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 4x4 MIMO Stud Antenna, 617 to 5925 MHz

SKU
ANT-2J-00021
MPN
2J7183BC

**Description**

The 2J 4G-5G WiFi Ultraband 4x4 MIMO Stud Antenna (SKU: ANT-2J-00021) is a versatile, high-performance solution designed for a wide frequency range from 617 to 5925 MHz. Featuring a compact design of 96 x 130 mm, it is ideal for diverse applications in sectors such as automotive, marine, telematics, automation, and M2M systems. This antenna offers four RF connections, providing robust 4x4 MIMO capabilities, and is equipped with IP67 ingress protection, ensuring reliable operation in challenging environments.

Engineered by 2J, a leader in antenna solutions based in Slovakia, this antenna is compliant with ISO 9001 and RoHS standards, attesting to its high-quality manufacturing. With a 50 Ω impedance and linear polarisation, each antenna element supports up to 35 W of input power. Its SMA Male interfaces and 3000 mm L-195 cables ensure easy integration into existing systems.

The antenna's RF performance, optimised across multiple frequency...

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**2J**

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: 5GNR

Start Frequency
617 MHz
Stop Frequency
5925 MHz
Max. Input Power
35 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 1 | SMA Male | Straight | L-195 | 3000 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 617 MHz | 960 MHz | 1.3 dBi | > 5.5 dB | < 3.7:1 | -5.1 dBi | 31% |
| 1427 MHz | 2690 MHz | 3.4 dBi | > 12.2 dB | < 2:1 | -3.9 dBi | 42% |
| 3300 MHz | 5000 MHz | 4.7 dBi | > 15.2 dB | < 1.5:1 | -3.8 dBi | 42% |
| 5150 MHz | 5925 MHz | 4 dBi | > 14.2 dB | < 1.6:1 | -4.4 dBi | 37% |

## Cable 2: 5GNR

Start Frequency
617 MHz
Stop Frequency
5925 MHz
Max. Input Power
35 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 1 | SMA Male | Straight | L-195 | 3000 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|---|---|---|---|---|---|---|
| 617 MHz | 960 MHz | 1.2 dBi | > 5.6 dB | < 3.7:1 | -5.1 dBi | 31% |
| 1427 MHz | 2690 MHz | 3.6 dBi | > 12.7 dB | < 1.9:1 | -3.9 dBi | 41% |
| 3300 MHz | 5000 MHz | 4.6 dBi | > 15.3 dB | < 1.5:1 | -3.8 dBi | 42% |
| 5150 MHz | 5925 MHz | 3.2 dBi | > 16 dB | < 1.5:1 | -4.8 dBi | 33% |

## Cable 3: 5GNR

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

RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 1 | SMA Male | Straight | L-195 | 3000 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|---|---|---|---|---|---|---|
| 617 MHz | 960 MHz | 1.3 dBi | > 5.4 dB | < 3.7:1 | -5 dBi | 32% |
| 1427 MHz | 2690 MHz | 3.8 dBi | > 12.9 dB | < 1.8:1 | -3.8 dBi | 42% |
| 3300 MHz | 5000 MHz | 4.5 dBi | > 16.7 dB | < 1.4:1 | -4 dBi | 40% |
| 5150 MHz | 5925 MHz | 4.6 dBi | > 12.4 dB | < 1.8:1 | -4.2 dBi | 39% |

### Cable 4: 5GNR

Start Frequency
617 MHz
Stop Frequency
5925 MHz
Max. Input Power
35 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 1 | SMA Male | Straight | L-195 | 3000 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|---|---|---|---|---|---|---|
| 617 MHz | 960 MHz | 1.6 dBi | > 5.7 dB | < 3.5:1 | -5.1 dBi | 31% |
| 1427 MHz | 2690 MHz | 3.4 dBi | > 12.8 dB | < 1.8:1 | -3.9 dBi | 42% |
| 3300 MHz | 5000 MHz | 4.6 dBi | > 16.8 dB | < 1.5:1 | -3.8 dBi | 43% |
| 5150 MHz | 5925 MHz | 3.9 dBi | > 15.4 dB | < 1.5:1 | -4.6 dBi | 35% |

## Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
4

MIMO
4x4 MIMO
Min. Operating Temperature
-40 °C
Max. Operating Temperature
85 °C
Dimensions
96 x 130
Ingress Protection
IP67
Materials
ASA Plastic
Mounting
Stud / Bulkhead / Panel
Compliance/Certifications
ISO 9001 Quality Management
,
RoHS

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