

# LANCOM LN-630acn dual Wireless

Enlarged coverage at an attractive price



Modern WLAN does not have to be expensive. This access point combines the bandwidths of the current 802.11ac standard with better coverage, because its special antenna design provides expansive coverage at 5 GHz when compared with other access points. By saving on hardware, you immediately reduce the expense of setting up your Wi-Fi. The device is ideal for basic Wi-Fi provision across several offices, showrooms or shop floors. For agencies, law firms and small businesses, this access point is perfect for a professional internal company network in parallel with a user-friendly guest network. Similarly, cafés, guesthouses and small hotels benefit from Wi-Fi even in the very last corner.

- Intelligent antenna design – 3x3:2 MIMO antenna configuration increases the range for clients connecting in the 5-GHz frequency band.
- Dual concurrent Wi-Fi – parallel operation at 2.4 GHz and 5 GHz with IEEE 802.11ac and IEEE 802.11n
- Power supply optionally by Power over Ethernet (IEEE 802.3af) or power-supply unit
- Zero-touch deployment with a LANCOM WLAN controller or LANCOM Management Cloud
- Elegant LANCOM design with integrated antennas
- Easy and secure integration of external users with the Public Spot Option
- Available as individual items or as 10-piece bulk items for large installations

LCOS 10.80

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## **Top-notch signal coverage**

The innovative antenna design of the LANCOM LN-630acn dual Wireless with its integrated 3x3:2 MIMO antennas for 11ac operations provides significant range gains in the 5-GHz frequency band. An ideal basis for efficient Wi-Fi coverage in indoor environments where clients require conventional data volumes.

## **Dual concurrent Wi-Fi**

The LANCOM LN-630acn dual Wireless is the ideal solution for Wi-Fi scenarios that demand reliable wireless coverage with 11ac support. Equipped with two Wi-Fi radio modules, one supporting IEEE 802.11ac and the other IEEE 802.11n, the device provides reliable Wi-Fi to 11n clients in the 2.4-GHz frequency band and also to the increasing number of modern 11ac-enabled devices in the 5-GHz band.

## **Energy efficient PoE-Operation**

Thanks to the power supply via power over Ethernet as per IEEE 802.3af, the LANCOM LN-630acn dual Wireless operates at any PoE-powered Ethernet port. This enables the access point to provide Wi-Fi coverage for any building, irrespective of the available power supply.

## **Zero-touch deployment**

Allows quick and easy access-point integration due to automatic configuration provisioning by WLAN controller or the LANCOM Management Cloud. After network authentication, the access point immediately receives the appropriate configuration.

## **Elegant LANCOM design**

The white LANCOM LN-630acn dual Wireless fascinates with its clean-cut looks. Its modern design is ideal for unobtrusive operation, for example in the hospitality and hotel industries, as it blends seamlessly into any environment.

## **Secure integration of external users**

In combination with the LANCOM Public Spot option, the LANCOM LN-630acn dual Wireless is the ideal choice for operating a hotspot. Users benefit from a hotspot that is secure and easy-to-use, while hotspot operators can be sure that their own network remains separate from the guest network. An integrated hotspot API helps the hotspot to seamlessly integrate into external provider systems.

## **Maximum future viability**

LANCOM products are designed for a product life of several years and are equipped with hardware that is fit for the future. Even reaching back to older product generations, updates to the LANCOM Operating System—LCOS—are available several times a year, free of charge, including new useful features and tools that make your job a little easier.

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## WLAN product specifications

Frequency band 2.4 GHz or 5 GHz	2400-2483.5 MHz (ISM) or 5180-5700 MHz (depending on country-specific restrictions)
Integrated Antenna Gain (per antenna)	up to 3 dBi in 2.4 GHz, up to 4.5 dBi in 5 GHz
Data rates IEEE 802.11ac/n	867 Mbps according to IEEE 802.11ac with MCS9 (fallback to 6,5 Mbps with MCS0). Compatible to IEEE 802.11ac/n/a, IEEE 802.11 ac/n, IEEE 802.11n/a compatibility mode or pure IEEE 802.11ac, pure IEEE 802.11n, pure IEEE 802.11a mode and data rates selectable
Data rates IEEE 802.11n	300 Mbps according to IEEE 802.11n with MCS15 (fallback to 6,5 Mbps with MCS0). Compatible to IEEE 802.11a/n, IEEE 802.11g/n, IEEE 802.11b/g/n or IEEE 802.11b/g compatibility mode or pure IEEE 802.11n, pure IEEE 802.11a, IEEE 802.11g or pure IEEE 802.11b mode and data rates selectable
Data rates IEEE 802.11a/h	54 Mbps (fallback to 48, 36, 24, 18, 12, 9, 6 Mbps, Automatic Rate Selection), fully compatible with TPC (adjustable power output) and DFS (automatic channel selection, radar detection) and data rates selectable
Data rates IEEE 802.11b/g	54 Mbps to IEEE 802.11g (fallback to 48, 36, 24, 18, 12, 9, 6 Mbps, Automatic Rate Selection) compatible to IEEE 802.11b (11, 5.5, 2, 1 Mbps, Automatic Rate Selection), IEEE 802.11b/g compatibility mode or pure IEEE 802.11g or pure IEEE 802.11b and data rates selectable
Net Data Throughput	max. 250 Mbps
Range IEEE 802.11ac/n/a/g/b *	Up to 150 m (up to 30 m in buildings)
Output power at radio module WLAN-1, 5 GHz	Maximum transmit power may be limited below these numbers to ensure compliance with local regulatory requirements. IEEE 802.11a/h: +17 up to +18 dBm @ 6 up to 48 Mbps, +13 up to +15 dBm @ 54 Mbps, IEEE 802.11n: +17 up to +18 dBm @ (MCS0/8/16, 20 MHz), +11 up to +13 dBm @ (MCS7/15/23, 20 MHz), +16 up to +17 dBm @ (MCS0/8/16, 40 MHz), +9 up to +12 dBm @ (MCS7/15/23, 40 MHz)
Output power at radio module WLAN-2, 5 GHz	Maximum transmit power may be limited below these numbers to ensure compliance with local regulatory requirements. IEEE 802.11a/h: +18 dBm @ 6 up to 48 MBit/s and +16 dBm @ 54 MBit/s IEEE 802.11ac: +16 up to +18 dBm @ (MCS0-7, 20/40/80 MHz), +14 dBm @ (MCS8, 20/40/80 MHz), +14 dBm @ (MCS9, 40/80 MHz)
Output power at radio module WLAN-1, 2.4 GHz	Maximum transmit power may be limited below these numbers to ensure compliance with local regulatory requirements. IEEE 802.11b: +22 dBm @ 1 and 2 Mbps, +22 dBm @ 5,5 and 11 Mbps, IEEE 802.11g: +22 dBm @ 6 up to 36 Mbps, +20 dBm @ 48 Mbps, +18 dBm @ 54 Mbps, IEEE 802.11n: +22 dBm @ (MCS0/8/16, 20 MHz), +16 dBm @ (MCS7/15/23, 20 MHz), +21 dBm @ (MCS0/8/16, 40 MHz), +15 dBm @ (MCS7/15/23, 40 MHz)
Minimum transmission power	Transmission power reduction in software in 1 dB steps to min. 0.5 dBm
Receiver sensitivity WLAN-1, 5 GHz	IEEE 802.11a/h: -98 dBm @ 6 Mbps, -81 dBm @ 54 Mbps, IEEE 802.11n: -94 dBm @ (MCS0, 20 MHz), -76 dBm @ (MCS 7, 20 MHz), -92 dBm @ (MCS0, 40 MHz), -72 dBm @ (MCS7, 40 MHz)
Receiver sensitivity WLAN-2, 5 GHz	IEEE 802.11a/h: -95 dBm @ 6 MBit/s, -76 dBm @ 54MBit/s, IEEE 802.11ac: -94 dBm @ MCS0 20 MHz, -76 dBm @ MCS7 20 MHz, -72 dBm @ MCS8 20 MHz, -92 dBm @ MCS0 40 MHz, -76 dBm @ MCS7 40 MHz, -71 dBm @ MCS8 40 MHz, -70 dBm @ MCS9 40 MHz, -90 dBm @ MCS0 80 MHz, -72 dBm @ MCS7 80 MHz, -68 dBm @ MCS8 80 MHz, -67 dBm @ MCS9 80 MHz
Receiver sensitivity WLAN-1, 2.4 GHz	IEEE 802.11b: -97 dBm @ 1 MBit/s, -93 dBm @ 11 MBit/s, IEEE 802.11g: -95dBm @ 6 MBit/s, -81dBm @ 54 MBit/s IEEE 802.11n: -94 dBm @ 6,5MBit/s (MCS0, 20 MHz), -77 dBm @ 65 MBit/s (MCS7, 20 MHz), -91 dBm @ 15 MBit/s (MCS0, 40 MHz), -74 dBm @ 150 MBit/s (MCS7, 40 MHz)

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## WLAN product specifications

Radio channels 5 GHz	Up to 26 non-overlapping channels (available channels and further obligations such as automatic DFS dynamic channel selection depending on national regulations)
Radio channels 2.4 GHz	Up to 13 channels, max. 3 non-overlapping (depending on country-specific restrictions)
Multi-SSID	Up to 31 (Simultaneous use of up to 16 independent WLAN networks at WLAN interface 1 and up to 15 independent WLAN networks at WLAN interface 2; time-controlled activation and deactivation of WLAN networks)
Concurrent WLAN clients	Up to 256 clients (recommended) **
Others	Wireless Quality Indicators (WQI), Hotspot 2.0
*) Note	The effective distances and transmission rates that can be achieved are depending of the onsite RF conditions
**) Note	The 11ac WLAN module supports max. 128 clients, this specification refers to the combination with the 11n radio module.

## Supported WLAN standards

IEEE standards	IEEE 802.11ac (Wi-Fi 5), IEEE 802.11n (Wi-Fi 4), IEEE 802.11a, IEEE 802.11g, IEEE 802.11b, IEEE 802.11i, IEEE 802.1X, IEEE 802.11u, IEEE 802.11r (Fast Roaming), IEEE 802.11w (Protected Management Frames), WME and U-APSD/WMM Power Save as defined in IEEE 802.11e, IEEE 802.11h, IEEE 802.11d
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### Standard IEEE 802.11ac (Wi-Fi 5)

Supported features	3x3 MIMO with two Spatial Streams (3x3:2), 80 MHz channels, QAM-256
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### Standard IEEE 802.11n (Wi-Fi 4)

Supported features	2x2 MIMO @ radio 1, 3x3:2 MIMO @ radio 2, 40-MHz channels, 20/40MHz coexistence mechanisms in the 2.4 GHz band, MAC aggregation, Block Acknowledgement, STBC (Space Time Block Coding), LDPC (Low Density Parity Check), MRC (Maximal Ratio Combining), Short Guard Interval
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## WLAN operating modes

Modes	WLAN access point (standalone, WLC or LANCOM Management Cloud managed), WLAN bridge (P2P or P2MP) (standalone or AutoWDS*), (standalone, WLC or LANCOM Management Cloud managed), WLAN client mode, transparent WLAN client mode
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## Security

Encryption options	WPA3-Personal, IEEE 802.1X (WPA3-Enterprise, WPA2-Enterprise), IEEE 802.11i (WPA2-Personal), Wi-Fi Certified™ WPA2™, WPA, WEP, IEEE 802.11w (Protected Management Frames), LEPS-MAC (LANCOM Enhanced Passphrase Security MAC), LEPS-U (LANCOM Enhanced Passphrase Security User)
Encryption	AES-CCMP AES-GCMP, TKIP, RC4 (only used by WEP)
EAP types (authenticator)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-FAST

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## Security

RADIUS/EAP-server	User administration MAC-based, rate limiting, passphrases, VLAN user based, authentication of IEEE 802.1X clients via EAP-TLS, EAP-TTLS, EAP-MD5, EAP-GTC, PEAP, MSCHAP, MSCHAPv2, Dynamic Peer Discovery
Others	WLAN protocol filters, IP-redirection of any packet received over the WLAN interface, IEEE 802.1X supplicant, background scanning, client detection ("rogue WLAN client detection"), Wireless Intrusion Detection System (WIDS), RADIUS CoA (Change of Authorization)

## LANCOM Active Radio Control

Client Management	Steering of WLAN clients to the ideal access point using 802.11k and 802.11v
Band Steering	Steering of 5GHz clients to the corresponding high-performance frequency band
Managed RF Optimization*	Selection of optimal WLAN channels by the administrator
Adaptive Noise Immunity	Better WLAN throughput due to immunity against interferences
Spectral Scan	Monitoring your WLAN for sources of interference
Adaptive RF Optimization	Dynamic selection of the optimal WLAN channel
Airtime Fairness	Improved utilization of the WLAN bandwidth
Adaptive Transmission Power	Automatic adjustment of the transmission power for Wi - Fi backup scenarios
*) Note	Only in installations with WLAN controller

## Roaming

Roaming	IAPP (Inter Access Point Protocol), IEEE 802.11r (Fast Roaming), OKC (Opportunistic Key Caching), Fast Client Roaming (only in operating mode client modus)
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## Layer 2 features

VLAN	4.096 IDs based on IEEE 802.1q, dynamic assignment
Quality of Service	WME based on IEEE 802.11e, Wi-Fi Certified™ WMM®
Rate limiting	SSID based, WLAN client based
Multicast	IGMP-Snooping, MLD-Snooping, Multicast-to-Unicast-conversion on WLAN interfaces
Protocols	Ethernet over GRE-Tunnel (EoGRE), L2TPv3, ARP-Lookup, LLDP, DHCP option 82, IPv6-Router-Advertisement-Snooping, DHCPv6-Snooping, LDRA (Lightweight DHCPv6 Relay Agent), Spanning Tree, Rapid Spanning Tree, ARP, Proxy ARP, BOOTP, DHCP, LACP

## Layer 3 features

Firewall	Stateful inspection firewall including paket filtering, extended port forwarding, N:N IP address mapping, paket tagging, support for DNS targets, user-defined rules and notifications
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## Layer 3 features

Quality of Service	Traffic shaping, bandwidth reservation, DiffServ/TOS, packetsize control, layer-2-in-layer-3 tagging
Security	Intrusion Prevention, IP spoofing, access control lists, Denial of Service protection, detailed settings for handling reassembly, session-recovery, PING, stealth mode and AUTH port, URL blocker, password protection, programmable reset button
PPP authentication mechanisms	PAP, CHAP, MS-CHAP, and MS-CHAPv2
High availability / redundancy	VRRP (Virtual Router Redundancy Protocol), analog/GSM modem backup
Router	IPv4-, IPv6-, NetBIOS/IP multiprotokoll router, IPv4/IPv6 dual stack
Router virtualization	ARF (Advanced Routing and Forwarding) up to separate processing of 16 contexts
IPv4 services	HTTP and HTTPS server for configuration by web interface, DNS client, DNS server, DNS relay, DNS proxy, dynamic DNS client, DHCP client, DHCP relay and DHCP server including autodetection, NetBIOS/IP proxy, NTP client, SNTP server, policy-based routing, Bonjour-Proxy, RADIUS
IPv6 services	HTTP and HTTPS server for configuration by web interface, DHCPv6 client, DHCPv6 server, DHCPv6 relay, DNS client, DNS server, dynamic DNS client, NTP client, SNTP server, Bonjour-Proxy, RADIUS
Dynamic routing protocols	RIPv2
IPv4 protocols	DNS, HTTP, HTTPS, ICMP, NTP/SNTP, NetBIOS, PPPoE (server), RADIUS, RADSEC (secure RADIUS), RTP, SNMPv1,v2c,v3, TFTP, TACACS+, IGMPv3
IPv6 protocols	NDP, stateless address autoconfiguration (SLAAC), stateful address autoconfiguration (DHCPv6), router advertisements, ICMPv6, DHCPv6, DNS, HTTP, HTTPS, PPPoE, RADIUS, SMTP, NTP, Syslog, SNMPv1,v2c,v3, MLDv2, NPTv6 (NAT66)
WAN operating mode	VDSL, ADSL1, ADSL2 or ADSL2+ additional with external DSL modem at an ETH port
WAN protocols	PPPoE, Multi-PPPoE, ML-PPP, GRE, EoGRE, PPTP (PAC or PNS), L2TPv2 (LAC or LNS), L2TPv3 with Ethernet-Pseudowire, IPoE (using DHCP or no DHCP), RIP-1, RIP-2, VLAN, IPv6 over PPP (IPv6 and IPv4/IPv6 dual stack session), IP(v6)oE (autokonfiguration, DHCPv6 or static)
Tunneling protocols (IPv4/IPv6)	6to4, 6in4, 6rd (static and over DHCP), Dual Stack Lite (IPv4-in-IPv6-Tunnel), 464XLAT

## Interfaces

Ethernet port	1 x 10/100/1000BASE-T autosensing (RJ-45), PoE (Power over Ethernet)
Internal antennas per radio module	Radio module 1 uses two internal antennas, radio module 2 uses three internal antennas

## Hardware

Environment	Temperature range 0° to +45°C; humidity up to 95%; non-condensing
Power consumption (max)	max. 10 watt

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## Hardware

Housing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; 205 x 42 x 205 mm (W x H x D)
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## Management and monitoring

Management	LANCOM Management Cloud, LANconfig, WEBconfig, WLAN controller, LANCOM Layer 2 management (emergency management)
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Management functions	Alternative boot configuration, voluntary automatic updates for LCMS and LCOS, individual access and function rights up to 16 administrators, RADIUS and RADSEC user management, remote access (WAN or (W)LAN, access rights (read/write) adjustable separately), SSL, SSH, HTTPS, Telnet, TFTP, SNMP, HTTP, access rights via TACACS+, scripting, timed control of all parameters and actions through cron job
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FirmSafe	Two stored firmware versions, incl. test mode for firmware updates
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automatic firmware update	configurable automatic checking and installation of firmware updates
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Monitoring	LANCOM Management Cloud, LANmonitor, WLANmonitor
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Monitoring functions	Device SYSLOG, SNMPv1,v2c,v3 incl. SNMP-TRAPS, extensive LOG and TRACE options, PING and TRACEROUTE for checking connections, internal logging buffer for firewall events
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Monitoring statistics	Extensive Ethernet, IP and DNS statistics; SYSLOG error counter, accounting information exportable via LANmonitor and SYSLOG
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IPerf	IPerf is a tool for measurements of the bandwidth on IP networks (integrated client and server)
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SLA-Monitor (ICMP)	Performance monitoring of connections
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SD-WLAN	SD-WLAN – automatic WLAN configuration via the LANCOM Management Cloud
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SD-LAN	SD-LAN – automatic LAN configuration via the LANCOM Management Cloud
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## Declarations of conformity\*

CE	EN 60950-1, EN 301 489-1, EN 301 489-17
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5 GHz WLAN	EN 301 893
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2.4 GHz WLAN	EN 300 328
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IPv6	IPv6 Ready Gold
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Country of Origin	Made in Germany
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*) Note	You will find all declarations of conformity in the products section of our website at <a href="http://www.lancom-systems.com">www.lancom-systems.com</a>
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## Scope of delivery

Manual	Installation Guide (DE/EN/FR/ES/IT/PT/NL)
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lancom-systems.com

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## Scope of delivery

Power supply unit	External power adapter (230 V), NEST 12 V/1.5 A DC/S, coaxial power connector 2.1/5.5 mm, temperature range from -5 to +45° C, LANCOM item no. 111140 (EU) (not included in bulk delivery)
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## Support

Warranty	3 years support
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Software updates	Regular free updates (LCOS operating system and LANtools) via Internet
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LANcare Basic S	Security updates and manufacturer support until EOL status (min. 5 years, support contract required: LANcommunity partner, LANcare Direct, or LANcare Premium Support), 5 years replacement service with shipment of the device within 5 days after arrival of the faulty device (8/5/5Days), 10720
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LANcare Advanced S	Security updates and manufacturer support until EOL status (min. 5 years, support contract required: LANcommunity partner, LANcare Direct, or LANcare Premium Support), 5 years NBD advance replacement with delivery of the device on the next business day (8/5/NBD), item no. 10730
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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)
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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)
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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)
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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)
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## Options

LANCOM Public Spot	Hotspot option for LANCOM products, versatile access (via voucher, e-mail, SMS), including a comfortable setup wizard, secure separation of guest access and internal network, item no. 60642
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## 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
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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
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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
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## Accessories

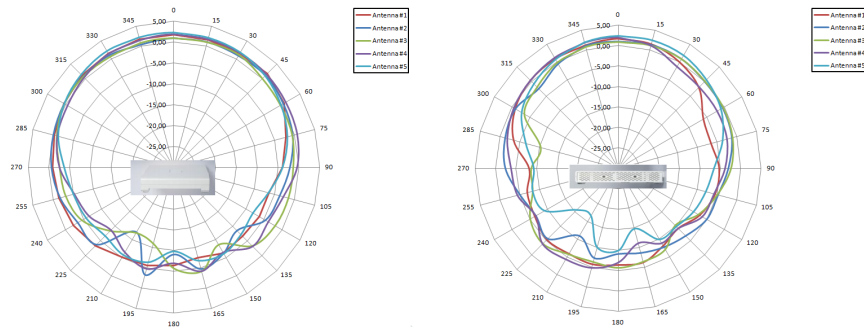
LANCOM WLAN controllers	LANCOM WLC-30, Art.-Nr. 61789 (EU), LANCOM WLC-1000, Art.-Nr. 61783 (EU), LANCOM WLC Basic Option for Routers, Art.-Nr. 61639
LANCOM Wall Mount LN	Robust mounting plate for simple, theft-proof mounting of LANCOM devices with LN housing, Item no. 61342
LANCOM WLAN PSU (EU, white, Bulk 10)	10x white LANCOM WLAN PSU 230V to 12V/2A DC power adapter, item no. 61814
LANCOM PoE++ Injector (EU)	1-port PoE injector with multi-Gigabit support, integrated power supply, compatible with the standard IEEE 802.3af/at/bt (up to 65W), item no. 61779 (EU)

## Item number(s)

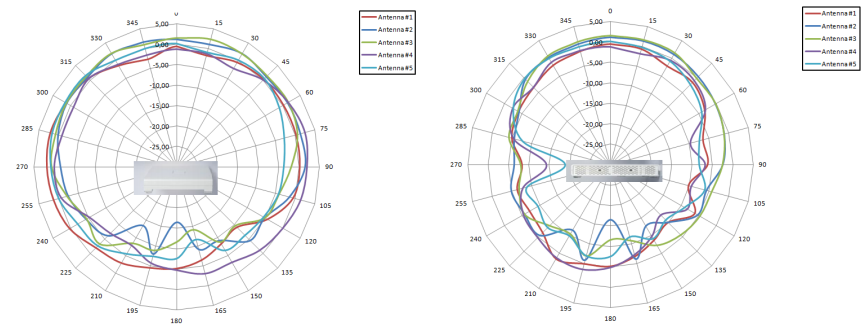
LANCOM LN-630acn dual Wireless (EU)	61787
LANCOM LN-630acn dual Wireless (WW)	61788
LANCOM LN-630acn dual Wireless (bulk 10)	61763

## Antenna Gain

antenna pattern, 2.4 GHz



antenna pattern, 5.2 GHz



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## Antenna Gain

antenna pattern, 5.6 GHz

