

# LANCOM 750-5G

## The versatile 5G-network extension



Conveniently expand your network infrastructure with fast 5G cellular radio. The device is ideally suited for use as a modem or "external 5G antenna" and for use as mobile primary access or for backup purposes. The LANCOM 750-5G can also be easily integrated into the network as a router and, thanks to Power over Ethernet, can also be supplied with power without an additional power supply unit. Thus, the device can be flexibly placed in locations with best 5G coverage.

- Integrated 5G modem for low latency and high bandwidth for real-time applications
- VRRP support ("external 5G antenna")
- Professional backup function in combination with a LANCOM router
- Easily connects to a LANCOM router or PoE switch
- Integration into the LANCOM Management Cloud
- Powered by PoE or power supply unit
- Also operates as a stand-alone 5G router
- Maximum future compatibility, reliability, and security "Engineered in Germany"



LCOS 10.80

# LANCOM 750-5G

## **Flexible WAN network extension**

With an integrated cellular modem that supports 5G technology, the LANCOM 750-5G makes wireless broadband connectivity that enables low latency and high-performance use in real-time applications. In addition, it is ideally suited for intelligent backup scenarios.

## **VRRP support**

By supporting VRRP, the LANCOM 750-5G provides high-speed cellular connectivity to other network gateways as an "external 5G antenna".

## **Gigabit Ethernet with PoE**

The LANCOM 750-5G features a PoE-enabled Gigabit Ethernet port. This makes it quick and easy to integrate into the network and the device can be freely positioned wherever the 5G signal is strongest.

## **Integration into the LANCOM Management Cloud**

The LANCOM 750-5G is effortlessly managed and monitored by the LANCOM Management Cloud. The LANCOM Management Cloud is the world's first management system for the intelligent organization, optimization, and control of your entire network. This radically simplifies the management of installations, from small to very large scenarios.

## **Maximum future-proofing and digital sovereignty**

As an established German manufacturer of IT network solutions, LANCOM stands for reliability and know-how. Software and hardware development as well as production take place primarily in Germany, as does the hosting of the network management. Special attention is given to providing trusted solutions with outstanding security features. Another important security characteristic of the products is that they are free from backdoors, as awarded by the German Federal Ministry of Economy with the quality seal "IT Security made in Germany". All devices are always equipped with hardware that is dimensioned for the future. Even across product generations, updates to the LANCOM operating system family LCOS are available several times a year, free of charge. This guarantees a long service life while staying technically up to date, which represents a true protection of your investment. In addition, LANCOM infrastructures are easily scalable thanks to maximum compatibility.



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## Layer 2 features

VLAN 4.096 IDs based on IEEE 802.1q, dynamic assignment

Multicast IGMP-Snooping, MLD-Snooping

## 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 2 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)

Tunneling protocols (IPv4/IPv6) 6to4, 6in4, 6rd (static and over DHCP), Dual Stack Lite (IPv4-in-IPv6-Tunnel), 464XLAT

## Security

Intrusion Prevention Monitoring and blocking of login attempts and port scans

IP spoofing Source IP address check on all interfaces: only IP addresses belonging to the defined IP networks are allowed

Access control lists Filtering of IP or MAC addresses and preset protocols for configuration access

Denial of Service protection Protection from fragmentation errors and SYN flooding



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## Security

|                           |   |
|---------------------------|---|
| General                   | Detailed settings for handling reassembly, PING, stealth mode and AUTH port   |
| Password protection       | Password-protected configuration access can be set for each interface   |
| Alerts                    | Alerts via e-mail, SNMP traps and SYSLOG  |
| Authentication mechanisms | EAP-TLS, EAP-TTLS, PEAP, MS-CHAP, MS-CHAPv2 as EAP authentication mechanisms, PAP, CHAP, MS-CHAP and MS-CHAPv2 as PPP authentication mechanisms |
| Adjustable reset button   | Adjustable reset button for 'ignore', 'boot-only' and 'reset-or-boot'   |

## High availability / redundancy

|          |  |
|----------|--|
| VRRP     | VRRP (Virtual Router Redundancy Protocol) for backup in case of failure of a device or remote station.             |
| FirmSafe | For completely safe software upgrades thanks to two stored firmware versions, incl. test mode for firmware updates |

## Performance

|                     |  |
|---------------------|--|
| Routing-Performance | Data regarding the overall routing performance can be found inside the LANCOM tech paper "Routing-Performance" on <a href="http://www.lancom-systems.com">www.lancom-systems.com</a> |
|---------------------|--|

## Cellular radio

|                             |  |
|-----------------------------|--|
| Supported standards         | 5G, LTE, UMTS and HSPA support (mode of transmission automatically or manually adjustable), 2G/GSM is not supported  |
| Supported 5G modes          | 5G standalone (SA), 5G non-standalone (NSA)  |
| Supported mobile bands (5G) | n1 (2100 MHz), n2 (1900 MHz), n3 (1800 MHz), n5 (850 MHz), n7 (2600 MHz), n8 (900 MHz), n12 (700 MHz), n13 (700 MHz), n14 (700 MHz), n18 (850 MHz), n20 (800 MHz), n25 (1900 MHz), n26 (850 MHz), n28 (700 MHz), n29 (700 MHz), n30 (2300 MHz), n38 (2600 MHz), n40 (2300 MHz), n41 (2500 MHz), n48 (3500 MHz), n66 (2100 MHz), n70 (2000 MHz), n71 (600 MHz), n75 (1500 MHz), n76 (1500 MHz), n77 (3700 MHz), n78 (3500 MHz), n79 (4700 MHz)                              |
| Supported mobile bands (4G) | B1 (2100 MHz), B2 (1900 MHz), B3 (1800 MHz), B4 (1700 MHz), B5 (850 MHz), B7 (2600 MHz), B8 (900 MHz), B12 (700 MHz), B13 (700 MHz), B14 (700 MHz), B17 (700 MHz), B18 (850 MHz), B19 (850 MHz), B20 (800 MHz), B25 (1900 MHz), B26 (850 MHz), B28 (700 MHz), B29 (700 MHz), B30 (2300 MHz), B32 (1500 MHz), B34 (2000 MHz), B38 (2600 MHz), B39 (1900 MHz), B40 (2300 MHz), B41 (2500 MHz), B42 (3500 MHz), B43 (3700 MHz), B48 (3500 MHz), B66 (1700 MHz), B71 (600 MHz) |
| Supported mobile bands (3G) | Band 1 (2100 MHz), Band 2 (1900 MHz), Band 4 (1700 MHz), Band 5 (850 MHz), Band 8 (900 MHz), Band 19 (800 MHz)   |
| Diversity support           | Receive diversity on the aux antenna (3G); MIMO (4x4) for LTE (4G); MIMO (4x4) for 5G  |
| Supported SIM card formats  | Micro-SIM (3FF), Nano-SIM (4FF) via adaptor  |



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## Interfaces

|                             |  |
|-----------------------------|--|
| ETH1 (PoE)                  | 10/100/1000 Base-T, autosensing, auto node hub, PoE compliant with IEEE 802.3af. The port supports energy saving according to IEEE 802.3az |
| Serial interface            | Serial configuration interface / COM port (USB-C): 9,600 - 115,000 baud.   |
| External antenna connectors | Four SMA antenna connectors for external 5G antennas   |

## Management and monitoring

|                           |   |
|---------------------------|---|
| Management                | LANCOM Management Cloud, LANconfig, WEBconfig, 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 separately), 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  |
| IPerf                     | IPerf is a tool for measurements of the bandwidth on IP networks (integrated client and server)   |
| SLA-Monitor (ICMP)        | Performance monitoring of connections   |
| Netflow                   | Export of information about incoming and outgoing IP traffic  |

## Hardware

|                          |   |
|--------------------------|---|
| Power supply             | Via Power over Ethernet, compliant with IEEE 802.3af  |
| Environment              | Temperature range 0–40°C; humidity 0–95%; non-condensing  |
| Housing                  | Robust synthetic housing with aluminum body, rear connectors, ready for wall mounting, Kensington lock; 205 x 42 x 205 mm (W x H x D)                                       |
| Fans                     | None; fanless design without rotating parts, high MTBF  |
| Power consumption (Idle) | Approx. 4,9 W via power adapter (value refers to the power for the device and power adapter), about 6,9 W via PoE (value refers to the power for the device only)           |
| Power consumption (max)  | Approx. 10,1 W via power adapter (value refers to the overall power for the device and power adapter), about 13,0 W via PoE (value refers to the power for the device only) |



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## Declarations of conformity\*

|                   |   |
|-------------------|---|
| Europe/EFTA       | CE  |
| IPv6              | IPv6 Ready Gold   |
| Country of Origin | Made in Germany   |
| *) Note           | You will find all declarations of conformity on our website at <a href="http://www.lancom-systems.com/doc">www.lancom-systems.com/doc</a> |

## Scope of delivery

|                   |   |
|-------------------|---|
| Manual            | Quick Installation Guide (DE/EN)  |
| Cable             | 1 Ethernet cable, 3 m   |
| Antennas          | Four 2 dBi 5G/LTE/UMTS-antennas   |
| Power supply unit | External power adapter (230 V), NEST 12 V/2.5 A DC/S, coaxial power connector 2.1/5.5 mm, temperature range from 0 to +40° C, LANCOM item no. 111884 (EU) |

## Support

|                                |  |
|--------------------------------|--|
| Warranty extension             | Free warranty extension up to 3 years (replacement service for defects)<br>For details, please refer to the service and support conditions at <a href="http://www.lancom-systems.com/support-conditions">www.lancom-systems.com/support-conditions</a> or at <a href="http://www.lancom.de/rma">www.lancom.de/rma</a> .  |
| Security updates               | Up to 2 years after End of Sale of the device (but min. 3 years, see <a href="http://www.lancom-systems.com/product-tables">www.lancom-systems.com/product-tables</a> ), can be extended by purchasing LANcare products  |
| Software updates               | Regular free updates including new features as part of the LANCOM Lifecycle Management ( <a href="http://www.lancom-systems.com/lifecycle">www.lancom-systems.com/lifecycle</a> )  |
| Manufacturer support           | For LANcommunity partners up to the End of Life of the device<br>For end customers with LANcare Direct or LANcare Premium Support during the LANcare validity  |
| LANcare Basic S                | Security updates until EOL (min. 5 years) and 5 years replacement service with shipment of the replacement device within 5 days after arrival of the defective device (8/5/5Days), item no. 10720  |
| LANcare Advanced S             | Security updates until EOL (min. 5 years) and 5 years NBD advance replacement with delivery of the replacement device within one business day (8/5/NBD), item no. 10730  |
| 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) |
| 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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## Support

**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)

**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:  
[www.lancom-systems.com/lifecycle](http://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.

## 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

**External antenna** AirLancer O-360Q-5G, omnidirectional outdoor antenna MIMO (4x4), for all 4G/5G bands (700-3800 MHz), item no. 61234

**LANCOM Wall Mount LN** Robust mounting plate for simple, theft-proof mounting of LANCOM devices with LN housing, Item no. 61342

## Item number(s)

LANCOM 750-5G (EU) 61707