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# 2J 4G-5G WiFi Ultraband 4x4 MIMO Stud Antenna, 617 to 5925 MHz

SKU ANT-2J-00021 MPN 2J7183BC

Description

The 2J 4G-5G WiFi Ultraband 4x4 MIMO Stud Antenna (SKU: ANT-2J-00021) is a versatile, high-performance solution designed for a wide frequency range from 617 to 5925 MHz. Featuring a compact design of 96 x 130 mm, it is ideal for diverse applications in sectors such as automotive, marine, telematics, automation, and M2M systems. This antenna offers four RF connections, providing robust 4x4 MIMO capabilities, and is equipped with IP67 ingress protection, ensuring reliable operation in challenging environments.

Engineered by 2J, a leader in antenna solutions based in Slovakia, this antenna is compliant with ISO 9001 and RoHS standards, attesting to its high-quality manufacturing. With a 50  $\Omega$  impedance and linear polarisation, each antenna element supports up to 35 W of input power. Its SMA Male interfaces and 3000 mm L-195 cables ensure easy integration into existing systems.

The antenna's RF performance, optimised across multiple frequency...

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# **J**2J

#### **2**J

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	617 MHz						
Stop Fre	Stop Frequency						
5925 MH	5925 MHz						
Max. Input Power							
35 W							
Polarisation							
Linear							
Input Impedance							
50 Ω							
RF Connectors							
Ports RF Interface Body Shape Cable Series Length							
1 <u>S</u>	MA Male	<u>Straight</u>	<u>L-195</u>	3000 mm			
Frequency Test Data							

Start Freq. Stop Freq. Peak Gain Return Loss VSWR Avg. Gain Efficiency

617 MHz	960 MHz	1.3 dBi	> 5.5 dB	< 3.7:1 -5.1 dBi	31%
1427 MHz	2690 MHz	3.4 dBi	> 12.2 dB	< 2:1 -3.9 dBi	42%
3300 MHz	5000 MHz	4.7 dBi	> 15.2 dB	< 1.5:1 -3.8 dBi	42%
5150 MHz	5925 MHz	4 dBi	> 14.2 dB	< 1.6:1 -4.4 dBi	37%

#### Cable 2: 5GNR

Start Freque	ency					
617 MHz						
Stop Freque	ency					
5925 MHz						
Max. Input I	Power					
35 W						
Polarisation						
Linear						
Input Impedance						
50 Ω						
RF Connect	ors					
Ports RF I	nterface Bo	dy Shap	e Cable Series	5 Length		
1 <u>SMA</u>	<u>Male</u> Str	aight	<u>L-195</u>	3000 mm		
Frequency <sup>-</sup>	Test Data					
Start Freq	. Stop Freq	. Peak G	ain Return Lo	ss VSWR Avg. Gai	in Efficiency	
617 MHz	960 MHz	1.2 dBi	> 5.6 dB	< 3.7:1 -5.1 dBi	31%	
1427 MHz	2690 MHz	3.6 dBi	> 12.7 dB	< 1.9:1 -3.9 dBi	41%	
3300 MHz	5000 MHz	4.6 dBi	> 15.3 dB	< 1.5:1 -3.8 dBi	42%	
5150 MHz	5925 MHz	3.2 dBi	> 16 dB	< 1.5:1 -4.8 dBi	33%	

#### Cable 3: 5GNR

Start Frequency 617 MHz Stop Frequency 5925 MHz Max. Input Power 35 W Polarisation Linear Input Impedance 50 Ω **RF** Connectors

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

1 SMA Male Straight L-195 3000 mm Frequency Test Data Start Freq. Stop Freq. Peak Gain Return Loss VSWR Avg. Gain Efficiency 960 MHz 1.3 dBi 617 MHz > 5.4 dB < 3.7:1 -5 dBi 1427 MHz 2690 MHz 3.8 dBi > 12.9 dB < 1.8:1 -3.8 dBi

3300 MHz	5000 MHz	4.5 dBi	> 16.7 dB	< 1.4:1 -4 dBi	40%
5150 MHz	5925 MHz	4.6 dBi	> 12.4 dB	< 1.8:1 -4.2 dBi	39%

32%

42%

35%

#### Cable 4: 5GNR

Start Freque	ncv						
Stop Freque	ncv						
5025 MHz	licy						
Max Input P	ower						
35 W	ower						
SS VV							
Lipear							
Linear	Linear						
Input Impedance							
50 Ω							
RF Connectors							
Ports RF Interface Body Shape Cable Series Length							
1 <u>SMA I</u>	Male <u>Stra</u>	aight	<u>L-195</u>	3000 mm			
Frequency Test Data							
Start Freq. Stop Freq. Peak Gain Return Loss VSWR Avg. Gain Efficiency							
617 MHz	960 MHz	1.6 dBi	> 5.7 dB	< 3.5:1 -5.1 dBi	31%		
1427 MHz	2690 MHz	3.4 dBi	> 12.8 dB	< 1.8:1 -3.9 dBi	42%		
3300 MHz	5000 MHz	4.6 dBi	> 16.8 dB	< 1.5:1 -3.8 dBi	43%		

> 15.4 dB < 1.5:1 -4.6 dBi

## **Physical Specification**

5150 MHz 5925 MHz 3.9 dBi

Subtype Fin / Stud / Combo Input Ports 4

#### ΜΙΜΟ

4x4 MIMO Min. Operating Temperature -40 °C Max. Operating Temperature 85 °C Dimensions 96 x 130 Ingress Protection IP67 Materials ASA Plastic Mounting Stud / Bulkhead / Panel Compliance/Certifications ISO 9001 Quality Management

RoHS

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