

DATASHEET

SKU: 0294212

Benelec Mobile Multi Band 10 Port Antenna



FEATURES

- 4 x 5G Antenna (617 – 960 MHz and 1710 – 7200 MHz)
- 4 x Wi-Fi 2.4 – 2.5 GHz and 4.7 – 7.2 GHz
- 2 x GNSS Antenna for GPS L1, Glonass, Beidou & Galileo
- No diplexer required.
- Full hemispherical coverage for the GNSS bands
- Built-in high gain, low noise amplifier
- GPS Right-Hand Circular Polarisation
- 1.5 – 3.6 VDC for GNSS supply
- DC supply via GNSS SMA Plug – Connector
- All bands ground independent.

Benelec’s 0294212 Multi-band roof-mounted mobile antenna is built for Public Safety applications. This antenna includes multiple 5G, Dual-Band Wi-Fi 2.4/5.8GHz, and GNSS Antenna capability. The shape is designed to suit all vehicle roof types including rib top sections. It is a practical, easy-to-install antenna option for modern MiMo requirements with up to 10 antennas used for Public Safety Mobile applications.

SPECIFICATIONS

Materials	High impact resistant U.V STABLE (ASA)	Frequency	4 x 5G Ports: 617 - 960 MHz, 1710 - 7200 MHz 4 x WIFI Ports: 2100 - 2700 MHz, 4700 - 7200 MHz 2 x GNSS Ports: 1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo)
Installation Torque	4 +/- 0.5 Nm	Antenna Type	Mobile multi band Roof Panel mounted Antenna
Colour	Black	Polarisation	Vertical
Dimensions	Approx. L 270mm W 84mm H 74mm	Impedance	50 Ω
Max. Roof Thickness	10 mm	Gain (peak)	5G 4dBi (617 - 960 MHz) 5G 7dBi (1710 - 7200 MHz) Wi-Fi 6dBi (2.4 GHz & 5.8 GHz)
GNSS BeiDou/(GPS/QZSS /Galileo) /GLONASS	System Gain 28dBi including cable and filter losses. Polarisation RHCP Noise figure 1.8 dB @2.7 V Out of band isolation >43 dB ESD 6 Kv Integrated SAW Filter	Port Isolation	(With 3m 05603) diagonally opposed ports recommended for best decorrelation in 5G as marked A and B MIMO pairs. >=15.0 dB :617 - 2500MHz >=20.0 dB :2500 - 3000MHz >=25.0 dB :3000-7200MHz >=23.0 dB : Wi-Fi
GNSS Voltage range	1.5-3.6 VDC	Correlation Coefficient	617 - 700 MHz =0.1 700 - 960 MHz =0.08 1710 - 7200 MHz 0.04
Weight	0.35 kgs	VSWR 5G	< 2.0:1 for (617MHz -7.2 GHz)
		VSWR Wi-Fi	<2.0:1 for (2.1 -2.7 GHz)-(4.7-7.2 GHz)
Mounting	23 mm (7/8”) diameter hole Conformal neoprene gasket allows for Max roof curvature: 3.0 mm (on 270 mm)	Max. Input Power	10 W for 5G and WIFI
Cable Length	Dual GPS & GNSS: 120mm x 2 Flex RG405 Dual Wi-Fi: 370mm x 4 Flex RG405 Quad 5G: 320mm x 4 Flex RG405	Operating Temperature Range	-50°C to +75°C
Terminations	SMA plug x 10 on Flex RG405 dual screen cable	Water Resistance	IP67

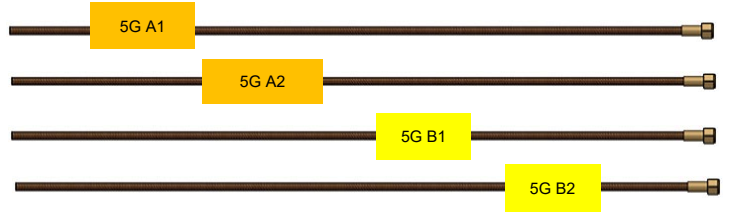
Website: benelec.au

ANTENNA DIMENSIONS

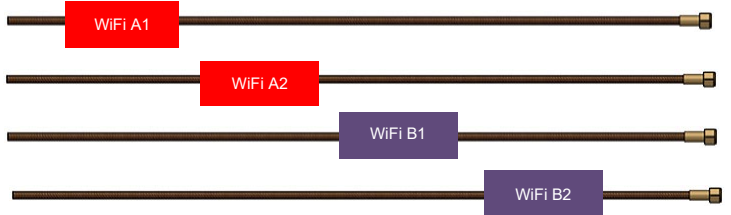


Antenna Port colour codes

4 x 5G



4 x Wi-Fi 6

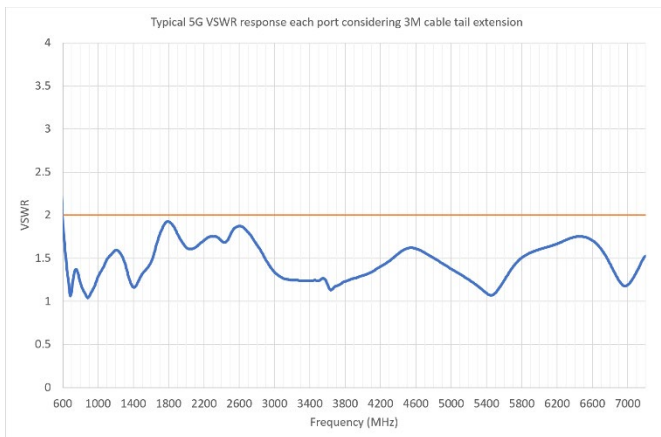


2 x GNSS

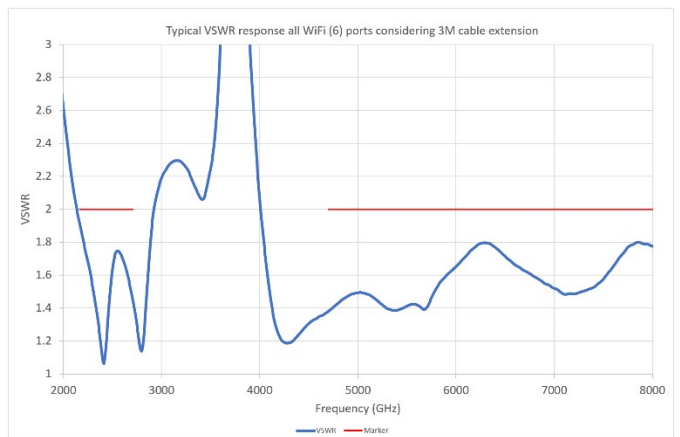


Mounting requires min 23mm hole with 35mm clearance for cables behind exit.

VSWR 5G



VSWR Wi-Fi (6)



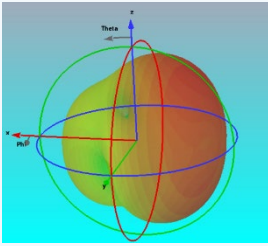
WARRANTY

3 Years (Please refer to Benelec Terms & Conditions)

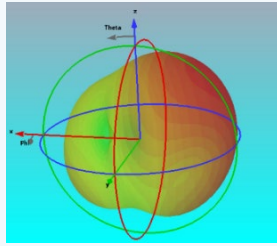
Website: benelec.au

Typical Radiation Pattern Envelopes

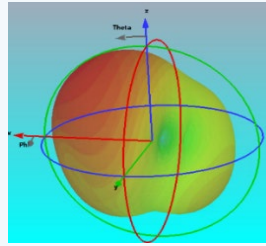
617 MHz



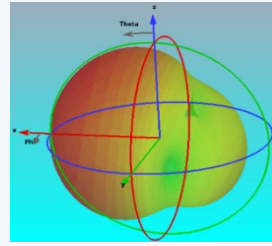
Port 1



Port 2

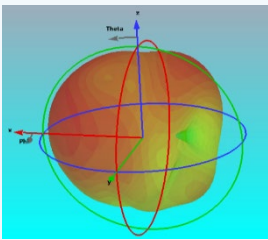


Port 3

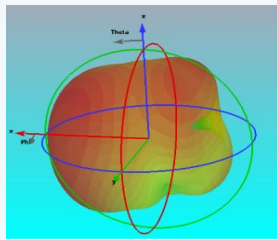


Port 4

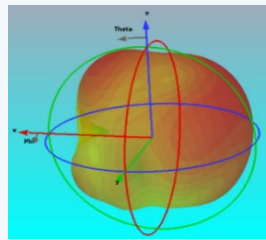
1.7 GHz



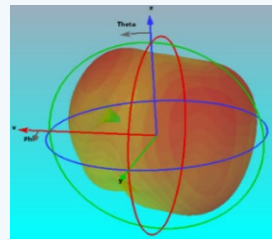
Port 1



Port 2

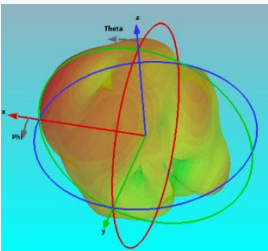


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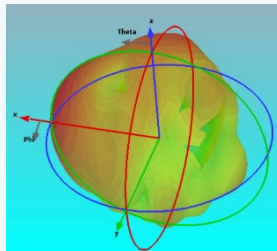


Port 4

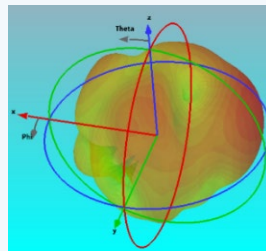
2.7 GHz



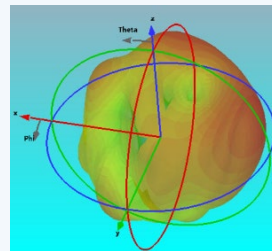
Port 1



Port 2

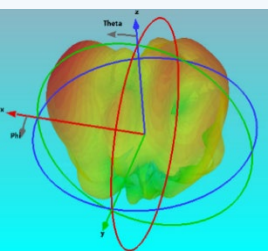


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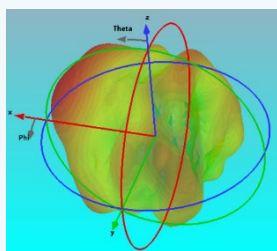


Port 4

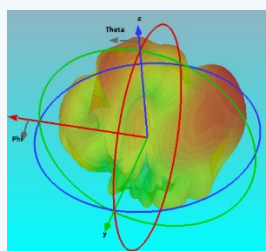
4.0 GHz



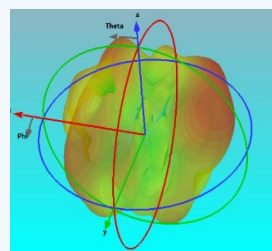
Port 1



Port 2

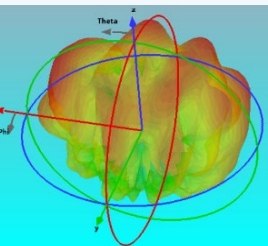


Port 3

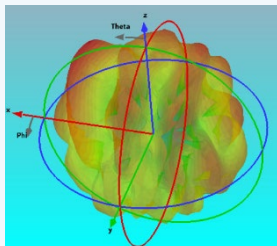


Port 4

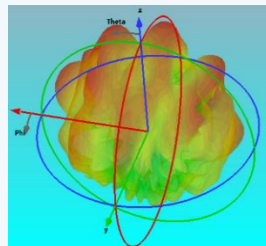
7.2 GHz



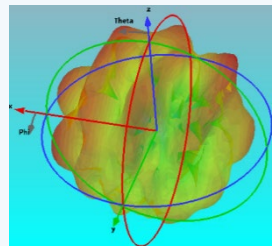
Port 1



Port 2



Port 3



Port 4