

# Navilock NL-400 Multiband GNSS LTE-MIMO WLAN-MIMO IEEE 802.11 ac/a/h/b/g/n Antenne 5 x RP-SMA omnidirektional roof mount outdoor

## Description

This high quality multi band antenna is composed of five physically separate transmitting and receiving units. The GNSS patch antenna receives signals from the Global Navigation Satellite Systems GPS and GLONASS. Two PCB antennas in MIMO mode working in all popular LTE bands. Two other PCB antennas in MIMO mode cover off the WLAN area in the dual band completely. Furthermore, this multi-band antenna is capable of GSM, UMTS, Bluetooth, Z-Wave and ZigBee signals to be transmitted. The NL-400 delivers and transmits signals in all circumstances reliably, quickly and accurately.



## Specification

- Connectors: 5 x RP-SMA plug
- **GNSS GPS GLONASS:**
  - Frequency range:
    - GPS: L1, 1.5754200 GHz
    - GLONASS: L1, 1.6025625 - 1.6155000 GHz
  - Gain: 4 dBi
  - VSWR: < 2
  - Impedance: 50 Ohm
  - Polarisation: RHCP
- **LNA GNSS:**
  - Frequency range:
    - GPS: L1, 1.5754200 GHz
    - GLONASS: L1, 1.6025625 - 1.6155000 GHz
  - Gain: 30 dBi
  - Voltage: 3.3 - 5.0 V
  - Current: 17 mA
  - VSWR: < 2
  - Impedance: 50 Ohm
  - Polarisation: linear
  - Cable type: RG-174
  - Cable attenuation:
    - 2.4 GHz: 2.06 dB per meter
    - 6.0 GHz: 3.45 dB per meter
- **LTE MIMO:**
  - Frequency range:
    - 698 - 960 MHz
    - 1.710 - 2.170 GHz
    - 2.500 - 2.600 GHz
  - LTE Band: 1-10/ 12-20/ 23/ 25-30/ 33-41/ 44
  - GSM / UMTS/ ZigBee/ Z-Wave
  - Gain: 3.4 - 4 dBi
  - Operating power: 5 W
  - VSWR: < 3
  - Impedance: 50 Ohm
  - Polarisation: linear
  - Cable type: CFD200
  - Cable attenuation:
    - 2.4 GHz: 0.55 dB per meter
    - 5.7 GHz: 0.86 dB per meter

## Item No. 88989

EAN: 4043619889891

Country of origin: Taiwan, Republic of China

Package: Box



- **WLAN MIMO dualband**

Frequency range:

2.400 - 2.483 GHz

5.150 - 5.850 GHz

Bluetooth/ ZigBee

Gain: 4 dBi

Operating power: 1 W

VSWR: < 3

Impedance: 50 Ohm

Polarisation: linear

Cable type: CFD200

Cable attenuation:

2.4 GHz: 0.55 dB per meter

5.7 GHz: 0.86 dB per meter

- Operating temperature: -40°C - 80°C
- Housing: PC-540 PC/ABS Alloy
- Cable length: 3 m
- Cable colour: black
- Protection class: IP67
- Dimensions (LxWxH): ca. 160 x 106 x 102 mm

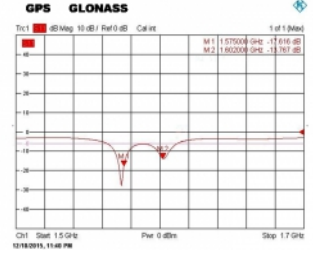
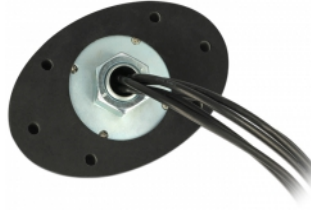
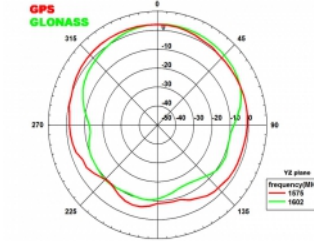
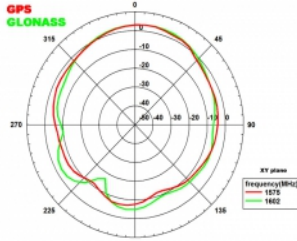
#### System requirements

- Device with some free RP-SMA connectors

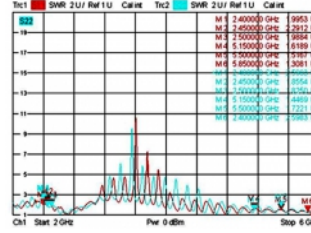
#### Package content

- Multiband Antenna
- Mounting nut
- 3 x HF adapter RP-SMA jack > SMA plug

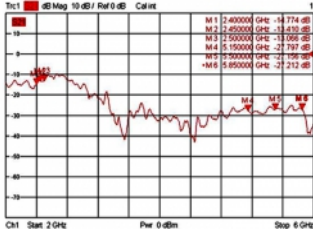
Images



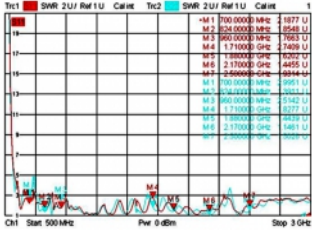
Wi-Fi Antenna VSWR



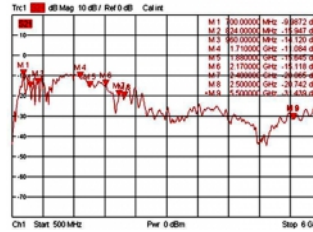
Wi-Fi Antenna Isolation MIMO



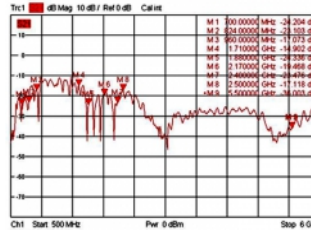
LTE Antenna VSWR



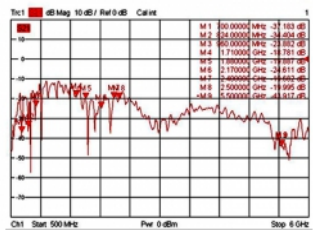
LTE 1 vs Wi-Fi 1 Isolation



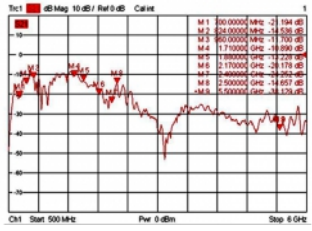
LTE 1 vs Wi-Fi 2 Isolation



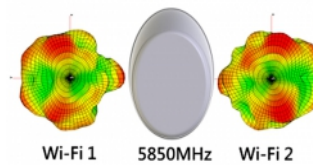
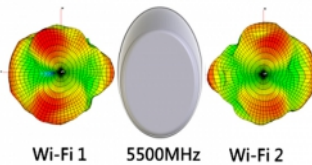
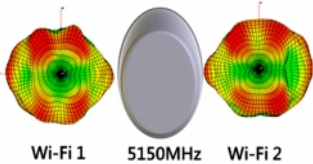
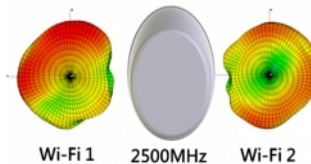
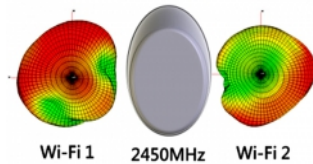
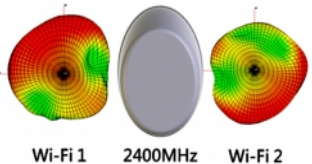
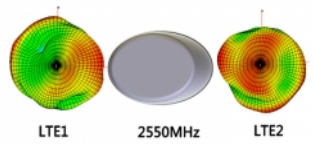
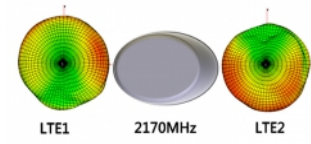
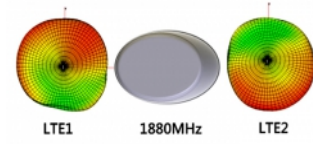
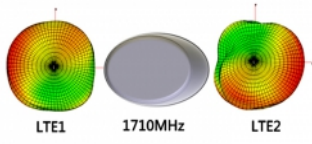
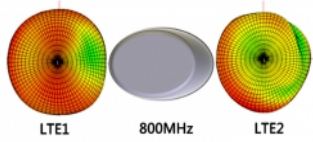
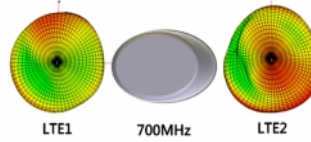
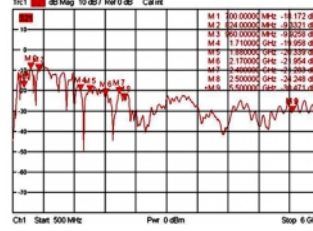
LTE 2 vs Wi-Fi 1 Isolation



LTE 2 vs Wi-Fi 2 Isolation



LTE Antenna Isolation MIMO



General	
Mounting type:	design mounting
Protection category:	IP67
Suitable for indoor:	yes
Suitable for outdoor:	yes
Interface	
connector:	2 x RP-SMA plug LTE 2 x RP-SMA plug WLAN 1 x RP-SMA plug GNSS
Technical characteristics	
Operating voltage:	<b>LNA GNSS</b> 3 - 5 V
Frequency range:	<b>GNSS GPS GLONASS</b> GPS: L1, 1.5754200 GHz GLONASS: L1, 1.6025625 - 1.6155000 GHz <b>LNA GNSS</b> GPS: L1, 1.5754200 GHz GLONASS: L1, 1.6025625 - 1.6155000 GHz <b>LTE MIMO</b> 698 - 960 MHz 1.71 - 2.17 GHz 2.500 - 2.700 GHz <b>WLAN MIMO Dualband</b> 2.4000 - 2.4835 GHz 5.150 - 5.875 GHz
Gain:	<b>GNSS GPS GLONASS</b> 4 dBi <b>LNA GNSS</b> 30 dBi <b>LTE MIMO</b> 3.4 - 4 dBi <b>WLAN MIMO Dualband</b> 4 dBi
Impedance:	50 Ω
Polarisation:	<b>GNSS GPS GLONASS</b> RHCP <b>WLAN MIMO Dualband</b> linear vertical <b>LTE MIMO</b> linear vertical
Power handling:	<b>LTE MIMO</b> 5 W <b>WLAN MIMO Dualband</b> 1 W

Power consumption:	10 - 16 mA
Smart consumption:	<b>GNSS GPS GLONASS</b>
	2.0
	<b>LNA GNSS</b>
	2.0
	<b>LTE MIMO</b>
	3.0
	<b>WLAN MIMO Dualband</b>
	3.0
<b>Physical characteristics</b>	
Housing colour:	white
Housing material:	PC-540 PC/ABS Alloy
Weight:	1.6 kg
Cable category:	coaxial cable
Cable type:	<b>GNSS GPS GLONASS</b>
	RG-174
	<b>LTE MIMO</b>
	CFD200
	<b>WLAN MIMO Dualband</b>
	CFD200
Cable attenuation:	0.61 dB @ 1.8 GHz per meter CFD200
	0.50 dB @ 200 MHz per meter RG-174
Cable colour:	black
Cable length:	3 m (incl. connector)
Length:	16.0 cm
Width:	10.6 cm
Height:	10.2 cm