

# 2J Brick 5G NR/4G LTE/3G/2G High-Performance Mini Embedded Surface Mount Antenna

SKU: ANT-2J-00031

MPN: 2JE71

## Description

The 2J Brick Mini Embedded Surface Mount Antenna (SKU: ANT-2J-00031) is a versatile, high-performance solution designed for seamless integration into 5G NR, 4G LTE, 3G, and 2G applications. Manufactured by 2J, this PCB-type antenna features a compact design with dimensions of 40 x 8 x 3 mm and is constructed from durable fiberglass (GRP), ensuring reliability in demanding environments ranging from -40°C to 105°C.

Engineered for efficiency, the antenna operates across a broad frequency spectrum of 617 MHz to 5925 MHz with a 50 Ω impedance and supports up to 25 W of input power. Its linear polarisation and SISO configuration optimise connectivity for applications in automotive, marine, telematics, automation, and M2M markets. The antenna's robust RF performance, characterised by various gain and efficiency metrics, makes it suitable for a wide array of telecommunication needs.

Compliant with RoHS standards, the 2J Brick antenna is ideal for...

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## RF Specification

### 2J PCB Surface Mount

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 ...

Start Frequency: 617 MHz      Polarisation: Linear

Stop Frequency: 5925 MHz      Input Impedance: 50

Max. Input Power: 25 W

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR    | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|-----------|------------|
| 617 MHz     | 960 MHz    | 0.5 dBi   | > 6.7 dB    | < 3.1:1 | -2.8 dBi  | 55%        |
| 1427 MHz    | 2690 MHz   | 2.7 dBi   | > 10.3 dB   | < 2:1   | -2.2 dBi  | 61%        |
| 3300 MHz    | 5000 MHz   | 3.1 dBi   | > 10.2 dB   | < 2:1   | -2.4 dBi  | 60%        |
| 5150 MHz    | 5925 MHz   | 2.2 dBi   | > 5.7 dB    | < 3.5:1 | -4.2 dBi  | 40%        |

# Physical Specification

|                             |                     |                            |                  |
|-----------------------------|---------------------|----------------------------|------------------|
| Subtype:                    | PCB / Surface Mount | Dimensions:                | 40 x 8 x 3       |
| MIMO:                       | 1x1 SISO            | Materials:                 | Fibreglass (GRP) |
| Min. Operating Temperature: | -40 °C              | Compliance/Certifications: | RoHS             |
| Max. Operating Temperature: | 105 °C              |                            |                  |

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