G3ANT-42XXX ANTENNA FAMILY
ARINC Footprint GNSS Antenna

The G3Ant-42XXX product family is a multi-frequency antenna for assured Global Navigation Satellite Signal (GNSS) signal reception. This Antcom “G3” antenna operates in three frequency bands and includes support for GLONASS L1, GPS L1, and L-Band. The baseplate is designed to be compatible with ARINC 743 mounting hole and footprint requirements. An O-ring seal between the antenna and your platform ensures easy installation.

The product family is offered in passive and active (amplified) configurations. The active configurations offer 2-stage integrated bandpass filtering for high out-of-band rejection and limiter diodes to protect sensitive receiver electronics. The passive configurations are best suited for applications where the antenna is located close to the GNSS receiver. It offers the lowest insertion loss for minimizing the noise figure of your system.

Antcom is able to customize this product family to meet your specific requirements. Please contact us for more information about customization options.

**BENEFITS**
- Easy design into new platforms or retrofit into existing platforms
- Multi-frequency GNSS coverage to support precision applications

**FEATURES**
- Multi-frequency, multi-constellation connectivity for assured GNSS reception
- ARINC 743 compatible mounting holes and footprint
- Passive or active (amplified) configurations available
- DC power input through RF connector
- Connector options available
- Paint color options available

**OPTIONS**

**COLOR**
- Gloss White
- Lusterless Gray
- Camo Green
- Lusterless Black
- Desert Tan

**CONNECTOR**
- S: SMA; P: PINS
- M: MCX; MM: MMCX
- N, NB: N, N-Bulkhead
- T, TB: TNC, TNC-Bulkhead

**LNA GAIN**
- With 33 dB LNA
- With 40 dB LNA
- Without LNA

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**ELECTRICAL**

<table>
<thead>
<tr>
<th>Frequency Range:</th>
<th></th>
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<tbody>
<tr>
<td>L-Band</td>
<td>1545 - 1610 MHz</td>
</tr>
<tr>
<td>B1 BeiDou</td>
<td>1561.098 ± 10 MHz</td>
</tr>
<tr>
<td>L1 GPS</td>
<td>1575.42 ± 12 MHz</td>
</tr>
<tr>
<td>E1 Galileo</td>
<td>1575.42 ± 17 MHz</td>
</tr>
<tr>
<td>L1 GLONASS</td>
<td>1609 ± 7.0MHz</td>
</tr>
<tr>
<td>VSWR</td>
<td>&lt;2.0:1</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 ohms</td>
</tr>
<tr>
<td>Polarization</td>
<td>RCHP</td>
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</table>

**MECHANICAL & ENVIRONMENTAL**

<table>
<thead>
<tr>
<th>Designed to:</th>
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<tbody>
<tr>
<td>Weight</td>
<td>8.2 oz</td>
</tr>
<tr>
<td>Temperature</td>
<td>-55°C TO +85°C</td>
</tr>
<tr>
<td>Altitude</td>
<td>70,000 ft</td>
</tr>
<tr>
<td>Vibration</td>
<td>&gt;30 Grms</td>
</tr>
</tbody>
</table>

**TYPICAL LNA PERFORMANCE**

<table>
<thead>
<tr>
<th>LNA Gain</th>
<th>See Options Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNA Noise Figure</td>
<td>3.5 dB</td>
</tr>
<tr>
<td>LNA P1dB Out</td>
<td>+13 dBm</td>
</tr>
<tr>
<td>LNA DC Power</td>
<td>(3.8 - 15) V</td>
</tr>
<tr>
<td></td>
<td>&lt;70 mA</td>
</tr>
</tbody>
</table>

**LIMITING & FILTERING**

| Power Handling                    | 1 Watt CW         |

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**PART NUMBER DECODER**

**G3Ant-42XXX**

- **LNA Gain**
  - A = With 33 dB
  - A4 = With 40 dB
  - P = Passive

- **Color (PER AMS-STD-595)**
  - 1 = Gloss White #17925
  - 2 = Lusterless Gray #36320
  - 3 = Camo Green #34094
  - 4 = Lusterless Black #37038
  - 5 = Desert Tan #33446

- **Connector**
  - S = SMA
  - P = PINS
  - M = MCX
  - MM = MMCX
  - N, NB = N, N-Bulkhead
  - T, TB = TNC, TNC-Bulkhead

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