



3G-MINI-GNSSX-XX-X SERIES ANTENNA

Miniature Antenna for Multi-Frequency GNSS Reception

The 3G-Mini-GNSSX-XX-X is a rugged, lightweight circularly polarized antenna solution for vehicular applications demanding high performance GNSS reception. The antenna is ideally suited to installation on new and existing platforms with both top-mount and bottom-mount attachment points provided. Its form factor is similar to the familiar "Fixed Reception Pattern Antenna" (FRPA3) footprint, but in a smaller, lighter weight, miniature enclosure.

The 3G Mini GNSS antenna is available in passive and active (amplified) configurations. The active circuitry is designed for high performance with low power consumption. The amplifier includes dual-band filtering for mitigating interference signals from other nearby antennas, ideal for small platforms.

The passive design is best suited for installations where the antenna is located close to the receiver. This configuration eliminates any need to power the antenna.

BENEFITS

- Low power consumption with only 25 mA current draw and a wide input voltage compatibility range
- Only 5.4 oz (153 g) yet covers multi-frequency GNSS
- Coverage includes GPS M-Code & P(Y) signals and Galileo with PRS for high accuracy positioning, navigation and timing

FEATURES

- Designed for installation via top mount or bottom mount
- Single connector for antenna output and DC power input



OPTIONS

- | | |
|--------------------|--|
| RADOME COLOR | <ul style="list-style-type: none">• Gloss White• Lusterless Gray• Olive Drab Green• Lusterless Black• Desert Tan |
| CONNECTOR (FEMALE) | <ul style="list-style-type: none">• SMA• TNC• Type N• TNC Bulkhead |
| LNA GAIN | <ul style="list-style-type: none">• 28 dB LNA• 15 dB LNA• Passive |

ELECTRICAL

| | |
|--------------------------|---------------------------------|
| Signal Support | |
| GPS | L1, L2, L5 C/A, P(Y), M-Code |
| Galileo | E1, E5a, E5b PRS |
| 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 |

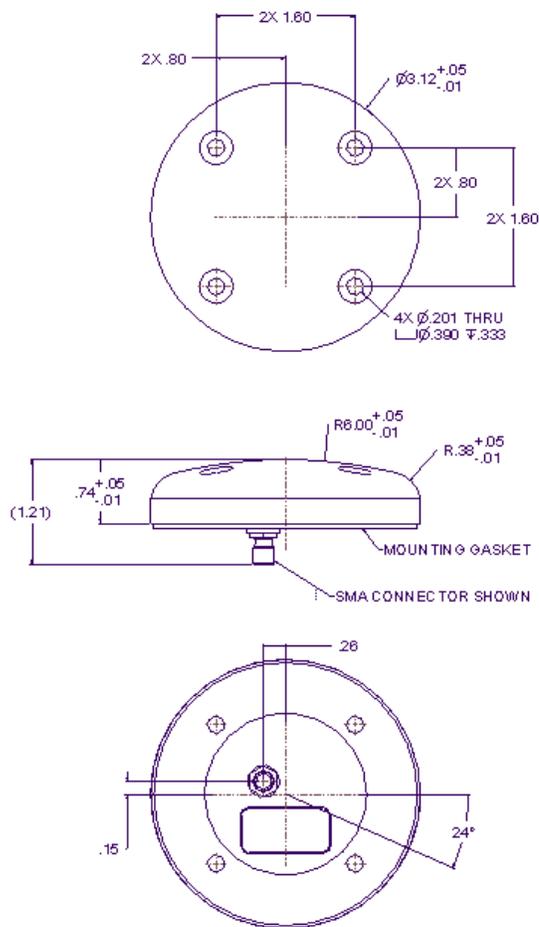
MECHANICAL & ENVIRONMENTAL

Designed to:

| | |
|-------------------------|----------------|
| Weight (typical) | 5.4 oz (153 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 25 mA |
| Power Handling | 1W |
| Group Delay Ripple | < 8 ns |
| Differential Propagation Delay | < 3 ns |



PART NUMBER DECODER

3G-Mini-GNSSX-XX-X

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

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

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

CONTACT ANTCOM

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