

Product Datasheet

18-port Gigabit Uplink Managed Ethernet Switch

ONV31016FM



OVERVIEW

The ONV31016FM is a gigabit uplink L2 managed Ethernet fiber switch independently developed by ONV. It has 16*10/100M RJ45 ports and 2*10/100/1000M RJ45 ports and 2*100/1000M SFP port (combo ports). Each port can support wire-speed forwarding.

ONV31016FM adopts a new generation of high-performance hardware and software platforms to provide flexible and cost-effective 10/100M access and uplink ports. It supports complete security protection mechanisms, comprehensive ACL/ QoS policies, and flexible VLAN functions. Easy to manage and maintain, meeting users' requirements for easy management of network equipment, high security, and low cost. At the same time, it can meet the multi-channel video intercom, monitoring, and wireless coverage network application environment. It is suitable for hotels, campuses, parks, commercial supermarkets, scenic spots, factory dormitories, and SMB small and medium-sized enterprises to form cost-effective networks.

FEATURE

■ 100M access, Gigabit (TP/SFP) combo port uplink

- ◇ All series support “10/100M Ethernet port and Gigabit combo 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 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.
- ◇ STP/RSTP/MSTP.
- ◇ Static and dynamic aggregation.

■ Stable and reliable

- ◇ CCC, CE, FCC, RoHS.
- ◇ Low power consumption, no fan, galvanized steel metal casing.
- ◇ 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, 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

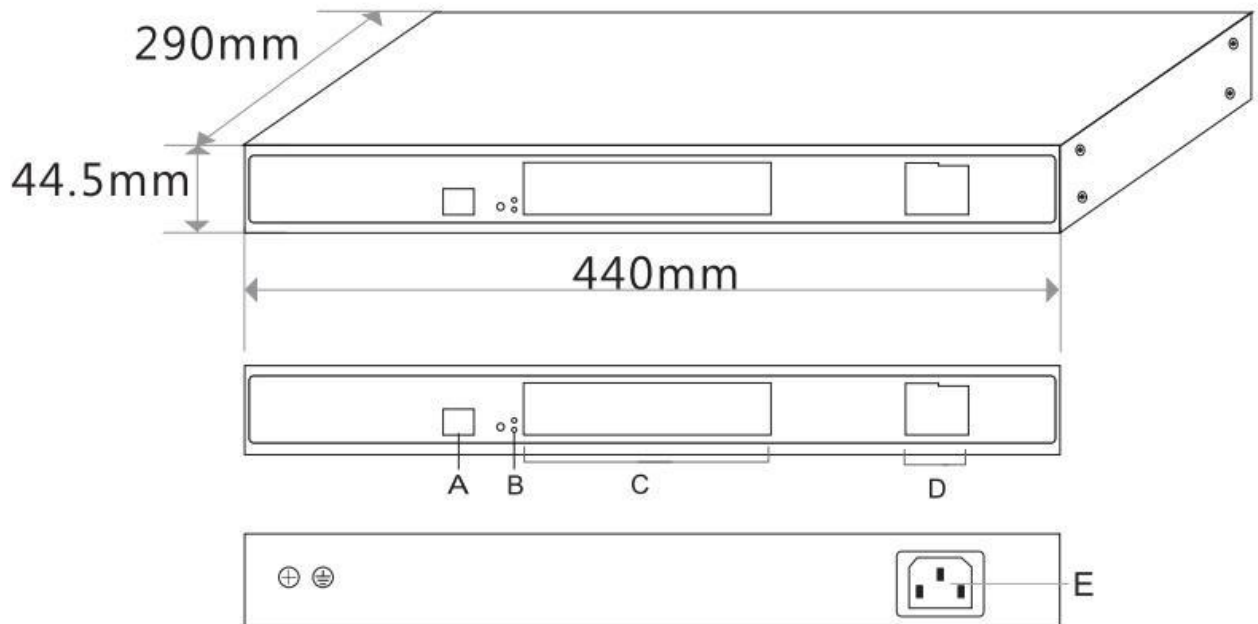
Model	ONV31016FM	ONV31024FM
Interface Characteristics		
Fixed Port	16*10/100Base-TX RJ45 ports (Data) 2*10/100/1000Base-T uplink RJ45 ports(Data) 2*100/1000Base-X uplink SFP slot ports (combo ports) (Data) 1*RS232 console port(115200,N,8,1)	24*10/100Base-TX RJ45 ports (Data) 2*10/100/1000Base-T uplink RJ45 ports(Data) 2*100/1000Base-X uplink SFP slot ports (combo ports) (Data) 1*RS232 console port(115200,N,8,1)
Ethernet Port	Port 1-16/1-24 support 10/100Base-TX, Port 17-18 /25-26 support 10/100/1000Base-T(X) automatic detection, full / half duplex MDI/MDI-X adaptive	
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	Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable/	Multi-mode: 850nm / 0 ~ 550M, Single-mode: 1310nm / 0 ~ 40KM,	

Distance	1550nm / 0 ~ 120KM.	
Chip Parameter		
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX/FX, IEEE802.3z 1000Base-X IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	64Gbps	
Forwarding Rate@64byte	5.36Mpps	6.55Mpps
MAC	8K	
Buffer Memory	4.1M	
Jumbo Frame	10K	
CPU(Hz)	500M	
DRAM	1G	
Flash	256M	
LED Indicator	Power: PWR (green), network: Link, link/Act (yellow), Speed: SPD (green)	
Reset Switch	Yes, One-button factory reset	
Power		
Total PWR / Input Voltage	30W/ (AC100-240V)	
Power Consumption	Standby<16W, Full load<20W	Standby<18W, Full load:<25W
Power Supply	Built-in power supply, AC100~240V,50-60Hz 0.56A	
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	<3.5kg / <4.0kg	<4.6kg / <5.1kg
Installation	Desktop, Wall-mounted, 19 inch 1U cabinet	
Certification & Warranty		
Lightning protection / protection level	Lightning protection: 4KV 8/20us, Protection level: IP30	
Warranty	3 years, lifelong maintenance.	
Network Management Features		
Interface	IEEE802.3X (Full-duplex) Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.	
VLAN	QinQ configuration VLAN based on protocol 4K VLAN based on port, IEEE802.1q	
Port Aggregation	LACP, Manual aggregation Max 9 aggregation groups and 8 ports per group.	LACP, Manual aggregation Max 13 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)	
Multicast	MLD Snooping v1/v2, Multicast VLAN IGMP Snooping v1/v2/v3, Max 64 multicast groups, Fast log out	
Port Mirroring	Bidirectional data mirroring based on port	
QoS	Diff-Serv QoS Priority Mark/Remark 8*Output queues of each port 802.1p/DSCP priority mapping Queue Scheduling Algorithm (SP, WRR, SP+WRR)	
ACL	L2-L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range and VLAN etc. Port-based	

	Issuing ACL.
Security	Port isolation Broadcast storm control Port+MAC binding, IP+MAC+port binding
DHCP	DHCP Client, DHCP Snooping, DHCP Relay
System & Management	NTP SNMP V1/V2C/V3 One-key recovery Login Record Web Management (HTTPS)

DIMENSION



A. Console port

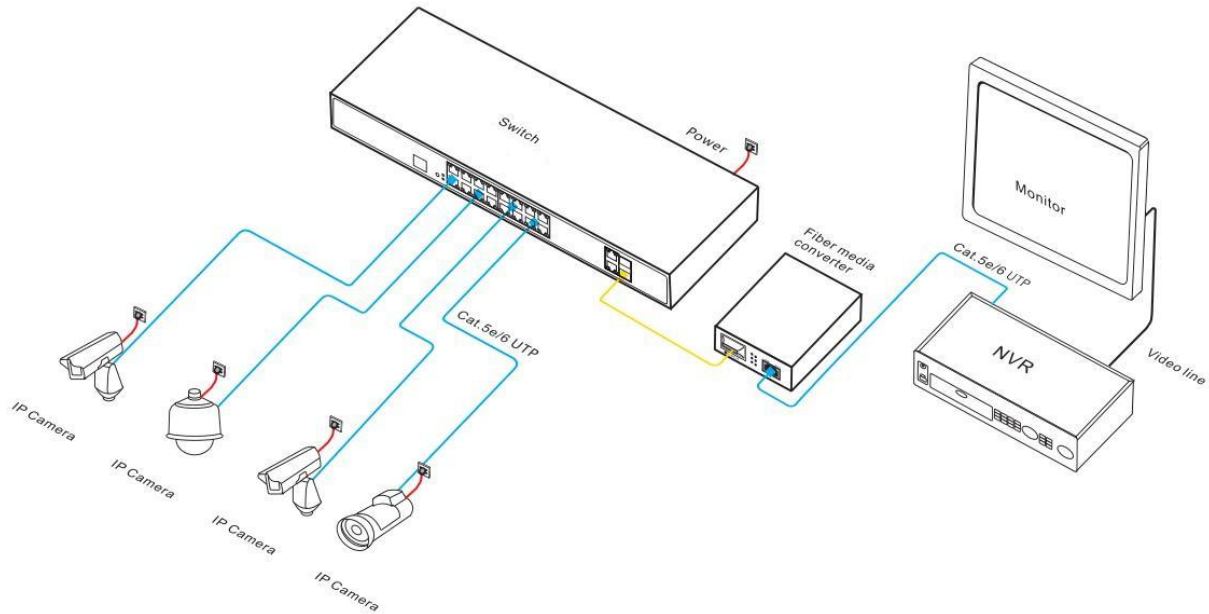
B. Working indicator

C. 16*10/100M RJ45 ports

D. 2*100/1000M combo ports

E. Power input port AC100-240V, 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV31016FM	L2 managed Ethernet fiber switch with 16*10/100M RJ45 ports and 2*10/100/1000M uplink RJ45 ports and 2*100/1000M uplink SFP ports (combo port). Support 1U/19 inch rack installation.	30W
ONV31024FM	L2 managed Ethernet fiber switch with 24*10/100M RJ45 ports and 2*10/100/1000M uplink RJ45 ports and 2*100/1000M uplink SFP ports (combo port). Support 1U/19 inch rack installation.	30W

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

PACKING LIST

PACKING LIST	CONTENT	QTY	UNIT
	18-port gigabit uplink managed Ethernet switch	1	SET
	AC Power Cable	1	PC
	Mounting Kits	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-S C	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

CONTACT US



OPTICAL NETWORK VIDEO TECHNOLOGIES (SHENZHEN) CO., LTD.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

Email: onv@onv.com.cn

Website: www.onvcom.com

Zip: 518000

Headquarter Address: Room 1003, Block D, Terra Building, Futian District, Shenzhen, China

Factory Address: The 4-6th Floor, No. 59, Huaning Road, Xinwei Community, Dalang Street,
Longhua District, Shenzhen, China

