

Product Datasheet

18-port 10G Uplink Ethernet Switch (ONV56016F)



OVERVIEW

The ONV56016F is a 10G uplink Ethernet switch independently developed by ONV. It is specifically designed for high-density terminal access and high-speed backbone interconnection scenarios. It integrates 16*10/100/1000M adaptive RJ45 ports and 2*1/2.5/10G uplink SFP+ fiber ports, forming a hybrid optical-electrical interface configuration. This allows users to overcome transmission medium limitations and freely choose copper or fiber optic cables for network deployment and expansion, achieving convenient and efficient networking connections.

Utilizing a superior high-backplane bandwidth and large-buffer switching chip solution, it significantly improves the forwarding efficiency and data processing stability for large files and high concurrency. Its intelligent traffic buffering mechanism effectively handles sudden traffic surges, preventing packet loss or delays under high load conditions. It is particularly suitable for scenarios with high real-time requirements, such as high-definition video surveillance and multimedia teaching, fundamentally alleviating problems such as video stuttering and packet loss.

A robust metal casing and excellent heat dissipation design ensure the device can withstand long-term high-load operation. Whether it's for hotel room network coverage, bank branch access, campus and factory dormitory aggregation, or office network construction for small and medium-sized enterprises, it can provide stable, high-speed

gigabit to the desktop and 10G uplink capabilities at an economical cost, making it an ideal choice for building high-performance access layer networks.

FEATURE

■ Gigabit access, uplink 1/2.5/10G SFP+ fiber port

- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- ◇ Support Gigabit RJ45 port and 1/2.5/10G SFP+ fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ 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 and Link.
- ◇ Low power consumption, with fan, Galvanized steel housing, and excellent heat dissipation to ensure stable operation of the switch.

TECHNICAL SPECIFICATION

Model	ONV56016F
Interface Characteristics	
Fixed Port	16*10/100/1000Base-T RJ45 ports (Data) 2*1/2.5/10G uplink SFP+ fiber ports (Data)
Ethernet Port	Port 1-16 can 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 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)

Optical Fiber Port	1/10G optical fiber interface; default does not include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module, LC)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-0.55km, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, 2500BASE-X (2.5G), IEEE802.3ae 10GBASE-X, IEEE802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	88Gbps (non-blocking)
Forwarding Rate@64byte	53.57Mpps
MAC	16K
Buffer Memory	8.4M
LED Indicator	Network: Link/ Act (Green), Fiber port: L/A (Green), Power: PWR (Green)
Power Supply	
Total PWR/ Input Voltage	30W/ (AC100-240V)
Power Consumption	Standby<5W, full load<20W
Power Supply	Built-in power supply, AC100-240V 50-60Hz, 0.56A
Physical Parameter	
Operation Temp /Humidity	-20°C~+55°C, 5%~90% RH non-condensing
Storage Temp /Humidity	-40°C~+75°C, 5%~95% RH non-condensing
Dimension (L*W*H)	330*204*44mm
Net /Gross Weight	1.5kg/ 2.0kg
Installation	Desktop, wall-mounted, 1U/19" cabinet
Certification& Warranty	
Lightning Protection	Protection level: IP30, Lightning protection: 6KV 8/20us
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS
Warranty	3 years, lifelong maintenance

DIMENSION

APPLICATION

ORDERING INFORMATION

Model	Description	Built-in Power Supply
ONV56016F	Ethernet switch with 16*10/100/1000M RJ45 ports and 2*1/2.5/10G uplink SFP+ fiber ports. It is built-in power supply and supports 1U/19" cabinet installation.	30W

Note: The optical module is not included and needs to be purchased.

PACKING LIST

	Content	Qty	Unit
Packing List	18-port 10G uplink Ethernet switch	1	PC
	AC Power Cable	1	PC
	Mounting Kit	1	Set
	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: 500m, 2*LC interface. Supports DDM function and hot plugging.	PC
	2632	SFP optical module, 1.25G single-mode dual fiber 1310nm, transmission distance: 20km, 2*LC interface. Supports DDM function and hot plugging.	PC
	2612-T	SFP optical module, 1.25G single-mode single fiber TX1310nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.	PC

	2613-R	SFP optical module, 1.25G single-mode single fiber TX1550nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.	PC
Power Module	2633	1.25G SFP optical module to 10/100/1000M RJ45 port (SFP to RJ45), transmission distance: 100m	PC
	7733	10G SFP+ optical module to RJ45 port, RJ45: 1/10G auto-sensing, transmission distance: 30m (Cat6A/7)	PC
10G Optical Module	6630	SFP+ optical module, 10G multi-mode dual fiber 850nm, transmission distance: 300m, 2*LC interface. Supports DDM function and hot plugging.	PC
	7832	SFP+ optical module, 10G single-mode dual fiber 1310nm, transmission distance: 20km, 2*LC interface. Supports DDM function and hot plugging.	PC
	7832-27	SFP+ optical module, 10G single-mode single fiber TX1270nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.	PC
	7832-33	SFP+ optical module, 10G single-mode single fiber TX1330nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.	PC

CONTACT US



Optical Network Video Technologies (Shenzhen) Co., Ltd.

Tel: 0086-755-33376606

Fax: 0086-755-33376608

WeChat: ONV-PoE-IoT

Email: onv@onv.com.cn

Skype: onv@onv.com.cn

Teams: onv@onv.com.cn

Website: www.onvcom.com



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

Factory Address: Building B3, Galaxy Artificial Intelligence Industrial Park, No. 333,

Zhongkai 6th Road, Chenjiang Street, Zhongkai High-tech Zone, Huizhou