

Product Datasheet

28-port 10G Uplink L2+ Managed Ethernet Fiber Switch

B1-36028FM



OVERVIEW

The B1-36028FM is a 10G uplink L2+ managed Ethernet fiber switch independently developed by ONV. It has 24*10/100/1000Base-T RJ45 ports and 4*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The B1-36028FM has L2+ full network management function, supports IPV4/IPV6 management, static route full line rate 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.

FEATURE

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

- ◇ All series supports “Gigabit Ethernet port and 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

- ◇ 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.
- ◇ CCC, CE, FCC, RoHS.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of

PWR, SYS, Link, L/A.

■ **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.

TECHNICAL SPECIFICATION

Model	B1-36028FM	B1-38028FM
Interface Characteristics		
Fixed Port	24*10/100/1000Base-T RJ45 ports (Data) 4*1/10G RJ45 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)	
SFP Slot Port	10G SFP+ optical fiber interface, default not matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
SFP Port Expansion	Turbo overclocking 2.5G optical module and ring	
Optical Cable/ Distance	Multi mode: 850nm / 0 ~ 500M(1.25G), 0-300M(10G), single mode: 1310nm / 0 ~ 40KM, 1550nm 0 ~ 120KM.	
Chip Parameter		
Network	Layer 2+	Layer 3

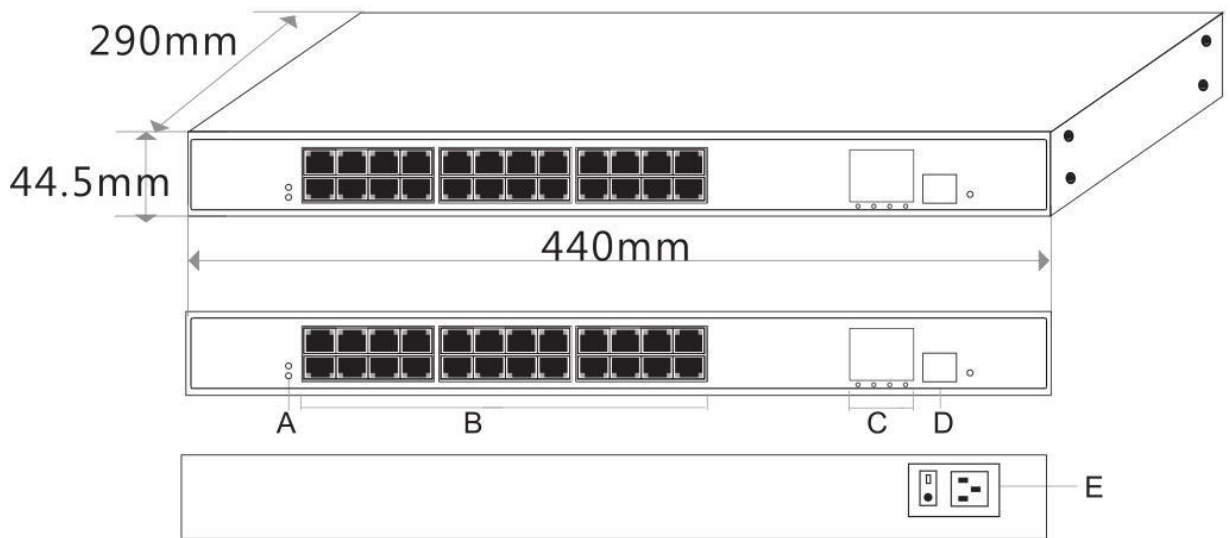
Management Type	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-SR/LR IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	598Gbps
Forwarding Rate@64byte	95.23Mpps
MAC	32K
Buffer 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, support one key to restore factory settings
Power	
Total PWR / Input Voltage	60W/AC100-240V)
Power Consumption	Standby<25W, Full Load<35W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 1.0A
Physical Parameter	
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+80°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*290*44.5mm
Net /Gross Weight	<3.5kg / <4.0kg
Installation	Desktop, wall mounted,19 inch 1U cabinet installation

Certification & Warranty			
Lightning protection / protection level	Lightning protection: 4KV 8/20us; Protection level: IP30		
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS		
Warranty	2 years, lifelong maintenance.		
Network Management Features			
Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>		
Layer 3 Features	<table border="1"> <tr> <td>L2+ network management , IPV4/IPV6 management L3 routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs</td> <td>L3 network management , IPV4/IPV6 management L3 routing full wire speed forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs</td> </tr> </table>	L2+ network management , IPV4/IPV6 management L3 routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs	L3 network management , IPV4/IPV6 management L3 routing full wire speed forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
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VLAN	<p>VLAN based on MAC</p> <p>VLAN based on the protocol</p> <p>Voice VLAN, QinQ configuration</p> <p>4K VLAN based on port, IEEE802.1q</p> <p>Port configuration of Access, Trunk, Hybrid</p>		
Port Aggregation	<p>LACP, Static aggregation</p> <p>Max 14 aggregation groups and 8 ports per group.</p>		
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)		
Industrial Ring	G.8032 (ERPS),Recovery time less than 20ms		
Network Protocol	255 Ring at most, Max 1024 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	One-key recovery Cable Diagnose, LLDP Web Management (HTTPS), Web browser NTP, System work log, Ping Test CPU instant utilization status view Console/AUX Modem/Telnet/SSH2.0 CLI Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP

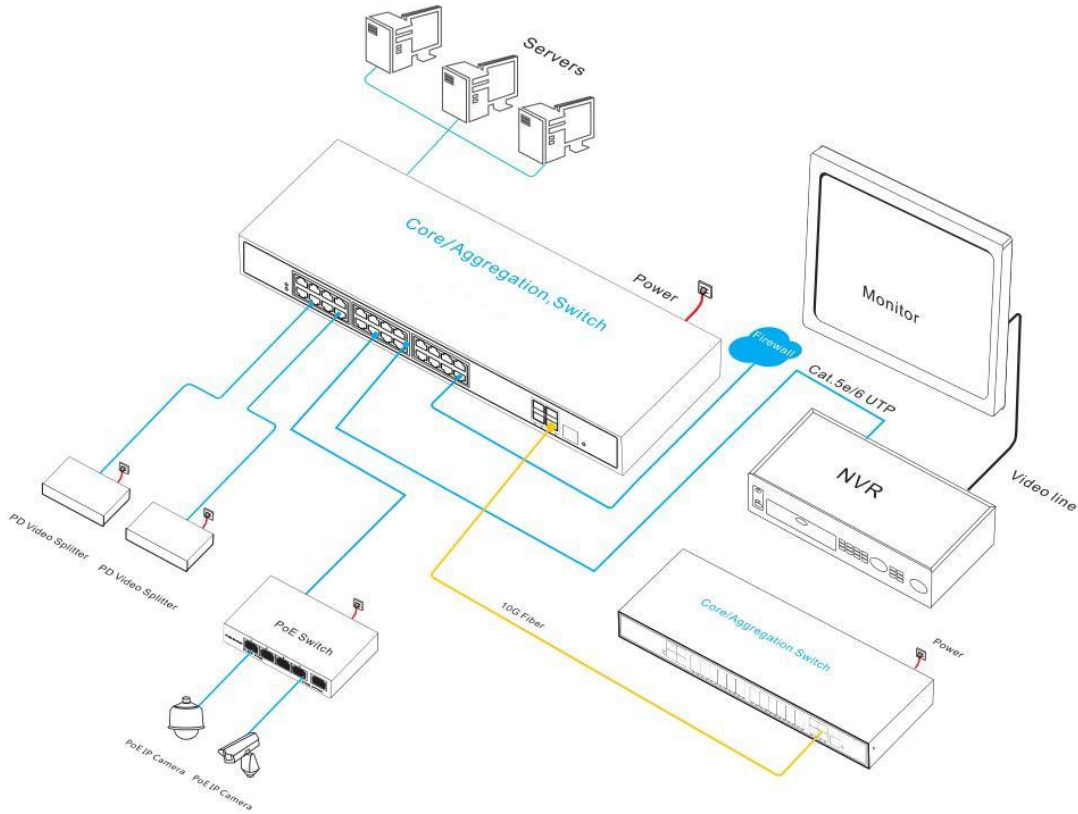
	V1/V2C/V3 ONV NMS - smart network management system platform(LLDP+SNMP)
System	Category 5 Ethernet network cable Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

DIMENSION



- A. Working Indicator
- B. 24* 10/100/1000M Ethernet Ports
- C. 4*10G SFP+ Ports
- D. Console Port
- E. Power Input Port AC100-240V, 50/60Hz

APPLICATION



ORDERING INFORMATION

Model	Description
B1-36028FM	L2+ managed Ethernet aggregation /core fiber switch with 24* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
B1-38028FM	L3 managed Ethernet aggregation /core fiber switch with 24* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.

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

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	28-port 10G uplink L2+ 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	B1-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	B1-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	B1-2612-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
	B1-2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug	PC

		and pull.	
	B1-2612-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
	B1-2613-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	B1-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC
10G Optical Module	B1-6630	SFP+ optical module, 10G Multi-mode dual fiber 850nm, transmission distance: 300m, LC interface, support DDM function, support hot plug and pull.	PC
	B1-7832	SFP+ optical module, 10G Single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	B1-7832-33	SFP+ optical module, 10G Single-mode single fiber TX1330nm/RX1270nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	B1-7832-27	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
B1-36168FM	L2+ managed Ethernet aggregation fiber switch with 12* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 30W power supply. Support 1U/19 inch rack installation.
B1-36032FM	L2+ managed Ethernet aggregation fiber switch with 4* 10/100/1000M RJ45 ports and 24* 100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
B1-36036FM	L2+ managed Ethernet aggregation fiber switch with 24* 10/100/1000M RJ45 ports and 8* 100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
B1-36448FM	L2+ managed Ethernet aggregation fiber switch with 12* 10/100/1000M RJ45 ports and 28* 100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
B1-36048FM	L2+ managed Ethernet aggregation fiber switch with 44* 10/100/1000M RJ45 ports and 4*1/10G SFP+ fiber slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.

