DUAL CONSTELLATION FOR ENHANCED POSITIONING
The GPS-701-GG uses the L1 frequency while the GPS-702-GG uses the L1 and L2 frequencies. Both antennas offer combined GPS+GLONASS signal reception. 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 these two antennas 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 antennas 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 the antennas, these antennas are ideal for baselines of any length.

DURABLE, FUTURE-PROOF DESIGN
These rugged antennas are enclosed in a durable, waterproof housing and meet MIL-STD-202F for vibration and MIL-STD-810G for salt spray. Sharing the same form factor as other NovAtel GPS-700 series antennas, the GPS-701-GG and GPS-702-GG antennas are compact and lightweight, making them highly portable and suitable for a wide variety of environments and applications.

Both antennas meet the European Union’s directive for Restriction of Hazardous Substances (RoHS), so integrators can be confident these antennas can be used in system designs for years to come.

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

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

FEATURES
+ L1 or L1/L2 options
+ GPS+GLONASS signal reception
+ Excellent multipath rejection
+ Highly stable phase center
+ RoHS compliant
GPS-701-GG & GPS-702-GG

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

ENVIRONMENTAL

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

Humidity 95% non-condensing

Vibration (operating)
Random MIL-STD-202F
Sinusoidal SAEJ1211, Section 4.7

Shock
IEC 68-2-27 (Ea)

Bump
IEC 68-2-29 (Eb)

Salt Spray
MIL-STD-810G, 509.5

Waterproof
IEC 60529 IPX7

Compliance
FCC, CE

RoHS EU Directive 2011/65/EU

For the most recent details of this product:

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

PHYSICAL AND ELECTRICAL

Dimensions  185 mm diameter × 69 mm
Weight  500 g

Power
Input Voltage +4.5 to +18.0 VDC
Current  35 mA (typical)
Connector TNC female
N-Type (optional)

1. Not including tape measure tab. Full diameter with tape measure tab is 195 mm.
2. N-Type connector is available on the GPS-702-GG only.
3. L2 specifications apply to the GPS-702-GG only.