4 • BGP Graceful Restart
	PIM	• PIM-DM (IPv4) • PIM-SM (IPv4) • PIM-SSM (IPv4) • IPv4 Multicast Route entries: 1024
	IGMP	• Version: v1/v2/v3 • IGMP Groups: 2048
	BFD	• Template Numbers: 16 • Session Numbers: 8
	PBR	
	uRPF	
QoS	**Class of Service**	• Priority Queues: 8 Queues • Port Priority • 802.1P Priority • DSCP/ToS Priority • Priority Schedule Mode: SP/WRR per Queue • Queue Weight Config: For WRR/SP+WRR Mode

	Bandwidth Control	• Rate Limit
		  - Ingress Rate Limit
		  - Egress Rate Limit
		  - Rate Limit Grade: 64kbps
		
		• Storm Control
		  - Control Mode: kbps/ratio
		  - Broadcast
		  - Multicast
		  - Unknown Unicast

	Voice VLAN	• Supported OUI Numbers: 64
	WRED	• WRED profile: 64

Software Features△

Model	S7500-26XF6Y V1.20	
Network Security		
IP-MAC Binding	• Binding entries: 1024 entries • Manual Binding	• ARP Scanning • DHCP Snooping
IPv6-MAC Binding	• Binding entries: 1024 entries • Manual Binding	• DHCPv6 Snooping • ND Snooping
Dynamic ARP Inspection (DAI)	• ARP Detect entries: 1024 entries • ARP Detect	• ARP Defend • ARP Statistics
ND Detection	• ND Detection entries: 1024 entries • ND Detect	• ND Statistics

IP Source Guard	• IP Source Guard entries
	  - Default SDM Template: 899
	  - IPv4 SDM Template: 1024
	  - IPv6 SDM Template: 0
	  - Extacl SDM Template: 0
		• Security Type
		  - Source IP
		  - Source IP + Source MAC

IPv6 Source Guard	• IPv6 Source Guard entries
	  - Default SDM Template: 0
	  - IPv4 SDM Template: 0
	  - IPv6 SDM Template: 749
	  - Extacl SDM Template: 0
		• Security Type
		  - Source IPv6
		  - Source IPv6 + Source MAC

RA Guard: 30 entries		
DoS Defend	• Scan SYNFIN • Xmascan • NULL Scan	• SYN sPort less 1024 • Ping Flooding • SYN/SYN-ACK Flooding

DHCP Filter	• DHCPv4 Filter
	  - Legal Server entries: 200
		• DHCPv6 Filter
		  - Legal Server entries: 200

802.1x	• Control Type
	  - Port Based
	  - MAC Based
	• Auth Method: PAP/EAP-MD5/EAP-TLS/EAP-TTLS/EAP-PEAP
		• Radius Authentication
		• Radius Accounting
		• Radius Server Load Balancing
		• RADSEC
		• Guest VLAN

Authentication, Authorization, Accounting (AAA)		

ACL	• Time-Range
	  - Time Slice
	  - Week Time-Range
	  - Absolute Time-Range
	  - Holiday
	• MAC ACL
	  - Source MAC
	  - Destination MAC
	  - VLAN ID
	  - EtherType
	  - User Priority
	• IP ACL
	  - Source IP
	  - Destination IP
	  - IP Protocol
	  - TCP Flag
	  - TCP/UDP Source Port
	  - TCP/UDP Destination Port
	  - DSCP/IP ToS
	• Combined ACL
	• IPv6 ACL
	• Rule Operation
	  - Permit
	  - Deny
	• Policy Action
	  - Mirror
	  - Rate Limit
	  - Redirect
	  - QoS Remark
	• Binding
	  - Port Binding
	  - VLAN Binding
		• Default Template
		  - IPv4 ACL Rules: 900 entries
		  - MAC ACL Rules: 900 entries
		  - Combined ACL: 900 entries
		• IPv4 Access
		  - IPv4 ACL Rules: 0 entries
		  - MAC ACL Rules: 900 entries
		  - Combined ACL: 1500 entries
		• IPv6 Access
		  - IPv4 ACL Rules: 0 entries
		  - MAC ACL Rules: 600 entries
		  - IPv6 ACL: 750 entries
		• Omada
		  - IPv4 ACL Rules: 0 entries
		  - IPv6 ACL Rules: 450 entries
		  - MAC ACL Rules: 0 entries
		  - Combined ACL: 1800 entries
		  - IPv4 Source Guard: 0 entries
		• Extacl
		  - IPv4 ACL Rules: 1500 entries
		  - IPv6 ACL Rules: 500 entries
		  - MAC ACL Rules: 1500 entries
		  - Combined ACL Rules: 1500 entries

Secure Boot		
Virtualization		
IP Tunnel	• IPv6 over IPv4 • IPv6 over IPv4 GRE	• IPv4 over IPv4 GRE • Tunnel entries: 100

Software Features△

Model	S7500-26XF6Y V1.20	
Maintenance	System Monitor	• CPU Monitor • Memory Monitor
	sFlow	
	Operation Administration and Maintenance (OAM)	• EFM - Link Monitoring - Remote Failure Indication Config - Statistics
	DLDP	
	SNMP	• SNMP Version: v1/v2c/v3 • Notification • SNMP Config - Trap: IPv4/IPv6 - Global Config - Inform: IPv4/IPv6 - SNMP View • RMON v1 - SNMP Group • Public MIBs - SNMP User • Private MIBs - SNMP Community
	NETCONF	
	DHCP Auto Install	
	Log	• Display/Filtering • Remote Host • Severity Level • Backup Log • Save to Flash
	Device Diagnostics	• Cable Test
Others	Network Diagnostics	• Ping • Tracert • IPv6 Ping • IPv6 Tracert
	Show running config	• Use the show running config command to view device's running status via telnet. • Configuration File: Import/Export/Edit
Omada SDN Controller	Omada and Omada Pro Controller	

Others

Package Content	• S7500-26XF6Y V1.20 Switch • Power Cord • Console Cable • Rackmount Kit • Rubber Feet • Locking Strap • Installation Guide
System Requirements	Microsoft® Windows® 98SE, NT, 2000, XP, Vista™ or Windows 7/8/10/11, MAC® OS, NetWare®, UNIX® or Linux.

Ordering Information

Host Switch

Model	Description
S7500-26XF6Y V1.20	Omada Campus 26-Port 10G SFP+ Stackable L3 Managed Aggregation Switch with 6× 25G Slots

Power Supply Module

Model	Description
PSM550-AC	550 W AC Power Supply Module

SFP/SFP+/SFP28 Module

Model	Description
SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km
SM5110-LR	10GBase-LR SFP+ LC Transceiver, single-mode, LC connector, 1310nm, 10 km
SM5110-SR	10GBase-SR SFP+ LC Transceiver, multi-mode, LC connector, 850nm, 300 m
SM6110-SR	25GBase-SR SFP28 LC Transceiver, MMF (Multimode fiber), LC connector, 850 nm, 100 m
SM6110-LR	25GBase-LR SFP28 LC Transceiver, SMF (Single-mode fiber), LC connector, 1310 nm, 10 km

Direct Attach Cable

Model	Description
SM6220-1M	1 Meter 25G SFP28 Direct Attach Cable
SM5220-1M	1 Meter 10G SFP+ Direct Attach Cable
SM5220-3M	3 Meter 10G SFP+ Direct Attach Cable

RJ45 SFP/SFP+ Modules

Model	Description
SM331T	1000BASE-T RJ45 SFP Module
SM5310-T	10GBASE-T RJ45 SFP+ Module

MC Series Media Converter

Model	Description
MC210CS	Gigabit Single-Mode Media Converter, up to 20 km, chassis mountable
MC200CM	Gigabit multi-mode SC SFP Transceiver, up to 550 m, chassis mountable
MC200L	Gigabit SFP slot supporting mini-GBIC modules, chassis mountable
MC1400	14-slot power supply chassis for TP-LINK MC Series Media Converter, 19-inch rack-mountable