

2J Sparrow 4G-5G WiFi Ultraband + GNSS 2-Port Combo Adhesive Antenna, 617 to 5925 MHz

SKU: ANT-2J-00008

MPN: 2J4884PGF

Description

The 2J Sparrow 4G-5G WiFi Ultraband + GNSS 2-Port Combo Adhesive Antenna (SKU: ANT-2J-00008, Part No: 2J4884PGF) offers robust connectivity and precision for diverse applications. This adhesive patch antenna measures 83 x 35 x 13.3 mm and is constructed from durable ABS plastic. It boasts an IP67 ingress protection rating, making it suitable for harsh environments with an operational temperature range of -40 °C to 85 °C. The antenna is RoHS compliant, ensuring adherence to environmental regulations.

Featuring two ports, the antenna supports both 4G-5G cellular and GNSS functionalities. The 5GNR element covers frequencies from 617 to 5925 MHz with a 50 Ω impedance, supporting up to 25 W of input power. It offers a peak gain of 3.3 dBi at lower bands (617-960 MHz) and a linear polarisation with a 360° azimuth beamwidth. The GNSS element operates within 1575 to 1606 MHz using RHCP polarisation and includes an active LNA with 28 dBic gain...

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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 | Azimuth | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|---------|-----------|------------|
| 617 MHz | 960 MHz | 3.3 dBi | > 12.4 dB | < 2.1:1 | 360° | -2.9 dBi | 52% |
| 1427 MHz | 2690 MHz | 2 dBi | > 14 dB | < 1.6:1 | 360° | -3.6 dBi | 45% |
| 3300 MHz | 5000 MHz | 0.5 dBi | > 13 dB | < 1.7:1 | 360° | -5.2 dBi | 31% |
| 5150 MHz | 5925 MHz | 0.6 dBi | > 16.2 dB | < 1.5:1 | 360° | -5.7 dBi | 27% |

Cable 2: GPS/GLONASS/QZSS/Galileo

| | | | |
|------------------|-------------|------------------|----------------------------|
| Start Frequency: | 1575.42 MHz | Input Impedance: | 50 |
| Stop Frequency: | 1606 MHz | Polarisation: | Right Hand Circular (RHCP) |

Low Noise Amplifier (LNA)

| | | | |
|---------------|----------|-------------------------|-------|
| LNA Gain: | 28 dBic | Min. Operating Voltage: | 1.5 V |
| Noise Figure: | ≤ 1.5 dB | Max. Operating Voltage: | 3.6 V |

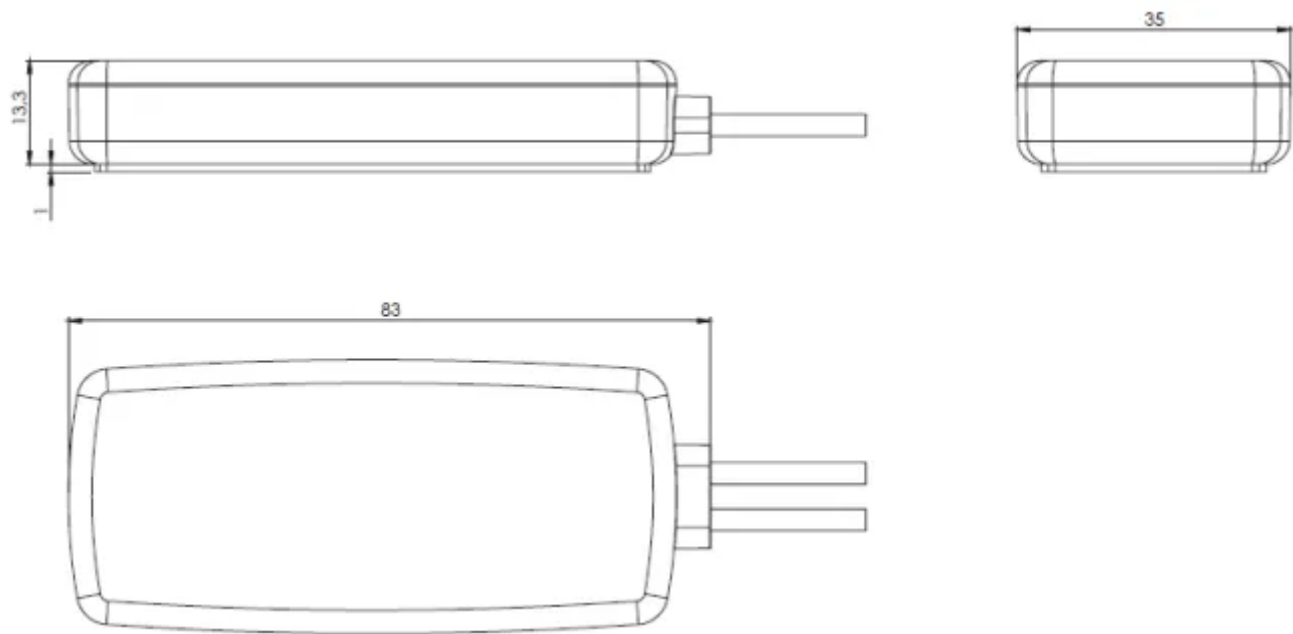
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| Ports | RF Interface | Body Shape | Cable Series | Length |
|-------|--------------|------------|--------------|---------|
| 1 | SMA Male | Straight | L-100 | 3000 mm |

Physical Specification

| | | | |
|-----------------------------|----------------|----------------------------|----------------|
| Subtype: | Adhesive Patch | Dimensions: | 83 x 35 x 13.3 |
| Input Ports: | 2 | Ingress Protection: | IP67 |
| MIMO: | 1x1 SISO | Materials: | ABS Plastic |
| Min. Operating Temperature: | -40 °C | Compliance/Certifications: | RoHS |
| Max. Operating Temperature: | 85 °C | | |

Drawing



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