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## LANCOM GS-1224P

Cost-effective web-smart switch with Gigabit Ethernet and PoE support

- Layer-2 switch with 24 PoE-capable Gigabit Ethernet ports
- Power over Ethernet as per IEEE 802.3af with an overall power output of up to 185 W
- Ideal, for example, for high-performance networking of IEEE 802.11n WLAN access points
- Four combo ports (TP/SFP) for SFP modules (e.g. for connections to fiber optic networks)
- Port-based QoS, as per IEEE 802.1p or TOS/DiffServ
- Monitoring via SNMP and LANmonitor
- IEEE 802.1X authentication on all ports
- 5-year warranty on all components

The web-smart PoE switch LANCOM GS-1224P offers outstanding cost-effectiveness with its wide range of functions. Ideal for the high-performance networking within branch offices or as an edge component of larger networks, this switch offers 24 Gigabit Ethernet ports (including 4 TP/SFP combo ports) that can supply power to devices via LAN cable. Along with Power over Ethernet as per IEEE 802.3af, the switch features a range of quality-of-service functions including priority queuing of traffic and security mechanisms such as IEEE 802.1X access control. For seamless integration into the network, the LANCOM GS-1224P supports monitoring via SNMP and also the LANCOM Management System.

### **More Performance**

With a data throughput of 48 Gbps on the backplane, the LANCOM GS-1224P offers full performance even under load. It provides optimal supports of network virtualization with up to 24 active entries for tag-based VLAN assignment: This, for instance, separates data transmissions between different LANCOM access-point SSIDs and a LANCOM router, which in turn uses IPsec tunnel-in-tunnel to implement the VLANs. Load balancing can be used to group up to 12 ports at a time into one of eight trunk groups for connectivity (standard compliant to IEEE 802.3ad with LACP), for example to cascade switches when the terminals are experiencing heavy traffic, or for providing optimal connectivity to network storage systems.

### **More Efficiency.**

The LANCOM GS-1224P helps with the efficient design of the network power supply and central management: Power over Ethernet as per IEEE 802.3af eliminates the need for separate power supplies to the different devices, so simplifying the network installation. Thanks to PoE and Gigabit performance, even high-speed network components such as 802.11n WLAN access points can be easily and economically provided with power via LAN cable and networked with high data rates. By avoiding the use of individual power supply units for each terminal and using central PoE provision via the LANCOM GS-1224P instead, energy consumption is reduced due to efficiency improvements. The integrated power management helps to achieve further savings depending on the lengths of cables used and also when connections are inactive.

### **More Security.**

The LANCOM GS-1224P gives you the assurance that rogue clients cannot access your network via this switch. This is in part due to the configuration of the MAC addresses allowed to access each port, and also due to the secure login of clients as per IEEE 802.1X. The number of clients per port can be limited, and restrictions can be placed on the incoming and outgoing data traffic, all of which helps to ensure secure operation. The unicast/multicast/broadcast storm control functions limit the impact of attacks or malfunctions resulting from misconfigurations in the network.

Rapid spanning tree enables a device to send data over an alternative route without delay if there are malfunctions in the network. Vital to IP telephony: Bandwidth control means that calls are transmitted reliably and without interruptions.

### **More Management.**

The LANCOM GS-1224P stands for ease of operation without compromising on security. With the clearly structured WEBconfig interface the switch is easy to manage by web browser. Available free of charge and able to manage most other LANCOM devices, the LANCOM Management System LCMS quickly and easily detects the GS-1224P switch in the LAN, and WEBconfig opens with a double click. LANmonitor, a component of LCMS, provides a clearly structured overview of the GS-1224P's current status. By configuring a mirror port, network traffic at a port of the user's choice can be recorded for analysis. And with the aid of SNMP traps, system administrators can be immediately informed of any unusual events.

# LANCOM GS-1224P

<b>Quality of Service</b>	
DiffServ/TOS	Port based (VIP Port), 802.1p, Priority queuing of packets based on DiffServ/TOS fields
Port priority	Supports four level priority queues to prioritize inbound and outbound traffic
<b>Security</b>	
802.1X	802.1X access control on all ports, user-based
Broadcast Storm Control	Multicast/Broadcast/Unknown unicast storm suppression
<b>Performance</b>	
Switching technology	Store and forward with latency less than 5 $\mu$ s
MAC addresses	Support of max 8K MAC addresses
Throughput	Max. 48 Gbps on the backplane
VLAN	Port based and IEEE 802.1q tag based VLAN with up to 4,096 VLAN and up to 24 active VLANs
Jumbo Frame Support	Jumbo frame support with up to 9k frames
<b>PoE with 802.3af</b>	
Ports	24x 802.3af PoE ports
Power	185 W total power with dynamic load balancing shared among all ports with PoE active (i. e. up to 15.4 W at 12 ports or 7.7 W at 24 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
<b>LAN protocols</b>	
Link Aggregation Control Protocol (LACP)	Maximum of 8 groups, max. 12 members per group
Multicasting	Supports IGMP snooping
Spanning Tree Protocol (STP) / Rapid Spanning Tree Protocol (RSTP)	802.1d/1w
<b>Interfaces</b>	
Ethernet ports	20 TP ports 10/100/1000 Mbps and 4 Combo ports TP/SFP 10/100/1000 Mbps; deactivation of unused ports and providing of power depending on cable length (energy saving)
<b>Management</b>	
Port mirroring	Supports 1:N port mirroring
Security	Access security via changeable password
SNMP	SNMP management via SNMPv1 or v2c and private MIB
RFC 1213 MIB	supported
RFC 1493 Bridge MIB	supported
RFC 2863 Interface Group MIB	supported
WEBconfig	Integrated web server with setup wizard for the configuration via Internet browsers with HTTP
LANconfig	Supported by LANconfig (LANCOM management software): automatic detection, display of device properties, opening of web configuration
LANmonitor	Monitoring application for Microsoft Windows for (remote) surveillance and logging of the device and port status
Firmware update	Upload of firmware via HTTP
<b>Hardware</b>	
Power supply	Internal power supply unit (110–230 V, 50-60 Hz)
Environment	Temperature range 0–40°C; humidity 5–90%; non-condensing
Housing	Robust metal housing, 19' 1U (440 x 44 x 170 mm) with removable mounting brackets, network connectors on the front
Fans	2
Power consumption (max)	210 W (ca. 25 W switch functions, 185 W max. PoE supply)
<b>Declarations of conformity</b>	
CE	EN 55022, EN 55024, EN 60950

# LANCOM GS-1224P

Supported standards	
IEEE 802.1d	Spanning Tree
IEEE 802.1p	Class of Service
IEEE 802.1q	VLAN
IEEE 802.1w	Rapid Spanning Tree
IEEE 802.1X	Access Control
IEEE 802.3	10Base-T Ethernet
IEEE 802.3ab	1000Base-T Ethernet
IEEE 802.3ad	Link Aggregation Control Protocol
IEEE 802.3u	100Base-TX Ethernet
IEEE 802.3x	Flow Control
IEEE 802.3z	1000Base-X Ethernet
Package content	
Manual	Printed Installation Guide (DE/EN)
CD/DVD	Data medium with firmware, management software (LANconfig, LANmonitor, WLANmonitor) and documentation
Cable	IEC power cord
19" brackets	Two 19" brackets for rackmounting
Support	
Warranty	5 years, support via Hotline and Internet KnowledgeBase
Options	
Advance Replacement	LANCOM Next Business Day Service Extension CPE, item no. 61411
Accessories	
1000Base-SX SFP module	LANCOM SFP-SX-LC1, item no. 61556
1000Base-LX SFP module	LANCOM SFP-LX-LC1, item no. 61557
Item numbers	
LANCOM GS-1224P	61461(EU)

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