

10G Uplink Switch Series L2 Managed Switches

MODEL: 3C-S0416TGM/3C-S0424TGM Datasheet



Highlights

- True physical stacking technology supports up to 8 switches for scalability and efficient redundancy
- 10 Gigabit Ethernet uplink ports ensure smooth data delivery for high-bandwidth applications
- 2 removable power units minimize downtime
- PIM-SM/PIM-DM/IGMP Snooping for reliably stable video quality
- RJ45/Micro-USB Console ports and an out-of-band management port provide a range of management options
- A USB 2.0 port makes it easy to import files and restore configurations.

Overview

3C-Link's 3C-S0416TGM/ S0424TGM series L2 managed switches are designed to form highly accessible, scalable and robust networks. With an extensive suite of routing protocols, 10Gbps wired speeds, physical stacking technology, diverse management features and an optional redundant external power unit, 3C-Link's 3C-S0416TGM/ S0424TGM series provide a reliable, secure and cost-effective solution for enterprise, campus and ISP networks.

Physical Stacking Technology

The switches are equipped with 4 optional 10G SFP+ ports which can be used for stacking. 3C-Link's 3C-S0416TGM/ S0424TGM Series switches support up to 8 switches for network simplification. With different port forms including Gigabit Ethernet, SFP Slots, 10G SFP+ Slots, 3C-Link's 3C-S0416TGM/ S0424TGM Series switches are capable of high switching capacity for the network. With all units identified by a simple IP address, the stack can be easily configured and monitored.

Rich Out-of-band management port

3C-Link's 3C-S0416TGM/ S0424TGM series switches provide 2 kinds of out-of-band management ports: RJ45 console ports, RJ45 out-of-band management ports.. Customers RJ45 out-of-band management port is used solely for web management, leaving the RJ45 ports free for data transmission.

3C-PSE0416TGM

3C-PSE0424TGM

Interface Characteristics

Fixed Port	2*AC100-240V input ports	
	Alarm switch port (FAULT)	
	1*Console port (115200, N, 8,1)	
	4*1/10G uplink SFP+ ports (Data)	
	16 *10/100/1000Base-T PoE ports (Data/Power)	24 *10/100/1000Base-T
	1 group of DC48-57V input ports (Support reverse polarity protection function)	
Ethernet Port	Port 1-16/24 support 10/100/1000Base-T auto-sensing, full/half duplex	
	MDI/MDI-X self-adaption	
Twisted Pair	10BASE-T: Cat3,4,5 UTP(≤100 meter)	
Transmission	100BASE-TX: Cat5 or later UTP(≤100 meter)	
	1000BASE-T: Cat5e or later UTP(≤100 meter)	

Optical Fiber Port	1/10G SFP+ optical fiber port, default no include optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Fiber Port Expansion	Support Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/Distance	Multi-mode: 850nm / 0~500M, 0~300M(10G), Single-mode: 1310nm / 0~ 40KM, 1550nm / 0~120KM.

Chip Parameter

Network	L2/L3
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 (non-blocking)
Forwarding Rate@64byte	95.23Mpps
CPU	500MHz
DRAM	2G
FLASH	128M
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K
LED Indicator	System: SYS (Green), Network:Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings

PoE Supply(Optional)

PoE Port	Port 1 to 16	Port 1 to 24
PoE Management	PoE working status Delay start of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, on/off & af/at	
Power Supply Pin	Default: 1/2 (+) 3/6 (-)	
Max Power Per Port	30W, IEEE802.3af/at	
Power Consumption	Standby<25W, Full Load<400W	Standby<30W, Full Load<600W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 5A	Built-in power supply, AC 100~240V 50-60Hz 6.6A
Power Input Port	1 group of DC48-57V input port, Alarm switch port, 2 group of AC power input ports Dual input power port design: AC power supply priority, support anti- reverse protection, power-off automatic switching DC connection.	

Physical Parameter

Operation TEMP / Humidity	-40~+80°C, 5%~90% RH Non condensing	
Storage TEMP / Humidity	-40~+85°C, 5%~95% RH Non condensing	
Dimension (L*W*H)	440*378*44.5mm	
Net /Gross Weight	<5.5kg / <6.0kg	<5.8kg / <6.6kg
Installation	Desktop type ,19 inch 1U cabinet installation	

Certification & Warranty

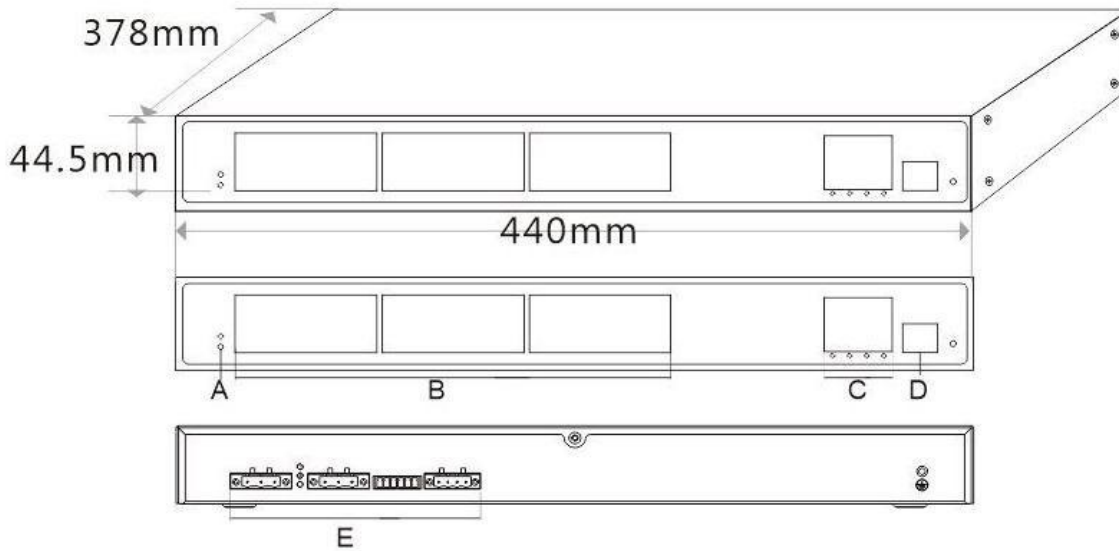
Lightning Protection	<p>Lightning protection: 6KV 8/20us, Protection level: IP30</p> <p>IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge</p> <p>IEC61000-4-3(RS):10V/m(80~1000MHz)</p> <p>IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV</p> <p>IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV</p> <p>IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)</p> <p>IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s</p> <p>IEC61000-4-9(pulsed magnet field):1000A/m</p> <p>IEC61000-4-10(damped oscillation):30A/m 1MHz</p> <p>IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV</p> <p>IEC61000-4-16(common-mode transmission):30V; 300V,1s</p> <p>FCC Part 15/CISPR22(EN55022):Class B</p>
	IEC61000-6-2(Common Industrial Standard)
Mechanical	IEC60068-2-6 (anti vibration)
Properties	<p>IEC60068-2-27 (anti shock)</p> <p>IEC60068-2-32 (free fall)</p>
Certification	<p>CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B;</p> <p>RoHS</p>
Warranty	5 years, lifelong maintenance.

Network Management Features

Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>No connection port automatic sleep</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>SFP+ optical port DDMI real-time digital diagnosis</p> <p>The speed limit of the message flow in the access port, minimum particle size is 64Kbps.</p>
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Layer 3 Features	<p>IPV4 Equal Cost Routing</p> <p>NG protocol, maximum 1000 entries</p> <p>ARP protocol, maximum 1000 entries</p> <p>Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6</p> <p>IPV4/IPV6 VRRP, the maximum group is 255</p> <p>IPV4/IPV6 VLANIF interface supports up to 128</p> <p>IPV4/IPV6 static route/default route supports up to 128 entries</p> <p>IPV4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries</p> <p>IPV6 dynamic routing OSPFv3, BGP+, RIPv6, IPV6 management, 1000 routing entries</p> <p>L3 network management function, IPV4/IPV6 dual-stack management</p> <p>Layer 3 routing and forwarding, support communication between different network segments and different VLANs</p>
VLAN	<p>Voice VLAN, QinQ configuration</p> <p>4K VLAN based on port, IEEE802.1q</p> <p>Port configuration of Access, Trunk, Hybrid.</p> <p>VLAN based on MAC, VLAN based on the protocol</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 250
Network Protocol	Ring at most, Max 250 devices per ring.
Multicast	<p>MLD Snooping v1/v2, Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out</p>
Port Mirroring	Bidirectional data mirroring based on port
QoS	<p>Flow-based Rate Limiting</p> <p>Flow-based Packet Filtering</p> <p>8*Output queues of each port</p> <p>802.1p/DSCP priority mapping</p> <p>Diff-Serv QoS, Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p>

ACL	<p>Port-based Issuing ACL,ACL based on port and VLAN</p> <p>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.</p>
Security	<p>IP-MAC-VLAN-Port binding</p> <p>ARP inspection,Anti-DoS attack</p> <p>AAA & RADIUS,MAC learning limit</p> <p>Mac black holes,IP source protection</p> <p>IEEE802.1X & MAC address authentication</p> <p>Broadcast storm control,Backup for host datum</p> <p>SSH 2.0,SSL,Port isolation,ARP message speed limit</p> <p>User hierarchical management and password protection</p>
DHCP	DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay
Management	<p>CPU instant utilization status view</p> <p>One-key recovery, Cable Diagnose, LLDP</p> <p>Console /AUX Modem /Telnet /SSH2.0 CLI</p> <p>Web Management (HTTPS), NTP, System work log, Ping Test</p> <p>Download & Management on FTP, TFTP, Xmodem, SFTP ,SNMP</p> <p>V1/V2C/V3</p> <p>3C-LINK NMS-Smart Network Management System Platform</p> <p>(LLDP+SNMP)</p>
System	<p>Category 5 Ethernet network cable</p> <p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later.</p> <p>TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network</p>



- A. Working indicator
- B. 24*10/100/1000m PoE ports
- C. 4*1/10G SFP+ ports
- D. Console port
- E. 2AC+DC power terminal input port

Order information

3C-S0416TGM	L2+ managed industrial PoE fiber switch with 16*10/100/1000M RJ45 ports and 4*10G SFP+ ports. 19inch 1Unit Chassis
3C-S0424TGM	L2+ managed industrial PoE fiber switch with 24*10/100/1000M RJ45 ports and 4*10G SFP+ ports. 19inch 1Unit Chassis
3C-PSE0416TGM	L2+ managed industrial PoE fiber switch with 16*10/100/1000M RJ45 ports and 4*10G SFP+ ports. Port 1-16 support IEEE802.3af/at PoE standard.
3C-PSE0424TGM	L2+ managed industrial PoE fiber switch with 16*10/100/1000M RJ45 ports and 4*10G SFP+ ports. Port 1-16 support IEEE802.3af/at PoE standard.