

# 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  $\Omega$  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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