

3ISYS CS4900 SERIES SWITCHES

CS 4900 SERIES SWITCHES FOR CAMPUS ACCESS

FEATURES

- Multiple modes Available from 10 to 28 Ports.
- POE and non POE applications
- Web and CLI Managed
- Redundant OS for high availability
- POE Timer Support
- QOS and Multicast support for Surveillance and VOIP
- Extremely Cost effective and scabale
- Next Generation innovative Dashboard for management
- Optimised for mission critical access network like IP Video Surveillance and Wireless



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PRODUCT OVERVIEW

The CS-4900 Series is a range of Intelligent Gigabit switches designed for the Campus Access market. The switches can be deployed in different target network topologies from small to large campus deployments. Besides powerful software features, the switches provide a complete solution from 10 to 28 port, including both non-PoE and PoE options.

Today CS-4900 Series offers complete PoE solutions from 65 W to 185W. The CS-4900-10T-P is the most compact (height: 2.65 cm) managed PoE switch design, a cost-effective PoE switch with powerful software and security features. The switch can be mounted in many small spaces, on a wall or in a rack. CS-4900-10T-P is a PoE fanless design switch, it supports up to 65 Watts of POE Power. The CS-4900-28T-P is 28 port PoE switch, it delivers 185 W of PoE power to support IP cameras, IP telephones, or access points. CS-4900 will have multiple other configurations in future which extended POE Supply.

The CS-4900 Series supports 8, 24, and 48 10/100/1000BASE-T ports, with each switch supporting 2 or 4 Gigabit SFP ports.

The CS-4900 Series offers complete PoE solutions from 65 W to 185 Watts Today and upto 740Watts in future with new models.

The CS-4900-10T-P is a PoE fanless design switch, it supports up to 2 ports at 30 W, or 4 ports at 15.4 W to meet POE Power requirements for smaller IDF and wiring closet.

Future models of CS-4900 Series supports 8, 24, and 48 10/100/1000BASE-T ports, with each switch supporting 2 or 4 Gigabit SFP ports. The CS-4900-26X provides 2 10G uplink SFP ports to increase switch uplink bandwidth and meet the needs of future 802.11ac wireless deployments.

The CS-4900 includes the best green-saving technologies (IEEE 802.3az and Green-Ethernet).

Features Benefits:

Hardware Features	Benefits
IEEE 802.3af/802.3at Standard PoE	The CS-4900 Series PoE switches all support IEEE 802.3af & 802.3at for your VoIP, surveillance, and Wi-Fi APs.
Integrated 2 or 4 Gigabit SFP or 2 10G SFP+ Uplinks (In Future)	The CS-4900-28/52 switches support 4 integrated Gigabit SFP ports. Besides providing more uplink bandwidth, the SFP ports can be used for redundant links. The CS-4900-26x supports 2 10G SFP+ ports for 10G switch or server connectivity.
Console Port	The CS-4900 Series includes a console port. All switches support multiple management access through CLI/SNMP/Web/Telnet.
Diag LED	The CS-4900 Series includes a Diag LED to help check the switch status. When the switch boots, it runs a self-check. When the LED is on green, it means the switch operating status is normal.
Compact Wall-Mountable Design	The CS-4900-10T-P is compact, wall-mountable PoE switch design. The PoE power budget is 65W. The Switch can be easily deployed in small office with its height as 2.65 cm only as well as thin space requirement.
Software Features	Benefits
Dual Firmware/Configuration	The CS-4900 Series can save dual firmware/configuration files to provide redundancy and more security for users.
Management IP	CS-4900 is full-managed switch and supports WEB/Console and Telnet. Management IP lets the user access the switch for remote management.
Dynamic VLAN Assignment	Dynamic VLAN Assignment automatically assigns the same port to different VLANs to increase user convenience.
PoE Timer	The PoE Timer can define a PoE power schedule for different customer applications.

IGMP and MLD Snooping	IGMP/MLD snooping manages multicast streams to ensure high-quality, smooth video.
802.3az and Green-Ethernet	The CS-4900 Series supports the new IEEE 802.3az and Green Ethernet. Using the Energy Efficient Ethernet standard, the switch automatically decreases power usage when network traffic is low.
Multi Network Management	The CS-4900 Series supports CLI, Web, SNMPv1/v2c/v3, and Telnet management to provide multiple network management access. The switch supports a private MIB for detailed information.
Enhanced Security	The CS-4900 Series supports multiple security features, such as ACLs, storm control, 802.1X, port security, MAC filters, IP source guard, and AAA.
Comprehensive QoS	The CS-4900 Series supports 8 hardware queues, port-based QoS (IPv4/IPv6 DSCP), and DiffServ features to provide optimal real-time services.
DDoS Protection	The CS-4900 Series provides DDoS protection to avoid hacker attacks on your network.
Cable Diagnostics	Cable diagnostics check real-time cable status to find network problems immediately.
Auto Voice/Surveillance VLANs	The CS-4900 Series supports automatic voice and surveillance VLANs, providing VoIP and IP cameras the optimum network traffic usage.
Dashboard	The CS-4900 Series provides a fantastic feature called "Dashboard". It provides the several useful current switch status, like CPU, Memory utilization and Event & traffic status and so on. With that useful information, users could quickly overview and maintain the switch status.
Cost Effective and stable	CS4900 is one of the most cost effective and stable products in its range, giving customer the full capability to manage via web / CLI and is rich in features.

CS4900 Series Switches Features:

- **Performance and Scalability**

The CS-4900 Series is a range of Gigabit Intelligent switches designed for the Campus Access Market. The switches can be deployed in different target network topologies, from small to large. Besides powerful software features, the switches provide a complete solution from 10 to 28 ports in POE and NON POE Formats.

The CS-4900 Series offers complete PoE solutions from 65 W to 185 W and upto 740Watts in future. The CS-4900-10T-P is the most compact (height: 2.65 cm) managed PoE switch design, a cost-effective PoE switch with powerful software and security features. The switch can be mounted many small spaces, on a wall or in a rack. The CS-4900-28T-P is an extendable PoE switch, it delivers a default 185 W of PoE power,

- **Continuous Availability**

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, which ensures a faster recovery from failed links, enhancing overall network stability and reliability. IEEE 802.1Q VLAN-segmented broadcast domains reduce broadcast traffic and increase LAN security and performance. IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and provides load balancing and fault tolerance for uplink connections.

- **Multi Management**

- **Comprehensive QoS**

Eight egress queues per port enables differentiated management of up to eight traffic types.

Traffic is prioritized according to 802.1p or DSCP, giving optimal performance to real-time applications such as voice and video.

Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allows maximum control of network resources.

- **Enhanced Security**

Port Security allows access to a switch port based on MAC address. This limits the total number of devices from using a switch port and protects from MAC flooding attacks.

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using a standards-based RADIUS server.

Access Control Lists (ACLs) restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, and TCP/UDP ports. ACLs are hardware supported, so switching performance is not compromised.

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypts Telnet and web access to the switch, providing secure network management.

IP Source Guard can be enabled with DHCP snooping on trunk ports with a large number of VLANs to filter and control IP traffic access to the network.

DHCP snooping provides security by filtering un-trusted DHCP messages and by building and maintaining a DHCP snooping

The CS-4900 Series supports CLI, Web, SNMP v1/v2c/v3, and Telnet management to provide multiple network management access. The switch supports a private MIB for detailed information. This new 3isysnetworks switch also supports management functions through both IPv4 and IPv6.

binding table.

Dynamic VLAN assignment for user authentication and location-independent access to the network.

- **Smart Network Deployment**

Automatic Voice VLAN for quick deployment of VoIP, and automatic Video VLAN to help deploy your IP-based surveillance system. Static routing helps you set simple routes for control of your network resources. IGMP and MLD snooping provide better multicast services.

- The CS-4900-10T-P/10T-P/28T-P/28T-PP provide up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, and surveillance cameras, all over existing Ethernet cables. The switch can deliver up to 30 Watts on 2/4/6/12 ports, or 15.4 Watts on 4/8/12/24 ports. The CS-4900-28T-PP can extend its power budget up to 740 Watts by connecting an external power bank to deliver 30 Watts on 24 ports.

SPECIFICATION:

	Product Model	CS-4900-10T-P	CS-4900-10T-PP*	CS-4900-28T-P	CS-4900-28T-PP*
Currently Shipping only 10T-P/28T-P * Marked product are on roadmap					
Port	RJ-45 10/100/1000 Ports	8	8	24	24
	SFP+ Uplink Ports	2 (1G)	2 (1G)	4 (1G)	4 (1G)
	PoE Ports	8	8	24	24
	Console Port	1	1	1	1
Performance	Switching Capacity	20 Gbps	20 Gbps	56 Gbps	56 Gbps
	Forwarding Rate	14.9 Mpps	14.9 Mpps	41.7 Mpps	41.7 Mpps
	Flash Memory	32 MB	32 MB	32 MB	32 MB
	DRAM	256 MB	256 MB	256 MB	256 MB
	Packet Buffer	4.1 Mbits	4.1 Mbits	12 Mbits	12 Mbits
	MACAddressTable	8 K	8 K	16 K	16 K
	Jumbo Frames	10 K	10 K	10 K	10 K
	MTBF	1,393,424 hrs	2,196,413 hrs	681,017 hrs	370,636 hrs
	Heat Dissipation	272.966 (Btu/H)	545.933 (Btu/H)	887.141 (Btu/H)	1678.743 (Btu/H)
	Acoustic Noise	0 dB (A)	0 dB (A)	N/A	N/A
Power Supply	100-240 VAC, 50-60 Hz	O	O	O	O
	Max System Power Consumption (Watts)	80 W	160 W	260 W	490 W (950 W)
PoE	IEEE 802.3af/802.3at	O	O	O	O
	PoE Power Budget	65 W	125 W	185 W	370 W (740 W)
	PoETimer	O	O	O	O
Mechanical	Rack Space	10"	13"	19"	19"
	Form Factor	Wallmount	Rackmount	Rackmount	Rackmount
	Dimension (W x D x H)	24 x 15.5 x 2.65 cm (9.4 x 6.1 x 1.04 in)	33 x 20.4 x 4.26 cm (12.9 x 8 x 1.67 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)
	Weight	973 g (2.15 lb)	2.4 kg (5.34 lb)	2.8 kg (6.18 lb)	3.1 kg (6.85 lb)
Environmental	OperatingTemperature	0°C to 50°C	0°C to 40°C	0°C to 50°C	0°C to 50°C
	StorageTemperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
	Altitude	3000 m	3000 m	3000 m	3000 m
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	StorageHumidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%

	Product Model	CS-4900-10T*	CS-4900-28T*	CS-4900-52T*	CS-4900-26T-X*
Port	RJ-45 10/100/1000 Ports	8	24	48	24
	SFP+ Uplink Ports	2 (1G)	4 (1G)	4 (1G)	2 (10G)
	PoE Ports	X	X	X	X
	Console Port	1	1	1	1
Performance	Switching Capacity	20 Gbps	56 Gbps	104 Gbps	88 Gbps
	Forwarding Rate	14.9 Mpps	41.7 Mpps	77.4 Mpps	65.5 Mpps
	Flash Memory	32 MB	32 MB	32 MB	32 MB
	DRAM	256 MB	256 MB	256 MB	256 MB
	Packet Buffer	4.1 Mbits	4.1 Mbits	12 Mbits	12 Mbits
	MACAddressTable	8 K	8 K	16 K	16 K
	Jumbo Frames	10 K	10 K	10 K	10 K
	MTBF	N/A	563,826 hrs	TBD	TBD
	Heat Dissipation	27.297 (Btu/H)	68.242 (Btu/H)	TBD	TBD
	Acoustic Noise	0 dB (A)	0 dB (A)	TBD	TBD
Power Supply	100-240 VAC, 50-60 Hz	O	O	O	O
	Max System Power Consumption (Watts)	8 W	20 W	X	X
PoE	IEEE 802.3af/802.3at	X	X	X	X
	PoE Power Budget	X	X	X	X
	PoETimer	X	X	X	X
Mechanical	Rack Space	9"	19"	19"	19"
	Form Factor	Rackmount	Rackmount	Rackmount	Rackmount
	Dimension (W x D x H)	19.6 x 11.7 x 3.6 cm (7.7 x 4.6 x 1.4 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)	44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)
	Weight	816 g (1.81 lb)	2.2 kg (4.86 lb)	TBD	TBD
Environmental	OperatingTemperature	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
	StorageTemperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
	Altitude	3000 m	3000 m	3000 m	3000 m
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	StorageHumidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%

MAIN FEATURES

L2 Features	PoE
<p>Spanning Tree Protocol:</p> <ul style="list-style-type: none"> IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP) Loopback Detection BDPU Filter/Guard BDPU Forward Root Guard <p>VLANs:</p> <ul style="list-style-type: none"> Supports 4K IEEE 802.1Q VLANs Port-Based/MAC-Based/Protocol-Based VLANs Guest VLAN Auto Voice VLAN Auto Surveillance VLAN <p>(2016,Q1) Link Aggregation:</p> <ul style="list-style-type: none"> Static Trunk IEEE 802.3ad Link Aggregation Control Protocol (LACP) <p>IGMP Snooping:</p> <ul style="list-style-type: none"> IGMP v1/v2/v3 snooping IGMP Filtering/Throttling IGMP Querying IGMP Immediate leave MLD Snooping <p>LLDP/LLDP-MED</p> <p>Green-Saving</p> <ul style="list-style-type: none"> IEEE 802.3az Cable Length No Link <p>Power-Saving</p> <p>Jumbo Frame</p> <p>packet Cable</p> <p>Diagnostic</p>	<p>Support IEEE 802.3af (15.4 W)/IEEE802.3at (30W) on each port (Total PoE Power Budget as follows):</p> <ul style="list-style-type: none"> CS-4900-10T-P (65 W) CS-4900-10P (125 W) CS-4900-28T-P (185 W) CS-4900-28T-PP (370 W) <p>(Up to 740W using External Power)</p> <p>Dynamic Power Allocation</p> <p>Auto disable after exceeding power budget</p> <p>PoE Timer</p>
L3 Features	Security

<p>L3 Management IP address for remote management.</p> <p>CS-4900 Is Layer 2 Switch with only Layer 3 Management Features.</p>	<p>DDOS Protection</p> <p>CPU Guard (CPU Protection) Port Isolation</p> <p>Port Mirror (One to One, One to Many) Remote Mirror</p> <p>Storm Control</p> <p>Broadcast/Multicast/Unknown Storm Control IEEE 802.1X</p> <p>ACL</p> <p>Ingress Only L2/L3/L4</p> <p>ACL entry: 512 IPv4/IPv6</p> <p>TCP/UDP-Based, MAC-Based ACL Port Security</p> <p>MAC Filter</p> <p>MAC Authentication Port max count per port</p> <p>Dynamic VLAN Assignment Dynamic ARP Inspection AAA (RADIUS/TACACS+)</p> <p>IP Source Guard SSH v1.5/v2.0</p> <p>SSL v1/v2/v3 SSL IPv4/IPv6</p>
<p>QoS Features</p>	<p>Management</p>
<p>Rate Limiting</p> <p>Priority Queues Schedule (WRR/Strict Priority/Hybrid QoS) Port-Based QoS</p> <p>IPv4/IPv6 DSCP</p> <p>DiffServ Auto VOIP Auto Video</p> <p>8 HW Queues per port Dynamic QoS</p>	<p>System password protection</p> <p>NTP/SNTP</p> <p>Dual Image/Configuration</p> <p>Configuration upload/download (HTTP/TFTP/FTP) Firmware upload/download (HTTP/TFTP/FTP)</p> <p>Auto Firmware Upgrade</p> <p>RMON (groups 1,2,3 and 9) SNMP</p> <p>SNMP Trap SNMP v1/v2/v3</p> <p>SNMP Standard/Private MIB</p> <p>Management Access (Console/SNMP/Web /Telnet)</p> <p>Memory Flash Log</p> <p>Event/Error Log/Syslog</p> <p>DHCP v4/v6 Client//DHCP Snooping</p> <p>DHCP Snooping Option82</p> <p>Dynamic Provision (via Option 66,67)</p> <p>DHCP Relay v4 (v6 2016 Q1)</p> <p>Port Mirroring (One to One) TX/RX (both) DNS Client without DNS proxy</p>
<p>IPv6</p>	

IPv4/IPv6 Dual Protocol Stack IPv6 Management IPv6 Ping/Trace IPv6 Telnet IPv6 Syslog IPv6 TFTP HTTP over IPv6 SNMP over IPv6	
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Safety

CSA (CSA 22.2 NO 60950-1 & UL
60950-1) CB(IEC/EN60950-1)

Electromagnetic Compatibility

CE Mark
FCC Class A
EN 55022 (CISRP 22) Class
A EN 61000-3-2/3
VCCI

For More Information

To find out more about 3isysnetworks please contact sales@3isysnetworks.com or your local distributors.

About 3isysnetworks Networks Corporation

3isysnetworks is in the business of providing innovative, intelligent and integrated network solutions. In the service provider network, in the data center or in the cloud, 3isysnetworks delivers the software and systems that transform the way the world connects. 3isysnetworks serves customers and partners worldwide. Additional information can be found at www.3isysnetworks.com.

To purchase 3isysnetworks Networks solutions, please contact your 3isysnetworks representatives at sales@3isysnetworks.com.

Accessories



External Power Supply to be available for 28-T-PP

Optional Accessories	Product Description
PS3000	Power Shelf(For CS-4900-28T-PP)
CONCAB	Console Cable
3isys-SFP-SM-X	1GE Single mode 10KM/40km and 80KM SFPs (X represent the distance required)
3isys-SFP-MM	1GE Multimode

Ordering Guide

CS-4900-10T-P = 8 port 10/100/1000 POE Intelligent Gigabit Managed Switch with 2 port SFP

CS-4900-28T-P = 28 port 10/100/1000 POE Intelligent Gigabit Managed Switch with 4 port SFP



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All specifications are subject to change without further notice. All features with * mark will be available by firmware upgrade.