3G1215X-MS-X-A ANTENNA FAMILY
FRPA Footprint GPS L1/L2 Antenna with External Magnet Mount

The 3G1215X-MS-X-A receives Global Positioning System (GPS) signal reception in the L1 and L2 frequency bands. This antenna is built using the standard Fixed Reception Pattern Antenna (FRPA) form factor and includes an external magnet mounted onto the bottom of the baseplate. The SMA female connector is located on the side of the baseplate for easy access after magnetic installation onto your platform.

The product family is available in passive and active (amplified) configurations. The active configurations include two-stage ceramic and surface acoustic wave (SAW) filtering for sharp band edges and linearity within the GPS bands. The upper and lower frequency bands are separately amplified and filtered to ensure operation in high ambient interference environments. The passive configurations are best suited to applications where the antenna is positioned close to the GPS receiver.

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

BENEFITS
• Military-grade GPS L1/L2 reception
• Easy magnet mount antenna installation

FEATURES
• GPS L1/L2 with M-Code coverage
• FRPA-footprint enclosure with external magnet mount
• Side connector
• Passive or active (amplified) configurations available
• DC power input through RF connector

OPTIONS
COLOR
• Gloss White
• Lusterless Gray
• Camo Green
• Lusterless Black
• Desert Tan

LNA GAIN
• With 33 dB LNA
• With 33 dB High Filtering
• With 20 dB LNA
• With 40 dB LNA
• Without LNA

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ELECTRICAL

Frequency Range:
- L1 GPS: 1575.42 ± 12 MHz
- L2 GPS: 1227.60 ± 12 MHz

VSWR: < 2.0:1
Impedance: 50 ohms
Polarization: RHCP

MECHANICAL & ENVIRONMENTAL

Designed to:
- Weight: 9.5 oz (Typical)
- Temperature: -55°C TO +85°C
- Altitude: 70,000 ft
- Vibration: > 30 Grms

TYPICAL LNA PERFORMANCE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNA Gain</td>
<td>See Options Table</td>
</tr>
<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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Power Handling</td>
<td>1 Watt CW</td>
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</tbody>
</table>

PART NUMBER DECODER

3G1215X-MS-X-A

LNA Gain
- A = With 33dB
- AF = With 33dB, High Filtering
- A2 = With 20 dB
- A4 = With 40 dB
- P = Without amplifier (passive)

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