

Product Datasheet

18-port 2.5G Uplink Ethernet Switch (ONV37016F)



OVERVIEW

The ONV37016F is a 2.5G uplink Ethernet switch independently developed by ONV, designed specifically for high-performance access and high-speed fiber uplink requirements. It provides 16*10/100/1000M adaptive RJ45 ports and 2*1/2.5G SFP fiber ports, ensuring high-speed network connectivity for terminal devices while supporting smooth upgrades to 2.5G fiber uplink, effectively improving the transmission bandwidth and overall performance of the network aggregation layer.

The RJ45 ports employ intelligent traffic identification and data forwarding technology, supporting non-blocking line-speed switching to ensure smooth and stable operation of high-bandwidth applications such as high-definition video transmission and large file exchange. The SFP fiber ports support adaptive 1G and 2.5G speeds, providing users with an economical and flexible fiber uplink option, especially suitable for scenarios requiring increased uplink bandwidth and transmission distance, such as surveillance aggregation, wireless network backhaul, and inter-building interconnection.

Equipped with a robust metal casing and efficient heat dissipation design, it boasts excellent heat dissipation performance, ensuring long-term stability under 24/7 continuous operation.

It is plug-and-play, ready to use immediately upon power-up. Suitable for scenarios such

as hotel network coverage, campus multimedia classrooms, smart park access, supermarket security networking, factory workshops, and office networks of small and medium-sized enterprises, it is a reliable choice for building cost-effective and high-performance fiber optic uplink access networks.

FEATURE

■ Gigabit access, uplink 1/2.5G 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 uplink 1/2.5G 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	ONV37016F
Interface Characteristics	
Fixed Port	16*10/100/1000Base-T RJ45 ports (Data) 2*1000/2500Base-X 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	2.5G optical fiber interface, default no 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, 2500BASE-X, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and forward (Full wire speed)
Switching Capacity	68Gbps (non-blocking)
Forwarding Rate@64byte	31.25Mpps
MAC	16K
Buffer Memory	8.4M
Jumbo Frame	12K
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
ONV37016F	Ethernet switch with 16*10/100/1000M RJ45 ports and 2*1/2.5G 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 2.5G uplink Ethernet switch	1	PC
	AC Power Cable	1	PC
	Mounting Kit	1	PC
	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
	2733	2.5G SFP optical module to 10/100/1000M RJ45 port (SFP to RJ45), transmission distance: 100m	PC

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