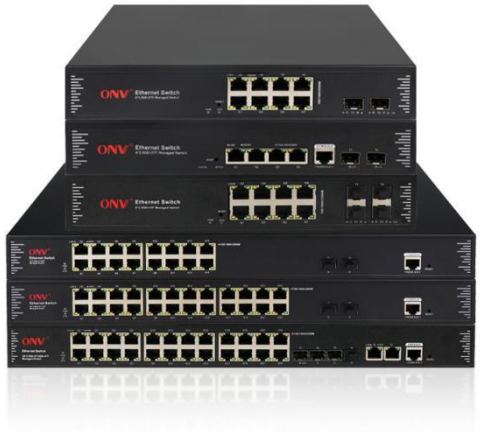
Product Datasheet

ONV 2.5G Series L3 Managed Ethernet Switch



OVERVIEW

The 2.5G series Ethernet switches are 10G uplink L3 managed Ethernet switch independently developed by ONV. They include various port configurations such as 4+2, 8+2, 8+4, 16+2, 24+2, and 24+6. Designed to provide a cost-effective solution for medium-to-high-speed network access needs, they meet the flexible deployment requirements of network environments of different sizes.

High-speed access, 10G uplink

Support 10/100/1000/2500Base-T auto-sensing RJ45 ports, backward compatible with 100M and 1G networks, meeting the high-bandwidth transmission requirements of terminals such as Wi-Fi 6/6E wireless APs and 2.5G network cards. All uplink ports utilize 1/10G SFP+ fiber optic slots,

providing a high-bandwidth fiber optic uplink channel to ensure non-blocking data forwarding and adapt to long-distance, high-speed transmission scenarios. Specifically designed for scenarios such as high-density wireless coverage, centralized video surveillance aggregation, and high-speed access in enterprise offices, they help users in hotels, campuses, factories, industrial parks, and supermarkets build a high-speed and stable network foundation.

Layer 3 management, powerful functionality

Supports L3 network management functions, with IPv4/IPv6 dual protocol stack management, dynamic routing forwarding, comprehensive security protection mechanisms, robust ACL/QoS policies, and rich VLAN functions to meet complex network service configuration needs. Supports multiple network redundancy protocols: STP/RSTP/MSTP (<50ms) and ERPS (<20ms), improving link backup and network reliability. It can quickly restore communication in the event of a one-way network failure, ensuring uninterrupted communication for critical applications. It provides multiple network management methods such as Web, CLI, SNMP, and Telnet, enabling flexible configuration of applications such as port management, routing address management, port flow control, VLAN segmentation, IGMP, and security policies.

FEATURE

■ Advanced hardware architecture and powerful processing capabilities:

◇ Support non-blocking line-speed forwarding for smoother transmission.

◇ Support IEEE 802.3x full-duplex flow control and backpressure half-duplex flow control.

◇ Utilize industry-leading hardware architecture design, offering flexible combinations of 1/2.5G access ports and 10G SFP+ uplink interfaces across the entire series. Meets the high-speed transmission needs of networks of varying sizes, specifically designed for scenarios involving large data transmission, high-performance networking, and high-capacity network deployment. It boasts powerful processing capabilities and flexible port

expandability, helping to build an efficient and stable network core.

Strong business processing capability

◇ 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

◇ Support IP+MAC+Port+VLAN four-way binding function.

◇ Support port isolation and port broadcast storm suppression.

◇ Support 802.1X authentication, provide authentication function for LAN computers, and control the authorization status of controlled ports according to the authentication results.

Stable and reliable

◇ CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicators of PWR and Link.

◇ Adopts a self-developed power supply with a high redundancy design to provide long-term stable power output.

◇ Low power consumption, Galvanized steel housing, and excellent heat dissipation to ensure 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.

◇ RMON, 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.

◇ Various management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, etc.

MODEL&APPEARANCE

Image	Model	Description
	ONV57064FM	4*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports
	ONV57108FM	8*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports

	ONV57128FM	8*10/100/1000/2500M RJ45 ports and 4*1/10G SFP+ fiber ports
	ONV57016FM	16*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports
	ONV57024FM	24*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports
	ONV57030FM	24*10/100/1000/2500M RJ45 ports and 4*1/10G SFP+ fiber ports and 2*1/10G RJ45 ports

TECHNICAL SPECIFICATION

Model	ONV57064FM	ONV57108FM	ONV57128FM	ONV57016FM	ONV57024FM	ONV57030FM
Fixed Port	4*10/100/1000/2500M RJ45 ports	8*10/100/1000/2500M RJ45 ports	8*10/100/1000/2500M RJ45 ports	16*10/100/1000/2500M RJ45 ports	24*10/100/1000/2500M RJ45 ports	24*10/100/1000/2500M RJ45 ports
	2*1/10G SFP+ fiber ports	2*1/10G SFP+ fiber ports	4*1/10G SFP+ fiber ports	2*1/10G SFP+ fiber ports	2*1/10G SFP+ fiber ports	2*1/10G RJ45 ports 4*1/10G SFP+ fiber ports
Management Port	1 console port					

Reset Switch	1 reset switch				
Forwarding Mode	Store and forward (Full wire speed)				
Switching Capacity	160Gbps (non-blocking)		240Gbps (non-blocking)	160Gbps (non-blocking)	240Gbps (non-blocking)
Forwarding Rate@64byte	44.64Mpps	59.52Mpps	89.28Mpps	119.04Mpps	178.56Mpps
MAC	16K		32K	16K	32K
Buffer Memory	12M		16M	12M	16M
Jumbo Frame	12K				
Operation Temp	-20~+55°C				
Storage Temp	-40~+75°C				
Operation Humidity	5%~90% RH non-condensing				
Storage Humidity	5%~95% RH non-condensing				

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Dimension	270*181*44.5mm			440*290*44mm		
Net Weight	1.1kg	1.15kg	1.25kg	3.2kg	3.4kg	3.4kg
Lightning Protection	Protection level: IP30, Lightning protection: 6KV 8/20us					
Input Voltage	AC100-240V/50-60Hz (Built-in single power supply)					
Total PWR	30W			65W		
Installation	Desktop, 1U/19” cabinet					
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS					
Warranty	3 years, lifelong maintenance					
Network Management Feature						
Interface	Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate SFP optical module DDMI real-time digital diagnosis Port EEE Green Ethernet Energy-Saving configuration and status view IEEE802.3x flow control (Full duplex), Port exception protection mechanism Limit the rate of packet traffic on incoming and outgoing ports, the mini granularity is 16Kbps and max 1Gbps					
L3 Feature	Support IPv4 equal-cost routing. Support ARP protocol, with a maximum of 1000 entries.					

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	Support NG protocol, with a maximum of 1000 entries. Support Pingv6, Telnetv6, TFTPv6, DNSv6, and ICMPv6. Support IPv4/IPv6 VRRP, with a maximum of 255 groups for each. Support IPv4/IPv6 VLANIF interfaces, with a maximum of 64 for each. Support IPv4 dynamic routing, RIPv1/v2, and OSPFv2, with 2000 route entries. Support L3 network management functions and IPv4/IPv6 dual-stack management. Support IPv4/IPv6 static routes/default routes, with a maximum of 64 entries for each. Support Layer 3 routing, forwarding, and communication between different network segments and VLANs.
VLAN	Support protocol-based VLAN, Support MAC address-based VLAN Support Voice VLAN, Support QinQ configuration, Support GVRP VLAN protocol Support port-based VLANs (4K), IEEE 802.1q, Support Access, Trunk, and Hybrid port configurations
Port Aggregation	LACP dynamic aggregation, Static aggregation, Max 8 aggregation groups and max 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	Multicast VLAN, User quick log out, MLD Snooping, MVR (Multicast VLAN Registration), IGMP Snooping v1/v2/v3 and 256 multicast groups at

	most
Mirroring	Bidirectional traffic mirroring for basic ports one-to-multiple mirroring, supports up to 4 port sessions
QoS	Queue Scheduling Algorithm (SP, WRR, SP+WRR), 8*Output queues of each port, 802.1p/DSCP priority mapping Flow-based Rate Limiting, Flow-based redirection, Flow-based Packet Filtering, Diff-Serv QoS, Priority Mark/Remark
ACL	Support ACL deployment based on port and VLAN. Support L2-L4 packet filtering, can match the first 80 bytes of a packet, and provides 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	SSL, ensuring secure data transmission, SSH 2.0, providing a secure, encrypted channel for user login MAC address black hole, IEEE 802.1X authentication based on ports and MAC addresses, Port isolation IP source address protection, ARP intrusion detection, DoS attack protection, Host data backup mechanism MAC address learning limit, User hierarchical management and password protection, ARP packet rate limiting AAA, RADIUS, and TACACS+ authentication (authentication only, authorization and accounting not supported) Port broadcast packet suppression, IP+MAC+VLAN+port four-element binding function, IP Source Guard function
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	NTP clock, System work log, One click recovery, View CPU real-time utilization status, Link Layer Discovery Protocol LLDP HTTP, TFTP file upload and download management, SNMP V1/V2C/V3, ONV NMS platform cluster management (LLDP+SNMP) Ping detection, Web network management (HTTPS), Console/ SSH/ Telnet/ CLI command line configuration, Cable length detection

System	Web browser: Google Chrome V42 or later, Mozilla Firefox 2.5 or later, Microsoft Internet Explorer 10 or later, Category 5 or higher Ethernet cable. TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in the network, Category 5 or higher Ethernet cable.

ORDERING INFORMATION

Model	Description
ONV57064FM	L3 managed Ethernet switch with 4*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports. It built-in 30W single power supply and 1U/19” cabinet installation.
ONV57108FM	L3 managed Ethernet switch with 8*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports. It built-in 30W single power supply and 1U/19” cabinet installation.
ONV57128FM	L3 managed Ethernet switch with 8*10/100/1000/2500M RJ45 ports and 4*1/10G SFP+ fiber ports. It built-in 30W single power supply and 1U/19” cabinet installation.
ONV57016FM	L3 managed Ethernet switch with 16*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports. It built-in 65W single power supply and 1U/19” cabinet installation.
ONV57024FM	L3 managed Ethernet switch with 24*10/100/1000/2500M RJ45 ports and 2*1/10G SFP+ fiber ports. It built-in 65W single power

	supply and 1U/19” cabinet installation.
ONV57030FM	L3 managed Ethernet switch with 24*10/100/1000/2500M RJ45 ports and 2*1/10G RJ45 ports and 4*1/10G SFP+ fiber ports. It built-in 65W single power supply and 1U/19” cabinet installation.
Optical Module	**Description**
2630	SFP optical module, 1.25G multi-mode dual fiber 850nm, transmission distance: 500m, 2*LC interface. Supports DDM function and hot plugging.
2632	SFP optical module, 1.25G single-mode dual fiber 1310nm, transmission distance: 20km, 2*LC interface. Supports DDM function and hot plugging.
2612-T	SFP optical module, 1.25G single-mode single fiber TX1310nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.
2613-R	SFP optical module, 1.25G single-mode single fiber TX1550nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.
2633	1.25G SFP optical module to 10/100/1000M RJ45 port (SFP to RJ45), transmission distance: 100m
6630	SFP+ optical module, 10G multi-mode dual fiber 850nm, transmission distance: 300m, 2*LC interface. Supports DDM function and hot plugging.
7832	SFP+ optical module, 10G single-mode dual fiber 1310nm, transmission distance: 20km, 2*LC interface. Supports DDM function and hot plugging.
7832-27	SFP+ optical module, 10G single-mode single fiber TX1270nm, transmission distance: 20km, 1*LC interface. Supports DDM

	function and hot plugging.
7832-33	SFP+ optical module, 10G single-mode single fiber TX1330nm, transmission distance: 20km, 1*LC interface. Supports DDM function and hot plugging.

CONTACT US

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