Part No.: 248939
Vendor Part No.: ALL-SG9440MJ-10G

ALLNET Switch Full Managed Layer 2+ 44 Port Gigabit • 12x GbE • 28x GbE SFP • 4x SFP+ • JSON API • Core Switch • ALL-SG9440MJ-10G

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ALLNET Switch Full Managed 44 Port Gigabit / 12x LAN / 28x SFP / 4x SFP+ / "ALL-SG9440M-10G" Core

Highlights:

- 28x 1G SFP ports +12x 10/100/1000M RJ45 ports + 4x 10G SFP+ ports
- Support L3 switching function, including VLAN, port aggregation, port mirroring, port isolation, port flow control, port rate limiting, multicast, QOS, & access control list, etc.
- Support for spanning tree, for examples, STP, RSTP, MSTP etc.
- Support of the business line via WEB, CLI, TELNET, SNMP.
- Max. Support 4x 10G SFP+ ports
- Support of extended management via WEB, CLI, TELNET, SNMP
- Support for IPV4 / IPV6 forwarding.
- As an access or aggregation switch in campus networks or as an access switch in data centres
- **NEW: PoE & LAN JSON Java script notation API for ON/OFF üvia remote**

The ALL-SG9940M-10G is a very versatile switch that is also ideally suited as a core switch.

This results from its versatile connection options.

Different port types and flexible port expansion

ALL-SG9440M-10G supports 28 * 1G SFP ports and 12 * 1000M RJ45 ports and 4x10G SFP+ ports. Users can flexibly adopt 1x4*10G ports expansion. The series also offers multiple Gigabit ports (24 or 48 Base-T ports and

Base-X ports), it can be used as an access or aggregation switch in campus networks or as an access switch in data centres.

Comprehensive QoS policies and security mechanisms

ALL-SG9440M-10G supports strict ARP learning mechanisms, which prevents ARP spoofing attacks that eliminate ARP intrusions. The ALL-SG9440M-10G supports DHCP snooping, which generates user binding entries based on user access interfaces, MAC addresses, IP addresses, VLAN IDs. DHCP snooping discards invalid packets that do not match binding entries, e.g. ARP spoofing packets and IP spoofing packets. This prevents hackers from using ARP packets to initiate man-in-the-middle attacks on campus networks. The interface connected to a DHCP server can be configured as a trusted interface to protect the system from malicious DHCP server attacks.

Comprehensive reliability mechanisms

In addition to STP, RSTP and MSTP, the ALL-SG9440M-10G supports advanced Ethernet reliability technologies such as Ethernet Ring Protection Switching (ERPS), also known as G.8032. As the latest ring network protocol, ERPS was developed on the basis of traditional Ethernet MAC and
functions and utilises sophisticated Ethernet OAM functionality and ring automatic protection switching (R-APS) implementation of protection switching at millisecond level. ERPS supports various services and enables flexible networks that help customers build a network with lower OPEX and CAPEX.

Powerful support for services

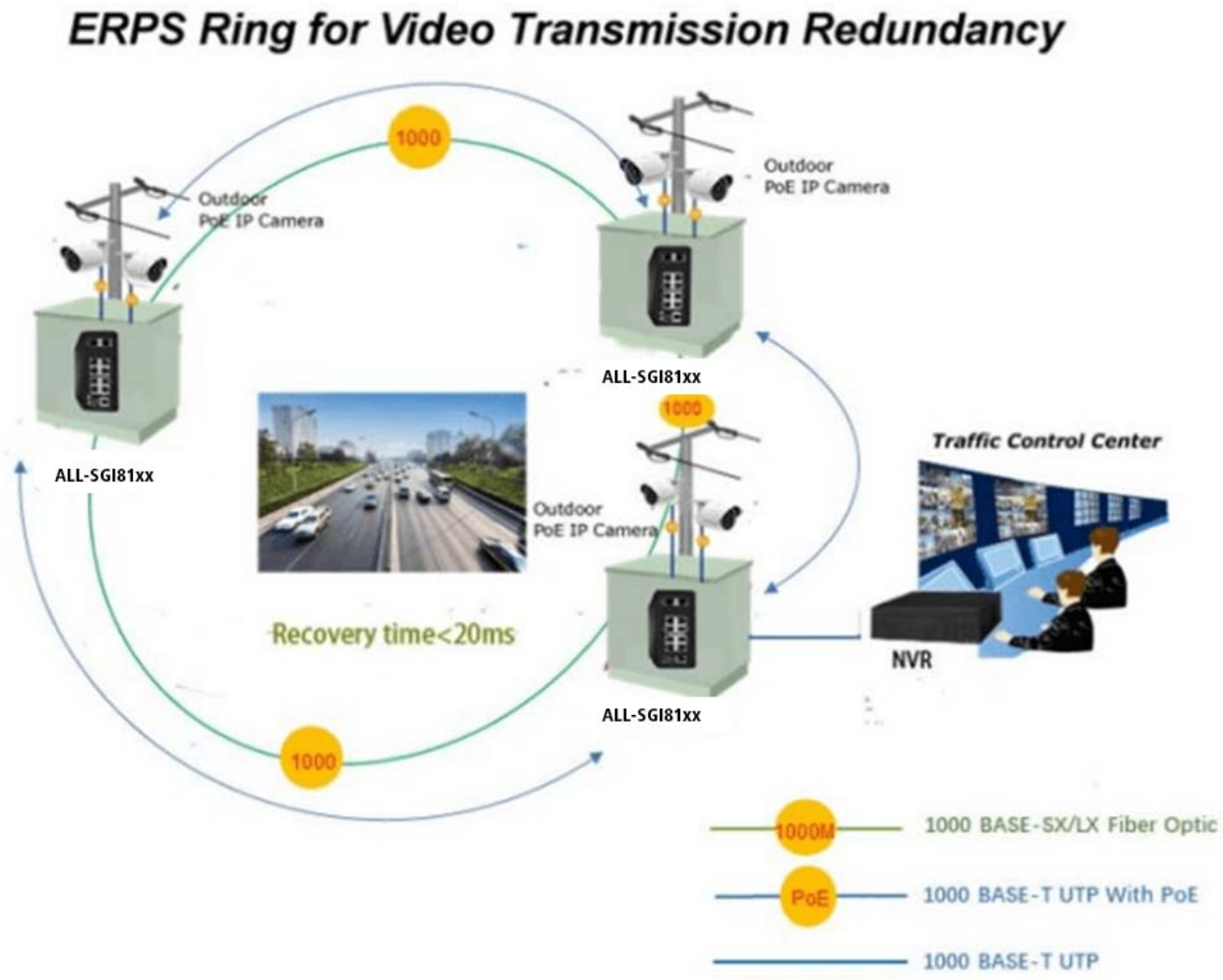
ALL-SG9440M-10G supports IGMP v1/v2/v3 snooping, IGMP filtering, IGMP fast holiday and IGMP proxy. The ALL-SG9440M-10G supports wire-speed replication of multicast packets between VLANs, multicast load balancing between dener interfaces of a trunk and controllable multicasts that fulfil the requirements for IPTV and other multicast services.

Easy deployment and maintenance-free

Supports SNMP v1/v2/v3 and offers flexible methods for managing devices. Users can manage the ALL-SG9440M-10G with the CLI and Web NMS. Supports SSH2.0 and other encryption, which makes management much more secure. Supports LLDP protocol for easier management
.

Redundant ring with fast recovery for critical network applications

The ALL-SG9440MJ supports redundant ring technology and has a strong, fast self-recovery capability to prevent interruptions and external intrusions. It integrates advanced ITU-T G.8032 ERPS technology, Spanning Tree Protocol (802.1s MSTP) and a redundant power supply system into the customer's industrial automation network to improve system reliability and uptime in harsh factory environments. In a given simple ring network, the data link recovery time can be as low as 20 ms.



JSON-Java Script Object Notation API

With the JSON API, the ADMIN can create a special user and grant this user authorisation for JSON. We have focussed on 2 functions that we consider to be important.

- PoE ON/OFF & LAN Port Enabled/Disabled (for switches with PoE function)
- LAN Port Enabled/Disabled (for switches without PoE)

JSON Examples

ALLNET JSON API
(json output, switching with json response)

It will ONLY be switched, NO-sensor values read!

Valid for ALLNET PoE switch ALL-SG8826PMX-10G, ALL-SG8950PM, ALL-SG8926PM.
New additions from 2024: All ALL-SG86xx and ALL-SGI81xx with the suffix "J" for JSON in the name.

In this description used Device IP is "192.168.0.100".
This must be replaced by the assigned address.

Description without Activated Basic authentication. If this is enable, you must pass the Authentication in URL.
(Basic Authentication: https: // USER: PASSWORD@192.168.0.100/xml/json.php)

Call "https://192.168.0.100/xml/json.php".

Parameter

„id={id}" Number or name of the switching sensor / actuator
„set={0/1/toggle}" Switch actuator off or on
„callback={objekt}" (*optional*) Values are returned as JSONP object

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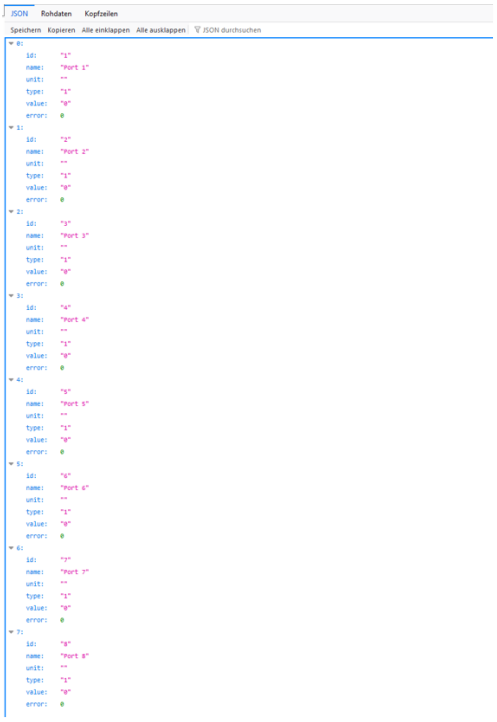

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Technical details:

Model	ALL-SG9440MJ-10G
Copper Ports	12×10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Fibre ports	28x100M/1000M BASE-X SFP interfaces, supports 100m/1000M dual mode 4x1G/10GBASE-X SFP interfaces, supports 1G/10Gbps dual mode
Console ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)
Switch architecture	Store-and-Forward
Switch Fabric	160Gbps/non-blocking
Throughput	119Mpps @64 bytes
Address Table	32K entries
Share Data Buffer	32 Mb
Jumbo Frame	9600 bytes
SDRAM	2Gb
Flash memory	128Mb
Flow control	IEEE 802.3x pause frame for full-duplex, Back pressure for half-duplex
Reset button	>2 sec: Factory default and reset
Power Supply	100~240V AC, 50/60Hz, 4A (max.)
Power Consumption	Max. 75 watts/1122 BTU
LED indicators	Power: Green Solid on- power work normal, off- power disconnected System: Green Blink-work normally, solid on- soft work abnormal, fast blink- soft upgrade 10/100/1000T RJ45 interfaces (Port 1 to Port 12): 1000 LNK/ACT (Green), 10/100 LNK/ACT (yellow), Blink- port connected with data transmission; Solid on- port connected without data transmission 100/1000Mbps SFP Interfaces (Port 12 to Port 40): Green

	Blink- port connected with data transmission; Solid on- port connected without data transmission 1G/10G SFP Interfaces (Port 41 to Port 44): Blue Blink- port connected with data transmission; Solid on- port connected without data transmission
EMC	Surge Immunity: IEC61000-4-5 ESD Protection: ESD IEC61000-4-2 EFT IEC61000-4-4
Dimension	440x240x44.5mm
Weight	3.2kg
Working Temperature	-10 °C to +45°C
Storage Temperature	-20°C to +70°C
MTBF	50,000hrs

Layer 2 functions

Port configuration	Auto-negotiation Flow control Port Mirror: TX/RX/BOTH; Many-to-1 monitor CPU Mirror Traffic statistics
Link aggregation	Static link aggregation LACP(Dynamic Trunk/Static Trunk) Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID

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	802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunnelling Private VLAN (Protected port) GARP/GVRP
ACL	512ACLs L2, L3 e L4 Time-based ACL IP ACL MAC ACL MAC-IP ACL User-Defined ACL ICMPv6
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring Fast Ring

Multicast	1024 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN IGMP filter MVR Multicast routing
QOS	8 mapping IDs to 8 level priority queues CoS port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port SWRR, DWRR for Scheduling Flow Redirect Precedence TOS Rate Limiting(Ingress/Egress) Stri Priority
Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection AAA

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	DAI DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port; Port Isolation Loopback detection
Management	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration backup/reload Dual firmware LLDP Configuration export/import CDP Aware

	OAM (IEEE802.3ah) CFM (IEEE802.1ag) SFlow Telnet client
Synchronisation, IEEE1588	Support IEEE1588v2 transparent clock
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 66 DHCP option 67 DHCP option 82 NTP/SNTP client UPNP UDLD
Maintenance	Cable Diagnostics Ping SFP DDM (Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring Tracert /tracert 6

Layer 3 functions

Static routing	IPv4 Unicast: Static Routing(Software Base) IPv6 Unicast: Static Routing(Software Base)

IPV6	IPv6 neighbour discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version 6 TCPv6/UDPv6 Ping6 Telnet(v6) Http/Https Interface IPV6 ACL IPV6

Attributes

Attribute	Value
Anzahl Ports PoE/LAN:	0/12
Belüftung Switch:	Mit Lüfter
Einsatzort Switch:	Desktop;19";
LAN Geschwindigkeit:	1Gbit/s
Management:	full managed
SFP Geschwindigkeit:	SFP+ 10GBit
SFP Port Anzahl:	28x SFP + 4x SFP+
Weight:	3,35 Kg
Warranty:	24.00 Months

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