

Powertec Wireless Technology ABN: 42 082 948 463 PO Box 1034, Ashmore City Queensland, Australia, 4214 sales@powertec.com.au 1300 769 378

# 2J 5G Screw Mount Antenna, 2J7A84BGFc, Black, SMA Male, 300cm

SKU: ANT-2J-00043 MPN: SI311102920

#### Description

The 2J 5G Screw Mount Antenna (2J7A84BGFc), identified by SKU: ANT-2J-00043, is a versatile antenna solution designed for demanding environments. Constructed from durable ASA plastic, it boasts an IP67 rating, ensuring protection against dust and water, and operates reliably within a temperature range of -40 °C to 85 °C. This antenna features five input ports for 4x4 MIMO capabilities, providing robust connectivity across a wide frequency range from 617 MHz to 5925 MHz, with a consistent 50  $\Omega$  impedance and support for up to 35 W input power.

The antenna's linear polarisation and 360° azimuth beamwidth enhance its performance, making it ideal for applications in automotive, M2M, and base stations. Additionally, its integrated GNSS functionality supports GPS, GLONASS, QZSS, and Galileo systems, featuring an active GNSS module with a 24 dBic gain LNA, maintaining low noise for accurate positioning.

With SMA Male connectors and 3000 mm cables...

Read More





21

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

#### Cables 1-4: 5GNR

| Start Frequency:  | 617 MHz  | Polarisation:    | Linear |
|-------------------|----------|------------------|--------|
| Stop Frequency:   | 5925 MHz | Input Impedance: | 50     |
| Max. Input Power: | 35 W     |                  |        |

#### **RF Connectors**

| Ports | RF Interface | Body Shape | Cable Series | Length  |
|-------|--------------|------------|--------------|---------|
| 4     | SMA Male     | Straight   | L-195        | 3000 mm |

## Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | Return Loss | VSWR    | Azimuth | Avg. Gain | Efficiency |
|-------------|------------|-----------|-------------|---------|---------|-----------|------------|
| 617 MHz     | 960 MHz    | 0.1 dBi   | > 5.4 dB    | < 3.6:1 | 360°    | -5.3 dBi  | 30%        |
| 1427 MHz    | 2690 MHz   | 3.9 dBi   | > 12.5 dB   | < 1.9:1 | 360°    | -3.4 dBi  | 47%        |
| 3300 MHz    | 5000 MHz   | 3.4 dBi   | > 11.4 dB   | < 1.9:1 | 360°    | -3.8 dBi  | 42%        |
| 5150 MHz    | 5925 MHz   | 3.9 dBi   | > 12.2 dB   | < 1.8:1 | 360°    | -3.8 dBi  | 42%        |

## Cable 5: GPS/GLONASS/QZSS/Galileo

| Start Frequency: | 1575.42 MHz | Input Impedance: | 50                         |
|------------------|-------------|------------------|----------------------------|
| Stop Frequency:  | 1610 MHz    | Polarisation:    | Right Hand Circular (RHCP) |

## Low Noise Amplifier (LNA)

| LNA Gain:          | 24 dBic    | Min. Operating Voltage: | 2.7 V |
|--------------------|------------|-------------------------|-------|
| Noise Figure:      | ≤ 1.2 dB   | Max. Operating Voltage: | 5.5 V |
| Power Consumption: | < 137.5 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:                | 96 x 90                 |
|-----------------------------|--------------------|----------------------------|-------------------------|
| Input Ports:                | 5                  | Ingress Protection:        | IP67                    |
| MIMO:                       | 4x4 MIMO           | Materials:                 | ASA Plastic             |
| Min. Operating Temperature: | -40 °C             | Mounting:                  | Stud / Bulkhead / Panel |
| Max. Operating Temperature: | 85 °C              | Compliance/Certifications: | RoHS                    |
|                             |                    |                            |                         |

Disclaimer: Although care has been taken to ensure the accuracy, completeness and reliability of the information provided, Powertec assumes no responsibility therefore. The user of the information agrees that the information is subject to change without notice. Powertec assumes no responsibility for the consequences of use of such information, nor for any infringement of third party intellectual property rights which may result from its use. IN NO EVENT SHALL POWERTEC BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR INCIDENTAL DAMAGE RESULTING FROM, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THE INFORMATION.

