

Product Datasheet

52-Port Full Gigabit Managed Ethernet Switch

ONV33048FM



OVERVIEW

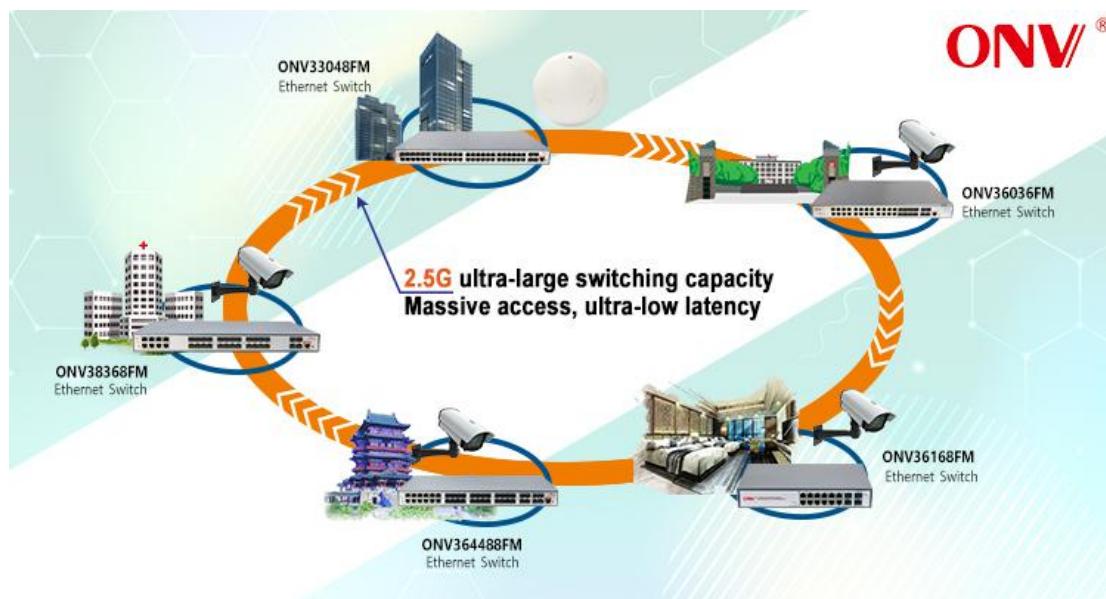
The ONV33048FM series is a full gigabit managed Ethernet fiber switch independently developed by ONV. It has 48*10/100/1000Base-T RJ45 ports and 4*100/1000Base-X SFP fiber slot ports. Each port can support wire-speed forwarding.

The ONV33048FM has L2+ full network management, support IPV4/IPV6 management, static route full line rate forwarding, security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP(<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web network management mode. It satisfies high-density network application environment and is suitable for medium, large-scale scenes such as hotel, campus, park, shopping mall, scenic spot, hospital, bank to form an economical, efficient and reliable communication network.

FEATURE

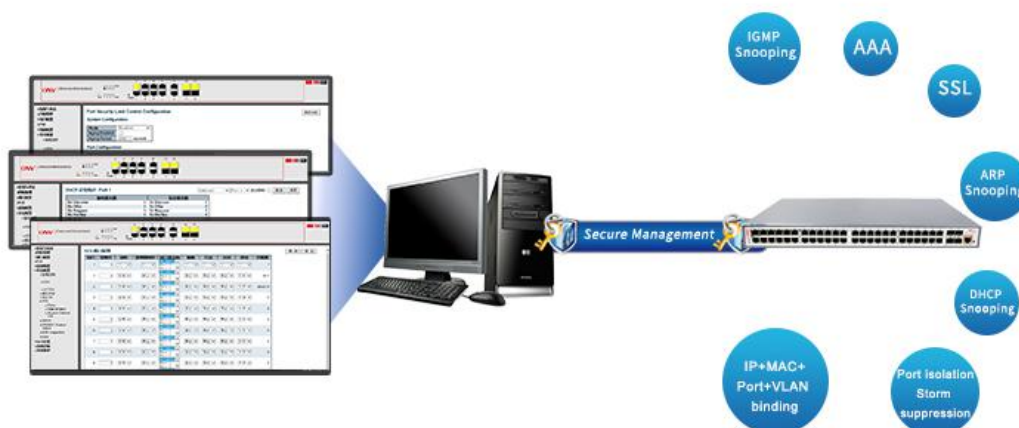
■ Gigabit access, Gigabit SFP fiber port uplink

- ◇ All series support “Gigabit Ethernet port and Gigabit SFP port” combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure.



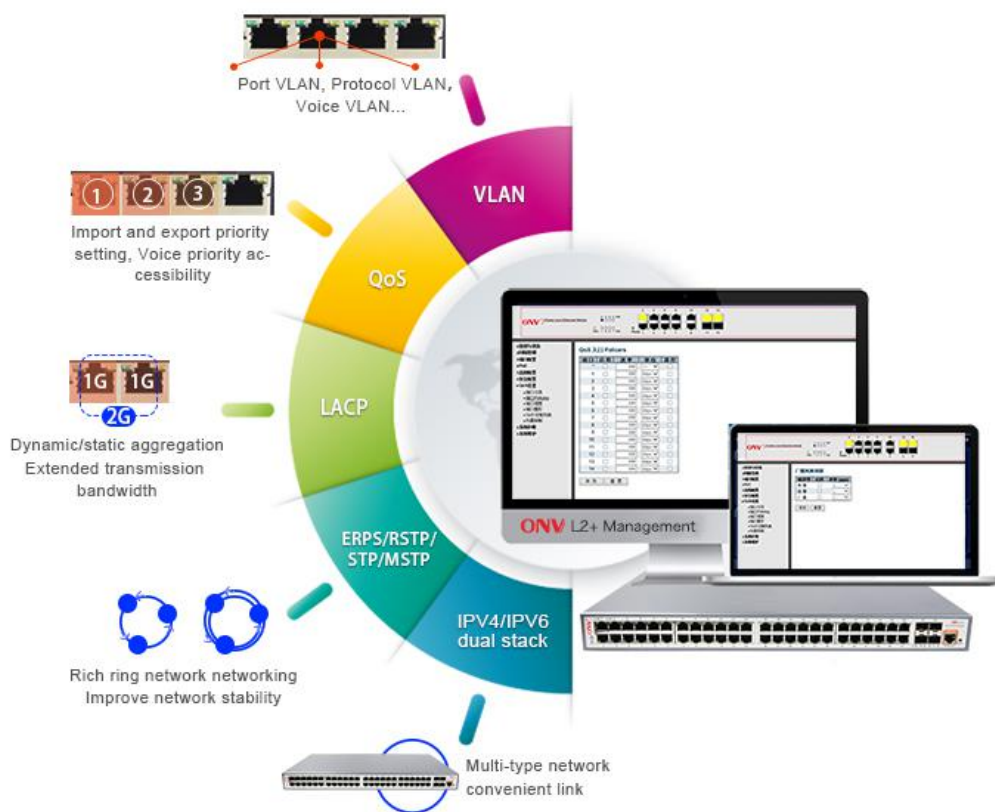
■ Security

- ◇ 802.1X authentication.
- ◇ Port isolation, Storm control.
- ◇ IP-MAC-VLAN-Port binding.



■ Strong business processing capability

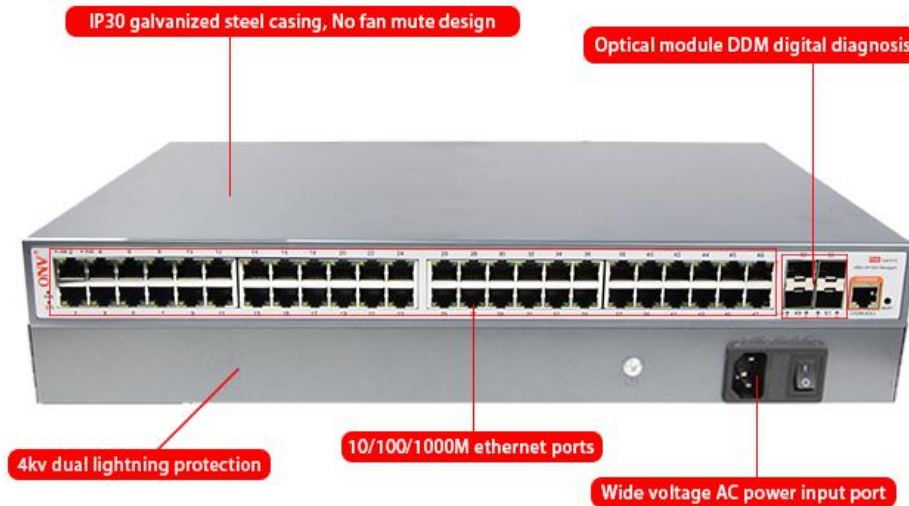
- ◇ IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN and QinQ configuration.
- ◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ, SP, WRR & SP+WRR.
- ◇ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.
- ◇ IGMP V1/V2 and IGMP Snooping.
- ◇ ERPS/STP/RSTP/MSTP.
- ◇ Static and dynamic aggregation.



■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ Low power consumption, galvanized steel casing, no fan.
- ◇ Self-developed power supply, high redundancy design, providing a long term and stable power output.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of

PWR, Link.



■ Easy operation and maintenance management

- ◇ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- ◇ HTTPS, SSLV3, and SSHV1/V2.
- ◇ RMON, system log, LLDP, and port traffic statistics.
- ◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.

TECHNICAL SPECIFICATION

Model	ONV33048FM	ONV36048FM
Interface Characteristics		
Fixed Port	48*10/100/1000Base-T RJ45 ports (Data) 4*100/1000Base-X uplink SFP slot ports (Data)	48*10/100/1000Base-T RJ45 ports (Data) 4*1/10G uplink SFP+ slot ports (Data)

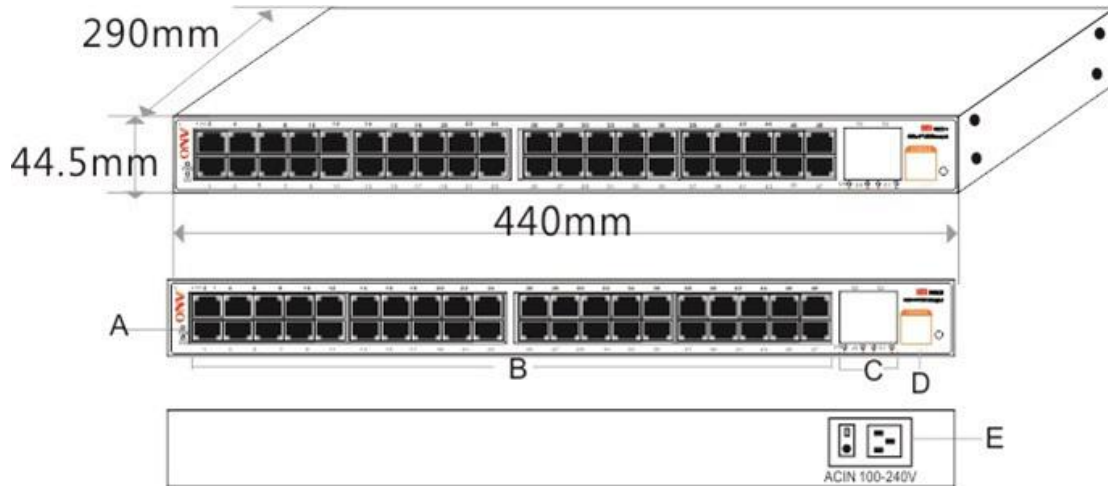
	1 * RS232 console port(115200,N,8,1)	1 * RS232 console port(115200,N,8,1)
Ethernet Port	Port 1-48 support 10/100/1000Base-T auto-sensing, full/half duplex MDI/MDI-X self-adaption	
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)	
SFP Slot Port	1/10G SFP+ optical fiber interface, default not matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable	Multi mode: 850nm / 0 ~ 500M(1.25G), 0 ~ 300M(10G) single mode: 1310nm/ 0 ~ 40KM, 1550nm/ 0 ~ 120KM.	
Chip Parameter		
Network Management Type	L2+	
Network Protocol	IEEE802.3 10BASE-T IEEE802.3i 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3x	IEEE802.3 10BASE-T IEEE802.3i 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-SR/LR IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	598Gbps	
Forwarding Rate@64byte	77.38Mpps	131Mpps
MAC	24K	32K
Buffer Memory	24M	32M
Jumbo Frame	9.6K	

LED Indicator	Power:PWR(yellow), system :SYS(yellow), network:Link (yellow), Fiber port: L/A(green)
Reset Switch	Yes, One-button factory reset
Power	
Total PWR / Input Voltage	60W/ (AC100-240V)
Power Consumption	Standby<35W, Full load<55W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 1.0A
Physical Parameter	
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+75°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*290*44.5mm
Net /Gross Weight	<4.4kg / <5.0kg
Installation	Desktop, wall-mounted,19 inch 1U cabinet
Certification & Warranty	
Lightning protection / protection level	Lightning protection: 4KV 8/20us; Protection level: IP30
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
Warranty	3 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3X (Full-duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port.

	The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q VLAN based on the protocol VLAN based on MAC Voice VLAN, QinQ configuration Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 26 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
ERPS Networking Protocol	G.8032 (ERPS), Recovery time less than 20ms 250 Ring at most, Max 1024 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IP-MAC-VLAN-Port binding ARP inspection,Anti-DoS attack

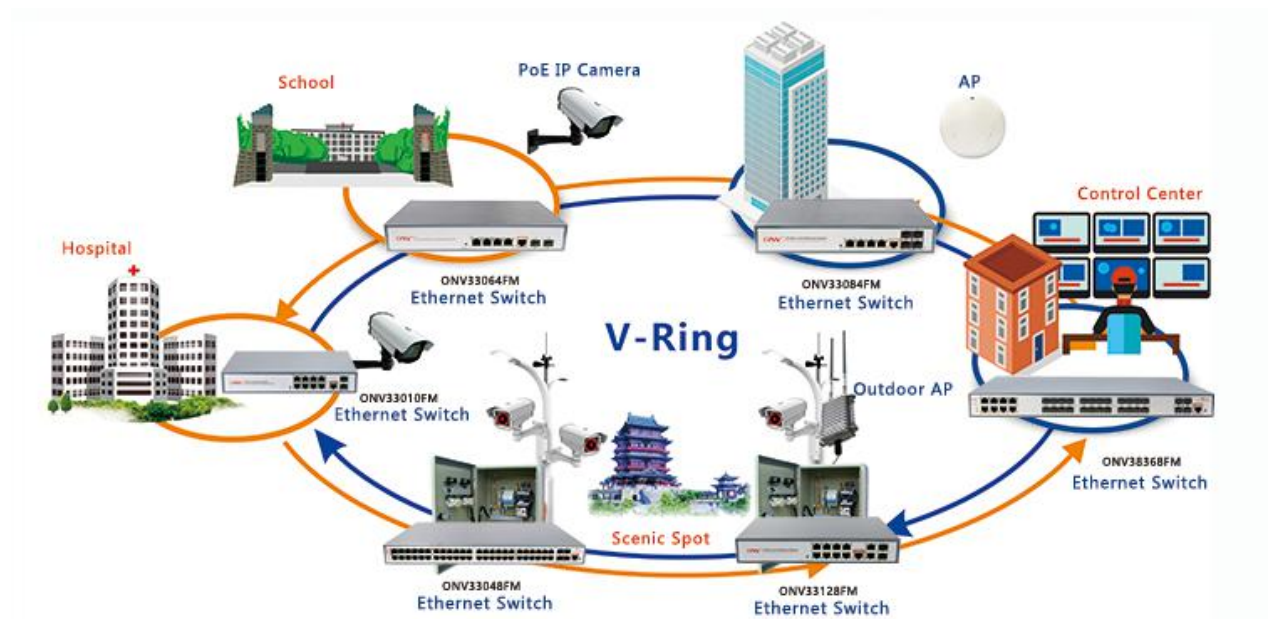
	<p>AAA & RADIUS, MAC learning limit</p> <p>Mac black holes, IP source protection</p> <p>IEEE802.1X & MAC address authentication</p> <p>Broadcast storm control, Backup for host datum</p> <p>SSH 2.0, SSL, Port isolation, ARP message speed limit</p> <p>User hierarchical management and password protection</p>
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	<p>One-key recovery</p> <p>Cable Diagnose, LLDP</p> <p>Web Management (HTTPS)</p> <p>NTP, System work log, Ping Test</p> <p>CPU instant utilization status view</p> <p>Console/AUX Modem/Telnet/SSH2.0 CLI</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP</p> <p>V1/V2C/V3</p> <p>ONV NMS - smart network management system platform (LLDP+SNMP)</p>
System	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer 10 or later;</p> <p>TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network</p>

DIMENSION



- A. working indicator
- B. 48*10/100/1000M RJ45 ports
- C. 4*100/1000M uplink SFP ports
- D. Console ports
- E. Power input port AC100-240V 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description
ONV33048FM	L2+ managed Ethernet aggregation/core switch with 48* 10/100/1000M RJ45 ports and 4*100/1000M uplink SFP fiber slot ports , Built-in 60W power supply. Support 1U/19 inch rack installation.
ONV36048FM	L2+ managed Ethernet aggregation/core switch with 48* 10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber slot ports , Built-in 60W power supply. Support 1U/19 inch rack installation.

Note: Ethernet switch does not match the optical module by default.

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	52-Port full gigabit managed Ethernet switch	1	SET
	AC Power Cable	1	PC
	RJ45-DB9 Line	1	PC
	Mounting Kits(Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
1.25G Optical Module	ONV-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-2612-T-SC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
	ONV-2613-R-S C	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
Power Module	ONV-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC
10G	ONV-6630	SFP+ optical module, 10G Multi-mode dual fiber 850nm,	PC

Optical Module		transmission distance: 300m, LC interface, support DDM function, support hot plug and pull.	
	ONV-7832	SFP+ optical module, 10G Single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-7832-33	SFP+ optical module, 10G Single-mode single fiber TX1330nm/RX1270nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	ONV-7832-27	SFP+ optical module, 10G Single-mode single fiber TX1270nm/RX1330nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC

RELATED PRODUCT

Model	Description
ONV36028FM	L2+ managed Ethernet aggregation fiber switch with 24* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
ONV36036FM	L2+ managed Ethernet aggregation fiber switch with 24* 10/100/1000M RJ45 ports and 8* 100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
ONV36448FM	L2+ managed Ethernet aggregation fiber switch with 12* 10/100/1000M RJ45 ports and 28* 100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.

ONV36048FM	L2+ managed Ethernet aggregation fiber switch with 44* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
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