MkerLink

Model: G48410GSM

1000 Mbps	**SFP+ 10G**				**L3**
48x1G RJ45 Ports	4x10G SFP+ Ports	Rack Mountable	Energy Saving	Web+ CLI Interface	L3 Management

52-Port 10G Uplink 48-Port Gigabit Layer 3 Managed Ethernet Switch

Introduction

52-port 10 gigabit uplink 48-port gigabit layer 3 managed ethernet switch. Support 48 * 10/100/1000 adaptive electrical ports, 4 * 10 gb SFP+ ports, 1 console port, and 1 USB serial port. Perfect security control strategy and CPU protect policy improve fault tolerance and ensure stable operation of the network and load balancing of the interconnection.The device supports automatic DoS attack defense and SNMP, IEEE 802.1, STP, RSTP, link aggregation, and other functions. Advanced security functions and advanced quality of service (QoS), can be used as core layer, distribution layer or access layer switch with high density port, switch stacking and easy management, are ideal for various commercial network applications.

Key Features

- Support IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1p, IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3z, IEEE 802.3ab, IEEE 802.3ae standards

- L3 management, support DHCP server, QoS, ACL, SNMP V1/V2/V3, IGMP snooping v1/v2

- Support STP/RSTP/MSTP (ERPS), support loop detection and self-healing, support remote loopback monitoring and control（802.3ah OAM）,support IPV4/IPV6

- Support multiple VLAN division, MAC VLAN, protocol VLAN, private VLAN

- Support IP address + MAC address + VLAN+Port binding, DHCP Snooping, support IP source and DAI protection

- Lightning protection：common mode ≥6 KV, static : contact ≥6KV, air ≥8KV

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Secification

I/O Interface

Power	Input: AC100-240V, 50/60Hz
Ethernet	48 * 10/100/1000Mbps RJ45 Ports 4 * 10G SFP Ports 1 * RJ45 Console Port 1 * USB Port

Performance

Bandwidth	176Gbps
Packet Buffer Memory	131Mpps
DDR SDRAM	4G
Flash Memory	256M
Package Cache	16Mbit
MAC Address	32K
Jumbo Frame	12Kbytes
VLANs	4096
MTBF	100000 Hours

Standard

Network Protocols	IEEE 802.3: Ethernet MAC Protocol IEEE 802.3i: 10BASE-T Ethernet IEEE 802.3u: 100BASE-TX Fast Ethernet IEEE 802.3ab: 1000BASE-T Gigabit Ethernet IEEE 802.3z: 1000BASE-X Gigabit Ethernet (optical fiber) IEEE 802.3ae: 10G Ethernet (optical fiber) IEEE 802.3az: Energy Efficient Ethernet IEEE 802.3ad: Standard method for performing link aggregation IEEE 802.3x: Flow control IEEE 802.1ab: LLDP/LLDP-MED (Link Layer Discovery Protocol) IEEE 802.1p: LAN Layer QoS/CoS Protocol Traffic Prioritization(Multicast filtering function) IEEE 802.1q: VLAN Bridge Operation IEEE 802.1x: Client/Server Access Control and Authentication Protocol IEEE 802.1d: STP IEEE 802.1s: MSTP IEEE 802.1w: RSTP
Industry Standard	EMI: FCC Part 15 CISPR (EN55032) class A EMS: EN61000-4-2 (ESD)、 EN61000-4-4 (EFT)、 EN61000-4-5 (Surge)
Network Media	10BASE-T: Cat3、4、5 or above UTP(≤100 M) 100BASE-TX: Cat5 or above UTP(≤100 M) 1000BASE-TX: Cat5 or above UTP(≤100 M) Multi-mode Fiber: 50/125、62.5/125、100/140um Single-mode Fiber: 8/125、8.7/125、9/125、10/125um

Environmental standards

Working Environment	Operating temperature: -10~50°C Storage temperature: -40~70°C Operating Humidity: 10%~90%, No condensation Storage Humidity: 5%~90%, No condensation Working height: Up to 10,000 feet Storage height: Up to 10,000 feet

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Certification	
Safety Certificate	CE、FCC、RoHS
Function indication	
Indicator Light	PWR(Power indicator), SYS(System lights), Link/ACT(Link light/data light)
Physical specifications	
Product Information	Product Dimensions: 440*280*44mm Package Dimensions: 500*365*85mm Product N.W: 3.8KG Product G.W: 4.5KG
Packing Information	Carton Dimensions: 520*445*385mm Packing Qantity: 5 Packing weight: 24KG
Voltage	Input Voltage: AC100-240V/50-60Hz Power supply: 12V6A
Packing List	1.Ethernet switch: 1 Set 2.Instruction manual: 1 PCS 3.Certificate, warranty card: 1 PCS 4.Power cord: 1PCS 5.Serial cable: 1PCS 6.Rack ear: 1 Pairs

Software function

Basic Function	Support hardware watchdog, factory reset, system and port LED
	Support global information, statistical information, log information
	Support User management, alarm management, configuration management
	Support Port rate, duplex, flow control, maximum frame length configuration
	Support Port mirroring, port speed limit, port energy saving
Layer 3 Interface	Support Layer 3 interface
	Support IPv4, IPv6 address configuration
	Support ARP configuration
	Support ND configuration
Layer 3 Routing	Support IPv4 static routing
	Support IPv6 static routing
DHCP	Support DHCP server
	Support DHCP relay
	Support DHCP Snooping
VLAN	Support 4K VLAN
	Support 802.1Q VLAN，baesd on port VLAN
	SupportAccess、Trunk、Hybrid VLAN mode
	Support GVRP (VLAN registration protocol)
	Support MAC VLAN 、IP VLAN
	Support Voice VLAN

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MAC Address	Support MAC address automatic learning and aging
	Support Static, dynamic, filtered address table
Security Features	Password protection
	Support Restrict user access based on port number, IP address, MAC address
	Support HTTPS、SSH V1/V2
	Support IP-MAC-PORT-VLAN binding
	Support ARP detection, IP source protection, DoS protection
	Support DHCP Snooping、DHCP Attack protection
	Support 802.1X Certification
	SupportAAA (Authentication, Authorization, Accounting), Support RADIUS protocal,TACACS+
	Support Port security, port isolation
Access control	Support L2(Layer 2)~L4(Layer 4) Packet filtering function
	Support Port mirroring, flow rate limiting, QoS remarking
QOS	Support 8 port queues
	Support Port priority, 802.1P priority, DSCP priority
	Support SP, WRR Priority scheduling algorithm
Spanning Tree	Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) protocal
	Support Multi-instance, Support Aggregate interface
	Support BPDU protection
Multicast	Support IGMP v1/v2/v3 Snooping
	Support MLD v1/v2 Snooping
	Support Layer 2 multicast fast leave mechanism, querier
	Support Layer 2 IPv4 static multicast
	Support Layer 2 IPv6 static multicast
	Support IGMP v1/v2/v3 Layer 3 multicast
Storm Suppression	Support multicast suppression
	Support broadcast storm suppression
	Support unknown unicast suppression
Ring Protection	Support Ring protection
Link Aggregation	Support Static Aggregation
	Support LACP Dynamic Aggregation
	Support based on IP, MAC, mixed load-balancing modes
	Maximum support 32 aggregation groups (8 ports per aggregation group)

52-Port 10G Uplink 48Port Gigabit Layer 3 Managed Ethernet Switch

IPv6	Support IPv6 Ping、IPv6 Traceroute、IPv6 Telnet
	Support IPv6 SSH
	Support IPv6 HTTP 、IPv6 HTTPS
Management And Maintenance	Support WEB Management (HTTP、HTTPS)
	Support CLI (Telnet, SSH V1/V2, Local serial port)
	Support SNMP V1/V2/V3
	Support RMON V2
	Support LLDP Device discovery
	Support SNTP Time synchronization
	Support CPU Monitoring, Memory Monitoring
	Support System log, classification warning
	Support Ping, Traceroute detection, cable detection