
Antennas GNSS-750



REVOLUTIONARY GNSS WIDEBAND ANTENNA ENHANCES ACCURACY AND PERFORMANCE



SUPPORTS GPS, GLONASS, GALILEO AND BEIDOU

The multi-constellation GNSS-750 antenna from NovAtel delivers next generation choke ring technology, ensuring functionality with existing and planned satellite constellations. The robust, low profile construction makes it ideal for reference stations, geological monitoring and other applications requiring a high performance antenna.

SUPERIOR PERFORMANCE AND ACCURACY

The innovative design of this 3D antenna improves low elevation tracking.

PROVEN ROBUST TECHNOLOGY

Utilizing an ultra-wideband Dorne-Margolin antenna element, the GNSS-750 optimizes antenna gain, enabling use with most manufacturers' geodetic receivers. The sturdy aluminum alloy construction ensures it can withstand the most difficult environmental conditions.

BENEFITS

- + High precision measurements
- + More signal observations ensure higher performance
- + Eliminates need to upgrade as future GNSS signals become available
- + Withstands harsh environments

FEATURES

- + Stable phase center
- + Ultra-wideband Dorne-Margolin element
- + Aluminum alloy construction
- + Tracks signals when visible, down to the horizon and below

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

GNSS-750

PERFORMANCE

Signals Tracked

GPS	L1, L2, L2C, L5
GLONASS	L1, L2, L3
Galileo	E1, E5a, E5b, E6, AltBOC
BeiDou	B1, B2, B3
L-Band	

3 dB Pass Band

L1	1568.5 ± 55 MHz (typical)
L2	1232 ± 80 MHz (typical)

Out-of-Band Rejection

L1 ($f_c=1568.5$ MHz)	
$f_c \pm 100$ MHz	30 dBc (typical)
$f_c \pm 150$ MHz	50 dBc (typical)
L2 ($f_c=1232.5$ MHz)	
$f_c + 150$ MHz	30 dBc (typical)
$f_c - 150$ MHz	50 dBc (typical)
$f_c \pm 100$ MHz	30 dBc (typical)

Other Bands

$f < 900$ MHz	80 dBc (typical)
$f > 150$ MHz	80 dBc (typical)

LNA Gain 41 ± 3 dB (typical)

Gain at Zenith (90°)

L1/E1/B1	+5.0 dBic (minimum)
L2/L5/E5	+5.0 dBic (minimum)
B2/B3/E6	+5.0 dBic (minimum)

Noise Figure 2.0 dB (typical)

VSWR 1.5 : 1

Phase Center Offset < 2 mm¹

Altitude IEC-68-2-13
(-400 to +10,400 m)

PHYSICAL AND ELECTRICAL

Dimensions 380 mm dia x 200 mm

Weight 7.6 kg

Power

Input voltage +3.3 to +12.0 VDC

Power consumption 100 mA (typical)

Nominal Impedance 50 Ω

Connector

N-type with TNC adapter supplied

ENVIRONMENTAL

Temperature

Operating -55° C to +85° C

Storage -55° C to +90° C

Humidity ISO-9022-13-06

100% non-condensing

Solar Radiation IEC-68-2-5

Resistance to Corrosion

IEC-60950-22

Water Ingress IEC-60529 IPX6 and IPX7

Dust Ingress IEC-60529 IP6X

Salt Fog IEC-68-2-11

Sinusoidal Vibration (operating)

ISO 9022-3 Method 36

Shock MIL-STD-810F, 516.5

Compliance FCC, CE

For the most recent details of this product:

www.novatel.com/products/gnss-antennas/fixed-reference-gnss-antennas/gnss-750/

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Version 5 Specifications subject to change without notice.

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Antenna calibration data is published on the NGS website:

www.ngs.noaa.gov/ANTCAL/

and Geo++ website:

<http://gnpcvdb.geopp.de/pcvdb/GNPCVDB.html>

