

# LANCOM GS-2310

Compact, silent, smart – the switch for high-end offices



This fully managed switch is the professional solution for internal networking with its eight Gigabit Ethernet ports and two combo ports. The fanless design makes it ideal for office environments and for sub-distribution of in-store infrastructures—wherever you need full management functions but not PoE-based power. In terms of quality and performance, the smallest managed switch is in no way inferior to its larger relations and, thanks to its range of functions, it offers security and versatility. In combination with the LANCOM Management Cloud you benefit from user-friendly, automated and efficient administration via SD-LAN.

- 8 Gigabit Ethernet and 2 combo ports (TP/SFP)
- SD-LAN – automatic switch configuration via the LANCOM Management Cloud
- Security with configurable access control on all ports as per IEEE 802.1X
- Secure remote management through TACACS+, SSH, SSL, and SNMPv3
- IPv6 and IPv4 support for modern enterprise networks
- Fanless design
- 5-year replacement service for all components



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## High reliability on 10 ports

The LANCOM GS-2310 is equipped with 8 Gigabit Ethernet ports and 2 combo ports (Ethernet or fiber-optic). With a data throughput of 20 Gbps on the backplane, it offers full performance even under load. This switch is a high-performance basis for modern network infrastructures at small and home offices.

## Software-defined LAN

The LANCOM Management Cloud opens the way to the most advanced switch management: Software-defined LAN (SD-LAN). SD-LAN orchestrates the port profiles for each switch and automatically assigns the necessary network configuration, e.g. the required VLANs. At the click of a mouse, switch configurations that are fully customized to each site's network architecture are simultaneously rolled-out or updated.

## Configurable access control

The LANCOM GS-2310 stops rogue clients from gaining unauthorized access to the network. This is ensured by secured access control on all ports based on IEEE 802.1X (port-based, single, multi, and MAC-based).

## Secure remote management

Secure communication protocols such as SSH, SSL and SNMPv3 mean that the LANCOM GS-2310 is ideal for the professional remote management of networks. 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.

## IPv6 and IPv4 support

Thanks to the dual-stack implementation, the LANCOM GS-2310 operates in pure IPv4, pure IPv6, or in mixed networks. This means that it can be managed via both IP address standards, which makes it fully future-proof.

## 5-year replacement service

Every day, our customers rely on products to the highest standards of quality. These quality standards also include fast help, just in case things should go wrong. This is why the LANCOM GS-2310 comes with a free warranty extension of 5 years.



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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 8K MAC addresses
Throughput	Max. 20 Gbps on the backplane
Maximum packet processing	14,88 million packets per second (mpps) at 64-byte packets
Single IP Management (SIP)	Supports stacking of up to 16 devices, several switches can be managed via one ip address
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 9k frames

## 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
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## 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 5 groups containing up to 2 ports each according to IEEE 802.3ad
VLAN	Support for up to 4K VLANs simultaneously (out of 4096 VLAN Ids); matching due to port, IEEE 802.1q tagged VLANs or MAC addresses
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 256 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
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	→ 8 TP ports 10/100/1000 Mbps → 2 combo ports (TP/SFP) with 100/1000 Mbps (SFP) and 10/100/1000 Mbps (TP) → 10 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
Easy-Configuration-Ports	Easy setup of ports for QoS and Security based on pre-defined configuration profiles



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## Management and monitoring

Port Mirroring	Traffic can be mirrored from on port to another for investigation with network analyzer or RMON probe. Up to 9 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
Firmware update	→ Update via WEBconfig and browser (HTTP/HTTPS) → Update via TFTP, SCP, and LANconfig → Update via LANCOM Management Cloud → 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 analysisation to protect your network against dangers

## Hardware

Weight	2,34 lbs (1,06 kg)
Power supply	Internal power supply unit (100 – 240 V, 50 – 60 Hz)
Environment	Temperature range 0 – 40° C; humidity 10 – 90%; non-condensing
Housing	Robust metal housing (220 x 45 x 135 mm > W x H x D) incl. mounting brackets for 19-inch mounting, network connectors on the front
Fans	None; fanless design without rotating parts, high MTBF
Power consumption (max)	14 W

## Declarations of conformity\*

Europe/EFTA	CE
North America	FCC/IC
* ) Note	The full text of the specific Declaration of Conformity is available at the following Internet address: <a href="http://www.lancom-systems.com/doc">www.lancom-systems.com/doc</a>



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## Supported IEEE standards

IEEE 802.1AB	Link Layer Discovery Protocol (LLDP)
IEEE 802.1AB	LLDP-MED
IEEE 802.1ad	Q-in-Q tagging
IEEE 802.1d	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)
IEEE 802.1w	Rapid Spanning Tree Protocol (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 802.3az	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



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## Supported RFC standards

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 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 4668	RADIUS Authentication Client MIB
RFC 4670	RADIUS Accounting MIB
RFC 5519	Multicast Group Membership Discovery MIB
RFC 7513	DHCP Snooping

## Scope of delivery

Manual	Hardware Quick Reference (DE/EN), Installation Guide (DE/EN)
Cable	Serial configuration cable, 1.5m
Cable	IEC power cord
19" brackets	Two 19" brackets for rackmounting



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## 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: <a href="http://www.lancom-systems.com/support-conditions">www.lancom-systems.com/support-conditions</a> or at <a href="http://www.lancom-systems.com/rma">www.lancom-systems.com/rma</a>
Security updates	Up to 2 years after End of Sale of the device (but min. 5 years, see <a href="http://www.lancom-systems.com/product-tables">www.lancom-systems.com/product-tables</a> ), can be extended by purchasing LANcare products
Software Updates	Regular free updates including new features as part of the LANCOM Lifecycle Management <a href="http://www.lancom-systems.com/lifecycle">www.lancom-systems.com/lifecycle</a>
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 S	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. 10730
LANcare Direct Advanced 24/7 S	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. 10776, 10777 or 10778)
LANcare Direct 24/7 S	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. 10752, 10753 or 10754)
LANcare Direct Advanced 10/5 S	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. 10764, 10765 or 10766)
LANcare Direct 10/5 S	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. 10740, 10741 or 10742)

## LANCOM Management Cloud

LANCOM LMC-A-1Y LMC License	LANCOM LMC-A-1Y License (1 Year), enables the management of one category A device for one year via the LANCOM Management Cloud, item no. 50100
LANCOM LMC-A-3Y LMC License	LANCOM LMC-A-3Y License (3 Years), enables the management of one category A device for three years via the LANCOM Management Cloud, item no. 50101
LANCOM LMC-A-5Y LMC License	LANCOM LMC-A-5Y License (5 Years), enables the management of one category A device for five years via the LANCOM Management Cloud, item no. 50102

## Accessories\*

1000Base-SX SFP transceiver module	LANCOM SFP-SX-LC1, item no. 61556
1000Base-SX SFP transceiver module	LANCOM SFP-SX2-LC1, item no. 60183





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## Accessories\*

1000Base-LX SFP transceiver module LANCOM SFP-LX-LC1, item no. 61557

1000Base-LX SFP BiDi transceiver module LANCOM SFP-BiDi1550-SC1, item no. 60201

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-2310 61492

