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LANCOM XS-3550YUP

10G multi-Gigabit PoE++ access switch with power redundancy

The integration of Wi-Fi 7 into modern infrastructures requires powerful LAN components. With its eight 10G multi-Gigabit Ethernet ports and support of the Power over Ethernet standard IEEE 802.3bt (PoE++), the 50-port access switch LANCOM XS-3550YUP offers the ideal technical prerequisites. This allows you to connect PoE end devices with high performance requirements to the layer 3 lite switch without additional electrical installation. With the two SFP28 fiber-optic ports, you benefit from 25 Gbps uplink speeds while continuing to use your existing fiber optics infrastructure with higher bandwidths per port. Redundant, hot-swappable power supply units enable either increased reliability or the doubling of PoE performance. Centralized network management with the LANCOM Management Cloud (LMC) accelerates and automates the device rollout of the LANCOM XS-3550YUP, for example, and saves valuable resources and thus costs.

- → Multi-Gigabit access switch with 40x 1 Gigabit Ethernet ports, 8x 10G multi-Gigabit Ethernet ports, and 2x 25G SFP28 uplink ports
- → PoE support as per IEEE 802.3at (1G ports) and IEEE 802.3bt PD-Type 4 (10G ports) with up to 720 watts PoE budget (1,440 watts with second PSU)
- → 1x hot-swappable PSU as well as a separate slot for adding a second PSU
- → Non-stop PoE function – continuous supply of connected PoE devices in the event of a software update
- → Ideal in combination with Wi-Fi 7 access points
- → Basic layer 3 features such as static routing and DHCP server
- → Security with configurable access control on all ports as per IEEE 802.1X and access control lists
- → Secure remote management through TACACS+, SSH, SSL, and SNMPv3
- → Cloud-managed LAN for fast configuration and convenient management via the LMC
- → IPv6 and IPv4 support for modern enterprise networks
- → 5-year replacement service for all components

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High performance on 50 ports

The LANCOM XS-3550YUP is equipped with 40x 1 Gigabit PoE+ Ethernet ports, 8x 10G multi-Gigabit PoE++ Ethernet ports, and 2x SFP28 fiber-optic ports that support transfer rates of up to 25 Gbps. With the SFP28 ports, you can continue to use your existing fiber optics infrastructure while benefiting from higher bandwidths per port at the same time. This means that fewer hardware purchases are required in the long term, which reduces your investment costs (CapEx). With a data throughput of 340 Gbps on the backplane, the switch offers wirespeed performance even at high workloads. The multi-Gigabit access switch thus forms the powerful basis for modern network infrastructures in all industries and areas of application.

A high-performance basis for Wi-Fi 7

Thanks to eight high-performance 10G multi-Gigabit Ethernet ports, the PoE switch LANCOM XS-3550YUP is the ideal LAN-side basis for integrating Wi-Fi 7 into modern infrastructures. This is because Wi-Fi 7 access points or other network components with high transmission speeds and energy requirements mean increased performance requirements at the access level that exceed simple Gigabit Ethernet. To ensure the full performance and range of 10G, cables with higher specifications such as CAT6a or CAT7 are required.

Central power supply without additional electrical installation

As a high-performance PoE switch, the LANCOM XS-3550YUP supplies connected PoE end devices without additional power supplies or power cabling. It supports the Power over Ethernet standards IEEE 802.3at (PoE+) and IEEE 802.3bt (PoE++, Type 4) with up to 90 W per port. Thanks to high power reserves with a total output of 1,440 watts, it is thus ideal for efficient power supply of end devices with the highest energy requirements. In addition to Wi-Fi 7 access points, this also includes end devices such as lighting tubes, touch screens, or heated cameras, which can be operated via Power over Ethernet.

Operational reliability with hardware redundancy

The LANCOM XS-3550YUP with a “hot-swappable“ PSU (power supply unit) allows the power supply unit to be replaced quickly and without interruption in the event of a breakdown. A separate plug-in slot realizes the addition of a second PSU. With the integration of two redundant power supply units, for example, highly fail-safe scenarios can be realized.

DHCP server functionality

As a DHCP server, the switch is able to independently and automatically assign IP addresses to clients. The LANCOM XS-3550YUP supports this basic layer-3 function and thus takes over the IP management of the connected network.

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Static routing for unburdened networks

The LANCOM XS-3550YUP supports the basic layer 3 feature static routing, shifting certain routing tasks from the router to the switch. The predefinition of network routes through one or more network segments enables faster data exchange, especially in the case of high internal data traffic, and leads to a relief of the router. Freed-up router capacity is then additionally available for handling external data traffic. This increases the efficiency of the entire network.

Cloud-managed LAN with port templates and Secure Terminal Access

With the LANCOM Management Cloud (LMC) and Cloud-managed LAN, the LANCOM XS-3550YUP offers quick and easy network integration as well as automatic provision of the configuration across locations with the a click of a mouse. Time-consuming individual device and switch port configurations are now a matter of the past. The targeted switch rollout via the LMC enables automatic VLAN assignment to switch ports including practical switch port profiles and therefore “zero-touch” assignment to the devices. Secure Terminal Access provides access to the command line of the LANCOM switch ("CLI tunneling") directly from the LANCOM Management Cloud – encrypted and without leaving the cloud interface. Secure Terminal Access provides expert functions as well as extensive diagnostic and troubleshooting commands for the devices. Some highlights include: “trace” and “ping” commands for quick troubleshooting, access to low-level configuration parameters and detailed statistics of the LCOS SX operating system as well as secure remote access to third-party devices in the local network via the integrated SSH client.

Configurable access control & secure remote management

The LANCOM XS-3550YUP stops rogue clients from gaining unauthorized access to the network. This is ensured by secured access control on all ports as per IEEE 802.1X (port-based, single, multi, and MAC-based) or by ACLs (access control lists). Thanks to secure communication protocols such as SSH, SSL, and SNMPv3, professional remote management of the network is possible. The switch also supports the TACACS+ protocol for authentication, authorization, and accounting. This optimized solution promises maximum security for multi-site network management and monitoring.

Secure remote management

Secure communication protocols such as SSH, SSL and SNMPv3 make the LANCOM XS-3550YUP ideal for professional remote network management. The switch also support the TACACS+ protocol for authentication, authorization, and accounting. This optimized solution promises maximum security for multi-site network management and monitoring.

IPv6 and IPv4 support

Thanks to its dual-stack implementation, the LANCOM XS-3550YUP operates in pure IPv4, pure IPv6 or in mixed networks. Applications such as SSL, SSH, Telnet or TFTP can continue to be operated on IPv6 networks. Supported IPv6 features includes stateless auto configuration, neighbor detection, and MLD snooping.

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Maximum future-proofing and digital sovereignty

As an established German manufacturer of IT network solutions, LANCOM stands for reliability and know-how. Software and hardware development as well as production take place primarily in Germany, as does the hosting of the network management. Special attention is given to providing trusted solutions with outstanding security features. Another important security characteristic of the products is that they are free from backdoors, as awarded by the German Federal Ministry of Economy with the quality seal “IT Security made in Germany”. All devices are always equipped with with hardware that is dimensioned for the future. Even across product generations, updates to the LANCOM operating system family are available several times a year, free of charge. his guarantees a long service life while staying technically up to date, which represents a true protection of your investment. In addition, LANCOM infrastructures are easily scalable thanks to maximum compatibility.

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Security	
Secure Shell Protocol (SSH)	SSH for a secure remote configuration
Secure Sockets Layer (SSL)	SSL to encrypt HTTP connections; advanced security for browser-based configuration via web interface
IEEE 802.1X	IEEE 802.1X access control on all ports; RADIUS for authentication, authorization and accounting with e.g. MD5 hashing; guest VLAN; dynamic VLAN assignment
Private VLAN edge	Layer 2 isolation between clients in the same VLAN ("protected ports"); support multiple uplinks
Port security	Locking of MAC addresses to ports; limiting of the number of learned MAC addresses
IP source guard	Blocking access for illegal IP addresses on specific ports
Access control lists	Drop or rate limitation of connections based on source and destination MAC addresses, VLAN ID, IP address (IPv4/IPv6), protocol, port, DSCP/IP precedence, TCP/UDP source and destination ports, IEEE 802.1p priority, ICMP packets, IGMP packets, TCP flag
RADIUS/TACACS+	Authentication, authorization and accounting of configuration changes by RADIUS or TACACS+
Storm Control	Multicast/Broadcast/Unicast storm suppression
Isolated Group	Allows certain ports to be designated as protected. All other ports are non-isolated. Traffic between isolated group members is blocked. Traffic can only be sent from isolated group to non-isolated group.

Performance	
Switching technology	Store and forward with latency less than 4 microseconds
MAC addresses	Support of max 32K MAC addresses
Throughput	Max. 340 Gbps on the backplane
Maximum packet processing	253 million packets per second (mpps) at 64-byte packets
VLAN	Port based and IEEE 802.1q tag based VLAN with up to 4,093 VLAN; Supports ingress and egress packet filter in port based VLAN
Jumbo frame support	Jumbo frame support with up to 10240 bytes
Packet Buffer	4 MB

PoE with IEEE 802.3bt and IEEE 802.3at/af	
10G Ports	8x IEEE 802.3bt 10G PoE ports with up to 90W per port (type 4, compatible to IEEE 802.3at/af powered devices), limited by the maximum PoE power supplied
Power	720 W total power with dynamic load balancing on all ports (optional up to 1440 W with second power supply unit)
Priorisation	Supports port based priority and PoE status setting

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PoE with IEEE 802.3bt and IEEE 802.3at/af	
Status information	Monitoring via LED, displaying the actual power consumption per port in web interface
Energy efficiency (Green Ethernet)	
Energy detection	Energy efficiency according to IEEE 802.3az. Automatically turns off power on Gigabit Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up
Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for short cable
Layer 3 features	
Number of L3 inferfaces	up to 128
Static routing (IPv4/IPv6)	Hardware based static routing (IPv4/IPv6) with a number of 128 possible routes
DHCP Server	DHCP Server per VLAN, max. 16 pools
Layer 2 switching	
Spanning Tree Protokoll (STP) / Rapid STP / Multiple STP	Standard Spanning Tree according to IEEE 802.1d with fast convergence support of IEEE 802.1w (RSTP); using Multiple Spanning Tree instances by default according to IEEE 802.1s (MSTP)
Link Aggregation Control Protocol (LACP)	Support of 26 groups containing up to 4 ports each according to IEEE 802.1ax
VLAN	Support for up to 4K VLANs simultaneously (out of 4093 VLAN Ids); matching due to port, IEEE 802.1q tagged VLANs, MAC adresses, IP subnet and Private VLAN Edge function ("protected ports")
Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS
IGMP multicasts	IGMP v1, v2, v3 to limit bandwidth-intensive multicast traffic to ports with requesters; supports 1024 multicast groups; source-specific multicasting
IGMP querier	Support of multicast domains of snooping switches in the absence of a multicast router
IGMP proxy	IGMP proxy to pass IGMP messages through
MLD v1/v2	Multicast Listener Discovery - IPv6 multicast packets are transmitted to interested listeners only
Generic VLAN registration	VLAN registration with GVRP according to IEEE 802.1q for automatic delivery of VLANs in bridged domains
DHCP Relay Agent	Relay of DHCP broadcast request to different LANs
Supported DHCP options	→ DHCP option 66 → DHCP option 67 → DHCP option 82

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Interfaces	
Ethernet	→ 8 TP ports 1000/2500/5000/10000 Mbps → 40 TP ports 10/100/1000 Mbps → 2 SFP28 ports 10/25 Gbps → 50 concurrent Ethernet ports in total
Console port	RJ45 configuration port for command line access

Management and monitoring	
Management	LANconfig, WEBconfig, LANCOM Management Cloud, Industry Standard CLI
Command Line Interface (CLI)	Configuration and status display from the command line with console application and direct connection to console port, via Telnet or SSH
Monitoring	LANmonitor, LANCOM Management Cloud
Remote Monitoring	Integrated RMON software agent supports 4 RMON groups (history, statistics, alarms and events) for enhanced traffic management, monitoring and analysis
Port Mirroring	Traffic can be mirrored from on port to another for investigation with network analyzer or RMON probe. Up to 51 ports can be mirrored to a single mirror port. Single sessions can be selected
Security	Access rights (read/write) can be set up separately, access control list
SNMP	SNMP management via SNMPv1, v2c or v3 with support of traps. User-based security model for SNMPv3 (USM)
Diagnosis	Diagnosis from the switch with PING and cable diagnosis
Firmware update	→ Update via WEBconfig and browser (HTTP/HTTPS) → Update via TFTP and LANconfig → Dual firmware image to update during operation
Secure Copy	Securely import and export files
DHCP client	Automatic assignement of the management IP address by DHCP
SNTP	Automatic time settings with Simple Network Time Protocol (SNTP)
s-flow	Standard for monitoring of high-speed-networks. Visualization of network use, accounting an analysation to protect your network against dangers

Hardware	
Weight	13,89 lbs (6,3 kg)
Power supply	Two bays for swappable power supply units (100 – 240 V, 50 – 60 Hz)
Environment	Temperature range 0 – 40° C; short term temperature conditions 0 – 50°C; humidity 10 – 90%; non-condensing

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Hardware	
Housing	Robust metal housing, 19" 1U (442 x 44 x 440 mm > W x H x D) with removable mounting brackets, network connectors on the front
Fans	2 (3 when using 2 PSUs)
Power consumption (max)	→ 920 W (when using one PSU) → 1600 W (when using two PSUs)
Power consumption (idle)	46 W
Heat power (max)	683 BTU/h
Acoustic noise (typ)	62 dBa

Software	
LCOS version	based on LCOS SX 4.30
Lifecycle Management	After discontinuation (End of Sale), the device is subject to the LANCOM Lifecycle Management. Details can be found at: www.lancom.de/lifecycle
Anti-backdoor policy	Products from LANCOM are free of hidden access paths (backdoors) and other undesirable features for introducing, extracting or manipulating data. The trust seal "IT Security made in Germany" (ITSMIG) and certification by the German Federal Office for Information Security (BSI) confirm the trustworthiness and the outstanding level of security

Declarations of conformity*	
Europe/EFTA	CE
North America	FCC/IC
Australia / New Zealand	ACMA
*) Note	The full text of the specific Declaration of Conformity is available at the following Internet address: www.lancom-systems.com/doc

Supported IEEE standards	
IEEE 802.1AB	Link Layer Discovery Protocol (LLDP)
IEEE 802.1AB	LLDP-MED
IEEE 802.1ad	Q-in-Q tagging
IEEE 802.1ak	MRP and MVRP - Multiple Registration Protocol and Multiple VLAN Registration Protocol
IEEE 802.1d	MAC Bridging
IEEE 802.1d	Spanning Tree

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Supported IEEE standards	
IEEE 802.1p	Class of Service
IEEE 802.1q	VLAN
IEEE 802.1s	Multiple Spanning Tree Protocol (MSTP)
IEEE 802.1w	Rapid Spanning Tree Protocoll (RSTP)
IEEE 802.1X	Port Based Network Access Control
IEEE 802.3	10Base-T Ethernet
IEEE 802.3ab	1000Base-TX Ethernet
IEEE 802.1ax, incl. 802.3ad	Link Aggregation Control Protocol (LACP)
IEEE 802.3ae	10 Gigabit Ethernet over fiber
IEEE 802.3af	Power over Ethernet (PoE)
IEEE 802.3at	Power over Ethernet Plus (PoE+)
IEEE 802.3bt	Power over Ethernet++(PoE++) Type 4
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.3bz	2.5GBASE-T Ethernet
IEEE 802.3an	10GBASE-T Ethernet
IEEE 802.3bj	25GBASE-X Ethernet
IEEE 802.3u	100Base-T Ethernet
IEEE 802.3x	Flow Control
IEEE 802.3z	1000Base-X Ethernet

Supported RFC standards	
RFC 854	Telnet Protocol Specification
RFC 1213	MIB II
RFC 1215	SNMP Generic Traps
RFC 1493	Bridge MIB
RFC 1769	Simple Network Time Protocol (SNTP)

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Supported RFC standards	
RFC 2021	Remote Network Monitoring MIB v2 (RMONv2)
RFC 2233	Interface MIB
RFC 2460	Internet Protocol Version 6 (IPv6)
RFC 2613	SMON MIB
RFC 2617	HTTP Authentication
RFC 2665	Ethernet-Like MIB
RFC 2674	IEEE 802.1p and IEEE 802.1q Bridge MIB
RFC 2818	Hypertext Transfer Protocol Secure (HTTPS)
RFC 2819	Remote Network Monitoring MIB (RMON)
RFC 2863	Interface Group MIB using SMIv2
RFC 2933	IGMP MIB
RFC 3019	MLDv1 MIB
RFC 3414	User based Security Model for SNMPv3
RFC 3415	View based Access Control Model for SNMP
RFC 3587	IPv6 Global Unicast Address Format
RFC 3621	Power Ethernet MIB
RFC 3635	Ethernet-Like MIB
RFC 3636	IEEE 802.3 MAU MIB
RFC 4133	Entity MIBv3
RFC 4188	Bridge MIB
RFC 4251	The Secure Shell Protocol Architecture (SSH)
RFC 4291	IP Version 6 Addressing Architecture
RFC 4443	Internet Control Message Protocol (ICMPv6)
RFC 4668	RADIUS Authentication Client MIB
RFC 4670	RADIUS Accounting MIB

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Supported RFC standards	
RFC 5519	Multicast Group Membership Discovery MIB
RFC 7513	DHCP Snooping
RFC 5519	IGMP- and MLD-Snooping

Scope of delivery	
Manual	Hardware Quick Reference (DE/EN), Installation Guide (DE/EN)
Cable	Serial configuration cable, 1.5m
Cable	IEC power cord
Power supply	1x swappable PSU (expandable up to 2 PSUs for redundancy / higher PoE budget)
19" brackets	Two 19" brackets for rackmounting

Support	
Warranty extension	Free warranty extension up to 5 years (replacement service for defects), for details, please refer to the service and support conditions at: www.lancom-systems.com/support-conditions or at www.lancom-systems.com/rma
Security updates	Up to 2 years after End of Sale of the device (but min. 5 years, see www.lancom-systems.com/product-tables), can be extended by purchasing LANcare products
Software Updates	Regular free updates including new features as part of the LANCOM Lifecycle Management www.lancom-systems.com/lifecycle)
Manufacturer support	For LANcommunity partners up to the End of Life of the device. For end customers with LANcare Direct or LANcare Premium Support during the LANcare validity
LANcare Advanced L	Security updates until EOL (min. 5 years) and 5 years NBD advance replacement with delivery of the replacement device within one business day (8/5/NBD), item no. 10732
LANcare Direct Advanced 24/7 L	Direct, prioritized 10/5 manufacturer support incl. 24/7 emergency hotline and security updates for the device, NBD advance replacement with delivery of the device on the next business day (24/7/NBD), guaranteed first response times (SLA) of max. 30 minutes for reporting massive operational disruptions by telephone (priority 1) and max. 4 hours for all other concerns (priority 2), term-based for 1, 3, or 5 years (item no. 10782, 10783 or 10784)
LANcare Direct 24/7 L	Direct, prioritized 10/5 manufacturer support incl. 24/7 emergency hotline and security updates for the device, guaranteed first response times (SLA) of max. 30 minutes for reporting massive operational disruptions by telephone (priority 1) and max. 4 hours for all other concerns (priority 2), term-based for 1, 3, or 5 years(item no. 10758, 10759 or 10760)
LANcare Direct Advanced 10/5 L	Direct, prioritized 10/5 manufacturer support and security updates for the device, NBD advance replacement with delivery of the device on the next business day (10/5/NBD), guaranteed first response times (SLA) of max. 2 hours for reporting massive operational disruptions by telephone (priority 1) and max. 4 hours for all other concerns (priority 2), term-based for 1, 3, or 5 years (item no. 10770, 10771 or 10772)

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Support	
LANcare Direct 10/5 L	Direct, prioritized 10/5 manufacturer support and security updates for the device, guaranteed first response times (SLA) of max. 2 hours for reporting massive operational disruptions by telephone (priority 1) and max. 4 hours for all other concerns (priority 2), term-based for 1, 3, or 5 years (item no. 10746, 10747 or 10748)
LANCOM Management Cloud	
LANCOM LMC-C-1Y LMC License	LANCOM LMC-C-1Y License (1 Year), enables the management of one category C device for one year via the LANCOM Management Cloud, item no. 50106
LANCOM LMC-C-3Y LMC License	LANCOM LMC-C-3Y License (3 Years), enables the management of one category C device for three years via the LANCOM Management Cloud, item no. 50107
LANCOM LMC-C-5Y LMC License	LANCOM LMC-C-5Y License (5 Years), enables the management of one category C device for five years via the LANCOM Management Cloud, item no. 50108
Accessories*	
1000Base-SX SFP module	LANCOM SFP-SX-LC1, item no. 61556
1000Base-SX SFP module	LANCOM SFP-SX2-LC1, item no. 60183
1000Base-LX SFP module	LANCOM SFP-LX-LC1, item no. 61557
1000Base-LX SFP BiDi module	LANCOM SFP-BiDi1550-SC1, item no. 60201
10GBase-SX SFP module	LANCOM SFP-SX-LC10, item no. 61485
10GBase-LX SFP module	LANCOM SFP-LX-LC10, item no. 61497
10GBase-LX SFP module	LANCOM SFP-LR40-LC10, item no. 60182
10GBase-LX SFP BiDi module	LANCOM SFP-BiDi1310-LC10, item no. 60202
10G multi gigabit Ethernet copper module	LANCOM SFP-CO10-MG, Art.-Nr.: 60170, max. 1 module usable due to increased power consumption and associated heat
25GBase-SX SFP module	LANCOM SFP-SR-LC25, Art.-Nr.: 60171
25GBase-LX SFP module	LANCOM SFP-LR-LC25, Art.-Nr.: 60172
10G Direct Attach Cable 1m	LANCOM SFP-DAC10-1m, Art.-Nr.: 61495
10G Direct Attach Cable 3m	LANCOM SFP-DAC10-3m, Art.-Nr.: 60175
25G Direct Attach Cable 1m	LANCOM SFP-DAC25-1m, Art.-Nr.: 60180
25G Direct Attach Cable 3m	LANCOM SFP-DAC25-3m, Art.-Nr.: 60181
Power supply (swappable)	LANCOM SPSU-920, item no. 61498

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Accessories*	
Rack mount rails	LANCOM Switch Rack Mount L250, item no. 61432
LANCOM Power Cord (UK)	IEC power cord, UK plug, item no. 61650
LANCOM Power Cord (CH)	IEC power cord, CH plug, item no. 61652
LANCOM Power Cord (US)	IEC power cord, US plug, item no. 61651
LANCOM Power Cord (AU)	IEC power cord, AU plug, item no. 61653
*) Note	Support for third-party accessories (SFP and DAC) is excluded and cannot be granted

Item number(s)	
LANCOM XS-3550YUP	61891

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