

FAL-ANT-14

High performance GNSS and 2G/3G/4G antenna

GENERAL DESCRIPTION

The FAL-ANT-14 is a combined high performance GNSS (GPS/GLONASS/GALILEO/BeiDou) and 2G/3G/4G (GSM/CDMA/PCS/DCS/UMTS/LTE) antenna ideally suited for use with FOX3-3G and FOX3-4G Series. Its high quality low profile covert housing can be attached onto the glass or onto the dashboard. This combination of a high gain GNSS antenna and a 4G (LTE) antenna is ideal for those applications that require durability, small size, reliable reception and transmission crossing through different mobile networks.

The cellular antenna function covers all main 4G (LTE) and 2G/3G (cellular) bands worldwide. It has been designed to work equally well when mounted on glass or on plastic. It is not suitable for mounting on metal.

The GNSS function means increased accuracy and reliability of location. A front-end SAW protects the LNA from burnout by nearby out of band cellular transmissions and also significantly reduces any compression and consequent reduction of sensitivity. It comes with automotive approved high grade 3M double sided tape for quick and easy mounting.



INTERFACES



ANTENNA SPECIFICATION

GPS/GLONASS/GALILEO/BeiDou

Operating Frequency: **GPS/Galileo:** 1575.42±3 Mhz; **GLONASS:** 1602±0.5 Mhz
Beidou¹⁾: 1561.098±2.046 MHz

High LNA Gain: up to 32 dB

Antenna Gain: 30 ± 2 dB

Low Noise: 1.5 dB max

2G/3G/4G

Operating Frequency: **GSM** (850, 900, 1800, 1900 Mhz)

UMTS/WCDMA (850, 900, 1900, 2100 Mhz)

LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 20, 25, 38)

Return Loss (dB)²⁾: < -5

Polarization: Linear

Maximum Input Power: 5W

Other

Antenna Dimensions: 62.8mm x 68mm x 12mm

Mounting: Glass and Plastic Mount

Casing / Colour: ABS / Black

Power Input : 3.3V DC

Temperature range: -40°C - +85°C

Power Consumption: GPS: 12 mA max.

Cable Length: 2.5m RG174 (x2 Cables)

Weight: 100 grams

Impedance: 50 Ω Nominal

Humidity: 65°C 95% RH

Connectors/Colours: FAKRA removable/ bordeaux (cellular), blue (GNSS)

¹⁾ with up to 3dB reduced gain

²⁾ Note: includes 3 metre RG174 and FAKRA

MOUNTING INSTRUCTIONS

- Designed for on-glass, on-plastic and non-metal mounting surfaces.
- Recommended installation position on front windscreen, on dashboard
- Antenna position at least 20 mm from any metal surface.
- Installation location should be dried from oil, water etc.

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