Antennas GPS-702-GG-HV

HIGH VIBRATION PINWHEEL® DUAL-FREQUENCY ANTENNA ENHANCES FLEXIBILITY AND REDUCE COSTS

DUAL CONSTELLATION FOR ENHANCED POSITIONING

The GPS-702-GG-HV receives L1/L2 GPS and L1/L2 GLONASS frequencies. Customers can use the same antenna for GPS-only or dual 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 both the L1 and L2 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, corrosive environment and salt spray. Similar in form-factor to our other high performance GPS-700 series antennas, the GPS-702-GG-HV has increased robustness for use under high vibration conditions.

The GPS-702-GG-HV is also available in three color variants: grey (GPS-702-GG-HV), desert tan (GPS-702-GG-HV-DT-U) and olive drab (GPS-702-GG-HV-OD-U).

Meeting the European Union's directive for Restriction of Hazardous Substances (RoHS), integrators can be confident the the GPS-702-GG-HV can be used in system designs for years to come.

BENEFITS

+ Choke ring antenna performance without size and weight
+ Reduces equipment costs and need for future redesign
+ Placement flexibility and precision positioning, even on long baselines

FEATURES

+ GPS+GLONASS L1/L2 signal reception
+ Excellent multipath rejection
+ Highly stable phase center
+ RoHS compliant
+ Also available in desert tan and olive drab

If you require more information about our antennas, visit www.novatel.com/antennas

GPS-702-GG-HV

PERFORMANCE

3 dB Pass Band

L1	1588.5 ± 23.0 MHz (typical)
L2	1236 ± 18.3 MHz (typical)

Out-of-Band Rejection

L1 ± 100 MHz	30 dBc (typical)
L2 ± 200 MHz	50 dBc (typical)
LNA Gain	29 dB (typical)

Gain Roll-Off (from Zenith to Horizon)

L1	13 dB
L2	11 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

PHYSICAL AND ELECTRICAL

Dimensions	185 mm diameter[1] × 69 mm
Weight	500 g
Power	
Input Voltage	+4.5 to +18.0 VDC
Current	35 mA (typical)
Connector	TNC female

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 MIL-STD-810G 514.6C-3 Category 4
Sinusoidal	ASAE EP455 Section 5.15.2 Level 1 ISO 9022-3 Method 36
Shock	IEC 68-2-27 Ea (40 g)
Bump	ISO 9022-3 Method 30 (100 g) IEC 68-2-27 (60 g)
Salt Spray	MIL-STD-810G, 509.5
Corrosive	MIL-STD-810G 518.1
Waterproof	IPX6/IPX7
Compliance	FCC, CE
RoHS	EU Directive 2011/65/EU

AVAILABLE COLOR VARIANTS

GPS-702-GG-HV	Grey
GPS-702-GG-HV-OD-U	Olive drab
GPS-702-GG-HV-DT-U	Desert tan

For the most recent details of this product:
www.novatel.com/products/gnss-antennas/high-performance-gnss-antennas/

novatel.com

sales@novatel.com

1-800-NOVATEL (U.S. and Canada)
or 403-295-4900

China 0086-21-68882300

Europe 44-1993-848-736

SE Asia and Australia 61-400-883-601

Version 2 Specifications subject to change without notice.

Printed in Canada.
D19380 November 2015

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