

# RUTX12 Safety Information

[Main Page](#) > [RUTX Routers](#) > [RUTX12](#) > [RUTX12 Manual](#) > **RUTX12 Safety Information**



## Contents

- [1 RF exposure](#)
- [2 Operating conditions](#)
- [3 Faulty and damaged products](#)
- [4 Electrical safety](#)
- [5 Product handling](#)

## RF exposure

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the authorized agencies. To ensure compliance with RF exposure guidelines the device must be used with a minimum separation of 20 cm from a person's body. Failure to observe these instructions could result in your RF exposure exceeding the relevant guideline limits.

External antennas used with RUTX12 must be installed to provide a separating distance of at least 20 cm from all persons and must not be co-located or operated in conjunction with any other antenna or transmitter.

Any external antenna gain must meet RF exposure and maximum radiated output power limits of the applicable rule section.

Antenna type	Frequency range	Impedance	VSWR	Gain*	Radiation	Connector
Mobile	800~960 MHz, 1710~2690 MHz	50 Ω	≤ 3.0	≤ 4 dBi	omnidirectional	SMA male
WiFi	2.4~2.5 GHz, 4.95~5.85 GHz	50 Ω	2.0 max	3 dBi	omnidirectional	RP-SMA male
BLE	2.4~2.5 GHz	50 Ω	≤ 2.5	≤ 2.5 dBi	omnidirectional	RP-SMA male
GNSS	1575.42~1602 MHz	-	2.0 max	28 dB + 1.5/-3 dB	RHCP polarization	SMA male

\*Higher gain antenna can be connected to compensate for cable attenuation when a cable is used. The user is responsible for the compliance with the legal regulations.

### Maximum transmission power

BLE	10 dBm
WCDMA	24 dBm
LTE	23 dBm

## Operating conditions

- Operating temperature: -40° to +75° Celsius
- Humidity should be in the range of 10% to 90% (non-condensing). Only use the device in dry environments.
- Out of direct sunlight
- Away from heat source
- Away from corrosive substances, salts and flammable gases

**Attention:** operation outside the permissible range can considerably shorten the service life of the device.

## Faulty and damaged products

- Do not attempt to disassemble the device or its accessories.
- Only qualified personnel must service or repair the device or its accessories.
- If your device or its accessories have been submerged in water punctured or subjected to a severe fall, do not use until they have been checked at an authorized service center.

## Electrical safety

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

## Product handling

- You alone are responsible for how you use your device and any consequences of its use.
- 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 use harsh chemicals, cleaning solvents, or aerosols to clean the 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 use your device in an enclosed environment or where heat dissipation is poor.
- Prolonged use in such space may cause excessive heat and raise ambient temperature, which will lead to automatic shutdown of your device or the disconnection of the mobile network connection for your safety. To use your device normally again after such shutdown, cool it in a well-ventilated place before turning it on.
- Please check local regulations for disposal of electronic products.
- Do not operate the device where ventilation is restricted.
- Do not use or install this product near water to avoid fire or shock hazard.
- Avoid exposing the equipment to rain or damp areas.

- Arrange power and Ethernet cables in a manner such that they are not likely to be stepped on or have items placed on them.
- Ensure that the voltage and rated current of the power source match the requirements of the device. Do not connect the device to an inappropriate power source.
- Do not leave your device and its accessories within the reach of small children or allow them to play with it. They could hurt themselves or others, or could accidentally damage the device. Your device contains small parts with sharp edges that may cause an injury or which could become detached and create a choking hazard.
- 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 or otherwise use the device in situations where the interruption of data connectivity could lead to death, personal injury, property damage, data loss, or other loss.
- Device may become warm during normal use.