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# RELIABLE SECURE CONNECTIVITY

## XL7508 Series

### 8-Port Lite L3 Industrial Managed Switch

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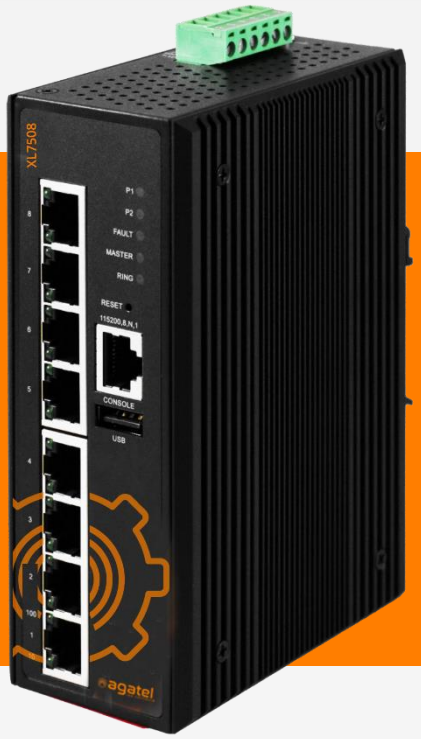


# XL7508 Series

## 8-Port Lite L3 Industrial Managed Switch

## FEATURE HIGHLIGHTS

- 8-port 10/100Base-T(X)/F(X) Fast Ethernet
- Multiusers account for security
- Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- Network redundancy support: G.8032 ERPS v2/ STP/ RSTP/ MSTP
- Supports IP routes 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
- Redundant power inputs design
- Operating temperature range - STD: -10°C ~ 70°C, EOT: -40°C ~ 75°C

## PRODUCT DESCRIPTION

AGATEL XL7508 Series are 8-port full Managed Fast Ethernet switch, which provides 8*10/100 Base-T(X)/F(X) Fixed copper and fiber ports. XL7508 Series are full manageable Layer-2 Ethernet switch series. XL7508 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.

XL7508 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.

XL7508 Series as an industrial Ethernet switch product line, is designed to withstand harsh and extreme environment conditions. With fan less design, XL7508 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<br>IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet<br>IEEE 802.3af/at Power over Ethernet<br>IEEE 802.3x Flow Control<br>IEEE 802.1d STP (Spanning Tree Protocol)<br>IEEE 802.1w RSTP (Rapid Spanning Tree Protocol)<br>IEEE 802.1s MSTP (Multiple Spanning Tree Protocol)<br>ITU-T G.8032 / Y.1344 ERPS v1/v2(Ethernet Ring Protection Switch)<br>IEEE 802.1Q Virtual Local Area Network (VLAN)<br>IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization<br>IEEE 802.1X Network Authentication<br>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)<br>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/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<br>IEEE-802.1Q bridge MIB 2008<br>RFC 2819 RMON (group 1, 2, 3, and 9)<br>RFC 1213 MIB II<br>RFC 1215 TRAPS<br>RFC 4188 bridge<br>RFC 4292 IP forwarding table<br>RFC 4293 management information base for the Internet Protocol (IP)<br>RFC 5519 multicast group membership discovery<br>RFC 4668 RADIUS auth. client<br>RFC 4670 RADIUS accounting<br>RFC 3635 Ethernet-like<br>RFC 2863 interface group MIB using SMI v2<br>RFC 3636 802.3 MAU<br>RFC 4133 entity MIB v3<br>RFC 3411 SNMP management frameworks<br>RFC 3414 user-based security model for SNMPv3<br>RFC 3415 view-based access control model for SNMP<br>RFC 2613 SMON – PortCopy<br>IEEE 802.1 MSTP<br>IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD)<br>IEEE 802.3ad (LACP MIB included in a clause of the STD)<br>IEEE 802.1X (PAE MIB included in a clause of the STD)<br>TIA 1057 LLDP-MED ( MIB is part of the STD)<br>RFC 3621 LLDP-MED Power (POE) (No specific MIB for POE+ exists) |
| **Switch Properties** | |
| **Back-Plane (Switching Fabric** | 1.6Gbps |
| **Priority Queues** | 8 |
| **Max. Number of VLANs** | 4095 |
| **VLAN ID Range** | VID 1 to 4095 |
| **Memory Buffer** | 4Mbits |
| **MAC Table Size** | 8K |
| **IGMP Group** | 1024 |
| **Transfer Rate** | 14,880pps for Ethernet port<br>148,800pps for Fast Ethernet port |
| **Interface** | |
| **RJ45 Ports/Fiber ports** | 8*10/100 Base-T(X) auto negotiation speed, Full/Half or 6*10/100 Base-T(X) auto negotiation +2*100Base-FX SC type connector<br>duplex mode, and auto MDI/MDI-X connection |
| **LED Indicators** | System: Power 1, Power 2, Master, Ring, Fault<br>Ethernet ports: Speed/Link/Active |
| **RS232 Serial Console** | 1*RS232 in RJ45 connector with console cable,<br>baud rate 115,200bps,8,N,1 |
| **Relay Contact** | 24 VDC, 1A resistive |
| **Network Cable** | 10Base-T:<br>2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m)<br>100Base-TX:<br>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 | 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 | Max. 10W full loading |
| **Mechanical Characteristics** | |
| Housing | Metal, IP30 protection |
| Dimensions (W x H x D) | 54 x 142 x 99 mm (2.13 x 5.59 x 3.9 inch) |
| Weight | Unit weight: 0.94kg (2.07 lb), Shipping weight: 1.3kg (2.87 lb) |
| Mounting | DIN-Rail Mounting, Wall Mounting |
| **Environmental Limits** | |
| Operating Temperature | STD: -10°C ~ 70°C<br>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,<br>CE EN55022/EN61000-6-4 Class A |
| EMS | CE EN55024/EN61000-6-2 Class A:<br>IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT),<br>IEC61000-4-5 (Surge), IEC61000-4-6 (CS),<br>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 |
| MTBF (Telcordia SR-332, Issue 3, GB, 25oC) | TBD |
| Warranty | 5 Years |

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

| Packet Contents |
|---|
| 1 XL7508 (-FX) (-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 Base-T(X)/100F(X) | Power Inputs | Operating Temperature |
| XL7508 | 8 | 12-48VDC | -10°C ~ 70°C |
| XL7508-T | 8 | 12-48VDC | -40°C ~ 75°C |
| XL7508-2FM | 6/2FM | 12-48VDC | -10°C ~ 70°C |
| XL7508-2FM -T | 6/2FM | 12-48VDC | -40°C ~ 75°C |
| XL7508-2FS | 6/2FS | 12-48VDC | -10°C ~ 70°C |
| XL7508-2FS -T | 6/2FS | 12-48VDC | -40°C ~ 75°C |
| XL7508-2FS30 | 6/2FS | 12-48VDC | -10°C ~ 70°C |
| XL7508-2FS30 -T | 6/2FS | 12-48VDC | -40°C ~ 75°C |
| XL7508-2FS60 | 6/2FS | 12-48VDC | -10°C ~ 70°C |
| XL7508-2FS60 -T | 6/2FS | 12-48VDC | -40°C ~ 75°C |
| XL7508-2FS80 | 6/2FS | 12-48VDC | -10°C ~ 70°C |
| XL7508-2FS80 -T | 6/2FS | 12-48VDC | -40°C ~ 75°C |

## ORDERING INFORMATION

| XL7508 Series | |
|---|---|
| XL7508 | 8-Port Industrial Managed Ethernet Switch- 8T(X), Standard Operating Temperature: -10° to70° C |
| XL7508-T | 8-Port Industrial Managed Ethernet Switch- 8T(X), Extended Operating Temperature: -40° to75° C |
| XL7508-2FM | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Multi-mode, 2km, 1310nm), Standard Operating Temperature: -10° to 70° C |
| XL7508-2FM -T | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X)+ 2*100FX (SC Connector, Multi-mode, 2km, 1310nm), Extended Operating Temperature: -40° to 75° C |
| XL7508-2FS | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 10km, 1310nm), Standard Operating Temperature: -10° to 70° C |
| XL7508-2FS -T | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 10km, 1310nm), Extended Operating Temperature: -40° to75° C |
| XL7508-2FS30 | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 30km, 1310nm), Standard Operating Temperature: -10° to 70° C |
| XL7508-2FS30 -T | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 30km, 1310nm), Extended Operating Temperature: -40° to75° C |
| XL7508-2FS60 | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 60km, 1310nm), Standard Operating Temperature: -10° to 70° C |
| XL7508-2FS60 -T | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 60km, 1310nm), Extended Operating Temperature: -40° to75° C |
| XL7508-2FS80 | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 80km, 1310nm), Standard Operating Temperature: -10° to 70° C |
| XL7508-2FS80 -T | 8-Port Industrial Managed Fast Ethernet Switch - 6T(X) + 2*100FX (SC Connector, Single-mode, 80km, 1310nm), Extended Operating Temperature: -40° to75° C |
| **Optional Accessories – Power Supply Series** | |
| SDR-120-48 | Industrial DIN rail power supply; Output 48Vdc at 2.5A; Metal casing; Ultra slim width 40mm |
| MDR-20-24 | AC-DC Industrial DIN rail power supply; Output 24Vdc at 1A; plastic case |

## 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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