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# 2J 4G-5G WiFi Ultraband 4x4 MIMO + GNSS 5-Port Combo Stud Antenna, 617 to 5925 MHz

SKU
ANT-2J-00026
MPN
2J7B84BGFC

**Description**

The 2J 4G-5G WiFi Ultraband 4x4 MIMO + GNSS 5-Port Combo Stud Antenna (SKU: ANT-2J-00026) is a versatile solution designed for diverse applications, including automotive, marine, and telematics. With its capability to operate across a broad frequency range of 617 to 5925 MHz, it supports 4x4 MIMO configurations, enhancing data throughput and connectivity reliability.

Constructed from durable ASA plastic, this antenna is IP67 rated, ensuring robust performance in challenging environments, withstanding temperatures from -40 °C to 85 °C. Its five RF connections include four SMA Male interfaces for 5GNR, each supporting up to 35 W input power with linear polarisation, and one dedicated GNSS port for GPS/GLONASS/QZSS/Galileo. The GNSS port features an active LNA with 24 dBic gain, ensuring precise location tracking.

2J, based in Slovakia, is renowned for its innovative antenna solutions, leveraging advanced engineering tools to meet customer...

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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 | > -5.6 dB | < 3.5:1 | -5 dBi | -32% |
| 1427 MHz | 2690 MHz | -3.4 dBi | > -11.7 dB | < 1.9:1 | -3.9 dBi | -41% |
| 3300 MHz | 5000 MHz | -4.8 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 | > -6.2 dB | < 3.2:1 | -5 dBi | -32% |
| 1427 MHz | 2690 MHz | -3.5 dBi | > -12.5 dB | < 1.9:1 | -3.9 dBi | -41% |
| 3300 MHz | 5000 MHz | -4.6 dBi | > -15.1 dB | < 1.5:1 | -3.7 dBi | -43% |
| 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 | > 5.6 dB | < 3.7:1 | -5 dBi | 32% |
| 1427 MHz | 2690 MHz | 3.8 dBi | > 12.8 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 | 1.7 dBi | > 5.9 dB | < 3.3:1 | -5.1 dBi | 31% |
| 1427 MHz | 2690 MHz | 3.4 dBi | > 12.7 dB | < 1.8:1 | -3.8 dBi | 42% |
| 3300 MHz | 5000 MHz | 4.6 dBi | > 16.8 dB | < 1.5:1 | -3.7 dBi | 43% |
| 5150 MHz | 5925 MHz | 3.9 dBi | > 15.4 dB | < 1.5:1 | -4.6 dBi | 35% |

## Cable 5: GPS/GLONASS/QZSS/Galileo

Start Frequency
1575.42 MHz
Stop Frequency
1610 MHz

Input Impedance
50 Ω
Polarisation
Right Hand Circular (RHCP)

**Low Noise Amplifier (LNA)**

LNA Gain
24 dBic
Noise Figure
≤ 1.2 dB
Power Consumption
< 137.5 mW
Min. Operating Voltage
2.7 V
Max. Operating Voltage
5.5 V
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 1 | SMA Male | Straight | L-100 | 3000 mm |

# Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
5
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
RoHS

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