**Antennas**  **GPS-703-GGG**

**HIGH PERFORMANCE PINWHEEL® TRIPE-FREQUENCY ANTENNA MAXIMIZES TRACKING CAPABILITIES**

**MAXIMIZE PERFORMANCE WITH MULTI-CONSTELLATION RECEPTION**

The GPS-703-GGG receives L1, L2, L5 GPS; L1, L2, L3 GLONASS; B1, B2 BeiDou and E1, E5a/b Galileo frequencies. Customers can use the same antenna for GPS-only, dual or triple constellation applications, resulting in increased flexibility and reduced equipment costs.

**STABLE PHASE CENTER**

The phase center of this antenna remains constant as the azimuth and elevation angle of the satellites change. Signal reception is unaffected by the rotation of the antenna or satellite elevation, so placement and installation of the antenna can be completed with ease. With the phase center in the same location for the GNSS signals and with minimal phase center variation between antennas, this antenna is ideal for baselines of any length.

**DURABLE, FUTURE-PROOF DESIGN**

This rugged antenna is enclosed in a durable, waterproof housing and meets MIL-STD-810G for vibration and salt spray. While the GPS-703-GGG-HV has a similar form-factor to our high performance GPS-700 antenna series, it offers increased robustness for use under high vibration conditions.

Meeting the European Union’s directive for Restriction of Hazardous Substances (RoHS), integrators can be confident the GPS-703-GGG antenna can be used in system designs for years to come.

**FEATURES**

- L1, L2, L3, L5, B1, B2, E1 and E5a/b GPS+GLONASS+BeiDou+Galileo signal reception
- Excellent multipath rejection
- Highly stable phase center
- RoHS compliant

**BENEFITS**

- Choke ring antenna functionality without the size and weight
- Reduces equipment costs and need for future redesign
- High quality measurements and stable phase center for precision applications

If you require more information about our antennas, visit [www.novatel.com/antennas](http://www.novatel.com/antennas)
**PERFORMANCE**

**3 dB Pass Band**
- L1/B1/E1: 1580.0 ± 28.5 MHz (typical)
- L2/L3/L5/B2/E5/E5a/E5b: 1210.0 ± 45.0 MHz (typical)

**Out-of-Band Rejection**
- L1 ± 100 MHz: 30 dBc (typical)
- L2 ± 200 MHz: 50 dBc (typical)

**LNA Gain**
- 29 dB (typical)

**Gain at Zenith (90°)**
- GPS L1: +5.0 dBic (minimum)
- GPS L2: +3.0 dBic (minimum)
- GPS L5: +3.0 dBic (minimum)

**Gain Roll-Off (from Zenith to Horizon)**
- GPS L1: 12 dB
- GPS L2: 13 dB
- GPS L5: 13 dB

**Noise Figure**
- 2.0 dB (typical)

**VSWR**
- ≤2.0 : 1

**L1–L2 Differential Propagation Delay**
- 5 ns (maximum)

**Nominal Impedance**
- 50 Ω

**Altitude**
- 9,000 m

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**ENVIRONMENTAL**

**Temperature**
- Operating: -40°C to +85°C
- Storage: -55°C to +85°C

**Humidity**
- 95% non-condensing

**Vibration (operating)**
- Random: MIL-STD-810G 514.6E-1 Category 24
- Sinusoidal: ASAE EP455 Section 5.15.2 Level 1
  - ISO 9022-3 Method 36
- Shock: IEC 68-2-27 Ea
  - Category 2
- Bump: IEC 68-2-29 (Eb)

**Salt Spray**
- MIL-STD-810G 509.5

**Waterproof**
- IPX6/IPX7

**Compliance**
- FCC, CE

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**PHYSICAL AND ELECTRICAL**

**Dimensions**
- 185 mm diameter × 69 mm

**Weight**
- 500 g

**Power**
- Input voltage: +4.5 to +18.0 VDC
- Current: 36 mA (typical)

**Connectors**
- TNC female
  - Optional N-Type

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1. Not including tape measure tab. Full diameter with tape measure tab is 195 mm.

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For the most recent details of this product: www.novatels.com/products/gnss-antennas/high-performance-gnss-antennas/gps-703-ggg/

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**Specifications subject to change without notice.**

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