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RELIABLE SECURE CONNECTIVITY

XLG7512 Series

12-Port Light L3 Industrial Managed Gigabit Switch Series



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FEATURE HIGHLIGHTS

- 8 or 10 Gigabit RJ45 ports; selected models support IEEE 802.3at PoE+ (30W/port) or IEEE 802.3bt Ultra PoE (90W/port)
- 2 or 4 100/1000Base-(F)X SFP slots depending on model
- Multiusers account for security
- Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- Network redundancy support: G.8032 ERPS v2/STP/RSTP/MSTP
- Supports static route for routing function
- Supports RADIUS, TACACS+ authentication protocol
- Supports QoS, LACP bandwidth control
- Supports VLAN, SNMP v1/v2c/v3, ACL, IP source guard for Ethernet security
- PoE models: PoE alive check and remote PD power recycle
- Redundant power input design
- Operating temperature range - STD: -10°C ~70°C, EOT: -40°C ~ 75°C

PRODUCT DESCRIPTION

AGATEL XLG7512 Series consists of 12-port Lite Layer 3 industrial managed Gigabit switches. The family offers 8 or 10 Gigabit RJ45 ports and either 2 or 4 SFP slots. Non-PoE models are available alongside 8 × 30W PoE+ and mixed 4 × 30W PoE+ / 4 × 90W Ultra-PoE configurations. Copper, fibre and power-input options depend on the selected part number.

XLG7512 Series offers standardized network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network, to give user the chance to choose your Ethernet switch but not tied up with particular brand's product.

XLG7512 Series provides comprehensive network security and management capability by supporting Multiusers account, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation (Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment. Besides, supporting PoE ping alarm function allows user to reboot the powered device remotely when it suffered a malfunction. For power saving purpose, assuring PD priority and enhancing security level of the network, XLG7512 Series also supports PoE scheduling and PoE output limit function to set up PoE output duration and watt at will.

XLG7512 Series as an industrial Ethernet switch product line, is designed to withstand harsh and extreme environment conditions. With fan less design, XLG7512 still manage to be applied in extremely polarized temperature, from -40oC to 75oC, making it the best choice in various industrial applications.

PRODUCT SPECIFICATIONS

Hardware Platform	
Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Fiber IEEE 802.3af/at (PoE+ models), IEEE 802.3bt (Ultra-PoE models) IEEE 802.3x Flow Control IEEE 802.1d STP (Spanning Tree Protocol) IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) ITU-T G.8032 / Y.1344 ERPS v1/v2(Ethernet Ring Protection Switch) IEEE 802.1Q Virtual Local Area Network (VLAN) IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization IEEE 802.1X Network Authentication IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.3ad Link Aggregation (LACP)
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control

Network Management	
Management	IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone /Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, Power lost warning, relay trigger
Security	Port-based/Single/Multi 802.1X, ACL(Port/Rate Limiters/ACE), MACbased Authentication, VLAN assignment, QoS Assignment, Private VLAN, Guest VLAN, RADIUS accounting, TACACS+, IP MAC binding, WEB/CLI authentication, Authorization (15 levels), Port Security Limit Control, ACLs for filtering/policing/port copy, IP source guard, ARP Inspection
L2 Switching	Port/MAC/Protocol/IP Subnet-based VLAN, GARP/GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v2/v3, MLD snooping v1/v2, IGMP filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2
L3 Switching	DHCP option82, IP route
QoS	802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode
Power Saving	ActiPHY, PerfectReach, IEEE 802.3az EEE power management
Network Redundancy	STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2(<50ms)
Configuration	Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3
PoE (PoE models only)	POE/POE+ port power allocation, Power budget protection, PoE output scheduled, PoE alive check and remote reboot PD device
System / Diagnostics	Dual Image Protection, PING, PING6

SNMP MIBs & RFC Standards	RFC 2674 VLAN MIB IEEE-802.1Q bridge MIB 2008 RFC 2819 RMON (group 1, 2, 3, and 9) RFC 1213 MIB II RFC 1215 TRAPS RFC 4188 bridge RFC 4292 IP forwarding table RFC 4293 management information base for the Internet Protocol (IP) RFC 5519 multicast group membership discovery RFC 4668 RADIUS auth. client RFC 4670 RADIUS accounting RFC 3635 Ethernet-like RFC 2863 interface group MIB using SMI v2 RFC 3636 802.3 MAU RFC 4133 entity MIB v3 RFC 3411 SNMP management frameworks RFC 3414 user-based security model for SNMPv3 RFC 3415 view-based access control model for SNMP RFC 2613 SMON – PortCopy IEEE 802.1 MSTP IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD) IEEE 802.3ad (LACP MIB included in a clause of the STD) IEEE 802.1X (PAE MIB included in a clause of the STD) TIA 1057 LLDP-MED (MIB is part of the STD) RFC 3621 LLDP-MED Power (POE) (No specific MIB for POE+ exists)
Switch Properties	
Back-Plane (Switching Fabric)	24Gbps
Priority Queues	8
Max. Number of VLANs	4095
VLAN ID Range	VID 1 to 4095
Memory Buffer	4Mbits
Jumbo Frame	9.6Kbytes
MAC Table Size	8K
IGMP Group	1024
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet port
Interface	
RJ45 Ports	8 or 10 × 10/100/1000Base-T(X) RJ45 ports; PoE+/Ultra-PoE on selected models; auto-negotiation, Full/Half duplex, auto MDI/MDI-X connection
PoE Pin Out	PoE+ Mode A: V+ pins 1/2, V- pins 3/6; Ultra-PoE: 4-pair per 802.3bt
Fiber Port	2 or 4 × 100/1000Base-(F)X SFP slots (model-dependent)
Wavelength	Depends on SFP modules
LED Indicators	System: Power 1, Power 2, Master, Ring, Fault Ethernet ports: Speed/Link/Active PoE: On-connected to PD devices SFP: Link/Active
RS232 Serial Console	1*RS232 in RJ45 connector with console cable, baud rate 115,200bps,8,N,1
Relay Contact	24 VDC, 1A resistive
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 1000Base-T: 4-pair UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)

Optical Cable	Multi-mode cable - 50/125um or 62.5/125um, Single-mode cable - 9/125um or 10/125um

Power Requirements	
Input Voltage	8P-2S, 8P-4S, 4P-4UP-4S: dual 48–55VDC inputs 8P-2S-24, 8P-4S-24, 4P-4UP-4S-24: dual 12–55VDC redundant power inputs XLG7512-2S and XLG7512-4S: dual 12–48VDC redundant power inputs
Power Connection	1 removable 6-contact terminal block
Overload Current Protection	Present (Slow-Blow Fuse)
Reverse Polarity Protection	Present
System Power Consumption	Non-PoE: 15W; PoE+: 15–15.5W; Ultra-PoE: 12.5W
Max. PoE Power Budget	8P-2S: 240W; 8P-4S: 180W; 4P-4UP-4S: 240W @48–55V -24: 8P-2S 90/180/240W @12/24/48–55V;8P-4S 90/180W @12/48–55V;4P-4UP-4S 90/180/240W @12/24/36–55V
PoE Power Output	30W per PoE+ port; up to 90W per Ultra-PoE port on selected models
Mechanical Characteristics	
Housing	Metal, IP30 protection
Dimensions (W x H x D)	54 x 142 x 99 mm
Weight	XLG7512-8P-2S (-T) 0.89kg, Shipping weight: 1.25kg XLG7512-8P-2S-24 (-T) 0.94kg, Shipping weight: 1.3kg XLG7512-4P-4UP-4S (T) 1.08kg, Shipping weight: 1.4kg XLG7512-4P-4UP-4S-24 (T) 1.146kg, Shipping weight: 1.45kg XLG7512-2S (T) 0.94kg, Shipping weight: 1.3kg
Mounting	DIN-Rail Mounting, Wall Mounting
Environmental Limits	
Operating Temperature	STD: -10°C ~ 70°C EOT: -40°C ~ 75°C
Storage Temperature	-40°C ~ 85°C
Ambient Relative Humidity	5 to 95%, (non-condensing)
Regulatory Approvals	
EMI	FCC Part 15 Subpart B Class A, Non-PoE/PoE+: EN55022; Ultra-PoE: EN55032 (EN61000-6-4 Class A)
EMS	Non-PoE/PoE+: EN55024; Ultra-PoE: EN55035 (EN61000-6-2) IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	Vibration IEC60068-2-6
Green	RoHS Compliant
Safety	UL61010-1, UL61010-2-201 Non-PoE/PoE+: ISA 12.12.01 C1D2 + ATEX Zone 2; Ultra-PoE: ISA 12.12.01
Compliance	NEMA TS2: non-PoE EOT; PoE+ -24 EOT only; Ultra-PoE (as listed)
MTBF (Telcordia SR-332, Issue 3, GB, 25oC)	2S / 4S: 570,911 / 536,427 h 8P-2S / 8P-2S-24: 456,290 / 441,751 h 8P-4S / 8P-4S-24: 433,903 / 420,958 h 4P-4UP-4S / -24: 342,877 / 332,002 h
Warranty	5 Years

NOTE: Due to continuous improvement, all product specifications are subject to change without further notice

Packet Contents

1 XLG7512 (-T) Ethernet switch

1 RJ45 (Male) to DB-9 RS-232 (Female) serial console cable

2 Wall-mount installation kits

1 Quick installation guide (printed)

Comparison Table

Model Name	10/100/1000 Base-T(X)	100/1000 BaseT(X)-(F)X SFP	Power Inputs	PoE Max. Power Budget	Operating Temperature
XLG7512-4S	8	4SFP	12-48VDC	-	-10°C ~ 70°C
XLG7512-4S-T	8	4SFP	12-48VDC	-	-40°C ~ 75°C
XLG7512-8P-2S	8 PoE+	2TX, 2SFP	48-55VDC	240W	-10°C ~ 70°C
XLG7512-8P-2S-T	8 PoE+	2TX, 2SFP	48-55VDC	240W	-40°C ~ 75°C
XLG7512-8P-4S	8 PoE+	4SFP	48–55VDC	180W @ 48–55VDC	-10°C ~ 70°C
XLG7512-8P-4S-T	8 PoE+	4SFP	48–55VDC	180W @ 48–55VDC	-40°C ~ 75°C
XLG7512-8P-2S-24	8 POE+	2TX, 2SFP	12-55VDC	90W@12VDC 180W@24VDC 240W@48-55VDC	-10°C ~ 70°C
XLG7512-8P-2S-24-T	8 POE+	2TX, 2SFP	12-55VDC	90W@12VDC 180W@24VDC 240W@48-55VDC	-40°C ~ 75°C
XLG7512-4P-4UP-4S	4POE + ,4UP	4SFP	48-55VDC	240W	-10°C ~ 70°C
XLG7512-4P-4UP-4S-T	4POE + ,4UP	4SFP	48-55VDC	240W	-40°C ~ 75°C
XLG7512-4P-4UP-4S-24	4POE + ,4UP	4SFP	12-55VDC	90W@12VDC 180W@24VDC 240W@48-55VDC	-10°C ~ 70°C
XLG7512-4P-4UP-4S-24-T	4POE + ,4UP	4SFP	12-55VDC	90W@12VDC 180W@24VDC 240W@48-55VDC	-40°C ~ 75°C

ORDERING INFORMATION

XLG7512 Series	
XLG7512-2S	12-Port Industrial Lite L3 Managed Gigabit Ethernet Switch (non-PoE) 10 × 10/100/1000Base-T(X) RJ45 + 2 × 100/1000Base-(F)X SFP; 12–48VDC; -10°C to +70°C.
XLG7512-4S	12-Port Industrial Lite L3 Managed Gigabit Ethernet Switch (non-PoE) - 8*10/100/1000 Base-T(X)+4*100/1000Base-(F)X SFP Slot, Standard Operating Temperature: -10° to 70° C
XLG7512-8P-2S	12-Port Industrial Gigabit PoE+ Managed Ethernet Switch - 8*10/100/1000Base-T(X) with PoE Injector (30W/Port) +2*100/1000Base-T(X) 2*100/1000Base-(F)X SFP Slot, Standard Operating Temperature: -10° to 70° C
XLG7512-8P-4S	12-Port Industrial Lite L3 Managed Gigabit PoE+ Ethernet Switch 8 × 10/100/1000Base-T(X) RJ45 with IEEE 802.3at PoE+ (30W/port) + 4 × 100/1000Base-(F)X SFP; 48–55VDC; -10°C to +70°C.
XLG7512-4P-4UP-4S	12-Port Industrial Gigabit PoE+ Managed Ethernet Switch -8*10/100/1000Base-T(X) with 4*bt PoE-PSE (90W/Port) & 4*at PoE-PSE (30W/Port) + 4*100/1000Base-(F)X SFP Slots, 48-55VDC, -10°C ~ 70°C
Other listed variants	XLG7512-4S-T; XLG7512-8P-2S-T; XLG7512-8P-2S-24; XLG7512-8P-2S-24-T; XLG7512-4P-4UP-4S-T; XLG7512-4P-4UP-4S-24; XLG7512-4P-4UP-4S-24-T. T = extended temperature; -24 = booster-input variant.

WHO WE ARE

Built on 20 years of experience in designing and manufacturing industrial networking products, **Agatel** was established from the UK to serve the infrastructure and industrial sectors in EMEA markets with reliable connectivity for mission-critical systems in demanding environments.

Experienced in hardware and software design and integration, we produce high-quality yet cost-effective industrial networking and communication products with great customization capabilities and robust implementations, equipping our customers for reliable secure industrial networks.

WHAT WE OFFER

The needs of our customers' industry are different from those of corporate IT environments – industrial operating environments are tough and the impact of failure in the field can lead to business threatening situations, hence our products will have lifetimes in excess of 20 years.

From entry-level to high-performance industry-certified hardware, **Agatel** offers a full solution spectrum to suit our customers' budgets and application requirements, with features such as industrial-grade reliability, integrated security, network redundancy, and advanced performance.

Our product solution profile includes industrial Ethernet switches, network time servers, media converters, industrial wireless devices, and serial device servers, covering a wide array of mission-critical applications such as automation, security, transport, water, oil and gas, and power grids.

WHY CHOOSE US

We help our customers reduce downtime and operational costs of their industrial applications in harsh environments. Leading system integrators in EMEA rely on our niche technical expertise and product quality to increase their applications' robustness, revenues, and competitive differentiation.

Agatel ruggedized high-quality solutions are designed to deliver zero-network-downtime for harsh project demands, allowing for reliable connectivity to keep people and assets safe and secure in harsh and hazardous environments, and allowing customers to focus on growing their business.

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