



4-in-1 5G NR Cellular, GNSS, 2.4/5.0/6.0 GHz WiFi 6E ISM and Iridium Screw Mount Antenna

Description

Optimizing Versatility With The Highest Reliability In Global Mobility Connection

The 5G NR Cellular, GNSS, 2.4/5.0/6.0 WiFi 6E and Iridium Screw Mount (2J6551BGF) is a 4-in-1 configuration, high-performance antenna that maximizes versatility without compromising efficiency or performance. The compact size 2J6551BG outperforms any competitor by offering 5G NR, 4G LTE, 2G, 3G, WiFi 6E, Bluetooth-BT, ZigBee, ISM, GPS, QZSS, Galileo, GLONASS and Iridium standards in the same antenna housing. The 2J6551BG brings reliable, constant global connectivity with the highest precision ideal for tracking/mapping devices, automotive navigation, commercial transportation, machine to machine connectivity and global video, voice and data communications.

The Cellular Antenna (Cable 1) is designed within 5G NR, 4G LTE, 2G, 3G standards. With omnidirectional radiation pattern, the 2J6551BGF cellular function operates within the 617MHz-5925MHz frequencies. This antenna is designed to improve long-range signal strength allowing for uninterrupted connectivity, better signal quality, and reliability while providing increased cellular data and video data throughput.

The 2.4/5.0/6.0GHz ISM Antenna (Cable 2) is ideal for WiFi, WiFi 6, WiFi 6E, BT, ZigBee, ISM, SigFox and LoRa standards. The 2J6551BG offers an omnidirectional radiation pattern and operates within 2410 MHz to 7125 MHz frequencies. This antenna is designed for a reliable machine to machine connection ideal for low power WiFi, Bluetooth-BT, smart home and commercial devices.

The GNSS Ceramic Active Antenna (Cable 3) is designed for reliable navigational connectivity within GPS, QZSS, Galileo and GLONASS standards. With a hemispherical radiation pattern, the 2J6551BG navigation antenna operates within 1575.42MHz and 1598MHz-1606MHz frequencies. The GNSS Ceramic Active Antenna offers access to multiple satellite connections improving accuracy, redundancy and availability consistently with maximum mobility.

The Iridium Antenna (Cable 4) is designed for Iridium standards. The 2J6551BGF operates within 1616MHz-1627MHz frequencies. The Iridium antenna offers the most reliable global connectivity on the market including poles, oceans and airways. This antenna is ideal for worldwide voice and data communication, satellite equipment and other transceiver devices.

Suggested Applications- IoT devices- Commercial and residential automation- Consumer electronics-

Mobile and computing devices- Gaming- Augmented reality- Virtual reality- Industrial, scientific and medical devices

– Automotive connectivity- Multimedia, navigation and telematics systems- V2V and V2X applications- Fleet management- HD video and audio streaming- Emergency communication

Installation / Environmental

For external and internal applications, the antenna is manufactured with a combination of ABS UV stable and ceramic materials, protecting the antenna from temperatures between -40C and 80C. With anti-rotation mechanism and ground plane independence, this screw mount antenna is easy to install with maximum durability. Cable 1, 3 and 4 come with SMA-Male and cable 2 with Reverse Polarity (RA)-SMA-Male standard connector type. All four antennas have 300cm standard cable length and are fully customizable by offering additional connector types, cable lengths and cable types. The 2J6551BG is RoHS compliant with complete IK09, IP67 and IP69K certification.

Technologies 5G, 4G, 3G and 2G

Standards 5G NR/4G LTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G

Frequency 617-960, 1427-2690, 3300-5000, 5150-5925

Return Loss (dB) ~-7.4, ~-9.7, ~-11.2, ~-14.2

VSWR ~3.3:1, ~2.3:1, ~2.1:1, ~1.7:1

Efficiency (%) ~19.7, ~17.5, ~13.3, ~15.9

Peak Gain (dBi) ~-1.7, ~-1.7, ~-1.3, ~0.6

Impedance (Ohm) 50

Polarisation Linear

Max. Input Power (W) 25

Radiation Pattern Omni-Directional

Standards WiFi, BT, ZigBee, ISM, SigFox, LoRa

Frequency 2410-2490, 4920-5925, 5925-7125

VSWR ~1.4:1, ~1.7:1, ~2.0:1

Efficiency (%) ~75.8, ~84.5, ~73.0

Peak Gain (dBi) ~4.1, ~3.9, ~2.8

Impedance (Ohm) 50

Polarisation Linear

Max. Input Power (W) 10

Standards GPS/QZSS/Galileo/GLONASS

Frequency 1575.42, 1598-1606

Impedance (Ohm) 50

Active Gain (dB) 28 @ 2.7 V

Saw Filter Type Pre-Filter

Voltage (V) 1.5 – 3.6

Current (mA) 9 @ 2.7 V

Power Consumption (mW) 24.3 @ 2.7V

Standards IRIDIUM

Frequency 1616-1627

Passive Gain (dBi) ~4.5

Efficiency (%) ~76

Impedance (Ohm) 50

Axial Ratio (dB) 3 max

Radiation Pattern Hemispherical

Polarization RHCP

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