

### DATASHEET

SKU: 0294211

## Benelec Mobile Multi-band 10+1 Port Antenna



### FEATURES

- 4x4 MiMo 5G Antenna 4 ports (617–960MHz & 1.71 – 7.2 GHz)
- 4x4 MiMo Wi-Fi Antenna 4 ports (2.4–2.5 GHz & 4.7 – 7.2 GHz)
- 2 x GNSS Active Antenna for GPS L1, Glonass, Beidou & Galileo
- 1 x LMR VHF/UHF Band Antenna (Option) or Mesh Antenna
- Flexible band configurations (e.g. 2 x 5G or 2 x Wi-Fi instead)
- No diplexer required
- Full hemispherical coverage for the GNSS bands
- Built-in high gain, low noise amplifier
- GNSS Right-Hand Circular Polarisation
- 1.5 – 3.6 VDC for GNSS supply via SMA Connector
- All bands ground independent other than the LMR antenna

Benelec's 0294211 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 0294211 additionally provides an N socket port suitable for a range of optional antennas including our patented dual-band LMR, VHF and UHF antenna combined or a range of Mesh antennas in L, C or S band within a multiband solution. It is a practical, easy-to-install antenna option for modern MiMo requirements with up to 12 bands on 11 ports as 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: 2400 - 2500 MHz, 4700 - 7200 MHz 2 x GNSS Ports: 1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo) 1 x VHF/UHF Port: 140-165MHz, 400-500MHz
Installation Torque	4 +/- 0.5 Nm	Antenna Type	Mobile multi band Roof Panel mounted Antenna
Colour	Black	Polarisation	Vertical
Dimensions	Approx. 75 (W) x 258 (L) x 70 (H) mm (excluding gasket)	Impedance	50 Ω
Max. Roof Thickness	10 mm	Gain (peak)	5G 4dBi (617 - 960 MHz) 5G 7dBi (1710 - 7200 MHz) Wi-Fi 6 dBi (2.4 GHz & 5.8 GHz)
GNSS BeiDou/(GPS/QZSS /Galileo) /GLONASS	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 RG58LL) diagonally opposed ports recommended for best decorrelation in 5G and Wi-Fi. >=15.0 dB :617 - 2500MHz >=20.0 dB :2500-3000MHz >=25.0 dB :3000-7200MHz >=23.0 dB : Wi-Fi
GNSS Voltage	1.5-3.6 VDC	Whip Connection	N socket
Mounting	18.5 mm diameter hole Conformal neoprene gasket allows for Max roof curvature: 3.0 mm (on 270 mm)	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)
Operating Temp. Range	-50°C to +75°C	VSWR Wi-Fi	<2.0:1 for (2.1 -2.7 GHz) - (4.7-7.2 GHz)
Water Resistance	IP67	Max. Input Power	10 W for 5G and WIFI 25 W for PMR whip
Terminations	SMA Plug for all lengths: Dual GPS & GNSS: 120mm x 2 Flex RG405 Quad Wi-Fi: 370mm x 4 Flex RG405 Quad 5G: 320mm x 4 Flex RG405 LMR/Mesh WHIP: 280mm X1 Flex RG405	Optional +1 Antennas	024702N Dual Band VHF & UHF 024365N UWB 0.38-7.2GHz 029310N L Band 5.0dBi 1.2-1.5GHz 029321N S Band 6.0dBi 2.2-2.5GHz 029351N C Band 6.0dBi 4.7-5.0GHz 029352N C Band 9.0dBi 4.7-5.0GHz

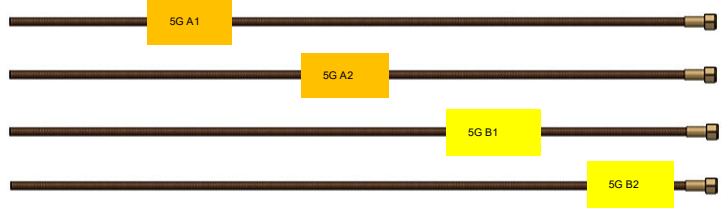
Website: benelec.au

## Antenna Dimensions

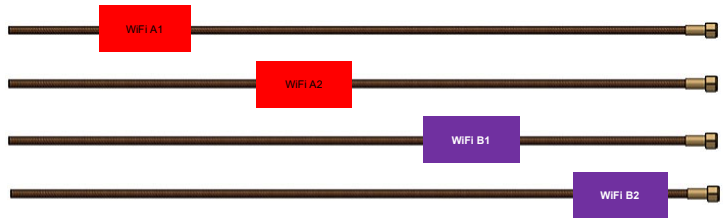


## Services supported colour codes

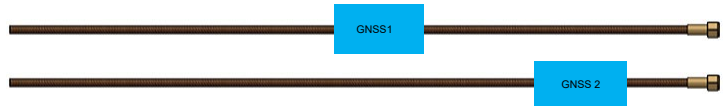
### 4 x 5G



### 4 x Wi-Fi 6



### 2 x GNSS

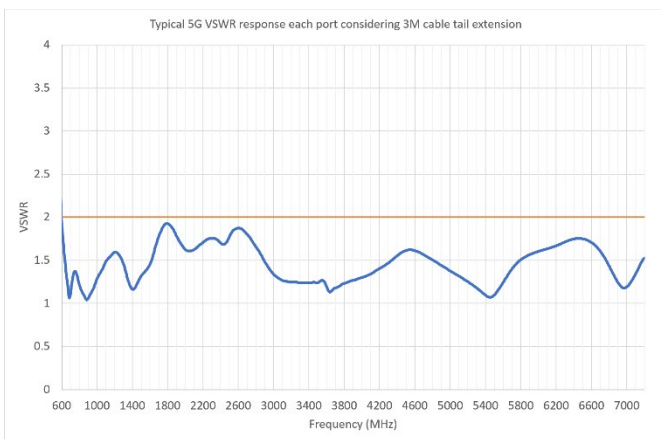


### 1 x LMR

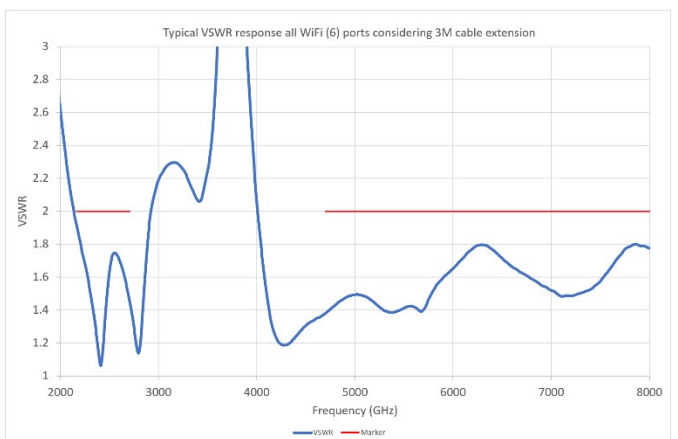


Mounting requires min 18.5mm hole with 35mm clearance for cables behind exit.

## VSWR 5G



## VSWR Wi-Fi (6)



## LMR OPTION

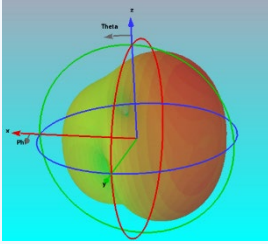
Integrated 025702P – UHF400-500MHz/VHF140-165MHz Dual Band (ground dependent), cable and adaptor accessories available on request.

## WARRANTY

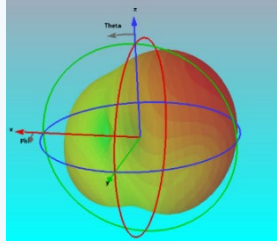
3 Years (Please refer to Benelec Terms & Conditions)

## Typical Radiation Pattern Envelopes

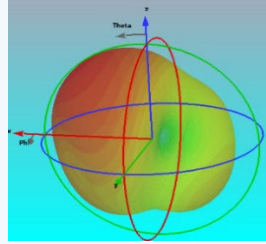
617 MHz



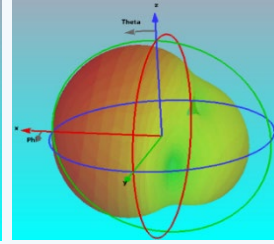
Port 1



Port 2

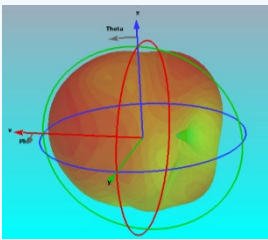


Port 3

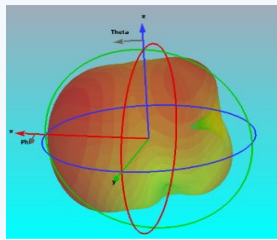


Port 4

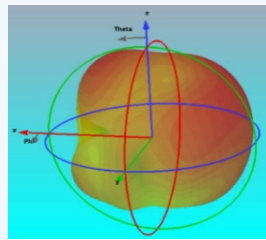
1.7 GHz



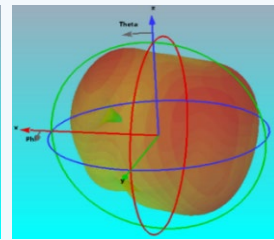
Port 1



Port 2

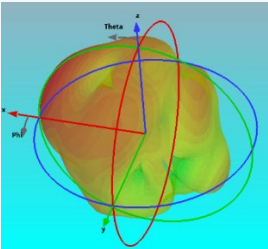


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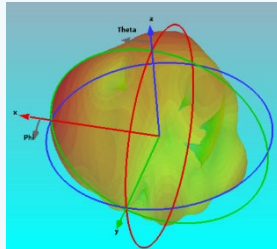


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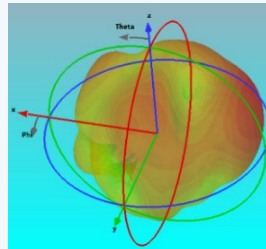
2.7 GHz



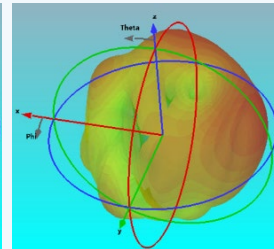
Port 1



Port 2

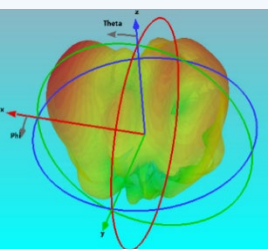


Port 3

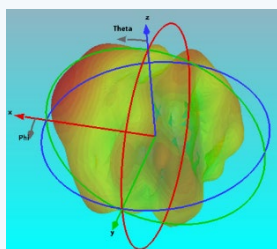


Port 4

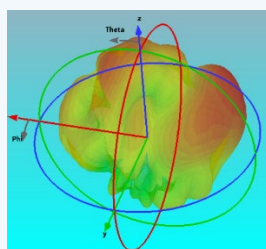
4.0 GHz



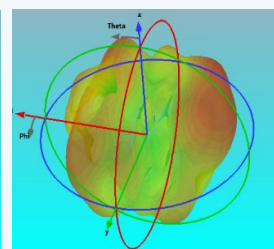
Port 1



Port 2

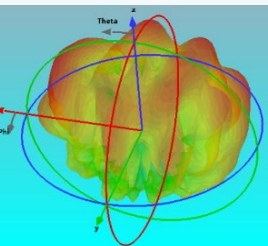


Port 3

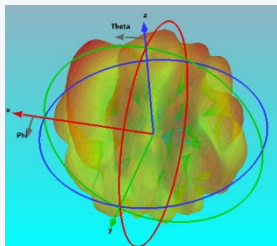


Port 4

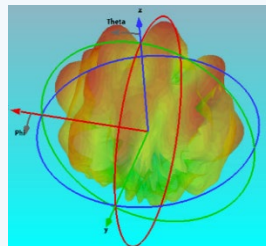
7.2 GHz



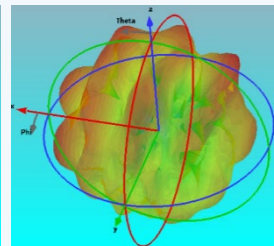
Port 1



Port 2



Port 3



Port 4