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LANCOM GS-3152XSP

Layer 3 lite access switch for full PoE performance and maximum reliability

This fully managed switch is perfect for critical infrastructures and a large number of network components that require no additional power cabling. With an additional hot-swappable power supply, either full PoE performance on all 48 Gigabit Ethernet ports or maximum reliability are achieved. With 4 SFP+ ports and basic layer-3 features such as static routing and DHCP, this switch offers intelligent management and numerous security features. Orchestrated via the LANCOM Management Cloud and SD-LAN, the configuration is dynamic, automated, and efficient.

- → Fully managed access switch with 48x Gigabit Ethernet-Ports and 4x GE SFP+
- → Basic Layer 3 features like static routing and DHCP server
- → 1x hot swappable PSU and separate slot for the extension of a second PSU
- → IEEE 802.3af / at PoE support for efficient power supply of connected 820 watt devices (1440 watts with second PSU)
- → Front-to-back fan design for optimal cooling in 19"
- → Security with configurable access control on all ports as per IEEE 802.1X
- → SD-LAN - for easy and fast configuration via the LANCOM Management Cloud
- → 5-year warranty on all components

LANCOM GS-3152XSP

High power output on 52 ports

The LANCOM GS-3152XSP is equipped with 48 Gigabit Ethernet ports and 4 SFP+ ports. With a data throughput of 176 Gbps on the backplane, it offers full performance even under load. This makes the access switch a high-performance basis for modern network infrastructures in any industry or field of application.

Static routing for fast data exchange

The LANCOM GS-3152XSP supports the basic layer-3 feature static routing and thus the shift of certain routing tasks from the router to the switch. Administrator-predefined network routes, through one or multiple network segments, enable fast data transfer especially in scenarios with high data volumes and relieve the router accordingly. Newly available router capacities can then additionally be used to manage external data traffic. As a result, the entire network efficiency is increased.

DHCP server functionality

As a DHCP server, the switch is able to independently and automatically assign IP addresses to clients. The LANCOM GS-3152XSP supports this basic layer-3 function and thus takes over the IP management of the connected network.

Hot swappable PSU

The LANCOM GS-3152XSP with a hot swappable PSU enables quick and uninterrupted replacement of the power supply in the event of a failure. A separate slot implements the addition of a second PSU. With the integration of 2 redundant power supplies, for example, highly fail-safe scenarios can be realized or the PoE power can be bundled and thus doubled.

Front-to-back fan design

The LANCOM GS-3152XSP secures its investment with an innovative front-to-back ventilation design. This allows optimal cooling even in 19" racks and maximizes the life of the device.

Centralized power supply without additional electrical installations

The LANCOM GS-3152XSP is a high-performance PoE switch that directly powers PoE devices connected to it: there is no need of additional power supply units or cabling. It supports the Power over Ethernet standards IEEE 802.3af and IEEE 802.3at (PoE+). Thanks to high power reserves with a total output of 1440 watts, if both power supplies are used, it is therefore ideal for efficient power supply of PoE terminals with high energy requirements.

Configurable access control

The LANCOM GS-3152XSP excludes 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).

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SD-LAN - days become minutes

The LANCOM GS-3152XSP offers fast and easy network integration and automatic configuration assignment with the LANCOM Management Cloud - without manual configuration. In this way, even complex networking scenarios are easy to administer. SD-LAN eliminates the need for a single device configuration for holistic network orchestration. In addition, automatic VLAN assignment to the desired switch ports is possible. The configurations can be coordinated with each other across locations and network architectures, and at the same time rolled out or updated at the click of a mouse.

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LANCOM GS-3152XSP

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. 176 Gbps on the backplane
Maximum packet processing	130 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

PoE with IEEE 802.3at	
Ports	48x IEEE 802.3at PoE ports (compatible to IEEE 802.3af powered devices), limited by the maximum PoE power supplied
Power	820 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
Status information	Monitoring via LED, displaying the actual power consumption per port in web interface

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LANCOM GS-3152XSP

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
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 802.3ad
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
Interfaces	
Ethernet	→ 48 TP ports 10/100/1000 Mbps → 4 SFP+ ports 1/10 Gbps → 52 concurrent Ethernet ports in total

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Interfaces	
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
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)

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LANCOM GS-3152XSP

Hardware	
Power consumption (max)	→ 920 W (when using one PSU) → 1600 W (when using two PSUs)
Power consumption (idle)	75 W
Heat power (max)	700 BTU/h
Acoustic noise (typ)	62 dBa

Software	
LCOS version	based on LCOS SX 4.00
Software Lifecycle Management	After discontinuation, the device is subject to the LANCOM Software 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
IEEE 802.1p	Class of Service
IEEE 802.1q	VLAN
IEEE 802.1s	Multiple Spanning Tree Protocol (MSTP)

LANCOM GS-3152XSP

Supported IEEE standards	
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 802.3ad	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 802.3az	Energy Efficient 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)
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

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Supported RFC standards	
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
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

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Scope of delivery	
Power supply	1x swappable PSU (expandable up to 2 PSUs for redundancy / higher PoE budget)
19" brackets	Two 19" brackets for rackmounting

Support	
Warranty	5 years, for details, please refer to the General Warranty Conditions at: www.lancom-systems.com/warranty-conditions
LANCOM support	Free technical manufacturer support as part of the LANCOM Software Lifecycle Management www.lancom.de/lifecycle
LANcare Advanced L	Service package with security updates and support entitlement* until EOL and 5 years NBD advance replacement (* support access required, e.g. support contract or LANCOM Service Packs 24/7 or 10/5), item no. 10732

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-LX SFP module	LANCOM SFP-LX-LC1, item no. 61557
1000Base-SX SFP BiDi module	LANCOM SFP-BiDi1550-SC, 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-SX SFP BiDi module	LANCOM SFP-BiDi1310-LC10, item no. 60202
10G multi gigabit Ethernet copper module	LANCOM SFP-CO10-MG, Art.-Nr.: 60170
10G Direct Attach Cable 1m	LANCOM SFP-DAC10-1m, Art.-Nr.: 61495
10G Direct Attach Cable 3m	LANCOM SFP-DAC10-3m, Art.-Nr.: 60175
Power supply (swappable)	LANCOM SPSU-920, item no. 61498
Rack mount rails	LANCOM Switch rack mount rails, item no. 61432

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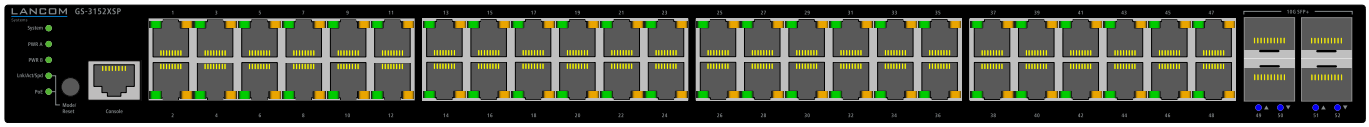
LANCOM GS-3152XSP

Accessories*	
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 GS-3152XSP	61486



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