

2J Phoenix 4G-5G Ultraband 2x2 MIMO + Dual-Band WiFi-6E 3-Port Combo Stud Antenna, 617 to 7125 MHz

SKU: ANT-2J-00019

MPN: 2J6985BA

Description

The 2J Phoenix 4G-5G Ultraband 2x2 MIMO + Dual-Band WiFi-6E 3-Port Combo Stud Antenna (SKU: ANT-2J-00019) is a versatile solution for automotive, marine, telematics, automation, and M2M applications. Manufactured by 2J, a globally recognised antenna supplier, this model operates within a wide frequency range of 617 to 7125 MHz, making it suitable for various telecommunication needs.

This compact antenna measures 80 x 74 x 25.6 mm and is constructed from durable polycarbonate and ASA plastic, ensuring robustness in harsh environments. It holds an IP67 ingress protection rating, making it dust-tight and water-resistant, and can function in temperatures from -40 °C to 85 °C. The antenna features three RF connection ports, supporting 2x2 MIMO configurations and dual-band WiFi-6E.

The antenna's RF performance is optimised across several frequency ranges. With a 50 Ω impedance and up to 25 W power support, each element is linear polarised. Key...

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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: 5GNR

| | | | |
|-------------------|----------|------------------|--------|
| Start Frequency: | 617 MHz | Polarisation: | Linear |
| Stop Frequency: | 5925 MHz | Input Impedance: | 50 |
| Max. Input Power: | 25 W | | |

RF Connectors

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

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|-----------|------------|
| 617 MHz | 960 MHz | 3.1 dBi | > 15.5 dB | < 1.5:1 | -4.6 dBi | 35% |
| 1427 MHz | 2690 MHz | 2.7 dBi | > 12.1 dB | < 1.8:1 | -5.4 dBi | 27% |
| 3300 MHz | 5000 MHz | 0.9 dBi | > 12.3 dB | < 1.9:1 | -6.5 dBi | 24% |
| 5150 MHz | 5925 MHz | -0.4 dBi | > 13 dB | < 1.7:1 | -6.5 dBi | 22% |

Cable 2: 5GNR

| | | | |
|-------------------|----------|------------------|--------|
| Start Frequency: | 617 MHz | Polarisation: | Linear |
| Stop Frequency: | 5925 MHz | Input Impedance: | 50 |
| Max. Input Power: | 25 W | | |

RF Connectors

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

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|-----------|------------|
| 617 MHz | 960 MHz | 3.2 dBi | > 16.8 dB | < 1.4:1 | -4.8 dBi | 34% |
| 1427 MHz | 2690 MHz | 2.9 dBi | > 12.8 dB | < 1.7:1 | -5.7 dBi | 27% |
| 3300 MHz | 5000 MHz | 1.2 dBi | > 13.4 dB | < 1.7:1 | -7.3 dBi | 27% |
| 5150 MHz | 5925 MHz | 0.4 dBi | > 13.1 dB | < 1.7:1 | -6.6 dBi | 22% |

Cable 3: WiFi

| | | | |
|-------------------|----------|------------------|--------|
| Start Frequency: | 2410 MHz | Polarisation: | Linear |
| Stop Frequency: | 7125 MHz | Input Impedance: | 50 |
| Max. Input Power: | 25 W | | |

RF Connectors

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

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|-----------|------------|
| 2410 MHz | 2490 MHz | -0.2 dBi | > 11.4 dB | < 2:1 | -6.1 dBi | 25% |
| 4920 MHz | 5925 MHz | 1.7 dBi | > 18 dB | < 1.3:1 | -5.6 dBi | 27% |
| 5925 MHz | 7125 MHz | 1.6 dBi | > 18.5 dB | < 1.3:1 | -5.8 dBi | 25% |

Physical Specification

| | | | |
|-----------------------------|--------------------|----------------------------|---------------------------------|
| Subtype: | Fin / Stud / Combo | Dimensions: | 80 x 74 x 25.6 |
| Input Ports: | 3 | Ingress Protection: | IP67 |
| MIMO: | 2x2 MIMO | Materials: | ASA Plastic, Polycarbonate (PC) |
| Min. Operating Temperature: | -40 °C | Mounting: | Stud / Bulkhead / Panel |
| Max. Operating Temperature: | 85 °C | Compliance/Certifications: | RoHS |

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