

NF - English

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General Information

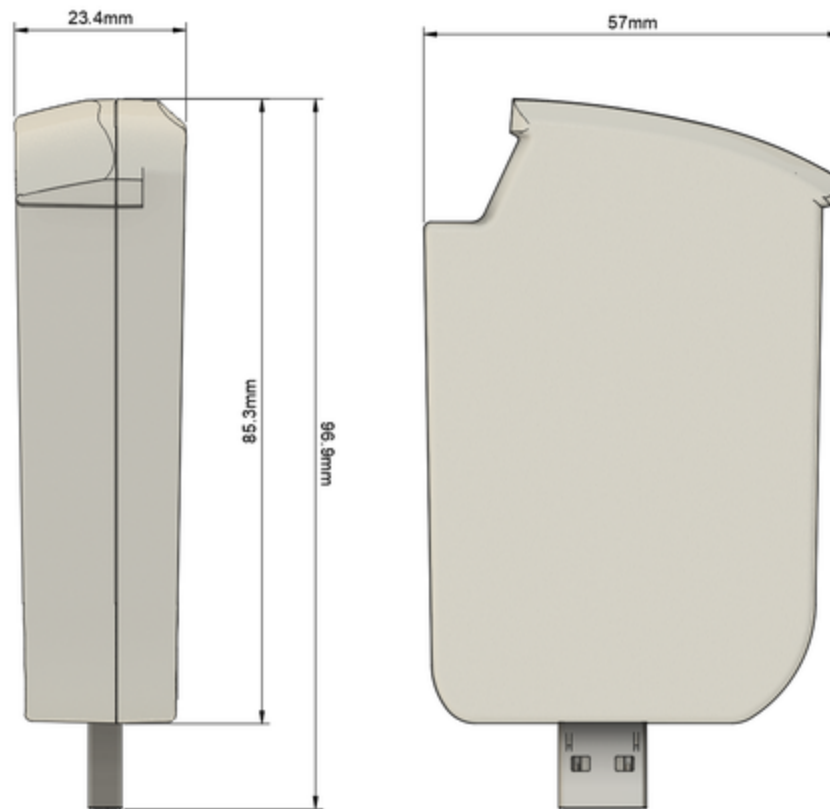
Product Marketing Name	USB Connect 4G - NF
Revision	20-004-1.3-NF
Manufacturer	exelonix GmbH Washingtonstraße 16/16a 01139 Dresden Germany

Description



The USB Connect 4G - NF is a USB-Device for cellular communication and supports the LTE CAT 4 standard

The device is connected to the host device by a USB Type A interface, which supplies the USB-Device with power and transmit/receive data.



Supported LTE Bands

LTE Band	Max. Output Power (dBm)	Frequency (MHz)	Uplink (MHz)	Downlink (MHz)	Channels
2	23 dBm	1900	1850-1910	1930-1990	Tx: 18600 - 19199 Rx: 600 - 1199
4	23 dBm	1700	1710-1755	2110-2155	Tx: 19950 - 20399 Rx: 1950 - 2399
12	23 dBm	700	699-716	729-746	Tx: 23010 - 23179 Rx: 5010 - 5179
B66	23 dBm	1700	1710 – 1780	2110 – 2200	Tx: 131972- 132671 Rx: 66436-67335

Working und Storage Conditions

Parameter	Minimum Value	Maximum Value	Unit
Operating temperature	-20	+55	°C
Storage temperature	-20	+70	°C
Humidity Range	5	95	%

Electrical Characteristics

Mode	Value
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Switched OFF	25 μ A
Idle Mode (No Call)	max. 15 mA
Operating Mode	200 - 600 mA
USB Voltage Range	4,8 V - 5,5 V (normally 5 V)

Getting started with USB Connect 4G - NF

Preparations & Power Up

1. Install the drivers for Windows/Linux operating system on your host device <https://www.telit.com/evkevb-drivers/>
2. Plug the USB Connect 4G into the USB Type A socket of the host device.
3. Make sure that the distance from your body to the USB Connect 4G is greater than 20 cm.
4. If the USB socket of the host device is active, the USB Connect 4G starts automatically.
5. Now you can identify the COM port of the USB Connect 4G - NF and send AT commands to unlock the AT command interface. Therefore you need to send (ask manufacturer for password):

```
AT#SECIFAUTH=XXXXXXXXXX
```

Power Down

 The power supply should not be suddenly interrupted before the shutdown procedure has been carried out

1. First set the following setting via the AT command interface (e.g. via the AT controller):

```
AT#GPIO=10, 1, 1
```

2. Now the command

```
AT#SHDN
```

can be sent to shut down the USB Connect 4G.

3. After about 15s you can disconnect the USB Connect 4G from the host device.

Operating

AT commands can be used during operation to establish a network connection. You can find an overview of the AT commands in the AT commands reference guide from Telit: <https://www.telit.com/m2m-iot-products/cellular-modules/standard-industrial-grade/xe910-family/#LE910Cx-downloads>

Compliances

General

To ensure compliance with RF exposure guidelines the device must be used with a minimum of 20cm separation from the body. Failure to observe these instructions could result in your RF exposure exceeding the relevant guideline limits. The requirements for the location and the according limitations to locations with distance of minimum 20cm to the user are clearly indicated with the USB device. The device is strictly for industrial use/application and installed in industrial environment. This device is not intended for remote access via LTE. This also includes firmware updates and changes to the radio settings via LTE. If a firmware update is necessary, please contact the manufacturer.

As already described, the stick contains the LE910C4-XX module from Telit. The compliance information statements for this module can be found at <https://www.telit.com/m2m-iot-products/cellular-modules/standard-industrial-grade/xe910-family/#LE910Cx-downloads>

USB Connect 4G - NF

ISED Certification

IC: 25377-UC4GNF

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

The product is in compliance with the SAR requirements. The minimum distance to the body is 5 mm.

FCC Certification

FCC ID: 2AUC4-UC4GNF

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications made to the device not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.

PTCRB

The product manufactured by Exelonix GmbH is in compliance with PTCRB.

For further information you can visit this page : <https://www.ptcrb.com/>

Safety Instructions

RF Exposure

When your device is in use, the system handling your connection controls the power level at which your device transmits.

Distraction

Driving

Full attention must be given to driving at all times in order to reduce the risk of an accident. Using this device while driving causes distraction and can lead to an accident. You must comply with local laws and regulations restricting the use of wireless devices while driving.

Operating machinery

Full attention must be given to operating the machinery in order to reduce the risk of an accident.

Product Handling

You alone are responsible for how you use your device and any consequences of its use.

You must always switch off your device wherever the use of a mobile phone is prohibited. If your device has clip-on covers, do not use it without the covers attached and do not remove or change them while using the device. Use of your device is subject to safety measures designed to protect users and their environment.

- Always treat your device and its accessories with care and keep it in a clean and dust-free place.
- Do not expose your device or its accessories to open flames or lit tobacco products.
- Do not expose your device or its accessories to liquid, moisture or high humidity.
- Do not drop, throw or try to bend your device or its accessories.
- Do not paint your device or its accessories.
- Do not attempt to disassemble your device or its accessories: only authorised personnel must do so.
- Do not expose your device or its accessories to extreme temperatures, minimum -20 and maximum +55 degrees Celsius.
- Please check local regulations for disposal of electronic products.

Emergency Situations

This device, like any wireless device, operates using radio signals, which cannot guarantee connection in all conditions. Therefore, you must never rely solely on any wireless device for emergency communications.

Device Heating

Your device may become warm during normal use.

Electrical Safety

Accessories

Only use approved accessories. Do not connect with incompatible products or accessories.

Faulty and Damaged Products

Do not attempt to disassemble the device or its accessory. Only qualified personnel must service or repair the device or its accessory. If your device or its accessory has been submerged in water, punctured, or subjected to a severe fall, do not use it until you have taken it to be checked at an authorised service centre.

Interference

Care must be taken when using the device in close proximity to personal medical devices, such as pacemakers and hearing aids.

Pacemakers

Pacemaker manufacturers recommend that a minimum separation of 15 cm be maintained between a device and a pacemaker to avoid potential interference with the pacemaker.

Hearing Aids

People with hearing aids or other cochlear implants may experience interfering noises when using wireless devices or when one is nearby.

The level of interference will depend on the type of hearing device and the distance from the interference source, increasing the separation between them may reduce the interference. You may also consult your hearing aid manufacturer to discuss alternatives.

Medical devices

Please consult your doctor and the device manufacturer to determine if operation of your device may interfere with the operation of your medical device.

Aircraft

Switch off your wireless device whenever you are instructed to do so by airport or airline staff. Consult the airline staff about the use of wireless devices on board the aircraft. If your device offers a 'flight mode' this must be enabled prior to boarding an aircraft.

Explosive environments

Petrol stations and explosive atmospheres

In locations with potentially explosive atmospheres, obey all posted signs to turn off wireless devices such as your device or other radio equipment.

Areas with potentially explosive atmospheres include fuelling areas, below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

Blasting Caps and Areas

Turn off your device or wireless device when in a blasting area or in areas posted turn off “two-way radios” or “electronic devices” to avoid interfering with blasting operations.

Frequency Bands and Power

(a) Frequency bands in which the radio equipment operates: Some bands may not be available in all countries or all areas. Please contact the local carrier for more details.

(b) Maximum radio-frequency power transmitted in the frequency bands in which the radio equipment operates: The maximum power for all bands is less than the highest limit value specified in the related Harmonized Standard.

The frequency bands and transmitting power (radiated and/or conducted) nominal limits applicable to this radio equipment are as follows:

2,4,12,66: 23 dBm.

Software Information

The product software version is 25.20.678