SHOGUN
Technology Solution

SG2100-10PE
Managed Layer 2+ POE Switch

SG series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The SG series has 8 Gigabit Ethernet RJ45 ports with optional IEEE 802.3at compliant 30W PoE+ and an additional 2 multi- rate SFP ports that support both 100Mb and 1Gb speeds for data uplink into core networks, providing application and site flexibility. Shogun's industry leading virtual stacking capability greatly simplifies the installation and on-going site maintenance by providing the users with a single web GUI interface from which all switches within the virtual stack can be configured and monitored eliminating the need for multiple browser tabs and having to remember many IP management addresses. The virtual stack can be used between all SG series models even when installed in dispersed physical locations. The SG series support a wide range of management functions as well as Rapid Spanning Tree and Multiple Spanning Tree protocols for network redundancy. IGMP functionality is supported to handle the multicast traffic which is commonly used in IP CCTV deployments.

Gigabit up to x8	Gigabit	100/1000	Managed Full	Secure 802.1x	Stacking Virtual	Temp 0 ~ +50°C

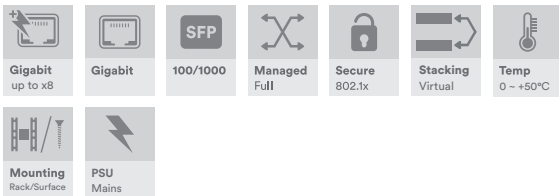| Mounting Rack/Surface	PSU Mains

Fully managed layer 2+ Ethernet switches provide 100Mbps and Gigabit Ethernet switching for commercial network applications. Available with 8x RJ45 Gigabit ports supporting 30W PoE+ per port and 2x Gigabit SFP ports.

Key Feature

- 19inch 1U rack or desktop/shelf mount
- 0°C to +50°C temperature for commercial grade applications
- 90-264VAC mains power input
- Compliant with all IEEE 802.3 speeds (i/u/ab/z)
- Dual Speed SFP ports (100Mb and 1Gb Supported)
- Supports RSTP, MSTP, SNMP v1-3 and IGMP v1-3
- Port trunk functionality available with LACP

- IEEE 802.1x port security enabled
- Supports 9.6K bytes jumbo frames
- Virtual Stacking supported
- Layer 3 Static Routing
- Support Dynamic Provision
- Support Guest VLAN and Q-in-Q VLAN tag
- CPU Protection function

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Standards.

IEEE 802.3i	10Base-T
IEEE 802.3u	100Base-TX & 100Base-FX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-X
IEEE 802.3x	Flow Control
IEEE 802.3ad	Port Trunk with LACP
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.1D	Spanning Tree (STP)
IEEE 802.1w	Rapid Spanning Tree (RSTP)
IEEE 802.1s	Multiple Spanning Tree (MSTP)
IEEE 802.1p	QoS Priority Marking
IEEE 802.1Q	VLANs
IEEE 802.1v	VLAN Classification
IEEE 802.1X	Port Security
IEEE 802.3AB	LLDP
IEEE 802.3at	30W PoE+
RFC1112	IGMP v1
RFC2236	IGMP v2
RFC3376	IGMP v3
RFC2030	Simple Network Time Protocol (SNTP)
RFC2131	Dynamic Host Configuration Protocol (DHCP)
ITU-T G.8032	Ethernet Ring Protection Switching (ERPS)

Hardware Features.

Architecture	Store-and-Forward
Switch Latency	<7µs
Switch Fabric	20Gbps
Address Table	8K MAC Entries
Buffer Memory	4M bits
Jumbo Frames	9.6K bytes
CPU	400MHz
SDRAM	128Mb
Flash	16Mb
VLAN's	4K
IGMP Groups	1024
IPv6 MLD Groups	1024
Throughput	14.88Mpps @ 64bytes
Priority Queues	8 (Hardware)
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit

Layer 3 Features.

Static Routing:	
Interfaces	8 Max
Routes	32 Max
DHCP	Server (IPv4)

Software Features.

Redundancy	STP
	RSTP
	MSTP
VLAN	802.1Q
	Port Based VLAN
	Private VLAN
	Voice VLAN
MVR	Multicast VLAN Registration
LACP	Dynamic Trunk
	Static Trunk
GARP/GVRP	
IGMP Snooping	v1/v2/v3 (8 VLAN's Max)
IGMP Querier	
MLD Snooping	IPv6 (8 VLAN's Max)
MLD Querier	IPv6
IPMC	64 Profiles (128 Rules Each)
Virtual Stacking	Unlimited Units (All Speeds Supported)

QoS.

Class of Service	802.1p QoS & DSCP
Diffserv	RFC2474
Rate Limiting	Ingress / Egress
Priority Queue	WRR / Strict / Hybrid Priority

Security.

Port Security	MAC/IP Based
Storm Control	Rate Limiting
802.1x	RADIUS Authentication
TACACS+	
HTTPS/SSL	
BPDU Guard	
DHCP Snooping	
Loop Protection	
IP Source Guard	IPv4 & IPv6
IP Authorisation Managers	
Access (Policy) Control List (ACL L2/3/4)	
Custom User Rights	15 Levels (20 Users Max)

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PoE Management.

PoE Time Scheduling
Ping Watchdog with Reboot
Enable/Disable, Priority Level, Power Level

Management.

DHCP	Client / Relay (IPv4 & IPv6)
	Option 66/67
Event/Error Log	Syslog Client
Management Access	SNMP
	Web GUI
	Telnet / SSH v2.0 / CLI
Access Management	Filtering
SNMP	v1/v2c/v3
RMON	1/2/3/9 Goups
Port Mirroring	
Software Update	HTTP/HTTPS
Config Export /Import	
Dual Firmware Images	
SNTP	Client (IPv4 & IPv6)
Configuration	IPv4 & IPv6
LLDP	Link Layer Discovery Protocol
LLDP-MED	
sFlow	
Time Zone & Daylight Savings	
Cable Diagnostics	

Interface.

LED Indicators	1x Power
	SFP Link/Activity
	RJ45 Link/Activity
	RJ45 Speed (Non-PoE Models Only)
	PoE (PoE Models Only)
RJ45 Ports	8x 10/100/1000T(X) RJ45
	PoE with IEEE 802.3af / IEEE 802.3at
SFP Slot	2x 100/1000FX SFP
Power	1x IEC C14 Socket
Serial Console	RJ45

Power.

Power Inputs	1
Operating Voltage	90-264V$_{AC}$
Power Consumption	12 Watts Max (without PoE Load)
Total PoE Budget	60W Max
PSE Modes	Mode B
PoE Enabled Ports	Ports 1-8

Mechanical.

Housing	Metal
IP Rating	IP30 (Non-PoE Models)
	IP20 (PoE Models)
Installation	19inch Rack (1U) or Desktop

Environmental.

Operating Temp.	0°C to +50°C
Storage Temp.	-20°C to +80°C
Humidity	5% to 90% (non-condensing)
MTBF	447,595 hours (Non-PoE Models)
	426,424 hours (PoE Models)
MTBF Standard	MIL-HDBK-217F GB
Heat Dissipation	41 BTU/h (Non-PoE Models)
	758 BTU/h (with Max PoE Load)
Cooling	Fanless
Airflow	Left to Right
Noise Level	0 dBA (Non-PoE Models)
	0-56 dBA (PoE Models. See Note Above)

Regulatory.

Safety	IEC/EN 62368-1
EMI	EN55032 Class A
	CE
	FCC Part 15B Class A
EMS	EN61000-4-2 (ESD)
	EN61000-4-3 (RS)
	EN61000-4-4 (EFT)
	EN61000-4-5 (Surge)
	EN61000-4-6 (CS)
	EN61000-4-8 (PFMF)
	EN61000-4-11 (Dips)
Environmental	Reach, RoHS, WEEE