

The flexible LTE/4G network extension

The easy way to extend your network infrastructure with LTE-Advanced for fast Internet at up to 300 Mbps. The device is ideally suited for the application as modem or "external LTE antenna" for backup purposes. Applied as a router it easily integrates into networks and, thanks to Power over Ethernet, it can operate without an extra power supply unit. So you can position the device wherever the 4G signal is strongest.

- > LTE/4G Internet access router for up to 300 Mbps
- > VRRP support ("external LTE antenna")
- > Professional backup function when combined with a LANCOM router
- > Easily connected to a LANCOM router or PoE switch
- > Gigabit Ethernet
- > Full integration into the LANCOM Management Cloud
- > Powered by PoE or power supply unit
- > Also operates as a stand-alone LTE/4G router



#### Mobile radio with up to 300 Mbps

With an integrated cellular modem that supports LTE/4G advanced, the LANCOM 730-4G+ supports wireless broadband connectivity with speeds up to 300 Mbps. It is also ideally suited for intelligent backup scenarios.

#### **VRRP** support

By supporting VRRP, the LANCOM 730-4G+ provides LTE/4G connectivity to other network gateways as "external LTE antenna" within seconds.

#### **Gigabit Ethernet with PoE**

The LANCOM 730-4G+ has 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 4G signal is strongest.

#### Full integration into the LANCOM Management Cloud

The LANCOM 730-4G+ 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

LANCOM products are based on professional expertise, years of experience in IT, and high-quality materials. All of our devices are equipped with hardware that is dimensioned for the future and, even reaching back to older product generations, updates to the LANCOM Operating System—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.



LCOS 10.32

LTE modem	
Supported standards	LTE, UMTS and HSPA support (mode of transmission automatically or manually adjustable), 2G/GSM is not supported
Supported mobile bands (3G/4G)	Band 1 (2100 MHz), Band 2 (1900 MHz), Band 3 (1800 MHz), Band 4 (2100 MHz), Band 5 (800 MHz), Band 7 (2600 MHz), Band (900 MHz), Band 12 (700 MHz), Band 13 (700 MHz), Band 20 (800 MHz), Band 25 (1900 MHz), Band 26 (800 Mhz), Band 29 (70 MHz), Band 30 (2300 MHz), Band 41 (2500 MHz)
Maximum transmission power	+23 dBm
Diversity support	Receive diversity on the aux antenna (3G); MIMO (2x2) for LTE (4G)
Supported SIM card formats*	Mini-SIM (2FF), Micro-SIM (3FF) via adaptor, Nano-SIM (4FF) via adaptor
Multi-SIM support	Supported
SIM pin	Changing of SIM pin via LANconfig or CLI (command line interface)
*) Note	LANCOM Systems recommends the use of a standard SIM (2FF / Mini-SIM)
Layer 2 features	
VLAN	4.096 IDs based on IEEE 802.1q, dynamic assignment, Q-in-Q tagging
Multicast	IGMP-Snooping
Layer 3 features	
Firewall	Stateful inspection firewall including paket filtering, extended port forwarding, N:N IP address mapping, paket tagging, support f 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 reassemb 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
SD-WAN Application Routing	SD-WAN Application Routing in connection with the LANCOM Management Cloud
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, DHC client, DHCP relay and DHCP server including autodetection, NetBIOS/IP proxy, NTP client, SNTP server, policy-based routine 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, TACAC
IPv6 protocols	NDP, stateless address autoconfiguration (SLAAC), stateful address autoconfiguration (DHCPv6), router advertisements, ICMPv DHCPv6, DNS, HTTP, HTTPS, PPPoE, RADIUS, SMTP, NTP, Syslog, SNMPv1,v2c,v3
Tunneling protocols (IPv4/IPv6)	6to4, 6in4, 6rd (static and over DHCP), Dual Stack Lite (IPv4-in-IPv6-Tunnel)
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
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 P authentication mechanisms



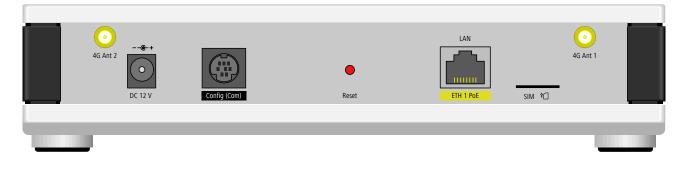
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Security		
Adjustable reset button	Adjustable reset button for 'ignore', 'boot-only' and 'reset-or-boot'	
High availability / redundancy		
VRRP	VRRP (Virtual Router Redundancy Protocol) for backup in case of failure of a device or remote station.	
FirmSafe	For completely safe software upgrades thanks to two stored firmware versions, incl. test mode for firmware updates	
LTE-Backup	In case of failure of the main connection, a backup connection is established over the internal LTE modem; automatic return to the main connection	
Analog/GSM modem backup	Optional operation of an analog or GSM modem at the serial interface	
Performance		
Routing-Performance	Data regarding the overall routing performance can be found inside the LANCOM tech paper "Routing-Performance" or www.lancom-systems.com	
Interfaces		
ETH1 (PoE)	10/100/1000 Base-T, autosensing, auto node hub, PoE compliant with IEEE 802.3af/at. The port supports energy saving according to IEEE 802.3az	
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	
External antenna connectors	Two SMA antenna connectors for external LTE antennas (Ant 1, Ant 2)	
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 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	
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-LAN	SD-LAN – automatic LAN configuration via the LANCOM Management Cloud	
SD-WAN	SD-WAN – automatic WAN configuration via the LANCOM Management Cloud	
Hardware		
Weight	1,1 lbs (500 g)	
Power supply	12 V DC, external power adapter (230 V) with bayonet cap to protect against accidentally unplugging	
Power supply	Via Power over Ethernet, compliant with IEEE 802.3af/at	
Environment	Temperature range 0° to +40°C a vertical mounting position using the LANCOM Wall Mount; Temperature range 0° to 35°C a horizonta mounting position and adequate ventilation; humidity up to 95%; non-condensing; In order to prevent overheating of the device the LTE module is deactivated automatically.	
Housing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; 210 x 45 x 140 mm (W x H x D)	
Fans	None; fanless design without rotating parts, high MTBF	
Power consumption (max)	Approx. 12 W via 12V/2.0 A power adapter (value refers to the overall power for thedevice and power adapter), about 11 W via Pol (value refers to the power for the device only)	



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Declarations of conformity*		
CE	EN 60950-1, EN 55022, EN 55024	
IPv6	IPv6 Ready Gold	
Country of Origin	Made in Germany	
*) Note	You will find all declarations of conformity in the products section of our website at www.lancom-systems.com	
Scope of delivery		
Manual	Hardware Quick Reference (DE/EN), Installation Guide (DE/EN)	
Cable	1 Ethernet cable, 3 m	
Antennas	Two 2 dBi LTE/UMTS-antennas	
Power supply unit	External power adapter (230 V), NEST 12 V/2.0 A DC/S, coaxial power connector 2.1/5.5 mm bayonet, temperature range from -5 to +45° C, LANCOM item no. 111303 (EU)/LANCOM item no 110829 (UK)	
Support		
Warranty	3 years support	
Software updates	Regular free updates (LCOS operating system and LANtools) via Internet	
Options		
LANCOM Warranty Basic Option S	Option to extend the manufacturer's warranty from 3 to 5 years, item no. 10710	
LANCOM Warranty Advanced Option S	Option to extend the manufacturer's warranty from 3 to 5 years and replacement of a defective device, item no. 10715	
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 Extender O-360-4G omnidirectional GSM/GPRS/EDGE/UMTS/HSPA+/LTE outdoor antenna, item no. 61227	
External antenna	AirLancer Extender I-360-4G, +2.5 dBi 4G/3G/2G antenna, 698-960 and 1710-2700 MHz, omnidirectional MIMO indoor antenna, item no. 60918	
LANCOM Wall Mount	For simple, theft-proof mounting of LANCOM devices with plastic housings, item no. 61349	
LANCOM Wall Mount (White)	For simple, theft-proof mounting of LANCOM devices with plastic housings, item no. 61345	
Item number(s)		
LANCOM 730-4G+ (EU)	61705	





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