

Powertec Wireless Technology ABN: 42 082 948 463 PO Box 1034, Ashmore City Queensland, Australia, 4214 sales@powertec.com.au 1300 769 378

# 2J 4G-5G WiFi Ultraband 2x2 MIMO Lightweight Stud Antenna, 617 to 5925 MHz

SKU: ANT-2J-00024 MPN: 2J7B83BA

#### Description

The 2J 4G-5G WiFi Ultraband 2x2 MIMO Lightweight Stud Antenna (ANT-2J-00024) is designed for high-performance wireless applications across multiple industries. Covering a broad frequency range from 617 to 5925 MHz, this antenna supports seamless connectivity for automotive, marine, telematics, automation, and M2M applications. Its robust ASA plastic construction, combined with an IP67 ingress protection rating, ensures durability in challenging environments.

This 2x2 MIMO antenna features two input ports, providing dual RF connections that enhance data throughput and reliability. The antenna is linear polarised and has a 50  $\Omega$  impedance, supporting up to 35 W of input power. With a temperature operating range from -40 °C to 85 °C, it is suitable for diverse climatic conditions.

2J's antenna utilises advanced design tools and testing facilities, ensuring high-quality performance and compliance with RoHS standards. Its flexible design...

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2J is a worldwide supplier of antenna solutions for Automotive, Marine, Telematic, Automation and M2M markets. 2J utilise a plethora of modern engineering tools, from network analysers and anechoic chambers, to simulation software and 3D printers. These tools help reduce design phases, and enable us to react to customers' needs promptly and efficiently.

Over the past decade, 2J has established ...

### RF Specification

### Cable 1-2: 5GNR

| Start Frequency:  | 617 MHz  | Polarisation:    | Linear |
|-------------------|----------|------------------|--------|
| Stop Frequency:   | 5925 MHz | Input Impedance: | 50     |
| Max. Input Power: | 35 W     |                  |        |

### **RF Connectors**

| Ports | RF Interface | Body Shape | Cable Series | Length  |
|-------|--------------|------------|--------------|---------|
| 2     | SMA Male     | Straight   | L-195        | 3000 mm |

### Frequency Test Data

| 617 MHz       960 MHz       0.2 dBi       > 6.8 dB       < 3.1:1       360°       -3.9 dBi       42%         1427 MHz       2690 MHz       3.7 dBi       > 16.5 dB       < 1.5:1       360°       -2.5 dBi       57%         3300 MHz       5000 MHz       3.9 dBi       > 10.4 dB       < 2.1:1       360°       -3.5 dBi       45%         5150 MHz       5925 MHz       4.3 dBi       > 14.3 dB       < 1.5:1       360°       -3.9 dBi       41% | Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR    | Azimuth | Avg. Gain | Efficiency |
|--|-------------|------------|-----------|-------------|---------|---------|-----------|------------|
| 3300 MHz 5000 MHz 3.9 dBi > 10.4 dB < 2.1:1 360° -3.5 dBi 45%  | 617 MHz     | 960 MHz    | 0.2 dBi   | > 6.8 dB    | < 3.1:1 | 360°    | -3.9 dBi  | 42%        |
|  | 1427 MHz    | 2690 MHz   | 3.7 dBi   | > 16.5 dB   | < 1.5:1 | 360°    | -2.5 dBi  | 57%        |
| 5150 MHz 5925 MHz 4.3 dBi > 14.3 dB < 1.5:1 360° -3.9 dBi 41%  | 3300 MHz    | 5000 MHz   | 3.9 dBi   | > 10.4 dB   | < 2.1:1 | 360°    | -3.5 dBi  | 45%        |
|  | 5150 MHz    | 5925 MHz   | 4.3 dBi   | > 14.3 dB   | < 1.5:1 | 360°    | -3.9 dBi  | 41%        |

# **Physical Specification**

| Fin / Stud / Combo | Dimensions:                | 96 x H 130   |
|--------------------|----------------------------|--|
| 2                  | Ingress Protection:        | IP67   |
| 2x2 MIMO           | Materials:                 | ASA Plastic  |
| -40 °C             | Mounting:                  | Stud / Bulkhead / Panel                                      |
| 85 °C              | Compliance/Certifications: | RoHS   |
|                    | 2<br>2x2 MIMO<br>-40 °C    | 2 Ingress Protection:  2x2 MIMO Materials:  -40 °C Mounting: |

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