

# 2J Phoenix 4G-5G Ultraband MIMO + Dual-Band WiFi-6E + GNSS 4-Port Combo Stud Antenna, 617 to 7125 MHz (3m cable)

SKU: ANT-2J-00020

MPN: 2J6986BGFC 3M

## Description

The 2J Phoenix 4G-5G Ultraband MIMO + Dual-Band WiFi-6E + GNSS 4-Port Combo Stud Antenna (SKU: ANT-2J-00020) offers a comprehensive solution for high-performance connectivity. With an operating frequency range from 617 to 7125 MHz and an IP67-rated robust design, this antenna is ideal for demanding environments, including automotive, marine, and M2M applications.

This antenna features four ports: two dedicated to 4G/5G MIMO, one for WiFi-6E, and one for GNSS. The 4G/5G MIMO supports frequencies from 617 to 5925 MHz with linear polarisation and a maximum input power of 25 W, ensuring optimal connectivity across multiple bands. The Dual-Band WiFi-6E operates from 2410 to 7125 MHz, enhancing wireless communication with its broad frequency support.

The integrated GNSS element, featuring an active LNA with a gain of 28 dBic, ensures precise location tracking, making it suitable for navigation systems. Each port is equipped with an SMA Male...

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## RF Specification



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.

## Cable 1: CELLULAR/LTE

Over the past decade, 2J has established ...

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	A-302	3000 mm

#### Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
617 MHz	960 MHz	3.1 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%
3300 MHz	5000 MHz	0.9 dBi	> 12.3 dB	< 1.9:1	360°	-6.5 dBi	24%
5150 MHz	5925 MHz	0.4 dBi	> 13 dB	< 1.7:1	360°	-6.5 dBi	22%

## Cable 2: CELLULAR/LTE

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	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%
3300 MHz	5000 MHz	1.2 dBi	> 13.4 dB	< 1.7:1	360°	-7.3 dBi	20%
5150 MHz	5925 MHz	0.4 dBi	> 13.1 dB	< 1.7:1	360°	-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	A-302	3000 mm

#### 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%
5925 MHz	7125 MHz	1.6 dBi	> 18.5 dB	< 1.3:1	360°	-5.8 dBi	25%

## Cable 4: GNSS

Gain (Zenith):	-3.6 dBic	Input Impedance:	50
Start Frequency:	1575.42 MHz	Polarisation:	Right Hand Circular (RHCP)
Stop Frequency:	1606 MHz		

## Low Noise Amplifier (LNA)

LNA Gain:	28 dBic	Min. Operating Voltage:	1.5 V
Noise Figure:	≤ 1.8 dB	Max. Operating Voltage:	3.6 V
Power Consumption:	< 24.3 mW		

#### RF Connectors

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

# Physical Specification

Subtype:	Fin / Stud / Combo	Dimensions:	80 x 74 x 25.6
Input Ports:	4	Ingress Protection:	IP67
MIMO:	4x4 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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