2G-MINI-GNSSX-XX-X SERIES ANTENNA
Miniature Antenna for Multi-Frequency GNSS Reception

The 2G-Mini-GNSS-XX-X is a remarkably small, lightweight circularly polarized antenna solution for rugged applications. This miniature antenna offers multi-constellation, multi-frequency Global Navigation Satellite System (GNSS) coverage for high accuracy positioning, navigation and timing (PNT). The 2G Mini GNSS antenna is ideally suited for applications with tight size, weight, and power consumption (SWaP) constraints that need an accurate, high performance GNSS antenna.

The 2G Mini GNSS antenna is available in passive and active (amplified) configurations. The active circuitry is designed to support a wide range of input voltages with ultra low current consumption for long battery life and low fuel consumption. The amplifier design includes dual-stage filtering for excellent performance, even with nearby interference sources. The passive design is ideal for installations where the antenna is located close to the receiver and eliminates any need to power the antenna.

**BENEFITS**

- Rugged yet lightweight at only 3.2 oz (91 grams) for longer airborne time on station
- Low power consumption with only 25 mA current draw and a wide input voltage compatibility range
- Multi-frequency GNSS capable including GPS M-Code & P(Y) signals and Galileo with PRS for high accuracy positioning, navigation and timing

**FEATURES**

- Easy installation via four (4) blind threaded holes into the antenna base
- Single connector for antenna output and DC power input

**OPTIONS**

**RADOME COLOR**
- Gloss White
- Lusterless Gray
- Olive Drab Green
- Lusterless Black
- Desert Tan

**CONNECTOR (FEMALE)**
- SMA
- TNC
- Type N
- TNC Bulkhead

**LNA GAIN**
- 28 dB LNA
- 15 dB LNA
- Passive

*These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred or otherwise disposed of to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.*
**ELECTRICAL**

| Signal Support | GPS | L1, L2, L5  
|               |     | C/A, P(Y), M-Code  
|               | Galileo | E1, E5a, E5b  
|               | GLONASS | L1, L2  
|               | BeiDou | B1, B2, B2a, B2b  
|               | NAVIC | L5  
|               | L-Band Correction |  

**Passbands**

- **Upper passband**: 1539 to 1610 MHz
- **Lower passband**: 1164 to 1252 MHz

**VSWR**: < 2.0:1

**Impedance**: 50 ohms

**Polarization**: RHCP

**MECHANICAL & ENVIRONMENTAL**

- **Weight (typical)**: 3.2 oz (91 g)
- **Temperature**: -55°C to +85°C
- **Altitude**: 40,000 ft
- **Random Vibration**: 20 Grms

**TYPICAL LNA PERFORMANCE**

| LNA Gain | A option | 28 dB ± 3 dB  
|         | A15 option | 15 dB ± 3 dB  
|         | P option | Passive  

**LNA Noise Figure**: 3.5 dB

**LNA P1dB Out**: +11 dBm

**Input Power**: +2.7 to +15.0 VDC

**Power Handling**: 25 mA

**Group Delay Ripple**: < 8 ns

**Differential Propagation Delay**: < 3 ns

**PART NUMBER DECODER**

2G-Mini-GNSSX-XX-X

**LNA Gain**

- A = 28 dB LNA
- A15 = 15 dB LNA
- P = Passive

**Color (PER AMS-STD-595)**

1 = Gloss White #17925
2 = Lusterless Gray #36320
3 = Olive Drab Green #34094
4 = Lusterless Black #37038
5 = Desert Tan #33446

**Connector**

- S = SMA
- T = TNC
- N = Type N
- TB = TNC Bulkhead