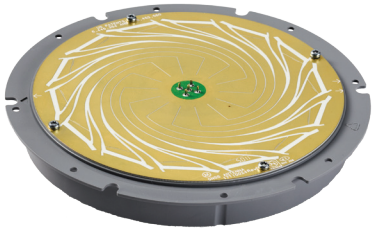
Pinwheel OEM



Antenna Module for OEM Integrators

Benefits

Receives GPS + GLONASS L1/L2 and L-band signals

Antenna module assembly can be integrated into smart antenna and alternative custom enclosure assemblies

Features

Proven NovAtel Pinwheel technology

Small form factor facilitates easier integration

Excellent multipath rejection

Stable phase center

RoHS compliant

Designed for Integration

The Pinwheel OEM antenna module provides NovAtel's Pinwheel™ antenna technology in an easy-to-integrate assembly targeted for use in machine control and precision agriculture applications. The Pinwheel OEM provides optimum flexibility to create high performance antenna and smart antenna products using your own industrial designs.

Multi-Constellation for Enhanced Positioning

The Pinwheel OEM receives GPS L1/L2 and GLONASS L1/L2 signals. The antenna module also receives L-band signals for SBAS correction services.

Small Form Factor

The small form factor antenna module measures only 143 mm x 30 mm. It accepts an input voltage of 5.0 VDC and consumes less than 35 mW.

The Pinwheel OEM comes with a 22 dB LNA and is designed for use in custom smart antenna products and for integrating into alternative enclosures, such as roof top domes.

Proven Pinwheel Technology

NovAtel's patented Pinwheel antenna technology provides choke ring type performance in a small, lightweight, integratable package.

If you require more information about our antennas, visit novatel.com/products/gnss-antennas

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China 0086-21-54452990-8011
Europe 44-1993-848-736
SE Asia and Australia 61-400-883-601

Pinwheel OEM

Performance

3 dB Pass Band

L1	1588.5±23.0 MHz (typical)
L2	1236±18.3 MHz (typical)
L-band	1545±20.0 MHz (typical)

Out-of-Band Rejection

L1	±100 MHz 30 dBc (typical)
L2	±200 MHz 50 dBc (typical)

LNA Gain 22 dB (typical)

Gain at Zenith (90°)

L1	+3.0 dBic (minimum)
L2	+2.0 dBic (minimum)

Gain Roll-Off (from Zenith to Horizon)

L1	13 dB
L2	11 dB

Phase Center Stability <3 mm

Noise Figure 2.0 dB (typical)

VSWR ≤2.5 : 1

L1-L2 Differential Propagation Delay 5 ns (maximum)

Nominal Impedance 50 Ω

Physical and Electrical

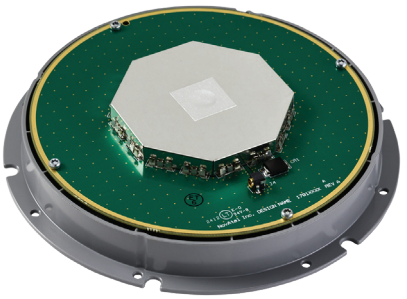
Dimensions 143 mm diameter x 30 mm

Weight <120 g

Power

Input Voltage	+5.0 ±5% VDC
Power Consumption	35 mA (typical)

Connector MMCX right angle female



Bottom view

Environmental

Temperature

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

Humidity 95% non-condensing

Vibration (operating)[1]

Random	MIL-STD-202F
Sinusoidal	SAEJ1211, Section 4.7

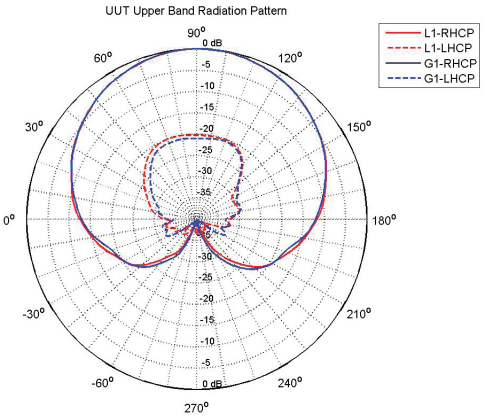
Shock[1] IEC 68-2-27 (Ea)

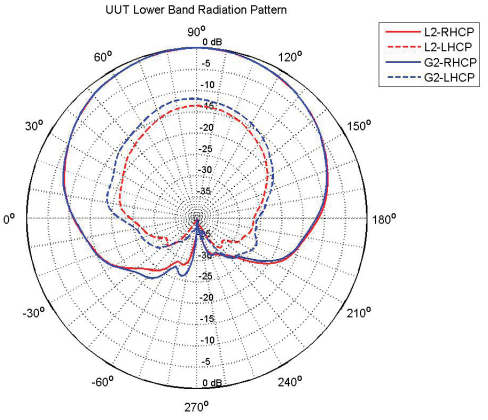
Bump[1] IEC 68-2-29 (Eb)

Compliance FCC, CE
RoHS EU Directive 2002/95/EC

Elevation Gain Patterns

These plots represent the typical right-hand polarized (RHP) and left-hand polarized (LHP) normalized radiation patterns for the L1 and L2 frequency bands, respectively.





Revision 0B - Specifications subject to change without notice.

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Pinwheel OEM September 2012

For the most recent details of this product:
www.novatel.com

[1] Environmental testing validated in a NovAtel antenna enclosure.

RoHS COMPLIANT

PRELIMINARY
ALL SPECIFICATIONS SUBJECT TO CHANGE