

LITKON

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LITKON GmbH

CELLULAR-MIMO (2G/3G/4G/5G)

WLAN (2.4GHz/5.8GHz)

Magnetic Antenna

5G M MIMO/Series

Part Number

LITKON-13-2X5G-2XWLAN-MAG

Features

- Telematic & M2M application - telemetering, remote, maintenance
- Public transport, Building indoor & outdoor, ...
- High performance, coverage & data rate

Technical Data

Dimensions	ca. 121 mm x 77 mm x 91 mm
Housing materials	ASA+PC
Weight	250 g var. acc. to versions
Temperature range	Operations: -40°C – +85°C Storage: -40°C – +85°C
Protection class	IP66 (acc. IEC 60529)
Cable type	DACAR 302 (3.2 mm 50 Ohms Low Loss)

Technical Data

Cellular		
Frequency range *	LTE-LB 700: 698 - 862 MHz	
	AMPS/ GSM 850: 824 - 894 MHz	VSWR 2.8
	GSM 900: 880 - 960 MHz	
	GSM 1800: 1710 - 1880 MHz	
	GSM 1900: 1850 - 1990 MHz	VSWR 2.0
	UMTS 2100: 1920 - 2170 MHz	
	LTE-HB 2600: 2305 - 2690 MHz	VSWR 1.9
	5G 3500: 3300 – 3800 MHz	VSWR 1.7
	5G 4000: 3800 – 4200 MHz	VSWR 1.7
	5G 5000: 4400 – 5000 MHz	VSWR 2.8
Gain	Avg. 2.0 dBi *	Max. 5.5 dBi ¹⁾
Polarization	linear, vertical	
Decoupling Cell 1 vs 2	LB: 8 dB	HB: > 18 dB
Impedance	50 Ohm	
Load capacity	Max. 10 W pulsed	
Diagnostic resistor	10 KOhm	
WLAN or Bluetooth		
Frequency range *	Bluetooth: 2400 - 2484 MHz	
	IEEE 802.11 b, g, n, ax: 2412– 2484 MHz	≤ 200 mW
	IEEE 802.11 a, h, n, ac, ax: 5150– 5875 MHz	≤ 1000 mW
	IEEE 802.11 p: 5755– 5925 MHz	≤ 8 W EIRP <5.81 GHz
		≤ 2 W EIRP >5.85 GHz
VSWR	≤ 2	
Gain (linear gain, vertical polarization)	typ. 2 dBi ¹⁾	
Polarization	linear, vertical	
Impedance	50 Ohm	
Diagnostic resistor	10 KOhm	

¹⁾ dBi: referenced to an isotropic radiator

* non exhaustive list, contact us for new standards or bands updates

Technical Drawing



Installation

Specs:

- Take the necessary electrostatic precautions for a connection of electronic components (Potential ESD < 1 kV)
- Surface must be quite flat (maximum radius 1 cm per meter) & max thickness 10 mm & conductive (metal recommended 400x400 mm)
- No metallic (conductive) surface above the antenna
- Connectors are not waterproof, so area below the antenna must be dry
- For extension cables in WLAN > 5 GHz, we highly recommend a RG58 low loss or better

Process:

- Place the antenna on a clean metallic surface
- No adjunction of any material (silicones, glue, ...)
- Check that the coaxial cable is not electrically charged (Potential ESD < 1 kV)
- Connect the coaxial cable connector by hand without forcing (Torque 1 +/- 0,15 Nm = handmade)
- Check that the cables respect the appropriate way, not pulled / stressed / bended < 25 mm radius / touching aggressive part

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