

Product Datasheet

36-port 10G Uplink L3 Managed Ethernet Fiber Switch (ONV58036FM)



OVERVIEW

The ONV58036FM is a 10G uplink L3-managed Ethernet fiber switch independently developed by ONV. It has 16*10/100/1000Base-T RJ45 ports and 8*10/100/1000Base-T RJ45 or 8*100/1000Base-X SFP combo ports and 4*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The ONV58036FM has L3 full network management function, supports IPV4/ IPV6 management, dynamic routing and forwarding, complete 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 a 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 a high-density network application environment and is suitable for medium, large-scale scenes such as hotels, campuses, parks, shopping malls, scenic spots, hospitals, and banks to form an economical, efficient, and reliable communication network.

FEATURE

■ Full Gigabit access, 10G SFP+ fiber port uplink

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit Ethernet port and gigabit SFP fiber port and 1/10G SFP+ fiber port combination to facilitate users' flexible networking and meet the networking needs of various scenarios.

■ Strong business processing capability

- ◇ IEEE802.1Q VLAN, flexible VLAN division, and QinQ configuration.
- ◇ ERPS/STP/RSTP/MSTP spanning tree protocol eliminates layer 2 loops and realizes link backup.
- ◇ QoS, port-based, 802.1P-based and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ◇ ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.
- ◇ Static aggregation and dynamic aggregation effectively increase link bandwidth, achieve load balancing, and link backup, and improve link reliability.
- ◇ Support IGMP V1/V2/V3 multicast protocol and IGMP Snooping to meet the needs of multi-terminal high-definition video surveillance and video conferencing access.

■ Security

- ◇ Support port isolation.
- ◇ Support port broadcast storm suppression.
- ◇ Support IP+MAC+port+VLAN quadruple flexible combination binding function.
- ◇ Support 802.1X authentication to provide authentication functions for LAN computers, and control the authorization status of controlled ports according to the authentication results.

■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link.
- ◇ Using self-developed power supply with high redundancy design provides long-term and stable power output.
- ◇ Low power consumption, with fan, galvanized steel metal casing, and excellent heat dissipation to ensure the stable operation of the switch.

■ Easy O&M management

- ◇ CPU monitoring, memory monitoring, Ping detection, cable detection.
- ◇ HTTPS, SSLV3, SSH V1/V2 and other encryption methods make management more secure.
- ◇ RMON, system logs, and port traffic statistics facilitate network optimization and transformation.
- ◇ LLDP facilitates the network management system to query and determine the communication status of the link.
- ◇ Web network management, CLI (Console, Telnet), SNMP (V1/V2/V3), Telnet and other diversified management and maintenance methods.

TECHNICAL SPECIFICATION

Model	ONV58036FM
Interface Characteristics	
Fixed Port	4*1/10G SFP+ fiber slot ports (Data) 1*Console RS232 port (115200,N,8,1) 16*10/100/1000Base-T RJ45 ports (Data) 8*10/100/1000Base-T RJ45 or 8*100/1000Base-X SFP combo ports (Data)
Ethernet Port	Port 1-24 support 10/100/1000Base-T(X) auto-sensing, full/ half duplex

	MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e/6 or later UTP(≤100 meters)
Optical Fiber Port	Gigabit SFP optical fiber port and 10G SFP+ optical fiber port, default no include optical modules (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Port Expansion	Support Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode: 850nm/ 0-500M, 850nm/ 0-300M (10G) Single-mode:1310nm/ 0-40KM, 1550nm/ 0-120KM.
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-LR/SR, IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	128Gbps
Forwarding Rate@64byte	95.23Mpps
CPU	800MHz
DRAM	1GB
FLASH	128MB
MAC	16K
Buffer Memory	12MB
Jumbo Frame	12KB
LED Indicator	Power: PWR (Yellow), System: SYS(Yellow)

	Network: Link/Act (Yellow), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
Power Supply	
Total PWR / Input Voltage	60W/(AC100-240V)
Power Consumption	Standby<20W, Full Load<45W
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	<4.8kg / <5.0kg
Installation	Desktop, 19 inch 1U cabinet
Certification & Warranty	
Lightning Protection	Lightning protection: 4KV 8/20us, Protection level: IP30
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	3 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3x flow control (Full duplex) Port exception protection mechanism Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate Optical port SFP module DDMI real-time digital diagnosis Limit the rate of incoming and outgoing packet traffic, with a minimum granularity of 16Kbps and a maximum of 1Gbps

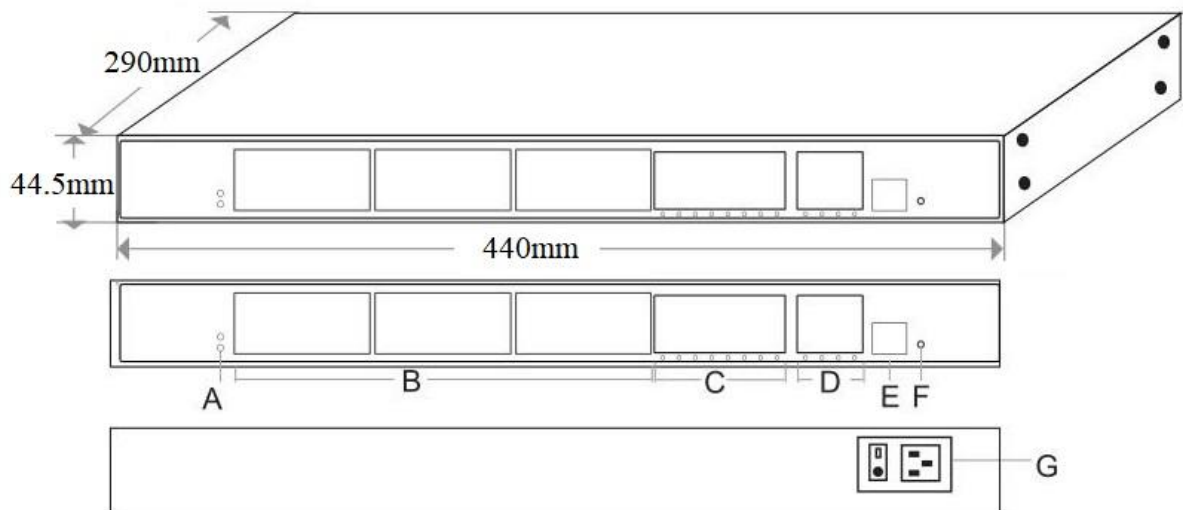
	<p>Port IEEE Green Ethernet Energy-Saving configuration and status view</p> <p>Jumbo frame configuration, the largest 12000byte</p>
Layer 3 Features	<p>IPV4 Equal Cost Routing</p> <p>NG protocol, max 1000 entries</p> <p>ARP protocol, max 1000 entries</p> <p>Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6</p> <p>IPV4/IPV6 VRRP, the maximum group is 255</p> <p>IPV4/IPV6 VLANIF interface supports up to 128</p> <p>IPV4/IPV6 static route/default route supports up to 128 entries</p> <p>IPV4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries</p> <p>IPV6 dynamic routing OSPFv3, BGP+, RIPv6, IPV6 management, 1000 routing entries</p> <p>L3 network management function, IPV4/IPV6 dual-stack management</p> <p>L3 routing and forwarding, support communication between different network segments and different VLAN</p>
VLAN	<p>VLAN based on MAC, VLAN based on the protocol</p> <p>Port configuration of Access, Trunk, Hybrid, GVRP VLAN protocol</p> <p>(4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration</p>
Port Aggregation	<p>LACP, Static aggregation</p> <p>Max 14 aggregation groups and 8 ports per group.</p>
Spanning Tree	<p>STP BPDU Guard, BPDU filtering and BPDU forwarding</p> <p>STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)</p>
ERPS Ring Network	<p>Recovery time less than 20ms, ITU-T G.8032</p> <p>Support ERPS ring network, 250 Ring at most, Max 250 devices per ring.</p>
Multicast	<p>MLD Snooping, IGMP Snooping, Multicast VLAN</p> <p>User quick log out, MVR (Multicast VLAN Registration)</p> <p>IGMP Snooping v1/v2/v3 and 1024 multicast groups at most</p>
Mirroring	<p>Bidirectional traffic mirroring for basic ports</p> <p>Supports 1-to-multiple mirroring, supports up to 4 port sessions</p>

QoS	<p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p> <p>Flow-based Rate Limiting, Stream based redirection</p> <p>Flow-based Packet Filtering, 8*Output queues of each port</p> <p>802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark</p>
ACL	<p>ACL distribution based on port and VLAN</p> <p>L2-L4 packet filtering function, matching the first 80 bytes message, and provides ACL definitions based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN, etc.</p>
Security	<p>Port based IEEE802.1X authentication</p> <p>SSL guarantees data transmission security</p> <p>Quad binding function of IP+MAC+VLAN+ports</p> <p>MAC address learning limit, MAC address black hole</p> <p>Anti DoS attack, Port broadcast message suppression</p> <p>IP Source Guard function, AAA&RADIUS certification</p> <p>Hierarchical user management and password protection</p> <p>SSH 2.0 provides a secure encrypted channel for user login</p> <p>Host data backup mechanism, ARP intrusion detection function</p> <p>Port isolation, IP Source Guard, ARP message speed limit function</p>
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	<p>Web network management (https)</p> <p>Link Layer Discovery Protocol(LLDP)</p> <p>Viewing CPU Instant Utilization Status</p> <p>NTP clock, One click restore, SNMP V1/V2/V3</p> <p>Cable status check, Ping detection, System work log</p> <p>ONV NMS platform cluster management (LLDP+SNMP)</p> <p>Console/ AUX Modem/ Telnet/ CLI command line configuration</p> <p>FTP, TFTP, Xmodem, SFTP file upload and download management</p>
System	Category 5 Ethernet network cable

Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later

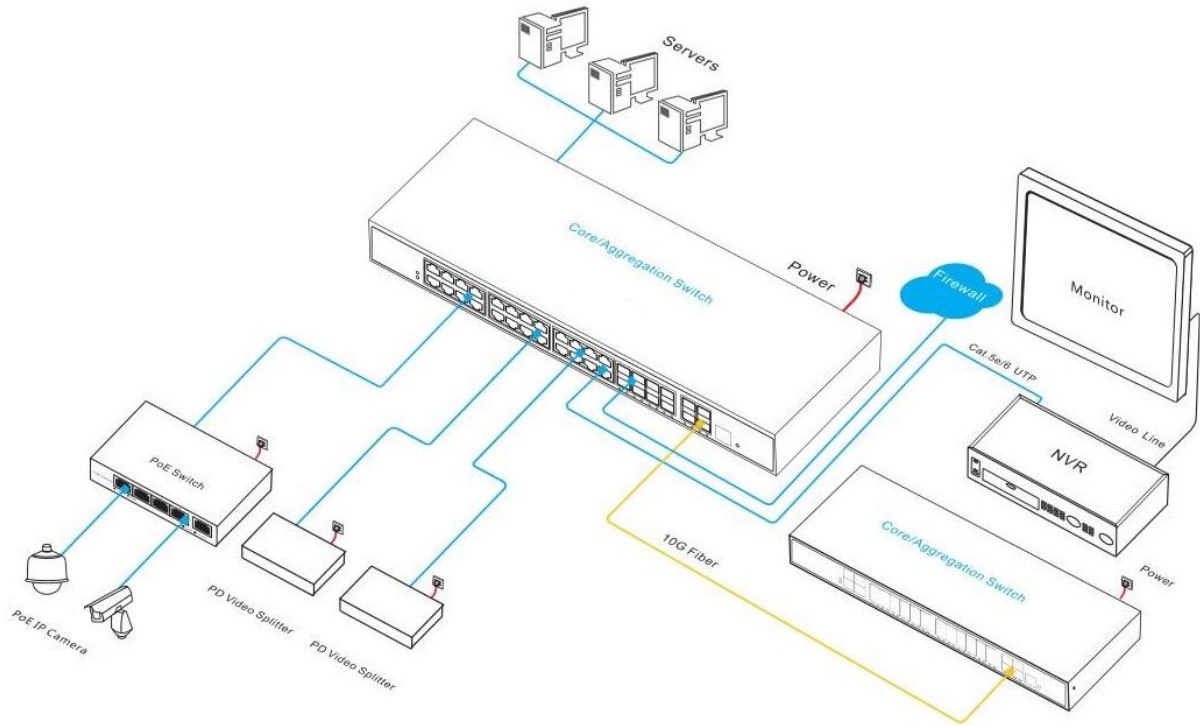
TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

DIMENSION



- A. Working indicator
- B. 24*10/100/1000M RJ45 ports
- C. 8*100/1000M SFP ports
- D. 4*1/10G SFP+ ports
- E. Console port
- F. Reset switch
- G. Power input port AC100-240V, 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV58036FM	L3 managed Ethernet fiber switch with 8*10/100/1000Base-T RJ45 or 8*100/1000Base-X SFP combo ports and 16*10/100/1000Base-T RJ45 ports and 4*1/10G SFP+ fiber slot ports. Built-in power supply and support 1U/19 inch rack installation.	60W

Note: The SFP optical module is not included by default and needs to be purchased separately.

PACKING LIST

	Content	Qty	Unit
Packing List	36-port 10G uplink L3 managed Ethernet fiber 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

Product	Model	Description	Unit
1.25G Optical Module	2630	SFP optical module, 1.25G, multi-mode dual fiber 850nm, transmission distance: 550m, LC interface. supports DDM function and hot plugging.	PC
	2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
	2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
	2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
	2612-T-SC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, SC interface. supports DDM function and hot plugging.	PC
	2613-R-SC	SFP optical module, 1.25G, single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, SC interface. supports DDM function and hot plugging.	PC

Power Module	2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC
10G Optical Module	6630	SFP+ optical module, 10G multi-mode dual fiber 850nm, transmission distance: 300m, LC interface. supports DDM function and hot plugging.	PC
	7832	SFP+ optical module, 10G single-mode dual fiber 1310nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
	7832-33	SFP+ optical module, 10G single-mode single fiber TX1330nm/RX1270nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC
	7832-27	SFP+ optical module, 10G single-mode single fiber TX1270nm/RX1330nm, transmission distance: 20km, LC interface. supports DDM function and hot plugging.	PC

RELATED PRODUCT

Model	Description
ONV58028FM	L3 managed Ethernet fiber switch with 24*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply and support 1U/19 inch rack installation.
ONV58368FM	L3 managed Ethernet fiber switch with 8*10/100/1000Base-T RJ45 or 8*100/1000Base-X SFP combo ports and 16*10/100/1000Base-T SFP ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply and support 1U/19 inch rack installation.
ONV58052FM	L3 managed Ethernet fiber switch with 48*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply and support 1U/19 inch rack installation.

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