LANCOM GS-2328P

Fully managed 28-port Gigabit Ethernet switch with Power over Ethernet for high-performance networks

The LANCOM GS-2328P is a high-performance component for modern network infrastructures in any industry or application. Equipped with 24 Gigabit Ethernet ports and 4 SFP+ ports supporting transmission rates of up to 10 Gbps, the LANCOM GS-2328P is the ideal solution for networking up to 28 devices. This switch supplies an overall output of 370 Watts and is also capable of powering all PoE devices connected to it (as per IEEE 802.3af/at) without any additional power supplies or cabling. It supports SD-LAN for automatic switch configuration via the LANCOM Management Cloud for an extremely easy and efficient way of managing your infrastructure.

- 24 Gigabit Ethernet ports and 4 SFP+ ports (10 Gbps)
- PoE support as per IEEE 802.3af/at for the efficient and centralized supply of power (370 watt) to all devices connected to it
- Energy-saving functions as per IEEE 802.3az with port deactivation if no data is transferred
- 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
- 5-year warranty on all components

LANCOM Systems

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High power output on 28 ports

The LANCOMGS-2328P is equipped with 24 Gigabit Ethernet ports and 4 SFP+ ports supporting transmission rates of up to 10 Gbps. With a data throughput of 128 Gbps on the backplane, it offers full performance even under maximum load. This makes the switch a high-performance basis for modern network infrastructures in any industry or field of application.

Centralized power supply without additional cabling

As a high-performance PoE+ switch, the LANCOM GS-2328P supplies power to PoE devices such as IP phones, access points and surveillance cameras, without the need of any additional power supplies. It supports the two Power-over-Ethernet standards IEEE 802.3af and IEEE 802.3at (PoE+), with an overall output of 370 Watts. This makes the GS 2328P ideal for efficiently supplying power to the increasing number of PoE devices with high power requirements.

Efficient power-saving features

The LANCOM GS-2328P features Energy Efficient Ethernet technology. Thanks to numerous power-saving features as per the IEEE 802.3az standard, ports that are not transferring data are switched off automatically. This valuable feature saves precious resources.

Data transmission by 10 Gigabit Ethernet

The LANCOMGS-2328P features 4 SFP+ ports supporting speeds of up to 10 Gbps. What's more, these ports can be bundled by LACP as per IEEE 802.3ad to achieve speeds of up to 40 Gbps. Your network offers noticeably higher performance, greater reliability, and even more speed.

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-2328P 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).

Secure remote management

Secure communication protocols such as SSH, SSL and SNMPv3 mean that the LANCOM GS-2328P 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-2328P 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 warranty

Every day, our customers rely on products manufactured in Germany 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-2328P comes with a standard warranty 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 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, 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 ist blocked. Traffic can only be sent from isolated group to non-isolalted group.
Performance	
Switching technology	Store and forward with latency less than 4 microseconds
MAC addresses	Support of max 32K MAC addresses
Throughput	Max. 128 Gbps on the backplane
Maximum packet processing	95,23 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 4,096 VLAN and up to 4,000 active VLANs; Supports ingress and egress packet filter in port based VLAN
Jumbo frame support	Jumbo frame support with up to 9k frames
PoE with IEEE 802.3at	
Ports	24x IEEE 802.3at PoE ports (compatible to IEEE 802.3af powered devices), limited by the maximum PoE power supplied
Power	370 W total power with dynamic load balancing on all ports
Priorisation	Supports port based priority and PoE status setting
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 2 switching	
Link Aggregation Control Protocol (LACP)	Support of 14 groups containing up to 4 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 adresses
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
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)

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Layer 2 switching	
DHCP Relay Agent	DHCP relay agent, supporting DHCP option 82
Interfaces	
Ethernet	■ 24 TP ports 10/100/1000 Mbps ■ 4 SFP+ ports 1/10 Gbps ■ 28 concurrent Ethernet ports in total
Console port	DB9 configuration port for command line access
Management and monitoring	
Management	LANconfig, WEBconfig, LANCOM Management Cloud
Monitoring	LANmonitor, LANCOM Management Cloud
Easy-Configuration-Ports	Easy setup of ports for QoS and Security based on pre-defined configuration profiles
Port Mirroring	Traffic can be mirrored from on port to another for investigation with network analyzer or RMON probe. Up to 8 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
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
Remote Monitoring	Integrated RMON software agent supports 4 RMON groups (history, statistics, alarms and events) for enhanced traffic management, monitoring and analysis
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	5,94 lbs (2,70 kg)
Power supply	Internal power supply unit (110–230 V, 50-60 Hz)
Environment	Temperature range 0–40° C; humidity 10–90%; non-condensing
Housing	Robust metal housing, 19" 1U (442 x 44 x 211 mm > W x H x D) with removable mounting brackets, network connectors on the front
Fans	2
Power consumption (max)	444 watt
Declarations of conformity*	
CE	EN 60950-1, EN 55022, EN 55024
FCC	FCC Part 15 (CFR47) Class A
*) Note	You will find all declarations of conformity in the products section of our website at www.lancom-systems.eu
Supported IEEE standards	
IEEE 802.1AB	Link Layer Discovery Protocol (LLDP)

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Supported IEEE standards	
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 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 (SNMP)
RFC2021	Remot Network Monitoring MIB v2 (RMONv2)
RFC 2233	Interface MIB
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

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Supported RFC standards	
RFC 3621	Power Ethernet MIB
RFC 3635	Ethernet-Like MIB
RFC 3636	IEEE 802.3 MAU MIB
RFC 4133	Entitiy 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
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
Support	
Warranty	5 years, support via hotline and Internet KnowledgeBase
LANCOM Warranty Advanced Option M	Option to extend the manufacturer´s warranty from 3 to 5 years and replacement of a defective device, item no. 10716
LANCOM Management Cloud	
LANCOM LMC-B-1Y LMC License	LANCOM LMC-B-1Y License (1 Year), enables the management of one category B device for one year via the LANCOM Management Cloud, item no. 50103
LANCOM LMC-B-3Y LMC License	LANCOM LMC-B-3Y License (3 Years), enables the management of one category B device for three years via the LANCOM Management Cloud, item no. 50104
Accessories	
1000Base-SX SFP module	LANCOM SFP-SX-LC1, item no. 61556
1000Base-LX SFP module	LANCOM SFP-LX-LC1, item no. 61557
10GBase-SX SFP module	LANCOM SFP-SX-LC10, item no. 61485
Item number(s)	
LANCOM GS-2328P (EU)	61442 (EU)
LANCOM GS-2328P (UK)	61443 (EU)