

Product Datasheet

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



OVERVIEW

The ONV58036FM is a 10G uplink L3 managed Ethernet fiber switch independently developed by ONV. It has 24*10/100/1000Base-T RJ45 ports and 8*100/1000Base-X SFP fiber (combo) ports and 4*1/10G SFP+ fiber 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 for easy management and maintenance. It supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability, and can quickly recover when a one-way network failure occurs. Communication ensures uninterrupted communication for important applications. Port management, routing address management, port flow control, VLAN division, IGMP, security policy, and other application business configurations are performed according to application needs through network management methods such as Web, CLI, SNMP, and Telnet. It meets high-density network application environments and is suitable for establishing economical,

efficient, and reliable communication networks in medium and large-scale scenarios such as hotels, campuses, parks, supermarkets, scenic spots, hospitals, and banks.

FEATURE

■ Gigabit access, uplink 1/10G SFP+ fiber port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit RJ45 port and 1/10G SFP+ fiber port combination to facilitate users' flexible networking and meet the networking needs of various scenarios.

■ Strong business processing ability

- ◇ Support ERPS ring network and STP/ RSTP/ MSTP to eliminate layer 2 loops and realize link backup.
- ◇ Support IEEE802.1Q VLAN, Users can flexibly divide VLAN, Voice VLAN, and QinQ configuration according to their needs.
- ◇ Support static and dynamic aggregation to effectively increase link bandwidth, realize load balancing, link backup, and improve link reliability.
- ◇ Support QoS, port-based, 802.1P-based, and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ◇ Support ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.
- ◇ Support IGMP V1/V2/V3 multicast protocol, IGMP Snooping meets multi-terminal high-definition video surveillance and video conference access requirements.

■ Security

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

■ Stable and reliable

- ◇ CE, FCC, RoHS.
- ◇ Self-developed power supply, high redundancy, providing a long-term and stable power output.
- ◇ The user-friendly panel can show the device status through the LED indicators of PWR, SYS, and Link.
- ◇ Low power consumption, with a fan, galvanized steel metal shell, and excellent heat dissipation to ensure the stable operation of the switch.

■ Easy O&M management

- ◇ Support CPU monitoring, memory monitoring, and Ping detection.
- ◇ HTTPS, SSLV3, SSHV1/V2, and other encryption methods are more secure in management.
- ◇ System log and port traffic statistics are convenient for network optimization and transformation.
- ◇ LLDP is convenient for the network management system to query and judge the communication status of the link.
- ◇ Support diverse management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, etc.

TECHNICAL SPECIFICATION

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

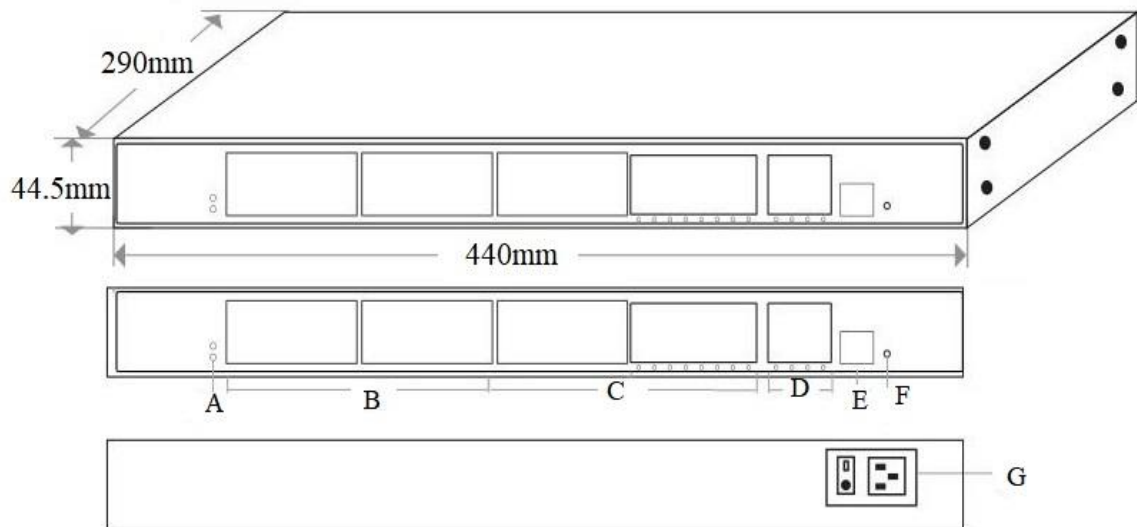
	MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e/6 or later UTP (≤100 meters)
Optical Fiber Port	1/10G SFP+ optical fiber port; default does not include the optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module, LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode: 850nm/ 0-500m(1G), 0-300m(10G) Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3ae 10GBase-LR/SR, IEEE 802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	128Gbps (non-blocking)
Forwarding Rate@64byte	95.23Mpps
CPU(Hz)	800M
DRAM	1G
FLASH	128M
MAC	16K
Buffer Memory	12M
Jumbo Frame	12K
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°C~+55°C, 5%~90% RH non-condensing
Storage Temp/ Humidity	-40°C~+80°C, 5%~95% RH non-condensing
Dimension (L*W*H)	440*290*44.5mm
Net /Gross Weight	3.45kg/ 4.3kg
Installation	Desktop, 1U/19" cabinet
Certification& Warranty	
Lightning Protection	Lightning protection: 4KV 8/20us, Protection level: IP30
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS
Warranty	3 years, lifelong maintenance.
Network Management Feature	
Interface	IEEE802.3x flow control (Full duplex) Port exception protection mechanism Jumbo frame configuration, max 12000byte Port real-time flow management (Flow Interval) Optical module DDMI real-time digital diagnosis Broadcast storm suppression based on port rate Port EEE Green Ethernet Energy-Saving configuration and status view Limit the rate of packet traffic on incoming and outgoing ports, the mini granularity 16Kbps and max 1Gbps
L3 Routing	IPV4 Equal Cost Routing IPV4/IPV6 VRRP, the max group is 255

	Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6 IPV4/IPV6 VLANIF interface supports up to 64 IPV4/IPV6 static route/default route supports up to 64 entries IPV4 dynamic routing, RIPv1/v2, OSPFv2, 2000 routing entries NG protocol, max1000 entries, ARP protocol, max 1000 entries L3 network management function, IPV4/IPV6 dual-stack management L3 routing and forwarding, support communication between different network segments and different VLAN
VLAN	Voice VLAN, QinQ configuration, GVRP VLAN protocol Port-based VLANs (4K), IEEE 802.1q, MAC address-based VLAN Protocol-based VLAN, Port configuration of Access, Trunk, and Hybrid.
Port Aggregation	LACP dynamic aggregation, static aggregation Max 18 aggregation groups and 8 ports per group.
Spanning Tree	STP BPDU Guard, BPDU filtering and BPDU forwarding STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
ERPS Ring Network	ERPS ring network, Recovery time less than 20ms, ITU-T G.8032
Multicast	MLD Snooping, Multicast VLAN User quick log out, MVR (Multicast VLAN Registration) IGMP Snooping v1/v2/v3 and 256 multicast groups at most
Mirroring	Bidirectional traffic mirroring for basic ports Supports 1-to-multiple mirroring, supports up to 4 port sessions
QoS	Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Flow-based redirection Flow-based Packet Filtering, 8*Output queues of each port 802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark
ACL	Support ACL deployment based on port and VLAN. Support L2 to L4 packet filtering functions that can match the first 80 bytes of a packet and provide 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.
Security	Port broadcast message suppression SSL ensures data transmission security Port isolation, Host data backup mechanism Limit the number of MAC addresses learned Anti-DoS attack, ARP intrusion detection function Quadruple binding function of IP+MAC+VLAN+port IP source address protection, MAC address black hole User hierarchical management and password protection SSH 2.0 provides a secure encrypted channel for user login IP Source Guard function, ARP message rate limiting function IEEE802.1X authentication/ centralized MAC address authentication AAA, RADIUS, TACACS+ authentication (authentication only; authorization and accounting not supported)
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	System work log, Link Layer Discovery Protocol Ping detection, Web network management (HTTPS) HTTP, TFTP file upload and download management Console/Telnet/ SSH/ CLI command line configuration NTP clock, Cable length detection, SNMP V1/V2C/V3 ONV-NMS platform cluster management (LLDP+SNMP) One-click recovery, View CPU real-time utilization status
System	Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, Mac OS X) installed on each computer in the network Cat5 and above Ethernet cable

DIMENSION



A. Working indicator

B. 16*10/100/1000M RJ45 ports

C. 8*10/100/1000M RJ45 ports or 8*100/1000M SFP fiber combo ports

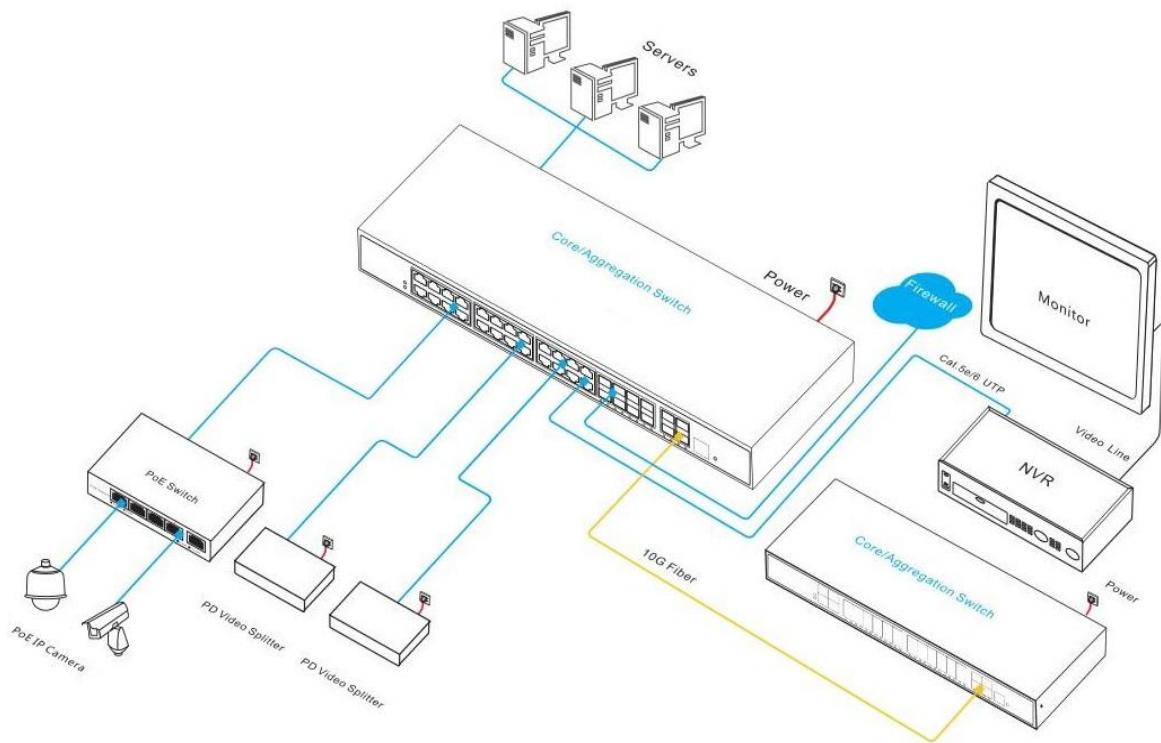
D. 4*1/10G uplink SFP+ fiber ports

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 switch with 24*10/100/1000Base-T RJ45 ports and 8*100/1000Base-X SFP fiber (combo) ports and 4*1/10G uplink SFP+ fiber ports. It has a built-in power supply and 1U/19" cabinet installation.	60W
Note: The optical module is not included and needs to be purchased.		

PACKING LIST

	Content	Qty	Unit
Packing List	36-port 10G uplink L3 managed Ethernet switch	1	PC
	AC Power Cable	1	PC
	RJ45-DB9 Adapter Cable	1	PC
	Mounting Kits (Hanging Ear)	1	Pair
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	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 switch with 24*10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. It has a built-in 60W power supply and 1U/19" cabinet installation.
ONV58368FM	L3 managed Ethernet switch with 24*100/1000Base-X SFP fiber ports and 8*10/100/1000Base-T RJ45 (combo) ports and 4*1/10G uplink SFP+ fiber ports. It has a built-in 60W power supply and 1U/19" cabinet installation.
ONV58052FM	L3 managed Ethernet switch with 48*10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. It has a built-in 60W power supply and 1U/19" cabinet installation.

CONTACT US



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