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# Antennas GNSS-750

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## REVOLUTIONARY GNSS WIDEBAND ANTENNA ENHANCES ACCURACY AND PERFORMANCE

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### 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.

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### BENEFITS

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

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### FEATURES

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

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If you require more information about our antennas, visit [www.novatel.com/antennas](http://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 mm<sup>1</sup>

**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/](http://www.novatel.com/products/gnss-antennas/fixed-reference-gnss-antennas/gnss-750/)

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Antenna calibration data is published on the NGS website:

[www.ngs.noaa.gov/ANTCAL/](http://www.ngs.noaa.gov/ANTCAL/)

and Geo++ website:

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

