## LANCOM LN-860

## Dual-radio enterprise-class 11ac Wave 2 Wi-Fi access point with up to 867 Mbps - 100\% Cloud-ready



The LANCOM LN-860 is a high-performance 11ac Wi-Fi Wave 2 enterprise access point. Based on the Wi-Fi standard IEEE 802.11ac Wave 2, this device significantly increases the efficiency of any wireless network. Featuring Multi-User MIMO, it allows all of the available streams to be used by several clients at the same time. The clients also benefit from beamforming for a better signal. The LANCOM LN-860 provides fast Wi-Fi to 11 n -clients in the $2.4-\mathrm{GHz}$ frequency band as well as the growing number of 11ac-enabled devices in the $5-\mathrm{GHz}$ band. On top of that, the access point can be versatilely operated: it can be orchestrated via the LANCOM Management Cloud, centrally managed by a WLAN controller or operated as a stand-alone device.
$\rightarrow$ Dual concurrent Wi-Fi - parallel operation at 2.4 and 5 GHz with up to 867 Mbps with IEEE 802.11ac Wave 2 and 300 Mbps with IEEE 802.11n
$\rightarrow 2 \times 2$ Multi-User MIMO for simultaneous beam-steering for multiple clients
$\rightarrow$ Beamforming steers the signal towards the Wi-Fi clients
$\rightarrow$ Supports 160-MHz channel width
$\rightarrow$ Dynamic WLAN optimization thanks to LANCOM Active Radio Control (ARC)
$\rightarrow$ Professional security features such as IEEE 802.1X
$\rightarrow$ SD-WLAN - automatic WLAN configuration via the LANCOM Management Cloud
$\rightarrow$ Integrated layer-7 application detection
$\rightarrow$ Elegant LANCOM design with integrated antennas

## LANCOM LN-860

## Dual concurrent Wi-Fi with up to 867 Mbps

The LANCOM LN-860 features two Wi-Fi radio modules, one offering IEEE 802.11ac Wave 2 and the other offering IEEE 802.11n. This provides fast Wi-Fi to 11n-clients in the $2.4-\mathrm{GHz}$ frequency band and also the growing number of modern 11ac-enabled devices in the $5-\mathrm{GHz}$ band.

## 2x2 Multi-User MIMO

Multi-User MIMO (MU-MIMO for short) simultaneously distributes all of the available spatial streams of the LANCOM LN-860 between several different Wave 2 clients, rather than one after the other as was formerly the case. The available bandwidth is used more efficiently and delays in the wireless network are substantially reduced.

## Beamforming

The LANCOM LN-860 uses beamforming to actively steer the signal to the clients and minimize interfering radio signals for other clients. In combination with MU-MIMO, the clients receive dedicated spatial streams with a minimum of interference, which positively influences the data rates for all of the clients.

## 160-MHz channel width

Increasing the channel width from 80 to 160 MHz doubles the performance for Wave 2 clients. By optimizing the use of the radio spectrum, a client can be supplied with a data rate of up to 867 Mbps .

## Active Radio Control for dynamic radio-field optimization

The LANCOM LN-860 supports the WLAN optimization feature LANCOM Active Radio Control. This intelligent combination of innovative features included with the LCOS operating system—such as Band Steering, Adaptive Noise Immunity, Adaptive RF Optimization, Airtime Fairness and Client Steering-sustainably increases WLAN performance and supports administrators with professional tools for WLAN management.

## LANCOM security for wireless networks

With numerous integrated security features, such as IEEE 802.1X, this enterprise-class access point provides optimal security for networks. Administrators and employees alike benefit from professional security policies on the network.

## Operation via LANCOM Management Cloud, WLAN controller or stand-alone

The LANCOM LN-860 can be versatilely operated: Managed via the LANCOM Management Cloud it is integrated into a comprehensive, automized network orchestration, based on Software-defined Networking technology. It can also be operated via a LANCOM WLAN controller or be applied in stand-alone operation.

## LANCOM LN-860

## Layer-7 application detection

Knowing what the bandwidth in your network is actually being used for can be crucial in any industry. Layer-7 application detection gives you a completely transparent overview. This means that the user-friendly LANCOM Management Cloud delivers clear and professional insight into exactly which applications (such as YouTube, Netflix, etc.) are operating anywhere on the network-true added value for all-round network monitoring.

## Elegant LANCOM design with integrated antennas

The white LANCOM LN-860 has a fascinating, puristic elegance. Its modern design is ideal for unobtrusive operation in any industry as it blends seamlessly into any environment.

## WLAN product specifications

Frequency band 2.4 GHz and $5 \mathrm{GHz} \quad 2400-2483.5 \mathrm{MHz}$ (ISM), $5150-5350 \mathrm{MHz}$ and $5470-5725 \mathrm{MHz}$ (depending on country-specific restrictions)

| Integrated Antenna Gain | up to 3 dBi in 2.4 GHz , up to 4.5 dBi in 5 GHz (per antenna (3) @ WLAN-1 and WLAN-2) |
| :---: | :---: |
| Data rates IEEE 802.11ac/n | 867 Mbps according to IEEE 802.11ac with MCS9 (fallback to $6,5 \mathrm{Mbps}$ with MCSO). Compatible to IEEE 802.11ac/n/a, IEEE $802.11 \mathrm{ac} / \mathrm{n}$, 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 802.11 n with MCS15 (fallback to $6,5 \mathrm{Mbps}$ with MCSO). Compatible to IEEE 802.11a/n, IEEE $802.11 \mathrm{~g} / \mathrm{n}$, IEEE $802.11 \mathrm{~b} / \mathrm{g} / \mathrm{n}$ or IEEE $802.11 \mathrm{~b} / \mathrm{g}$ compatibility mode or pure IEEE 802.11 n , pure IEEE 802.11 a , IEEE 802.11 g or pure IEEE 802.11 b mode and data rates selectable |
| Data rates IEEE 802.11a/ h | 54 Mbps (fallback to $48,36,24,18,12,9,6 \mathrm{Mbps}$, 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 802.11 g (fallback to $48,36,24,18,12,9,6 \mathrm{Mbps}$, Automatic Rate Selection) compatible to IEEE 802.11b (11, 5.5, 2, 1 Mbps , Automatic Rate Selection), IEEE $802.11 \mathrm{~b} / \mathrm{g}$ compatibility mode or pure IEEE 802.11 g or pure IEEE 802.11b and data rates selectable |
| 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 $802.11 \mathrm{a} / \mathrm{h}:+17$ up to $+18 \mathrm{dBm} @ 6$ up to $48 \mathrm{Mbps},+13$ up to $+15 \mathrm{dBm} @ 54 \mathrm{Mbps}$, IEEE 802.11n: +17 up to +18 dBm @ (MCS0/8/16, 20 MHz ), +11 up to $+13 \mathrm{dBm} @(\mathrm{MCS} 7 / 15 / 23,20 \mathrm{MHz}$ ), +16 up to $+17 \mathrm{dBm} @$ (MCSO/8/16, 40 MHz ), +9 up to +12 dBm @ (MCS7/15/23, 40 MHz ) |
| Output power at radio module WLAN-2, 5 GHz | IEEE 802.11a/h: $+18 \mathrm{dBm} @ 6$ and $+15 \mathrm{dBm} @ 54 \mathrm{MBit} / \mathrm{s}$, IEEE $802.11 \mathrm{ac}: 18 \mathrm{dBm}$ @ (MCSO/1, 20 MHz ), $17 \mathrm{dBm} @$ (MCS2-3, 20 MHz ), 16 dBm @ (MCS4/5, 20 MHz ), 15 dBm @ (MCS6, 20 MHz ), $14 \mathrm{dBm} @(\mathrm{MCS7}, 20 \mathrm{MHz}), 12 \mathrm{dBm}$ @ (MCS8, 20 MHz$), 11 \mathrm{dBm}$ @ (MCS9, 20 MHz ), 18 dBm @ (MCSO/1, 40 MHz ), 17 dBm @ (MCS2/3, 40 MHz ), 16 dBm @ (MCS4/5, 40 MHz ), $15 \mathrm{dBm} @(\mathrm{MCS} 6,40 \mathrm{MHz}), 14 \mathrm{dBm} @(\mathrm{MCS7}, 40 \mathrm{MHz}), 12 \mathrm{dBm} @(\mathrm{MCS}, 40 \mathrm{MHz}), 11$ dBm @ (MCS9, 40 MHz$), 18 \mathrm{dBm}$ @ (MCSO/1, 80 MHz ), 17 dBm @ (MCS2/3, 80 MHz ), $16 \mathrm{dBm} @(\mathrm{MCS} 4 / 5,80 \mathrm{MHz})$, 15 dBm @ (MCS6, 80 MHz$), 14 \mathrm{dBm} @(\mathrm{MCS7}, 80 \mathrm{MHz}), 12 \mathrm{dBm} @(\mathrm{MCS} 8,80 \mathrm{MHz}), 11 \mathrm{dBm} @(\mathrm{MCS} 9,80 \mathrm{MHz})$, 18 dBm @ (MCS0/1, 160 MHz ), 17 dBm @ (MCS2/3, 160 MHz ), $16 \mathrm{dBm} @(\mathrm{MCS} 4 / 5,160 \mathrm{MHz}), 15 \mathrm{dBm} @(\mathrm{MCS} 6$, $160 \mathrm{MHz}), 14 \mathrm{dBm}$ @ (MCS7, 160 MHz ), 12 dBm @ (MCS8, 160 MHz ), 11 dBm @ (MCS9, 160 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 $2 \mathrm{Mbps},+22 \mathrm{dBm} @ 5,5$ and 11 Mbps , IEEE 802.11g: +22 dBm @ 6 up to $36 \mathrm{Mbps},+20 \mathrm{dBm} @ 48 \mathrm{Mbps},+18 \mathrm{dBm} @ 54 \mathrm{Mbps}$, IEEE 802.11n: +22dBm @ (MCS0/8/16, 20 MHz ), +16 dBm @ (MCS7/15/23, 20 MHz ), +21 dBm @ (MCSO/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, $-81 \mathrm{dBm} @ 54 \mathrm{Mbps}$, IEEE 802.11n: -94 dBm @ (MCSO, 20 MHz ), -76dBm @ (MCS 7, 20 MHz ), -92 dBm @ (MCSO, 40 MHz ), -72 dBm @ (MCS7, 40 MHz ) |
| Receiver sensitivity WLAN-2, 5 GHz | IEEE 802.11a/h: -87 dBm @ $6 \mathrm{MBit} / \mathrm{s},-71 \mathrm{dBm}$ @ 54MBit/s, IEEE 802.11ac: -87 dBm @ MCS0 $20 \mathrm{MHz}(\mathrm{HT}),-85 \mathrm{dBm}$ @ MCSO 20MHz(VHT), -70 dBm @ MCS7 $20 \mathrm{MHz},-66 \mathrm{dBm}$ @ MCS8 $20 \mathrm{MHz},-85 \mathrm{dBm}$ @ MCSO $40 \mathrm{MHz}(\mathrm{VHT}),-67$ dBm @ MCS7 $40 \mathrm{MHz},-85 \mathrm{dBm}$ @ MCS0 $40 \mathrm{MHz}(\mathrm{VHT}),-61 \mathrm{dBm}$ @ MCS9 $40 \mathrm{MHz}(\mathrm{VHT}),-81 \mathrm{dBm}$ @ MCSO 80 MHz, -58 dBm @ MCS9 80 MHz |

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## WLAN product specifications

| Receiver sensitivity WLAN-1, 2.4 GHz | IEEE 802.11b: -97 dBm @ $1 \mathrm{MBit} / \mathrm{s},-93 \mathrm{dBm} @ 11 \mathrm{MBit} / \mathrm{s}$, IEEE $802.11 \mathrm{~g}:-95 \mathrm{dBm} @ 6 \mathrm{MBit} / \mathrm{s},-81 \mathrm{dBm} @ 54 \mathrm{MBit} / \mathrm{s}$ IEEE 802.11n: -94 dBm @ 6,5MBit/s (MCSO, 20 MHz ), $-77 \mathrm{dBm} @ 65 \mathrm{MBit} / \mathrm{s}(\mathrm{MCS} 7,20 \mathrm{MHz}),-91 \mathrm{dBm} @ 15 \mathrm{MBit} / \mathrm{s}$ (MCSO, 40 MHz ), $-74 \mathrm{dBm} @ 150 \mathrm{MBit} / \mathrm{s}(\mathrm{MCS7}, 40 \mathrm{MHz})$ |
| :---: | :---: |
| 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 512 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 |

## Supported WLAN standards

| IEEE standards | IEEE 802.11ac Wave 2 (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 802.11k, IEEE 802.11v, 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 |

## Standard IEEE 802.11ac (Wi-Fi 5)

Supported features $2 \times 2$ MIMO, $80 \mathrm{MHz} / 160 \mathrm{MHz}$ channels, MU-MIMO, QAM-256

## Standard IEEE 802.11n (Wi-Fi 4)

| Supported features | $2 \times 2 \mathrm{MIMO}, 40 \mathrm{MHz}$ channel, $20 / 40 \mathrm{MHz}$ coexistence mechanisms in the 2.4 GHz band, MAC aggregation, Block <br> Acknowledgement, STBC (Space Time Block Coding), LDPC (Low Density Parity Check), MRC (Maximal Ratio <br> Combining), Short Guard Interval |
| :--- | :--- |

## 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 |
| :---: | :---: |
| *) Note | Only in installations with WLAN controller |
| Security |  |
| Encryption options | WPA3-Personal, IEEE 802.1X (WPA3-Enterprise, WPA2-Enterprise), IEEE 802.11i (WPA2-Personal), Wi-Fi Certified ${ }^{\text {TI }}$ WPA2 ${ }^{m}$, 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) |

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| Security |  |
| :---: | :---: |
| EAP types (authenticator) | EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-FAST |
| 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 5 GHz 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 <br> Roaming (only in operating mode client modus) |
| :--- | :--- |

## 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 ${ }^{\text {™ }}$ WMM ${ }^{\text {® }}$ |
| 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 |

## LANCOM LN-860

| 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 |
| 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 ports | $2 \times 10 / 100 / 1000$ BASE-T autosensing (RJ-45), IEEE 802.3az, PoE (Power over Ethernet) at ETH1 |
| Serial interface | Serial configuration interface / COM port ( 8 pin Mini-DIN): 9,600-115,000 baud, suitable for optional connection of analog/GPRS modems. Supports internal COM port server and allows for transparent asynchronous transmission of serial data via TCP |
| Internal antennas per radio module | Each radio is connected to one of the two internal $2 \times 2$ MIMO antennas |

## LANCOM LN-860

| Hardware |  |
| :---: | :---: |
| Power supply | $12 \mathrm{~V} \mathrm{DC} ,\mathrm{external} \mathrm{power} \mathrm{adapter} \mathrm{( } 230 \mathrm{~V}$ ), PoE (Power over Ethernet), compliant with IEEE 802.3at |
| Environment | Temperature range $0^{\circ}$ to $45^{\circ} \mathrm{C}$ (vertical wall mount with LANCOM Wall Mount (LN), $0^{\circ}$ to $37^{\circ} \mathrm{C}$ (horizontal ceiling mount with LANCOM Wall Mount (LN)). Access point overheating is avoided by automatic throttling of the Wi-Fi modules. Humidity 0 to $95 \%$; non-condensing |
| Power consumption (max) | Approx. 15.1 W via power adapter (value refers to the total power consumption of access point and power adapter), Approx. 14.9 W via PoE (value solely refers to the power consumption of the access point) |
| Housing | Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; $205 \times 42 \times 205 \mathrm{~mm}$ (W x H x D) |


| Management and monitoring |  |
| :---: | :---: |
| Management | LANCOM Management Cloud, LANconfig, WEBconfig, WLAN controller, LANCOM Layer 2 management (emergency management) |
| 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 seperately), SSL, SSH, HTTPS, Telnet, TFTP, SNMP, HTTP, access rights via TACACS+, scripting, timed control of all parameters and actions through cron job |
| FirmSafe | Two stored firmware versions, incl. test mode for firmware updates |
| automatic firmware update | configurable automatic checking and installation of firmware updates |
| Monitoring | LANCOM Management Cloud, LANmonitor, WLANmonitor |
| 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 |
| Monitoring statistics | Extensive Ethernet, IP and DNS statistics; SYSLOG error counter, accounting information exportable via LANmonitor and SYSLOG, Layer 7 Application Detection including application-centric tracking of traffic volume |
| IPerf | IPerf is a tool for measurements of the bandwidth on IP networks (integrated client and server) |
| SLA-Monitor (ICMP) | Performance monitoring of connections |
| SD-WLAN | SD-WLAN - automatic WLAN configuration via the LANCOM Management Cloud |
| SD-LAN | SD-LAN - automatic LAN configuration via the LANCOM Management Cloud |

Declarations of conformity*
CE EN 60950-1, EN 301 489-1, EN 301 489-17
5 GHz WLAN EN 301893
2.4 GHz WLAN EN 300328

## LANCOM LN-860

| Declarations of conformity* |  |
| :--- | :--- |
| Medical | Medical conformity with EN $60601-1-2$ |

## LANCOM LN-860

| Support |  |
| :---: | :---: |
| 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) |
| Software |  |
| Lifecycle Management | After discontinuation (End of Sale), the device is subject to the LANCOM Lifecycle Management. Details can be found at: <br> www.lancom-systems.com/lifecycle |
| Anti-backdoor policy | Products from LANCOM are free of hidden access paths (backdoors) and other undesirable features for introducing extracting or manipulating data. The trust seal "IT Security made in Germany" (ITSMIG) and certification by the German Federal Office for Information Security (BSI) confirm the trustworthiness and the outstanding level of security |
| 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 |
| 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 |  |
| 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 230 V to 12V/2A DC power adapter, item no. 61814 |
| LANCOM Serial Adapter Kit | For the connection of V. 24 modems with AT command set and serial interface for the connection to the LANCOM COM interface, incl. serial cable and connection plug, item no. 61500 |
| 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-860 (EU/UK) | 61773 (EU), 61774 (UK) |

## LANCOM LN-860

## Item number(s)

## LANCOM LN-860 (Bulk 10) <br> 61775

## Antenna Gain

antenna pattern, 2.4 GHz
antenna pattern, 5.2 GHz


## LANCOM LN-860

## Antenna Gain

antenna pattern, 5.6 GHz


