

# LANCOM

## PRODUCT OVERVIEW

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- › Cloud-managed Networks
- › Router & VPN-Gateways
- › All-IP- & VoIP Routers
- › Next-generation UTM Firewalls
- › Switches
- › Wireless LAN
- › Service, Training & Support

SECURE.NETWORKS.



# Secure. Networks.

## Trusted networking solutions

LANCOM Systems is the leading European manufacturer of secure, reliable, and future-viable networking and security solutions (WAN, LAN, WLAN, and firewalls) for business and the public sector. The company combines hardware with virtual networking components and cloud-based software-defined networking (SDN). The result is a unique portfolio of on-premises and cloud solutions with a central platform for SD-WAN, SD-LAN, SD-WLAN & SD-SECURITY.

Software and hardware development as well as manufacturing take place mainly in Germany, as does the hosting of the network management. Special attention is given to providing trusted solutions with excellent security features. Furthermore, freedom from backdoors is a key protection provided by these products. The Trust Seal "IT-Security Made in Germany" confirms the trustworthiness and the outstanding security levels the products offer.

LANCOM Systems was founded in 2002 and has its headquarters in Würselen near Aachen, Germany. Customers include SMEs, government agencies, institutions, and major corporations from all over the world. Since summer 2018, the company has been an independent subsidiary of the Munich-based technology group Rohde & Schwarz GmbH & Co. KG.

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# CLOUD-MANAGED NETWORKS

The LANCOM Management Cloud is the world's first hyper-integrated management system that intelligently organizes, optimizes, and controls your entire network architecture in terms of its WAN, LAN, WLAN, and Security. This state-of-the-art cloud management system for all network components drastically simplifies the provision of integrated networks and makes the manual configuration of individual devices a thing of the past.

## HIGHLIGHTS OF THE LANCOM MANAGEMENT CLOUD

- › Control and monitoring of the entire network by one system
- › Zero-touch deployment and auto-configuration
- › Holistic and automatic network virtualization
- › Scalability for networks of any scale
- › Highly automated system for maximum time- and cost savings
- › Easy device integration thanks to a term-based licensing model



## HYPER INTEGRATION

### AUTOMATED, HOLISTIC NETWORK ORCHESTRATION

The LANCOM Management Cloud replaces manual and individual device configurations by automated network orchestration. All the administrator has to do is to specify the framework conditions for the design of the network. Complex network configurations are reduced to a few minutes and clicks!



Maximum agility  
and versatility



State-of-the-art  
security



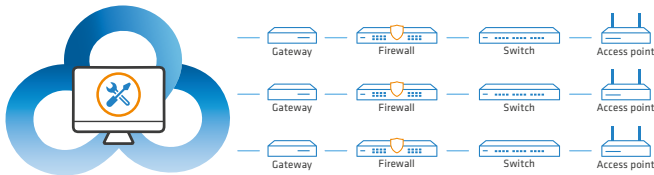
Radical time and  
cost savings



Highly automated  
multi-service networks

# CLOUD-MANAGED NETWORKS

The LANCOM Management Cloud is a holistic system that controls the entire network infrastructure. All gateways, routers, firewalls, switches, and access points are quickly and easily transferred to the cloud-based network orchestration.



## SD-WAN

A software-defined wide-area network (SD-WAN) automatically and dynamically uses any type of wide-area network (WAN) for VPN site connectivity and the provision of multi-service networks.

## SD-LAN

Short for software-defined local-area network, an SD-LAN supports the automated, dynamic, and secure provisioning of any type of multi-service network on switch ports.

## SD-WLAN

A software-defined wireless local-area network (SD-WLAN) combines the features of WLAN controllers and conventional cloud-managed Wi-Fis and supplements these with maximized automation and agility.

## SD-SECURITY

Software-defined security (SD-SECURITY) offers centrally orchestrated IT security including Unified Threat Management (UTM) as well as a complete overview of security and compliance requirements for multi-site networks.



## PRECISELY FITTING LICENCE MODELS

For the optional integration of LANCOM devices into the hyper-integrated network management of the LANCOM Management Cloud, flexible licensing models are available. This way your infrastructure stays agile and easily expandable. There are four license categories (A – D; license terms 1, 3 or 5 years). How devices and categories combine can be seen in the product table in the annex.

Security  
made  
in  
Germany

### SECURE. NETWORKS.

You can rely on IT security Made in Germany from LANCOM and benefit from device handling that is guaranteed to be backdoor-free and fully compliant with data protection regulation.



Products on pages marked with this symbol can be integrated into the LANCOM Management Cloud.

# Business VPN Routers

## SD-WAN with the 1900 series



Large-scale network infrastructures operating at multiple locations demand true bandwidth experts to keep everything working efficiently in the changing digital environment. The LANCOM business VPN routers of the 1900 series are professional devices for secure VPN networking and high-performance Internet connectivity.

### THE BANDWIDTH EXPERTS

– ideal for large corporate infrastructures



#### LANCOM 1906VA-4G

- > 2x VDSL2 Vectoring, 1x SFP/TP, 1x WAN Ethernet
- > Load balancing & a higher available bandwidth
- > Dual-SIM LTE-Advanced for up to 300 Mbps
- > Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- > 2 ISDN interfaces (1x TE/NT, 1x NT) and 4 analog interfaces
- > 25 simultaneous IPsec-VPN connections (optionally 50)
- > Network virtualization with up to 64 networks (ARF)



#### LANCOM 1906VA

- > Like the LANCOM 1906VA-4G except for dual-SIM LTE-Advanced



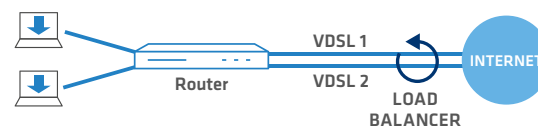
#### LANCOM 1900EF

- > Multi-WAN VPN gateway with 1x SFP/TP, 1x WAN Ethernet
- > Load balancing & a higher available bandwidth
- > Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- > 25 simultaneous IPsec-VPN connections (optionally 50)
- > Network virtualization with up to 64 networks (ARF)



## LANCOM 1900 SERIES FOR TOP PERFORMANCE AND INTELLIGENT LOAD BALANCING

Load balancing distributes the data traffic evenly across the network. This ensures that data links are divided between at least two connections, so that even if one line fails, the other one acts as a backup. The LANCOM 1900 series allows the parallel operation of several Internet connections for perfect load balancing and maximization of the available bandwidth.



# Business VPN Routers



For small and medium-sized companies, the reliable connection of branch offices, employees or service providers is absolutely essential. The LANCOM business VPN routers are professional devices for secure VPN networking and high-performance Internet connectivity. Wide choice of interfaces, versatile backup options, and future-proof SD-WAN features in combination with the LMC make these routers ideal for many different industries and areas of application.

## THE VPN ROUTERS FOR VARIOUS REQUIREMENTS

– ideal for small and medium-sized enterprise structures



### LANCOM 1790VA-4G

- > Integrated VDSL Super Vectoring modem for up to 300 Mbps (backwards compatible with VDSL2 / ADSL2+)
- > LTE-Advanced for up to 300 Mbps
- > 5 simultaneous IPSec-VPN connections (25 optional)



### LANCOM 1790VAW

- > Like the LANCOM 1790VA-4G, without LTE-Advanced
- > Wi-Fi operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 or 300 Mbps with Wi-Fi 4



### LANCOM 1790VA

- > Like the LANCOM 1790VA-4G, without LTE-Advanced



### LANCOM 1790-4G

- > Like the LANCOM 1790VA-4G, without VDSL



### LANCOM 1790EF

- > High-speed Internet via external modems or fiber-optics
- > 5 simultaneous IPSec-VPN connections (25 optional)



### LANCOM 1781VA

- > Like the LANCOM 1790VA, but with VDSL2/ADSL2+ modem and 1x ISDN interface



### LANCOM 1781EW+

- > High-speed Internet via external modems
- > Wi-Fi at up to 450 Mbps with Wi-Fi 4
- > 1 x ISDN interface
- > 5 simultaneous IPSec-VPN connections (25 optional)



### LANCOM 1780EW-4G+

- > Gigabit Ethernet for connection to DSL or cable modems
- > LTE-Advanced for up to 300 Mbps
- > Wi-Fi operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 or 300 Mbps with Wi-Fi 4
- > 5 simultaneous IPSec-VPN connections (25 optional)

NEW



### LANCOM IAP-1781VAW+

- > Integrated VDSL2/ADSL2+ modem for up to 100 Mbps
- > Wi-Fi operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 or 300 Mbps with Wi-Fi 4
- > Robust IP54 protective housing (temperature range -25°C to 70°C) including mounting materials
- > 5 simultaneous IPSec-VPN connections (25 optional)



### LANCOM IAP-4G+

- > Integrated LTE-Advanced modem for up to 300 Mbps
- > Full-metal housing based on IP50
- > Extended temperature range (-20°C to +50°C)
- > 5 simultaneous IPSec-VPN connections (25 optional)



### LANCOM 1640E

- > Gigabit Ethernet for connection to external DSL or cable modems
- > 3 simultaneous IPSec VPN connections



### LANCOM VIRTUAL CPE

- > Software-based router for operation in virtual environments
- > Licenses for LANCOM vRouter 50 and vRouter 250

# Business VoIP Routers



As a migration solution for operating analog, ISDN, and VoIP terminals at an All-IP exchange line or for fast Internet – the LANCOM business VoIP router networking experts are ideal for the diverse demands of modern small and medium-sized companies.

## FIT FOR ALL-IP

– in small and medium-sized networks



### LANCOM 1793VA-4G

- › Integrated VDSL Super Vectoring modem for up to 300 Mbps (backwards compatible with VDSL2 / ADSL2+)
- › LTE-Advanced for up to 300 Mbps
- › Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- › 2 ISDN interfaces (1x TE/NT, 1x NT) and 4 analog interfaces
- › 5 simultaneous IPSec-VPN connections (25 optional)
- › Network virtualization with up to 16 networks (ARF)



### LANCOM 1793VAW

- › Like the LANCOM 1793VA-4G, without LTE-Advanced
- › Wi-Fi operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 or 300 Mbps with Wi-Fi 4



### LANCOM 1793VA

- › Like the LANCOM 1793VA-4G, without LTE-Advanced



### LANCOM 1784VA

- › Integrated VDSL2 / ADSL2+ modem
- › Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- › 4 ISDN interfaces (1x TE/NT, 1x NT)
- › 5 simultaneous IPSec-VPN connections (25 optional)
- › Network virtualization with up to 16 networks (ARF)



## NEW



### LANCOM 883+ VoIP

- › Integrated VDSL Super Vectoring modem for up to 300 Mbps (backwards compatible with VDSL2 / ADSL2+)
- › WLAN based on Wi-Fi 4 for up to 300 Mbps
- › 2 ISDN interfaces (1x TE/NT, 1x NT) and 4 analog interfaces
- › Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- › 3 simultaneous IPSec-VPN connections
- › Network virtualization with up to 2 networks (ARF)



### LANCOM 883 VoIP

- › Like the LANCOM 883+ VoIP, but with VDSL2 / ADSL2+ modem and 2x analog interfaces



### LANCOM 884 VoIP

- › Integrated VDSL2 / ADSL2+ modem
- › 4 ISDN interfaces (1x TE/NT, 1x NT)
- › Integrated LANCOM VCM (Voice Call Manager) and SBC (Session Border Controller)
- › 3 simultaneous IPSec-VPN connections
- › Network virtualization with up to 2 networks (ARF)



### LANCOM DECT 510 IP

- › Integration into networks via LANCOM business VoIP routers / routers with an activated All-IP Option
- › Use up to 6 DECT handsets

# Internet Access Routers



Internet access routers from LANCOM can be used in small and large networks, and they are ideal where high-end modems are required or where cellular models operate as additional “4G antennas” for other routers.

## BUSINESS SOLUTIONS

– reliable and versatile



### LANCOM 730VA

- > Integrated VDSL2 / ADSL2+ modem
- > Operates as a pure DSL modem or router



### LANCOM 730-4G+

- > Operates as a freely positionable LTE-Advanced network extension or as standalone LTE router
- > Easily connected to a LANCOM router or switch
- > Powered by PoE or power supply unit
- > LTE-Advanced with up to 300 Mbps



# Hardware Accessories

LANCOM offers a comprehensive range of accessories for many applications. With convenient rack- or wall-mounting options and SFP modules for fast fiber-optic connections, you can adapt your LANCOM product to your specific needs.



## LANCOM SFP-MODULES\*

- > Versatile use in LANCOM switches, routers, and firewalls with integrated SFP ports
- > For high-speed fiber-optic networking or as a copper-cabled Ethernet port
- > Also available as Direct Attached Cable

\* Suitable SFP modules can be found in the table in the annex.

## LANCOM RACK MOUNT (19“)

- > Suitable for front or rear device mountings
- > For all LANCOM devices with the indoor housing



## LANCOM RACK MOUNT PLUS (19“)

- > Device connectors located on the front
- > For all LANCOM devices with the indoor housing



## LANCOM WALL MOUNT

- > Convenient wall mounting for all LANCOM indoor access points and routers with plastic housings
- > Theft-proof thanks to padlock
- > Available in the colors “classic” and “white”
- > Also available as Wall Mount (Rail) in the “classic” color variant and as Wall Mount (LN) for the LN housing



## Software VPN Clients

At their home office or on the road, employees can dial-in to the corporate network at any time at the click of a mouse: The LANCOM Advanced VPN Client enables secure and convenient data communication over the Internet. The software is available for the operating systems Microsoft Windows\* and macOS\*\*.

### LANCOM ADVANCED VPN CLIENT

– secure access when traveling

#### WINDOWS

- > IPSec-VPN client for Windows 10, Windows 8.1, Windows 8, Windows 7 (32 and 64 bit)
- > Supports IPv4 and IPv6 VPN
- > IKEv2 support
- > IPSec-over-HTTPS (based on NCP VPN Path Finder technology)
- > Seamless roaming – VPN connections remain intact even with media changes

#### macOS

- > IPSec-VPN client for macOS up to 10.14 Mojave
- > Integrated stateful inspection firewall
- > Supports IPv4 and IPv6 VPN
- > IKEv2 support



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\*\* Mac and macOS are trademarks of Apple Inc. registered in the U.S. and other countries.

## Software Options

The LANCOM software options\* upgrade your LANCOM routers, central-site VPN gateways, access points, and WLAN controllers with an array of functions. These cost-efficient software upgrades give your existing devices entirely new functionalities – exactly according to your needs.



### LANCOM CONTENT FILTER

- > Category-based review and blocking of web pages



### LANCOM WLC BASIC OPTION

- > Upgrades LANCOM routers with WLAN controller functions
- > Manages 6 (optionally up to 12) access points or WLAN routers



### LANCOM WLC UPGRADE OPTION

- > Increases the number of access points and WLAN routers managed by the controller



### LANCOM HIGH AVAILABILITY CLUSTERING OPTION

- > For the centralized management of clustered WLAN controllers for central-site VPN gateways and convenient configuration synchronization (Config Sync)



### LANCOM VPN OPTION

- > Upgrades the number of available VPN tunnels



### LANCOM ALL-IP OPTION

- > Upgrades a LANCOM router to be an IP-ISDN gateway
- > Telephony with the LANCOM Voice Call Manager (VCM) and Session Border Controller (SBC)



### LANCOM VOIP +10 OPTION

- > Upgrade for 10 additional VoIP phone numbers (max. 40) and 10 additional SIP lines (max. 55)

\* Options vary per product, please refer to the list of options in the annex.

# Central-site VPN Gateways



Companies use encrypted Internet connections to operate business-critical applications across multiple locations. LANCOM central-site VPN gateways support the implementation of large-scale multi-service IP network structures for centralized security, high performance, and the utmost reliability.

## CENTRALIZED SECURITY

– for large networks

NEW



### LANCOM ISG-8000

- > 250 simultaneous IPSec-VPN connections (up to 1,000 optional)
- > Network virtualization with up to 256 networks (ARF)
- > 2x 10 GE SFP+ ports, 8x GE-ETH ports, 2x front USB ports, 1x serial port (RJ45)



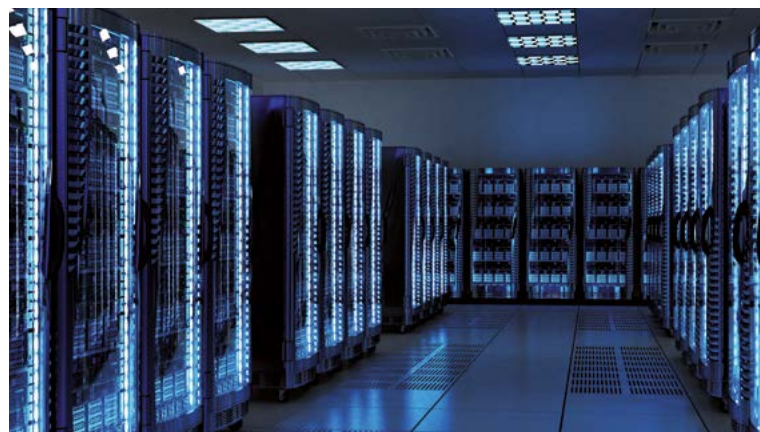
### LANCOM ISG-4000

- > 200 simultaneous IPSec-VPN connections (up to 1,000 optional)
- > Network virtualization with up to 256 networks (ARF)
- > 2x 10 GE SFP+ ports, 4x GE combo ports (ETH / SFP), 1x GE-ETH port, 1x front USB port, 1x serial port (RJ45)



### LANCOM ISG-1000

- > 100 simultaneous IPSec-VPN connections (up to 200 optional)
- > Network virtualization with up to 128 networks (ARF)
- > 4x GE combo ports (ETH / SFP) and 1x GE-ETH port, 1x front USB port, 1x serial port (RJ45)



## VIRTUALIZED PERFORMANCE FOR UNMATCHED SCALABILITY

The LANCOM vRouter is a virtual, software-based router for operation with VMware ESXi, HyperV or Microsoft Azure. Be it a branch router (vCPE), a central-site VPN gateway (vGateway) or virtualized WLAN controller (vWLC), the LANCOM vRouter is the ideal basis for state-of-the-art networks.

The LANCOM vRouter is available as term-based variants for varying scalability and performance requirements

## vROUTER

VIRTUAL GATEWAYS

**LANCOM vRouter unlimited** – unlim. Mbps, 1,000 VPN channels, 256x ARF, unlimited Public Spot users, WLAN controller function for up to 1,000 access points / WLAN routers

**LANCOM vRouter 1000** – 1,000 Mbps, 200 VPN channels, 128x ARF, unlimited Public Spot users, WLAN controller function for up to 200 access points / WLAN routers

**LANCOM vRouter 500** – 500 Mbps, 100 VPN channels, 64x ARF, unlimited Public Spot users, WLAN controller function for up to 100 access points / WLAN routers

VIRTUAL CPE

**LANCOM vRouter 250** – 250 Mbps, 50 VPN channels, 16x ARF, 128 Public Spot users, WLAN controller function for up to 100 access points / WLAN routers

**LANCOM vRouter 50** – 50 Mbps, 10 VPN channels, 8x ARF, 128 Public Spot users, WLAN controller function for up to 10 access points / WLAN routers

# Next-generation UTM Firewalls



LANCOM R&S®Unified Firewalls complete your network to ensure effective protection against malware and cybersecurity threats. These easy-to-operate all-round solutions are tailored to the individual security needs of small and medium-sized businesses and are fully integrated into the LANCOM Management Cloud as of this autumn 2019.



Security  
made  
in  
Germany



LANCOM R&S®Unified Firewalls	UF-50	UF-100	UF-200	UF-300	UF-500	UF-900
Network interfaces						
Ports	4x GE copper	4x GE copper	4x GE copper	8x GE copper	14x GE copper	8x GE copper (two additional slots for plug-in modules for 1G ETH, 1G SFP and 10G SFP+)
System performance						
IPS/IDS throughput (Mbps)	—	—	550	635	1,295	3,780
Firewall throughput (Mbps)	2,600 (UDP)	3,800 (UDP)	3,800 (UDP)	7,700 (UDP)	13,400 (UDP)	60,000 (UDP)
VPN throughput (Mbps)	200 (IPSec)	430 (IPSec)	430 (IPSec)	620 (IPSec)	1,260 (IPSec)	4,280 (IPSec)
Concurrent sessions	520,000	1,000,000	1,000,000	1,000,000	2,000,000	16,700,000
New sessions per second	8,000	11,000	11,000	13,000	33,000	130,000
Number of users (rec.)	Max. 10 concurrent users	Max. 30 concurrent users	Max. 100 concurrent users	Max. 100 concurrent users	Max. 200 concurrent users	Max. 500 concurrent users
LMC category	B	B	B	C	D	D

## YOUR BENEFITS:

- Intuitive network visualization for easy implementation of security and compliance policies
- Filtering and validation of applications and protocols
- Protection against spam, viruses, malware, and cyber attacks
- State-of-the-art security technologies with R&S®PACE2 deep packet inspection
- Preventive security against zero-day threats through integrated sandboxing and machine learning

More under: [www.lancom-systems.com/unified-firewalls](http://www.lancom-systems.com/unified-firewalls)

## IT SECURITY FOR SECURE NETWORK INFRASTRUCTURES:

### vFIREWALL

#### LANCOM R&S vFIREWALL

- Virtual, software-based firewall for operation with VMware ESXi
- Available as term-based variants for varying scalability and performance requirements



#### LANCOM R&S®UF COMMAND CENTER

- Central and intuitive management and monitoring for existing installations of LANCOM R&S®Unified Firewalls

# Fully managed Layer 3 lite Switches



These layer 3 lite switches are the ideal solution for large-scale, demanding and data-intensive network structures. Basic layer-3 features such as static routing and a DHCP server deliver intelligent networking by efficiently distributing the load between the various network components.

## POWERFUL SWITCHES

– for data-intensive networks

### LANCOM GS-3152X / GS-3152XP / GS-3152XSP

- Fully managed access switch with 48x Gigabit Ethernet ports and 4x SFP+ (1G/10G)
- Basic layer-3 features
- **LANCOM GS-3152XP** additionally supports PoE based on IEEE 802.3af/at (740 W)
- **LANCOM GS-3152XSP** additionally with hot-swappable PSU (2x 820W PoE budget) for maximum PoE power of 30W on all 48 PoE ports and front-to-back fan for optimal cooling in rack operation

NEW



NEW



### LANCOM SPSU-920

- High availability with the hot-swappable power supply (920 W) for the LANCOM GS-3152XSP

### LANCOM GS-3528X / GS-3528XP

- Fully managed access switch with 12x 2.5 Gigabit Ethernet ports, 12 Gigabit Ethernet ports, and 4x SFP+ (1G/10G)
- Basic layer-3 features
- Ideal in combination with Wi-Fi 6 access points such as LANCOM LX-6400 and LX-6402
- **LANCOM GS-3528XP** also supports PoE based on IEEE 802.3af/at (370 W)

NEW



## BASIC LAYER-3 FEATURES

### Static routing

Static routing allows you to predefine network routes through one or more network segments for faster data exchange, particularly where levels of internal data traffic are high. This relieves the load on the router. Router capacities are freed up to handle the external data traffic.

### DHCP server

As a DHCP server, a switch is able to independently and automatically assign IP addresses to clients. The new devices support this basic layer-3 feature and handles the IP management of the network connected to it.

# Fully Managed Switches



LANCOM switches are the ideal complement to every LANCOM router and access point, thus providing the finishing touch to a high-power network with consistent management. You gain a supremely reliable all-round solution that is effectively managed.

## PROFESSIONAL SWITCHES

– for small and medium-sized networks

### LANCOM GS-2328F

- Full-fiber switch with 20 SFP ports (1G), 4 combo ports (TP/SFP), 4 SFP+ ports (1G/10G)



### LANCOM GS-2326+ AND LANCOM GS-2326P+

- Gigabit Ethernet switches with 24 Gigabit Ethernet ports and 2 combo ports (TP/SFP), no fan
- **LANCOM GS-2326P+** also supports PoE based on IEEE 802.3af/at (185 W), quiet fan



### LANCOM GS-2310 AND LANCOM GS-2310P+

- Gigabit Ethernet switches with 8 Gigabit Ethernet ports and 2 combo ports (TP/SFP), no fan
- **LANCOM GS-2310P+** also supports PoE based on IEEE 802.3af/at (130 W)



### ALL FULLY MANAGED SWITCHES COME WITH:

- 5-year warranty on all components
- Port-based access control as per IEEE 802.1X (single, multi, port-based, MAC-based) on all ports
- Comprehensive security features such as TACACS+ and SSH/SSL

# Websmart & Unmanaged Switches

LANCOM websmart and unmanaged switches are the ideal addition for small and medium-sized network environments while offering a great price/performance ratio.

## IDEAL FOR EASY NETWORKING

– in small office environments

### LANCOM GS-1326

- Small business websmart Gigabit Ethernet switch with 24 Gigabit Ethernet ports and 2 combo ports (TP/SFP), no fan
- Browser-based configuration
- Security with configurable access control on all ports based on IEEE 802.1X



### LANCOM GS-1108

- Unmanaged Gigabit Ethernet switch with 8 Gigabit Ethernet ports, no fan



### LANCOM GS-1108P

- Like the LANCOM GS-1108 with additional PoE support based on IEEE 802.3af/at (60 W) and a quiet fan



# WLAN Indoor Access Points



The mobility and flexibility offered by laptops, tablets, and smart-phones have become an integral part of our everyday lives. Take advantage of the many benefits of wireless networks with LANCOM access points.

## PROFESSIONAL WLAN

– powerful and versatile

### NEW



#### LANCOM LN-1700B / LANCOM LN-1702B

- > Parallel operation at 2.4 and 5 GHz at up to 1,733 Mbps with Wi-Fi 5 (Wave 2) and 450 Mbps with Wi-Fi 4
- > Bluetooth Low Energy radio module
- > 4x4 multi-user MIMO
- > 2x Gigabit Ethernet
- > **LANCOM LN-1700B** with internal antennas, **LANCOM LN-1702B** with external antennas



#### LANCOM LN-860 / LANCOM LN-862

- > Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 (Wave 2) and 300 Mbps with Wi-Fi 4
- > 2x2 multi-user MIMO
- > 2x Gigabit Ethernet
- > **LANCOM LN-860** with internal antennas, **LANCOM LN-862** with external antennas



#### LANCOM LN-830U

- > Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- > USB 2.0 port for connecting supported IoT wireless systems
- > 2x Gigabit Ethernet



#### LANCOM L-822acn DUAL WIRELESS

- > Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- > 2x Gigabit Ethernet
- > External antennas



## HIGH EFFICIENCY WIRELESS

Wi-Fi 6 (IEEE 802.11ax) provides more stability and reliability in high-traffic Wi-Fis. The new technology not only increases the speed, but above all the average throughput per Wi-Fi client in high-density environments. Especially with the increasing number of IoT devices, this efficient utilization of available bandwidth is the high-performance basis.

### WI-FI 6 ACCESS POINTS

– for high performance in high-density environments

### NEW



#### LANCOM LX-6400 / LANCOM LX-6402

- > Parallel operation at 5 GHz at up to 2,400 Mbps with Wi-Fi 6 and 2.4 GHz at up to 1,200 Mbps with Wi-Fi 6
- > 4x4 multi-user MIMO
- > USB 3.0 port for connecting supported IoT wireless systems
- > 1x 2.5-Gigabit Ethernet (PoE port, IEEE 802.3at for up to 30 Watt PoE)
- > 1x Gigabit Ethernet
- > Bluetooth Low Energy radio module for innovative beaconing applications
- > **LANCOM LX-6400** with internal antennas, **LANCOM LX-6402** with external antennas

# WLAN Indoor Access Points



Be it a law firm, a café, or small and medium-sized office environments: Reliable Wi-Fi for flexible working and surfing with mobile devices is essential. LANCOM offers professional equipment that can be operated both stand-alone and for expanding existing infrastructures.

## RELIABLE WI-FI

– for law firms, cafés, or medium-sized office environments



### LANCOM LW-500

- > Parallel operation at 2.4 GHz and 5 GHz at up to 867 Mbps with Wi-Fi 5 (Wave 2) and 300 Mbps with Wi-Fi 4
- > 2x Gigabit Ethernet
- > Smoke-detector design with integrated antennas



### LANCOM LN-630acn DUAL WIRELESS

- > Parallel operation at 2.4 GHz and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- > 1x Gigabit Ethernet



### LANCOM L-322agn DUAL WIRELESS

- > Parallel operation at 2.4 GHz and 5 GHz at up to 300 Mbps with Wi-Fi 4
- > 1x Gigabit Ethernet, 1x Fast Ethernet



### LANCOM L-321agn WIRELESS

- > Operates at 2.4 GHz or 5 GHz at up to 300 Mbps with Wi-Fi 4
- > 1x Gigabit Ethernet

# WLAN Controllers

Operating LANCOM WLAN controllers means massive time savings for your network administrators. Access points and WLAN routers are configured and controlled centrally and fully automatically. With standardized control over your wireless network, managing your wireless infrastructure is greatly simplified.

## CENTRAL WLAN MANAGEMENT

– for standardized control

### LANCOM WLC-1000

- > Centralized firmware rollout, monitoring, and management of 25 to 1,000 access points and Wi-Fi routers
- > Optional High Availability Clustering Option for high-availability scenarios
- > Integrated hotspot functionality



### LANCOM WLC-4006+

- > Centralized management for 6 access points and WLAN routers (upgradeable for up to 30 devices)
- > Integrated hotspot functionality



## WLAN operating models

The LANCOM portfolio of WLAN products is as varied and versatile as your requirements. With our range of access points, LANCOM offers a comprehensive product portfolio that will meet any individual challenge. The devices offer maximum versatility of operation: Be it orchestration by the LANCOM Management Cloud, central management by a WLAN controller, or stand-alone operation.

# Wireless ePaper Solutions

Accentuate your modern interior design, automate your processes, and improve transparency and information flow. LANCOM Wireless ePaper solutions offer you representative, centrally radio-controlled displays along with professional Wi-Fi in a single infrastructure.

## APPLICATIONS

- For active room signs
- For visitor badges or table displays at meetings and conferences
- For menu cards and seat reservations in gastronomy
- For radio-controlled price labeling in the retail sector



## PATENTED TECHNOLOGY

– for parallel and interference-free wireless operation

### NEW



#### LANCOM LN-1700UE

- Parallel operation at 2.4 and 5 GHz at up to 1733 Mbps with Wi-Fi 5 (Wave 2) and 450 Mbps with Wi-Fi 4
- 4x4 multi-user MIMO for the simultaneous control of multiple clients
- Integrated radio module for controlling LANCOM Wireless ePaper Displays
- Integrated iBeacon technology
- USB 2.0 port for the integration of supported IoT wireless systems
- Power supply via PoE based on IEEE 802.3at

#### LANCOM LN-830E WIRELESS

- Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- Integrated radio module for controlling LANCOM Wireless ePaper Displays
- Integrated iBeacon technology
- Power supply via PoE based on IEEE 802.3af



### NEW 12.2"



### NEW



## LANCOM WIRELESS ePAPER DISPLAYS

- Convenient, wireless updates
- Available in four sizes: 12.2", 7.4", 4.2", and 2.7"
- Suitable for use in daylight and capable of displaying graphics
- Battery life up to 5 years
- Display in black, white, and red

## LANCOM WIRELESS ePAPER ROOM SIGNAGE SET

- Complete set for room signage
- Contents: 1x LANCOM LN-830E Wireless, 5x LANCOM WDG-2 7.4", 1x LANCOM Wireless ePaper Server for managing any number of access points and up to 1,000 Wireless ePaper Displays

## LANCOM WIRELESS ePAPER PREMIUM FRAME 7.4"

- Brushed stainless steel for an exclusive look
- Compatible with 7.4" Wireless ePaper Displays

## LANCOM WIRELESS ePAPER USB

- Wireless ePaper radio extension for access points (e.g. LN-830U) and routers with USB interface

# Outdoor Access Points



Be it for connectivity between buildings, point-to-point links, as an outdoor Wi-Fi hotspot, or for "last-mile" bandwidth connectivity – thanks to their robust protective housing, LANCOM outdoor WLAN access points have an extended temperature range (-33°C to +70°C) to handle even extreme environmental conditions.

## OUTDOOR WI-FI

– for any weather



### LANCOM OAP-830

- Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- Integrated sector antennas for 2.4 and 5 GHz
- Sturdy IP66 housing



### LANCOM OAP-822

- Like the OAP-830, but with 4 external antenna connectors and without integrated antennas



### LANCOM OAP-821

- Operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- Integrated 5-GHz directional antenna and external antenna connectors for 2.4 GHz
- Sturdy IP66 housing
- Also available as a "Bridge Kit" (2x OAP-821 incl. accessories)



## ENTERPRISE-CLASS OUTDOOR WI-FI

Achieving an excellent Wi-Fi experience in open areas with a large number of clients demands a future-proof infrastructure. Based on the Wi-Fi 5 Wave 2 technology, these new access points offer the best quality in wireless networks with large numbers of concurrent users.

## MAXIMUM PERFORMANCE

– for high-density environments

### NEW



### NEW



### LANCOM OAP-1700B / LANCOM OAP-17002B

- Parallel operation at 2.4 and 5 GHz at up to 1,733 Mbps with Wi-Fi 5 (Wave 2) and 450 Mbps with Wi-Fi 4
- Bluetooth Low Energy radio module for innovative beaconing applications
- Sturdy IP67 housing
- LANCOM OAP-1700B with integrated sector antennas for 2.4 and 5 GHz
- LANCOM OAP-1702B with eight external antenna connectors with premounted omni-directional antennas

# Industrial Access Points



Industrial access points from LANCOM Systems are specially designed for harsh indoor environments. Thanks to their special dust-proof housings with an extended temperature range (-20°C to +50°C), industrial access points form the basis for reliable Wi-Fi in warehouses and logistics, across covered outdoor areas, or on mobile machinery.

## DUST-PROOF HOUSINGS

– for harsh indoor environments



### LANCOM IAP-822

- Parallel operation at 2.4 and 5 GHz at up to 867 Mbps with Wi-Fi 5 and 300 Mbps with Wi-Fi 4
- Robust all-metal IP50 housing
- Reliable even at demanding temperatures (-20°C to +50°C)

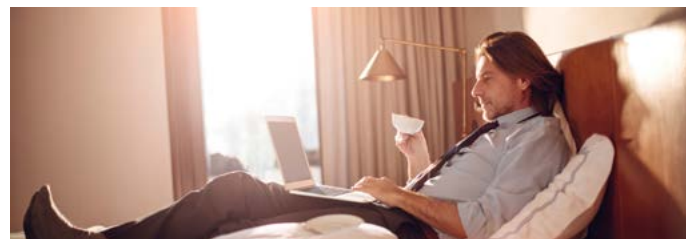
### LANCOM IAP-821

- Operation at 2.4 or 5 GHz at up to 867 Mbps with Wi-Fi 5 or 300 Mbps with Wi-Fi 4
- Robust all-metal IP50 housing
- Reliable even at demanding temperatures (-20°C to +50°C)



# Versatile Wi-Fi guest access LANCOM Public Spot Option

Guest access is at its best when it is easy to set up, offers guests user-friendly access to the Internet, and assures operators that their own company network and guest network are secure from unauthorized access. The LANCOM Public Spot Option provides reliable and secure Internet access for guests, visitors, partners, or customers, all based on a common infrastructure.



## HOTSPOT OPTIONS

– for user-friendly guest access

### LANCOM PUBLIC SPOT OPTION

- Multiple options of login procedures
- Smart Ticket for convenient hotspot registration via SMS or e-mail
- Choice of models for online time and validity period of the guest access accounts
- Secure separation of guest access from the internal network
- Voucher and portal layout can be customized to the individual design of the company
- Connection to external servers via XML and RADIUS interfaces; ideal for connecting hotspot solutions via third-party providers



### LANCOM PUBLIC SPOT PMS ACCOUNTING PLUS OPTION

- Combines your Public Spot solution with your Property Management System
- Internet fees can be charged to the room bill
- Suitable for PMS with FIAS interface, such as Micros Fidelio or Protel
- Requirement: LANCOM Public Spot Option



# Antennas

LANCOM offers a comprehensive portfolio of indoor and outdoor wireless LAN antennas for the 2.4 and 5-GHz frequency bands, as well as antennas for 4G routers. Each antenna is supplied with a kit that includes cable and mounting materials. Necessary adapters are included in the scope of delivery or available as LANCOM accessories.

## EXTENSIVE PORTFOLIO

– for indoor and outdoor applications



### 4 x 4 MIMO WI-FI OUTDOOR ANTENNAS

#### AIRLANCER ON-Q360ag

- > 360° omni-directional antenna for 4 dBi gain (2.4 and 5 GHz)

#### AIRLANCER ON-Q90ag

- > 90° sector antenna for +6 dBi (2.4 GHz) or +5 dBi gain (5 GHz)

#### AIRLANCER ON-Q60ag

- > 60° sector antenna for +6.5 dBi (2.4 GHz) or +7.5 dBi gain (5 GHz)



### 3 x 3 MIMO WI-FI OUTDOOR ANTENNAS

#### AIRLANCER ON-T360ag

- > 360° omni-directional antenna for +5 dBi (2.4 GHz) or +7 dBi gain (5 GHz)

#### AIRLANCER ON-T90ag

- > 90° sector antenna for +6 dBi (2.4 GHz) or +5 dBi gain (5 GHz)

#### AIRLANCER ON-T60ag

- > 60° sector antenna for +8 dBi gain (2.4 and 5 GHz)



### 2 x 2 MIMO WI-FI OUTDOOR ANTENNA

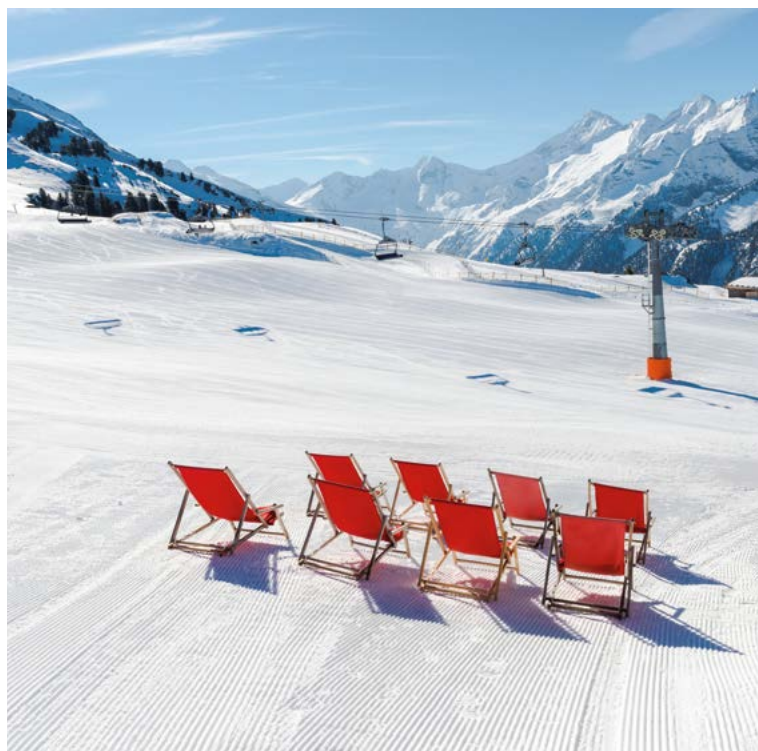
#### AIRLANCER ON-D9a

- > 9° directional antenna for +23 dBi gain (5 GHz)



### AIRLANCER MOUNT (ON)

- > Versatile wall or pole mounting of LANCOM outdoor Wi-Fi antennas (ON)



### WI-FI INDOOR ANTENNAS

#### AIRLANCER IN-H180

- > 180° ceiling antenna for +3 dBi (2.4 GHz) or +5 dBi gain (5 GHz) and with 6 connectors

#### AIRLANCER IN-Q180

- > 180° ceiling antenna for +3 dBi (2.4 GHz) or +5 dBi gain (5 GHz) and with 4 connectors

### 4G ANTENNAS

#### AIRLANCER Extender I-360-4G

- > Omni-directional indoor multiband LTE antenna, fully backwards-compatible

#### AIRLANCER Extender O-360-4G

- > Omni-directional outdoor multiband LTE antenna, fully backwards-compatible



# LANtools

Along with the LANCOM Management Cloud, LANCOM provides a comprehensive set of free management & monitoring tools: Once installed on a Windows system, the programs LANconfig, LANmonitor and WLANmonitor provide the detailed configuration and monitoring of LANCOM routers, access points, and WLAN controllers – for devices individually or in clusters.

## HOLISTIC MANAGEMENT OF INFRASTRUCTURES

- Software package for managing LANCOM products
- Easy configuration and monitoring
- Parallel management and monitoring of multiple devices

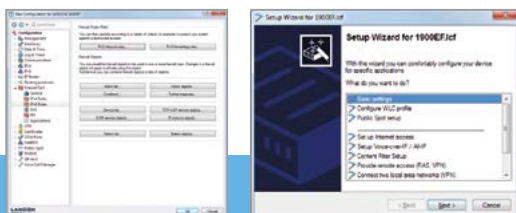
### LANCOM MANAGEMENT SOFTWARE

– central management for small and medium-sized networks

#### LANconfig

LANconfig has a wide range of applications, from the commissioning of a single device with various installation wizards, to the holistic management of several devices.

- Easy management of entire infrastructures
- Preconfiguration and import of configurations
- Range of Setup Wizards
- Configuration via Telnet, SSH, and HTTPS
- Context-based help
- QuickFinder, the quick way to find devices and settings



LANconfig



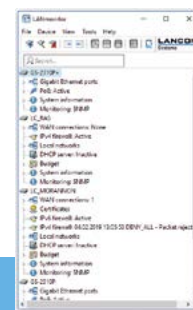
### LANCOM MONITORING SOFTWARE

– for efficient monitoring of small and medium-sized networks

#### LANmonitor

LANmonitor is ideal for the structured monitoring of networks. It offers nearly real-time monitoring of all connections and device status.

- Connection and interface status display
- Monitoring of transfer rates, protocols, and IP addresses
- Display of software version, CPU load, and memory usage
- Logging of online times and transfer volumes
- Firewall event log and device SYSLOG
- Graphical trace module for recordings and troubleshooting
- Spectral Scan graphically displays interference sources on the Wi-Fi



LANmonitor

#### WLANmonitor

WLANmonitor can centrally monitor the status of a wireless LAN. It presents information about the entire network in general and detailed information about individual access points and clients.

- Full monitoring of all Wi-Fi events
- Status display for all clients, access points, and WLAN controllers
- Detection of foreign access points and clients (Rogue AP / Client Detection / IDS)

# LANCOM Service & Support

## The right services for our partners

How can you plan your customers' network as efficiently as possible but also for the long-term? Is your customer in the operational phase of his network and you need to support him when he has problems? Is your customer growing and you are looking for ways to optimize and update their network? You can count on us: As our partner, you can rely on individual support from us.

### ALL-ROUND SUPPORT

Take this path together with us as your manufacturer. For every phase of the network's lifecycle, we provide fitting service products and comprehensive trainings.



Further information about LANCOM Service & Support as well as our warranty and support conditions is available at: [www.lancom-systems.com/service-support](http://www.lancom-systems.com/service-support)

### SERVICE PACKAGES

– the right service, whatever the phase

### STARTING ON THE ROAD TO SUCCESS



- LANCOM WLAN Survey Service – WLAN coverage service for the successful planning and implementation of wireless infrastructures



- LANCOM Config Service – Professional support for the configuration of your LANCOM installations



- LANCOM Warranty Basic Option – Warranty extension incl. security updates for LANCOM devices to 5 year



- LANCOM Warranty Advanced Option – Warranty extension incl. security updates for LANCOM devices to 5 years and advance replacement by the next business day

#### NEW



- LANCOM Service Pack 24/7 – Short-term, solution-oriented emergency support for your LANCOM R&S® Unified Firewalls



### SUPPORT FOR FAILSAFE OPERATIONS

- LANCOM Emergency Support – Short-notice, solution-oriented emergency support with minimum response times



- LANCOM Extended Support Times – Exclusive off-hours support



- LANCOM Premium Support Access – Premium support access for optimally secured networks



- LANCOM Enterprise Support Access – Full service package to secure networks with > 100 devices



- LANCOM MSP-Care-24/7 – Full service package for managed service providers who secure high-availability network scenarios



- LANCOM Consulting Day – Network optimization with a LANCOM consultant on-site with you

# LANCOM Training Center

With our unique training center, we at LANCOM aim to successfully transfer our know-how from the manufacturer to specialist resellers and technicians. You can apply the new knowledge gained from the workshop: Benefit from greater efficiency in configuring LANCOM devices and in the implementation of solutions. Those who benefit most from our optimally coordinated workshops include specialist resellers, system-vendor technicians, system administrators, and IT decision-makers.

## OPTIMIZATION AND TRAINING

– LANCOM know-how transfer



### PROFESSIONAL WORKSHOPS

- > Professional Workshop WAN / WLAN
- > Professional Workshop Cloud
- > Professional Workshop Security



### SPECIALIST WORKSHOPS

- > Specialist Workshop WAN
- > Specialist Workshop LAN
- > Specialist Workshop WLAN
- > Specialist Workshop Cloud
- > Specialist Workshop Security
- > Specialist Workshop All-IP



### EXPERT WORKSHOP

- > A comprehensive overview of all topics



### FURTHER WORKSHOPS

- > Trainee
- > On-site training – Individual workshops by appointment



## LANCOM CERTIFICATIONS

LANCOM certifications demonstrate comprehensive network expertise and help you to stand out among the many experts.

## IMPORTANT ADDITIONAL OFFER

In the LANCOM workshops, you have personally demonstrated that you can successfully incorporate products from LANCOM in the planning and implementation of solutions for complex scenarios. The LANCOM certifications are an official qualification from LANCOM. You receive a certificate to confirm your expertise. Take the opportunity of theoretical and practical examination to certify yourself as:



The various workshops build on each other