

# Multiband GNSS GALILEO GPS LTE UMTS GSM SMA Antenna omnidirectional roof mount outdoor

## Description

This Navilock multi-band antenna has three physically separate transmitting and receiving units. The GNSS patch antenna receives the signals of the Global Navigation Satellite System GALILEO GPS. Two PIFA antennas, respectively, for LTE and GSM / UMTS are responsible for sending and receiving in these areas.

Due to its outdoor features, the multiband antenna is well suitable for usage in harsh areas such as transportation, forestry, agriculture, construction and in the maritime sector. It is waterproof, shock resistant and can be used in the extended temperature range.



**Item no. 12457**

EAN: 4043619124572

Country of origin: China

Package: White Box

## Technical details

- Connectors: 3 x SMA plug
- **GNSS:**
  - Frequency range:
    - GPS: L1, 1.57542 GHz
    - GALILEO: E1, 1.57542 GHz
  - Antenna gain: 4 dBi
  - VSWR: 2.5
  - Impedance: 50 Ohm
  - Polarisation: RHCP
- **LNA GPS:**
  - Frequency range:
    - GPS: L1, 1.57542 GHz
    - GALILEO: E1, 1.57542 GHz
  - Gain: 28 dBi
  - Voltage: 2.2 - 5.0 V
  - Current: 5 - 15 mA
  - VSWR: 2.0
  - Impedance: 50 Ohm
  - Cable category: coaxial
  - Cable type: RG-174
  - Cable attenuation:
    - 1.5 dB @ 1.5 GHz per meter
  - Cable diameter: ca. 2.7 mm

- **LTE:**

Frequency range:

0.698 - 0.960 GHz

1.710 - 2.700 GHz

LTE Band: 1-10/ 12-20/ 23/ 25-30/ 33-41

GSM / UMTS / LoRa 868 MHz, 915 MHz / ZigBee / Z-Wave / WLAN 2.4 GHz / Bluetooth

Antenna gain: 3 dBi

Impedance: 50 Ohm

Polarisation: linear

VSWR: 2.5

Cable category: coaxial

Cable type: RG-58/U

Cable attenuation:

0.6 dBi @ 1 GHz per meter

Cable diameter: ca. 4.95 mm

- **GSM UMTS:**

Frequency range:

0.824 - 0.960 GHz

1.710 - 2.170 GHz

GSM / UMTS / Z-Wave

Antenna gain: 3 dBi

Impedance: 50 Ohm

Polarisation: linear

VSWR: 2.5

Cable category: coaxial

Cable type: RG-58/U

Cable attenuation:

0.6 dBi @ 1 GHz per meter

Cable diameter: ca. 4.95 mm

- Operating temperature: -40 °C ~ 85 °C
- Housing material: ABS
- Protection class: IP67
- Screw assembly:
  - Hole diameter: 30 mm
- Colour: black
- Dimension (ØxH): ca. 143.6 x 65 mm
- Cable color: black
- Cable length: ca. 3 m

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## System requirements

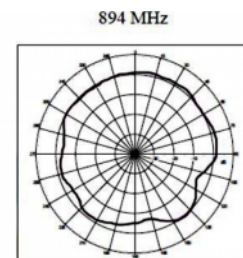
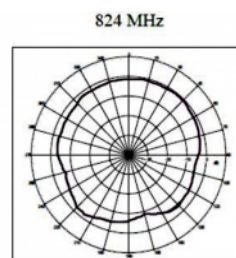
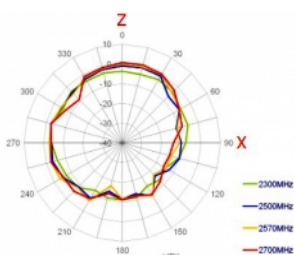
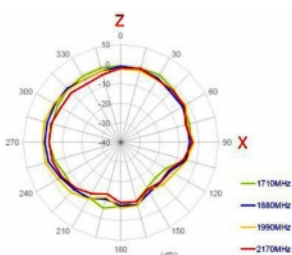
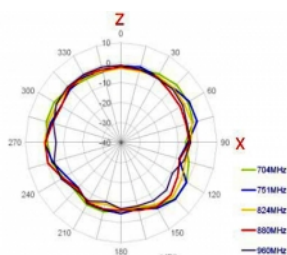
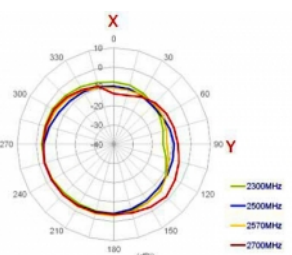
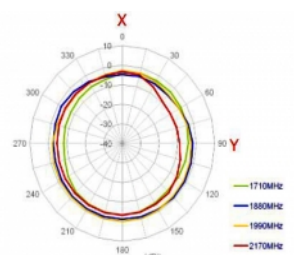
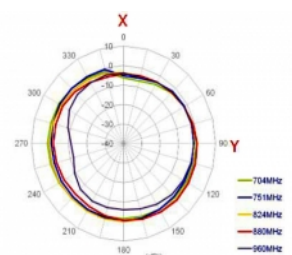
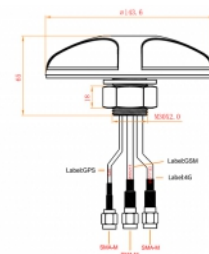
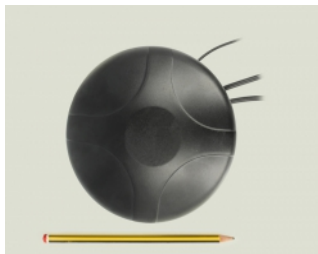
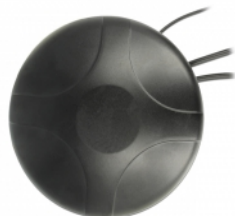
- Device with free SMA connectors

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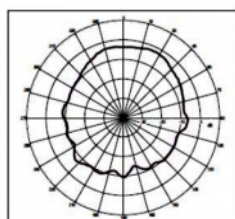
## Package content

- Multiband antenna
- Nut

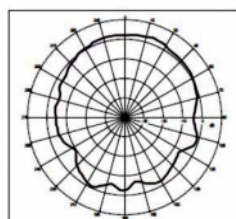
## Images



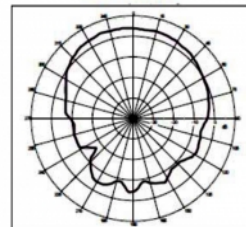
1710 MHz



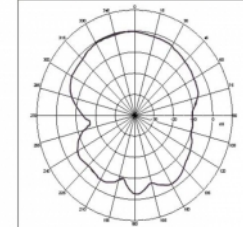
1990 MHz



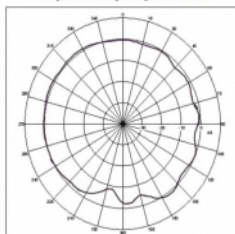
2170 MHz



XZ-plane Free Space @1575.42MHz



YZ-plane Free Space @1575.42MHz



## General

|                       |                 |
|-----------------------|-----------------|
| Mounting type:        | design mounting |
| Protection class:     | IP67            |
| Suitable for outdoor: | yes             |

## Interface

|            |              |
|------------|--------------|
| Connector: | 3 x SMA plug |
|------------|--------------|

## Technical characteristics

|                      |                                                                        |
|----------------------|------------------------------------------------------------------------|
| Operating voltage:   | 2.2 - 5.0 V                                                            |
| Frequency range:     | 824 - 960 MHz<br>1.57542 GHz<br>1.71 - 2.17 GHz<br>1.71 GHz - 2.70 GHz |
| Gain:                | 4 dBi<br>28 dBi<br>3 dBi                                               |
| Impedance:           | 50 $\Omega$                                                            |
| Polarisation:        | RHCP<br>linear vertical                                                |
| Transmission power:  | 5 W<br>1 W                                                             |
| Current consumption: | 5 - 15 mA                                                              |
| VSWR:                | 2.5<br>2.0                                                             |

## Physical characteristics

|                   |        |
|-------------------|--------|
| Housing colour:   | black  |
| Housing material: | ABS    |
| Weight:           | 1.2 kg |

|                    |                                                                         |
|--------------------|-------------------------------------------------------------------------|
| Cable category:    | coaxial cable                                                           |
| Cable type:        | RG-174<br>RG-58 U                                                       |
| Cable attenuation: | 1.5 dB @ 1.5 GHz per meter RG-174<br>0.6 dB @ 1.0 GHz per meter RG-58/U |
| Cable colour:      | black                                                                   |
| Cable length:      | 3 m (incl. connectors)                                                  |
| Diameter:          | 143.6 mm                                                                |
| Height:            | 6.5 cm                                                                  |
| Cable diameter:    | 4.95 mm RG-58 U<br>2.70 mm RG-174                                       |

## Manufacturer information

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