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

SKU  
ANT-2J-00033  
MPN  
2J6986BGFC 8M

## Description

The 2J Phoenix 4G-5G Ultraband MIMO + Dual-Band WiFi-6E + GNSS 4-Port Combo Stud Antenna (SKU: ANT-2J-00033) is a versatile solution designed for robust connectivity across multiple applications. Operating within a wide frequency range of 617 to 7125 MHz, this antenna is ideal for automotive, marine, telematics, automation, and M2M markets.

Constructed from durable polycarbonate and ASA plastic, the antenna is IP67 rated for superior protection against water and dust, making it suitable for harsh environments. With a temperature tolerance from -40 °C to 85 °C, it ensures reliable performance in extreme conditions. The antenna features four input ports providing 4 RF connections, including 2x2 MIMO 5G for enhanced data throughput and dual-band WiFi-6E for high-speed, reliable internet connectivity.

Additionally, the integrated GNSS element supports GPS and GLONASS with an active LNA, ensuring precise location tracking. This component is...

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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

25 W

Polarisation

[Linear](#)

Input Impedance

50  $\Omega$

RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
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1	<a href="#">SMA Male</a>	<a href="#">Straight</a>	<a href="#">A-302</a>	3000 mm
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Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
617 MHz	960 MHz	3.1 dBi	> 15.5 dB	< 1.5:1	360°	-4.6 dBi	35%
1427 MHz	2690 MHz	2.7 dBi	> 12.1 dB	< 1.8:1	360°	-5.4 dBi	27%

## Cable 2: 5GNR

Start Frequency

617 MHz

Stop Frequency

5925 MHz

Max. Input Power

25 W

Polarisation

[Linear](#)

Input Impedance

50 Ω

RF Connectors

**Ports RF Interface Body Shape Cable Series Length**

1 [SMA Male](#) [Straight](#) [A-302](#) 3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
617 MHz	960 MHz	3.2 dBi	> 16.8 dB	< 1.4:1	360°	-4.8 dBi	34%
1427 MHz	2690 MHz	2.9 dBi	> 12.8 dB	< 1.7:1	360°	-5.7 dBi	27%

## Cable 3: WiFi

Start Frequency

2410 MHz

Stop Frequency

7125 MHz

Max. Input Power

25 W

Polarisation

[Linear](#)

Input Impedance

50  $\Omega$

RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
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1	<a href="#">SMA Male</a>	<a href="#">Straight</a>	<a href="#">A-302</a>	3000 mm
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Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
2410 MHz	2490 MHz	0.2 dBi	> 11.4 dB	< 2:1	360°	-6.1 dBi	25%
4920 MHz	5925 MHz	1.7 dBi	> 18 dB	< 1.3:1	360°	-5.6 dBi	27%

## Cable 4: GPS/GLONASS

Start Frequency

1575.42 MHz

Stop Frequency

1606 MHz

Input Impedance

50  $\Omega$

Polarisation

[Right Hand Circular \(RHCP\)](#)

### Low Noise Amplifier (LNA)

LNA Gain

28 dBic

Noise Figure

$\leq 1.8$  dB

Power Consumption

< 24.3 mW

Min. Operating Voltage

1.5 V

Max. Operating Voltage

3.6 V

### RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
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1	<a href="#">SMA Male</a>	<a href="#">Straight</a>	<a href="#">L-100</a>	3000 mm
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# Physical Specification

Subtype

[Fin / Stud / Combo](#)

Input Ports

4

MIMO

[2x2 MIMO](#)

Min. Operating Temperature

-40 °C

Max. Operating Temperature

85 °C

Dimensions

80 x 74 x 25.6

Ingress Protection

[IP67](#)

Materials

[ASA Plastic](#), [Polycarbonate \(PC\)](#)

Mounting

[Stud / Bulkhead / Panel](#)

Compliance/Certifications

RoHS

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