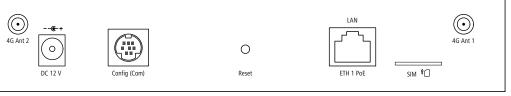


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**Quick Installation Guide** LANCOM 730-4G+

### Interface overview of the LANCOM 730-4G+

#### Rear panel



**(4)** 

- 1 LTE / 4G antenna connectors 2 Power supply connector
- Serial configuration interface

- Reset button Ethernet interface
- SIM card slot

#### **Documentation / Firmware** All information on your device Basically, current versions of the LCOS The LANCOM Knowledge Base — with over firmware, drivers, tools and documentation 2,500 articles — is available to you at any

for all LANCOM and AirLancer products time via the LANCOM website: from our website.

Detailed documentation for your device can be found in the download portal of the portal:

LANCOM website:

Refmanual/EN/

www.lancom-systems.com/downloads

You will also find explanations of all the functions of your LANCOM device in the LCOS Reference Manual: www.lancom-systems.de/docs/LCOS/

## Service & Support

are available for download free of charge <a href="www.lancom-systems.com/knowledgebase">www.lancom-systems.com/knowledgebase</a>

If you have any further questions, please submit your request via our Service & Support

www.lancom-systems.com/service-suppo

Information on the lifecycle, in particular on End of Sale / End of Life and on the supply of LANCOM devices with security updates ca be found at:

www.lancom-systems.com/lifecycle

### Technical data (excerpt)

ardware				
wer supply	12 V DC, external power adapter or PoE according to 802.3af/at via ETH 1 For an overview of the power supplies compatible with your device, see <a href="https://www.lancom-systems.com/kb/power-supplies">www.lancom-systems.com/kb/power-supplies</a> .			
ousing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; dimensions 210 $\times$ 45 $\times$ 140 mm (W $\times$ H $\times$ D)			
ckage contents				
ables	1 Ethernet cable, 3m			
itennas	Two LTE / 4G antennas for LTE, HSPA+, HSxPA, UMTS			
wer adapter	External power adapter			

#### Initial start-up

#### Establishing the required connections for device configuration

→ Always observe the adjacent safety instructions and notes.

For the power supply select the description a), b) or c) applicable to the equipment of the present device

b) PoE power supply via

(e.g. on a PoE-capable switch).

a) Power supply via external power supply PoE network device

Establish a power supply using Connect a network cable to the Ethernet port Connect a network cable to the Ethernet port the external power supply unit marked **PoE** on the device and a free **PoE**- marked **PoE** on the device and the output of (if available).

- → Use suitable cables to connect other required device interfaces to other components and, in the case of devices with Wi-Fi or mobile radio interfaces, connect any antennas supplied.
- → Select one of the following configuration methods a) or b).
- a) Configuration via the local network (recommended)
- Note that an active DHCP server is required in the network connected to the device. Connect the computer intended for configuration (e.g. notebook) either directly via Ethernet cable to one of the ETH or LAN interfaces of the device, or to a switch in the same network.

Always observe the documentation of the PoE injector or PoE switch!

The possibly existing interface CONFIG or COM is not suitable for configuration via the network!

b) Configuration via the serial interface of a connected computer (if available) You need a serial configuration cable which is connected to the possibly existing CONFIG or COM interface of the

### Options for initial start-up of the unconfigured device

→ Option 1: via web browser (WEBconfig, not for serially connected devices)

device. This socket is exclusively intended for connection to a serial interface!

Configuration via web browser is an easy and fast variant, since no additional software is required on the computer used for configuration.

Note: If a certificate warning appears in your browser when trying to connect to your device, there is a button or link on the displayed browser page to connect to the device anyway (depending on the browser, usually under Advanced). In the following, select the description a) or b) that applies to your setup for configuring the device.

For configuration via TCP/IP, the IP address of the device in the In this procedure, the DNS server used in your network must

active in the LAN. The device can be accessed from any computer with the Auto At https://lancom-XXYYZZ you can access your device.

address 172.23.56.254.

The given IP address can be modified at any time.

#### a) Configuration in a network without active DHCP server b) Configuration in a network with active DHCP server

local network (LAN) is required. After power-on, an unconfibe able to resolve the host name reported by the device via qured LANCOM device first checks whether a DHCP server is DHCP. When using a LANCOM device as a DHCP and DNS server, this is the default case.

Replace XXYYZZ with the last six digits of the MAC

c) PoE power supply via

separate PoE injector

cable to the input of the PoE injector and a free

NON-PoE-active network outlet of your local

Connect the PoE injector to the power supply.

active network socket on your local network the PoE injector. Then connect another network

DHCP function enabled using a web browser under the IP

address of your device, which you can find on the enclosed document LANCOM Management Cloud or on the nameplate of the device. If necessary, append the domain name

of your local network (e.g. .intern).

- When the computer is connected to an unconfigured LANCOM device, WEBconfig automatically starts the setup wizard
- After the setup wizard has been run through, the initial commissioning of the device is complete. • If necessary, make further configurations using the setup wizards available for selection.
- → Option 2: via the Windows software LANconfig (www.lancom-systems.com/downloads)
- Please wait until the booting process of the device is completed before starting LANconfig.
- Unconfigured LANCOM devices are automatically found by LANconfig in the local network (LAN) and the setup wizard Basic settings is then started.
- After the setup wizard has finished, the initial start-up of the device is complete.
- If necessary, make further configurations using the setup wizards available for selection.

#### → Option 3: via the LANCOM Management Cloud (LMC)

The LMC is not required for the operation of LANCOM devices, but it facilitates their commissioning and permanent management through centralized, automated management. Special requirements are necessary to configure the device via the LMC. Information on this topic can be found at www.lancom-systems.com/lmc-access.

### General safety instructions

- → Under no circumstances should the device housing be opened and the device repaired without authorization. Any device with a case that has been opened is excluded from the warranty.
- → If antennas are available, they may only be installed or replaced when the device is switched off. Mounting or demounting antennas while the device is powered on may cause the destruction of the radio module.
- → Mounting, installation, and commissioning of the device may only be carried out by qualified personnel.

### Safety instructions and intended use

In order to avoid harming yourself, third parties or your equipment when installing your LANCOM device, please observe the following safety instructions. Operate the device only as described in the corresponding documentation. Pay particular attention to all warnings and safety instructions. Use only those third-party devices and components that are recommended or approved by LANCOM Systems.

Before commissioning the device, be sure to study the corresponding Hardware Quick Reference which can be downloaded from the LANCOM website www.lancom-systems.com/downloads.

Any warranty and liability claims against LANCOM Systems are excluded in the event of any use other than the intended use described below!

LANCOM devices should only be operated when the following environmental requirements are met:

- → Ensure that you comply with the temperature and humidity ranges specified in the Quick Reference Guide for the LANCOM
- → Do not expose the device to direct sunlight (does not apply to outdoor devices)
- → Ensure that there is adequate air circulation and do not obstruct the ventilation slots.
- → Do not cover devices or stack them on top of one another
- → The device must be mounted so that it is freely accessible (for example, it should be accessible without the use of technical aids such as elevating platforms (does not apply to outdoor devices)); a permanent installation (e.g. under plaster) is not
- → Only outdoor equipment intended for this purpose is to be operated outdoors.
- → When operating an outdoor device without a suitable surge protection adapter, LANCOM does not provide any warranty in case of surge damage.

#### Power supply

Before start-up, the following points must be observed, as improper use can lead to personal injury and damage to property, as well as voiding the warranty:

- → If available, the power plug of the device must be freely accessible.
- → Operate the device only with a professionally installed power supply at a nearby and at all times freely accessible socket.
- → Only use the enclosed power supply / IEC cable or the one listed in the hardware quick reference.
- → A high touch current is possible for devices with metal housing and grounding screw! Before connecting the power supply, connect the grounding screw to a suitable ground potential.
- → Some devices support power supply via an Ethernet cable (Power over Ethernet PoE). Please refer to the corresponding notes in the hardware quick reference of the device.
- → Never operate damaged components.
- → Only switch on the device when the housing is closed.
- → The device must not be installed during thunderstorms and should be disconnected from the power supply during
- → In case of emergency (e.g. damage, ingress of liquids or objects, for example through the ventilation slots), disconnect the power supply immediately.

#### **Applications**

→ The devices may only be used in accordance with the relevant national regulations and under consideration of the legal situation applicable there.

→ The devices with their respective software are not designed, intended or certified for use in: the operation of weapons,

- → The devices must not be used for the actuation, control, and data transmission of machinery that, in case of malfunction or failure, may present a danger to life and limb, nor for the operation of critical infrastructures.
- weapons systems, nuclear facilities, mass transportation, autonomous vehicles, aircraft, life support computers or equipment (including resuscitators and surgical implants), pollution control, hazardous materials management, or other hazardous applications where failure of the device or software could lead to a situation in which personal injury or death could result. The customer is aware that the use of the devices or software in such applications is entirely at the customer's

#### Regulatory Notice

### Regulatory compliance for devices with radio or Wi-Fi interfaces

This LANCOM device is subject to governmental regulation. The user is responsible for ensuring that this device operates in accordance with local regulatory guidelines, specifically for compliance with potential channel restrictions.

#### Channel restrictions in Wi-Fi operation for devices with Wi-Fi interfaces

Frequency range Max. output power Technology

When operating this radio equipment in EU countries the frequency range 5,150 - 5,350 MHz (Wi-Fi channels 36 - 64) as well as the frequency range 5,945 - 6,425 MHz (Wi-Fi channels 1 - 93) is limited to indoor use.

### Maximum transmission power for devices with radio interfaces

This LANCOM device may contain one or more radio interfaces using various technologies. The maximum output power per technology and used frequency band for use in EU countries is described in the following tables:

Frequency range Max, output power

recimology	(MHz)	(dBm EIRP)		(MHz)	(dBm EIRP)
Wi-Fi	2,400 - 2,483.5	20	LTE (Band 34)	2,010 - 2,025	24
	5,150 - 5,350	20	LTE (Band 38)	2,570 – 2,620	24.8
	5,470 - 5,725	30	LTE (Band 40)	2,300 - 2,400	24.8
	5,945 - 6,425	23	LTE (Band 42)	3,400 – 3,600	24.8
SRD / BLE / SRD / ESL (ePaper)	2,400 – 2,483.5	10	5G NR (Band 1)	1,920 - 1,980	24
			5G NR (Band 3)	1,710 – 1,785	24
SRD / SubGHz-ESL	869.2 - 869.25	14 / 25 mW	5G NR (Band 28)	703 – 748	24
			5G NR (Band 41)	2,496 - 2,690	24
LTE (Band 1)	1,920 – 1,980		5G NR (Band 77)	3,300 - 4,200	24.5
LTE (Band 3)	1,710 – 1,785		5G NR (Band 78)	3,300 - 3,800	24.5
LTE (Band 7)	2,500 – 2,570	23	UMTS (Band 2)	1,850 - 1,910	
LTE (Band 8)	880 – 915				22
LTE (Band 20)	832 - 862		UMTS (Band 4)	1,710 - 1,755	23
			UMTS (Band 5)	824 – 849	

### **Declarations of Conformity**

You will find all the Declarations of Conformity concerning our product portfolio under www.lancom-systems.com/doc. These documents contain all the tested standards and required guidelines in the area of EMC - SAFETY - RF, as well as the proof of the guidelines concerning RoHS & REACH.

# Simplified Declaration of Conformity

Hereby, LANCOM Systems GmbH | Adenauerstrasse 20/B2 | D-52146 Wuerselen, declares that this device is in compliance with Directives 2014/30/EU, 2014/35/EU, 2014/53/EU, 2011/65/EU, and Regulation (EC) No. 1907/2006. The full text of the EU Declaration of Conformity is available at the following Internet address: www.lancom-systems.com/doc