Product Datasheet

36-port 10G Uplink L3 Managed Ethernet Fiber Switch

(ONV38036FM)

OVERVIEW

The ONV38036FM 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 ports and 4*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The ONV38036FM has L3 network management function, support 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 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.

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FEATURE

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

◇ Supports Gigabit Ethernet port and gigabit SFP fiber slot port and 1/10G SFP+ fiber slot 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.

■ **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.

■ **Security**

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ **Stable and reliable**

◇ CCC,CE, FCC, RoHS.

◇ Low power consumption, galvanized steel casing. The fan active cooling.

◇ Self-developed power supply, high redundancy design, providing a long term and stable power output.

◇ The user-friendly panel can show the device status through the LED indicator of PWR,

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Link/Act.

■ **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	ONV36036FM	ONV38036FM
Interface Characteristics		
Fixed Port	24*10/100/1000Base-T RJ45 ports (Data) 8*100/1000Base-X SFP ports (Data) 4*1/10G SFP+ fiber slot ports (Data) 1*Console RS232 port (115200,N,8,1)	
Ethernet Port	Port 1-24 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)	
Optical Fiber Port	1/10G SFP+ optical fiber port, default no include optical modules (optional order 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/	Multi-mode: 850nm / 0~500M(1.25G), 0~300M(10G),	

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Distance	Single-mode: 1310nm / 0~ 40KM, 1550nm / 0~120KM.	
Chip Parameter		
Network Management Type	L2+	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-SR/LR, IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	598Gbps	
Forwarding Rate@64byte	107.14Mpps	
CPU	500MHz	
DRAM	2G	
FLASH	128M	
MAC	32K	
Buffer Memory	32M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR (Yellow), System: SYS(Yellow), Network: Link (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 /	-20~+55°C, 5%~90% RH Non condensing	

Humidity	
Storage TEMP / Humidity	-40~+80°C, 5%~95% RH Non condensing
Dimension (L*W*H)	440*290*44.5mm
Net /Gross Weight	<3.5kg / <4.3kg
Installation	Desktop, 19 inch 1U cabinet installation

Certification & Warranty

| Lightning Protection	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 No connection port automatic sleep Port green Ethernet Energy-saving setting Broadcast storm control based on port speed SFP+ optical port DDMI real-time digital diagnosis The speed limit of the message flow in the access port, minimum particle size is 64Kbps.	
Layer 3 Features	L2+ network management ARP protocol, maximum 1024 entries IPV4/IPV6 static route/default route supports up to 128 entries Layer 3 routing and forwarding, support communication between different network segments and different VLANs	IPV4 Equal Cost Routing NG protocol, maximum 1000 entries ARP protocol, maximum 1000 entries Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6 IPV4/IPV6 VRRP, the maximum group is 255

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		IPV4/IPV6 VLANIF interface supports up to 128 IPV4/IPV6 static route/default route supports up to 128 entries L3 network management function, IPV4/IPV6 dual-stack management IPV4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries IPV6 dynamic routing OSPFv3, BGP+, RIPng, IPV6 management, 1000 routing entries Layer 3 routing and forwarding, support communication between different network segments and different VLANs
VLAN		Voice VLAN, QinQ configuration, IEEE802.1q VLAN based on MAC, VLAN based on the protocol 4K VLAN based on port, Port configuration of Access, Trunk, Hybrid.
Port Aggregation		LACP, Static aggregation Max 18 aggregation groups and 8 ports per group.
Spanning Tree		STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Industrial Ring Network Protocol		G.8032 (ERPS), Recovery time less than 20ms 250 Ring at most, Max 250 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
	AAA & RADIUS,MAC learning limit
	Mac black holes,IP source protection
	IEEE802.1X & MAC address authentication
	Broadcast storm control,Backup for host datum
	SSH 2.0,SSL,Port isolation,ARP message speed limit
	User hierarchical management and password protection
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	CPU instant utilization status view
	Console/AUX Modem/Telnet/SSH2.0 CLI
	One-key recovery, Cable Diagnose, LLDP
	Web Management (HTTPS), NTP, System work log, Ping Test
	ONV NMS- Smart Network Management System Platform (LLDP+SNMP)
	Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3
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;

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TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network
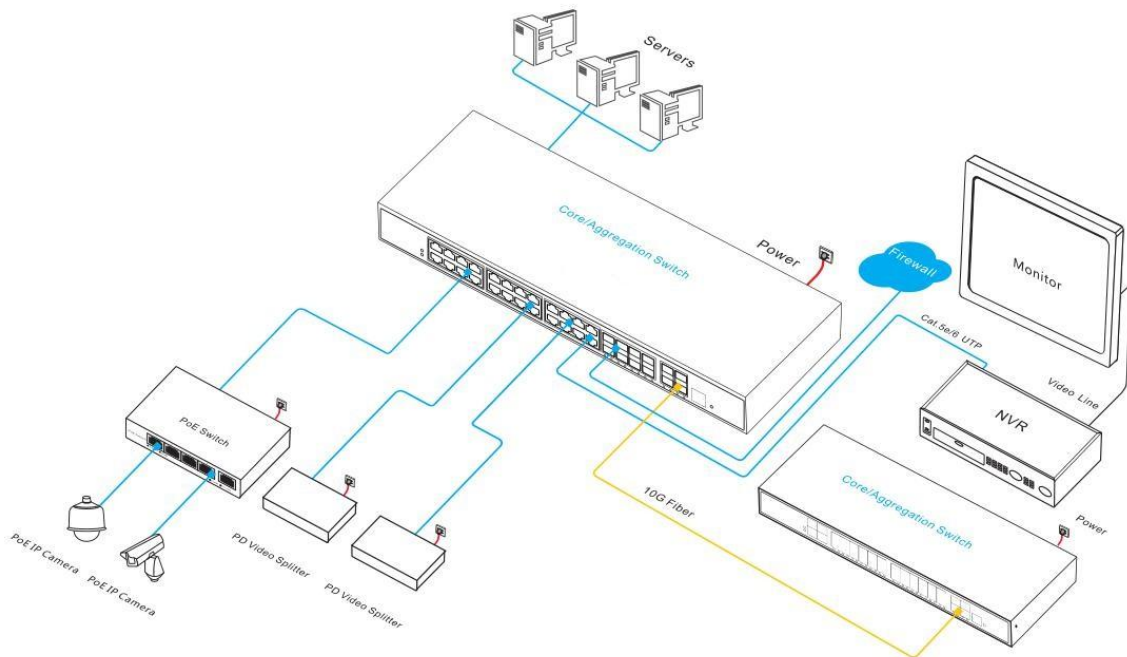
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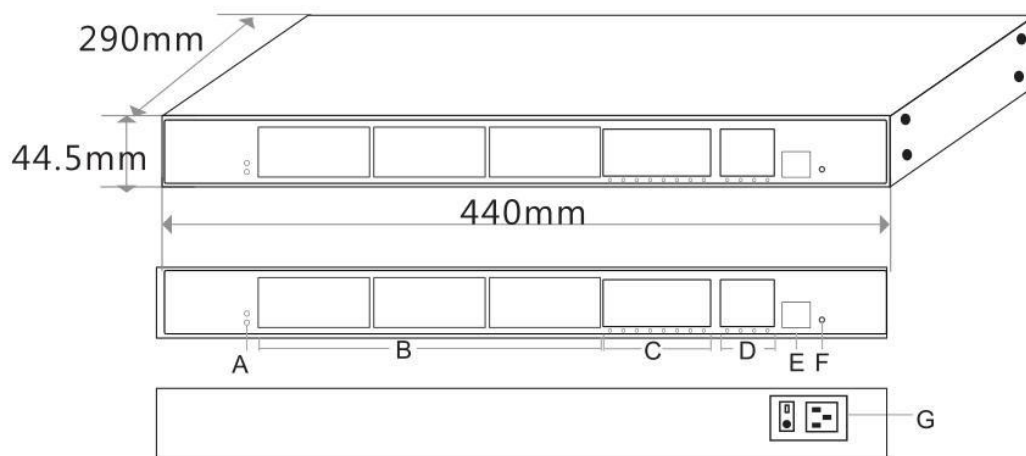
A. Working indicator   B. 24*10/100/1000M RJ45 ports

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
ONV36036FM	L2+ managed Ethernet aggregation /core fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP ports and 4*1/10G SFP+ fiber slot ports. Support 1U/19 inch rack installation.	60W
ONV38036FM	L3 managed Ethernet aggregation /core fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP ports and 4*1/10G SFP+ fiber slot ports. Support 1U/19 inch rack installation.	60W
Note: The SFP optical module is not included by default and needs to be purchased separately.		

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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 INFORMATION

Product	Model	Description	Unit
1.25G Optical Module	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
	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
	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
	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
	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

	2613-R-SC	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	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, support DDM function,support hot plug and pull.	PC
	7832	SFP+ optical module,10G Single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	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
	7832-27	SFP+ optical module,10G Single-mode single fiber TX1270nm/RX13300nm , transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC

RELATED PRODUCT

Model	Description
ONV38168FM	L3 managed Ethernet aggregation fiber switch with 12*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. Built-in 30W power supply. Support 1U/19 inch rack installation.
ONV38028FM	L3 managed Ethernet aggregation /core fiber switch with 24*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply. Support 1U/19 inch rack installation.

ONV38368FM	L3 managed Ethernet aggregation fiber switch with 8*10/100/1000M RJ45 ports and 24*100/1000M SFP fiber ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply. Support 1U/19 inch rack installation.
ONV38448FM	L3 managed Ethernet aggregation fiber switch with 12*10/100/1000M RJ45 ports and 28*100/1000M SFP fiber ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply. Support 1U/19 inch rack installation.
ONV38048FM	L3 managed Ethernet aggregation fiber switch with 48*10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber ports. Built-in 60W power supply. Support 1U/19 inch rack installation.

CONTACT US

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