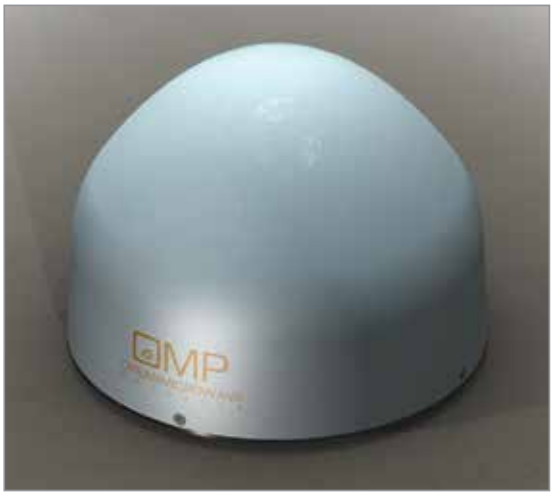
PRODUCT SERIES DATA SHEET

GNSS Rover Antenna

OMP designs and builds a wide range of RF & Microwave Subsystems and Antennas.

This product series data sheet is one in a number of publications where we present general specifications of product series that we have developed.

These documents are intended to give an overview of the type of work we do and they will help in determining your requirements for a specific application.



Application

This antenna is one in our series of GNSS antennas. It is typically used in rover applications where superior performance is required in a small footprint.

This antenna uses a similar radiating element to the one used in our geodetic GNSS antenna: it provides excellent phase center stability and high multipath suppression at a fraction of the weight of a choke ring antenna.

Configurations

This antenna is ready to support all current and future GNSS frequency allocations. The standard version includes coverage of the SBAS frequency ranges.

The standard LNA covers all current GNSS frequencies and has a gain of 30 dB. Versions with 10 or 20 dB of gain are available. The LNA is optimized for low noise figure and high intercept point. A set of low loss filters assures a reliable reception even with strong out-of-band interferers present.

KEY FEATURES

- Covers GPS, Galileo, GLONASS and Compass frequency ranges
- Includes L-Band SBAS augmentation frequency coverage
- Low noise, high IP LNA
- Excellent phase center stability
- High multipath rejection ratio
- Excellent axial ratio

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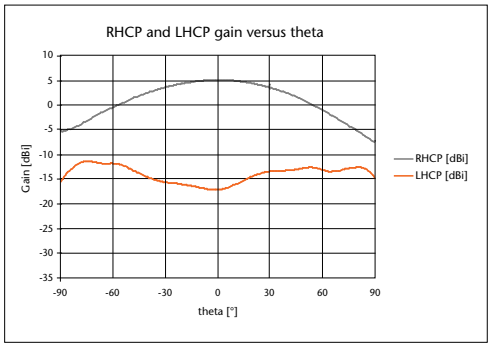
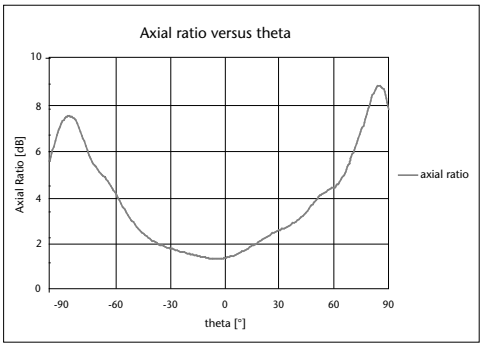
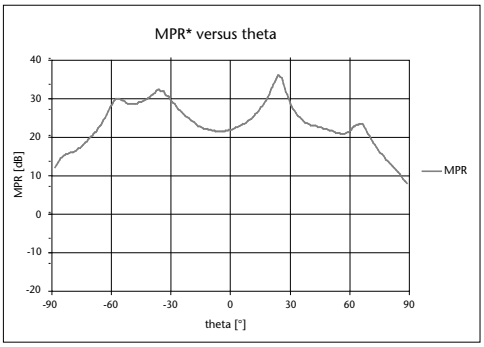
Options

This antenna can be supplied to cover specific bands and LNA's with custom gain figures can be integrated.

Radiation Pattern, AR and MPR at L1

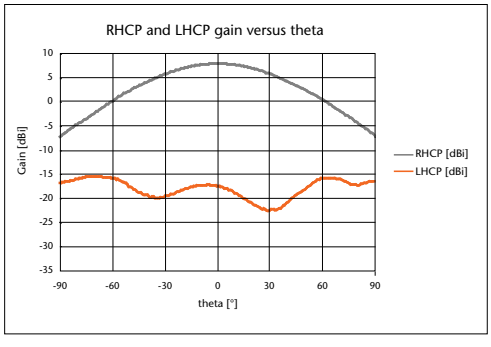


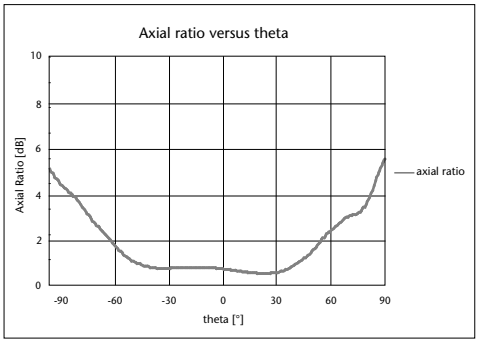


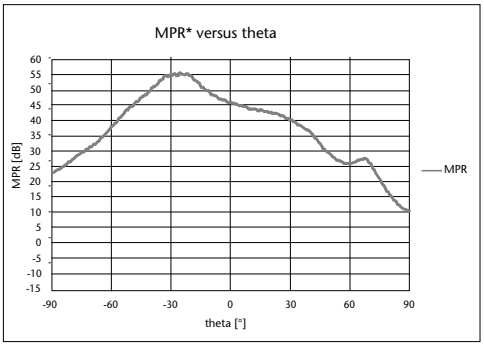


* MPR is calculated as $MPR = \frac{E_{RHCP}(q)}{E_{LHCP}(180° - q)}$.

Radiation Pattern, AR and MPR at L5







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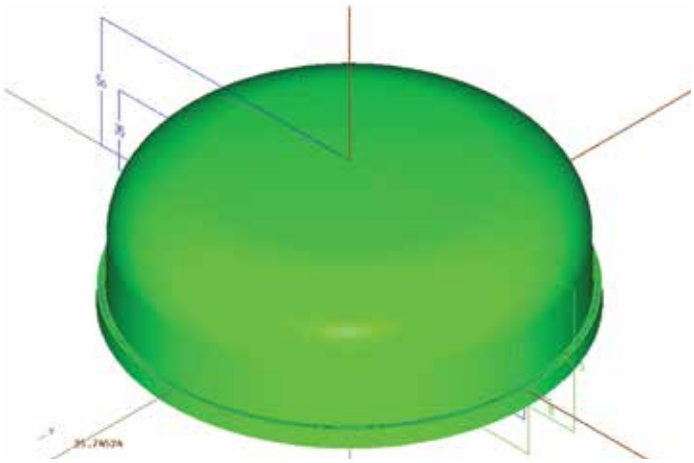
Specifications

Parameter	Value
Electrical Specificiations	
Frequency coverage	GPS L1, L2, L5 Galileo L1, E5,E6 GLONASS SBAS
LNA gain	30 dB
Connector type	TNC Female
Operating temperature range	-40°C to +70°C -40°F to +158°F
Power supply	3.7 to 20 V @ 50 mA Supplied via coax cable
Mechanical Specificiations	
Dimensions	19 cm diameter by 7 cm height 7” diameter by 3” height
Weight	0.5 kg – 1.1 lb
Mounting	5/8” by 11 threaded inset

Optional Custom Modifications:
Custom frequency ranges
LNA with 10 or 20 dB of gain
Custom radome
Custom marking

If you have different requirements for a similar design or a completely new set of requirements, please contact us at the numbers listed below or via mail or refer to the sales page on our website for a representative in your area.



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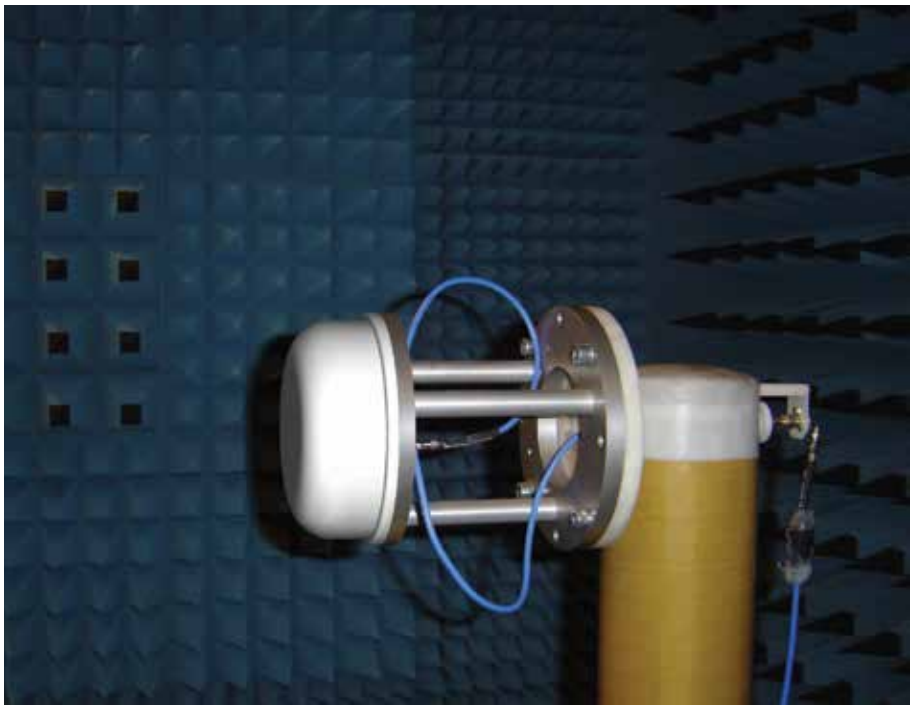
OMP was established in 1996 and specializes in the design, manufacture and support of a wide range of RF & Microwave and Antenna Subsystems.

Our products are integrated in a wide range of applications serving various markets.

Our typical customer is unable to locate a standard product to fit his requirements or may not have an in house design and build capability.

We are an economic, complete and quick answer to this need.

Since we are not a catalog manufacturer who depends on high volume production, your custom requirement is our only priority. We have been exclusively making specials for years, we have produced numerous variations and we draw on that experience to reduce design cost and lead times.



- OMP designs and builds to customer's specifications
- We support products through their entire product lifecycle
- An extensive library of designs is used to create custom products
- OMP uses state-of-the-art circuit and 3D electromagnetic simulations tools
- OMP uses rapid prototyping for fast turnaround
- We will work with our customers on the integration of products designed
- We work with selected partners for agency approval.

Our Contact Info

Orban Microwave, Inc.
1834 N Alafaya Trail, Suite B
Orlando, FL 32826
321-200-0080

Orban Microwave Products N.V.
Remylane 4c, Box 6
3018 Leuven, Belgium
+32-16-294953

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