Antennas GPS-702L

DUAL-FREQUENCY ANTENNA DELIVERS EXCELLENT PERFORMANCE, MULTIPATH REJECTION AND L-BAND FUNCTIONALITY

EXCEPTIONAL L-BAND RECEPTION

The GPS-702L antenna allows users to take advantage of the improved positioning accuracy provided by L-Band services. Worldwide, subscription-based services offer real-time Differential GPS (DGPS)positioning with metre to decimetre-level accuracy.

ENHANCED RTK PERFORMANCE

The GPS-702L delivers enhanced RTK performance for high accuracy, real-time positioning applications. Closely located L1 and L2 phase centers combined with high phase center stability ensures optimal RTK operation, even over long baselines. The antenna includes the NovAtel proprietary Pinwheel® technology for excellent multipath rejection. As a result, this antenna enables the versatility to work in virtually any positioning mode.

DURABLE, FUTURE-PROOF DESIGN

Enclosed in a durable, waterproof housing, the GPS-702L meets MIL-STD-810F for vibration and salt spray. Sharing the same form factor as other NovAtel GPS-700 series antennas, the GPS-702L antenna is compact and lightweight, making it highly portable and suitable for a wide variety of environments and applications.

The antenna meets the European Union's directive for Restriction of Hazardous Substances (RoHS), so integrators can be confident the GPS-702L antenna can be used in system designs for years to come.

BENEFITS

+ Single antenna solution reduces costs
+ Can be used in any positioning mode
+ Eliminates need for future redesign

FEATURES

+ Receives GPS L1/L2, BeiDou B1, Galileo E1 and L-Band signals
+ Access to L-Band signals
+ Enhanced RTK performance
+ Excellent multipath rejection
+ RoHS compliant

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

GPS-702L

PERFORMANCE

3 dB Pass Band

L1	1575.0 ± 20 MHz (typical)
L2	1228.0 ± 20 MHz (typical)
L-Band	1543.0 ± 20 MHz (typical)

Out-of-Band Rejection

L1, L-Band (fc=1555 MHz)

fc±75 MHz	30 dBc (typical)
fc±100 MHz	50 dBc (typical)

L2 (fc=1227 MHz)

fc+50 MHz	20 dBc (typical)
fc-50 MHz	30 dBc (typical)
fc±100 MHz	50 dBc (typical)

LNA Gain 27 dB (typical)

Gain at Zenith (90°)

L1	+5.0 dBic (minimum)
L2	+1.5 dBic (minimum)
L-Band	+5.0 dBic (minimum)

Gain Roll-Off (from Zenith to Horizon)

L1	13 dB
L2	12 dB
L-Band	13 dB

Noise Figure 2.5 dB (typical)

VSWR ≤2.0 : 1

L1-L2 Differential Propagation Delay 15 ns (maximum)

Nominal Impedance 50 Ω

Altitude 9,000 m

PHYSICAL AND ELECTRICAL

Dimensions 185 mm diameter[1] x 69 mm

Weight 500 g

Power

Input voltage	+4.5 to +18.0 VDC
Power consumption	33 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-810F
Sinusoidal	ASAE 5.15.2, Level 1

Shock IEC 68-2-27, Ea

Bump IEC 68-2-29, Eb

Salt Spray MIL-STD-810F, 509.4

Waterproof IEC 60529 IPX7

Compliance FCC, CE

RoHS EU Directive 2011/65/EU

For the most recent details of this product:
www.novatel.com/products/gnss-antennas/high-performance-gnss-antennas/gps-702l/

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SE Asia and Australia 61-400-883-601

Version 9 Specifications subject to change without notice.

Printed in Canada.
D08407 November 2015

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