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GPSANTv2: High-Performance Antenna Engineered for Time, Frequency, and Phase Synchronization

The GPSANTv2 antenna is Meinberg's next-generation GPS & Galileo antenna for superior reception and performance. An evolution of our distinctive and dependable GPSANT technology, the GPSANTv2 is also optimized for use with Meinberg

Key Features

- Integrated downconverter facilitates low-loss transmission of GPS or Galileo signal over distances of up to 700 m
- Superior multipath rejection for mitigation of signal reflections, especially in built-up environments, enabling very high signal-to-noise ratio (approx. 50 dB)
- Improved radiation pattern reduces interference from incidental and deliberate ground transmissions from certain directions

Description

Meinberg's GPSANTv2 is an evolution of the longstanding and widely trusted GPSANT technology, specially designed for a variety of timing & synchronization applications. Capable of receiving the GPS L1 and Galileo E1 bands on 1575.42 MHz, the antenna internally converts the received GPS L1 C/A or Galileo E1 B/C signal to a frequency of 35 MHz, which is then forwarded to the Meinberg receiver of your choice over up to 300 m of low-cost RG58 coaxial cable or even up to 700 m of low-loss cable (e.g., RG213)

Characteristics

Compatible Receivers	Compatible with all GPS or GPS-UC Type Meinberg reference clocks (Please [1] contact Meinberg for information on compatibility with GPS receivers based on designs pre-2000)
Frequency Range	1575.42 MHz (GPS L1 / Galileo E1 band)
Supported Services	GPS L1 C/A Galileo E1 B/C
Antenna Connector	Type-N connector
Bandwidth	9 MHz (3 dB loss at bandwidth limits)
Cable Type	RG58 C/U (max. length 300 m / 984 ft) RG213 (max. length 700 m / 2296 ft)
Operating Voltage	15 V (nominal, from receiver), +/- 3 V
Current Draw	Nominal: 100 mA @ 15 V Maximum: 115 mA
Form Factor	ABS plastic case for outdoor installation
Surge Immunity	Level 4 (as per IEC 61000-4-5) Test Voltage: 4000 V Max. Peak Current @ 2
ESD Immunity	Level 4 (as per IEC 61000-4-2) Contact Discharge: 8 kV Air Discharge: 15 kV
Antenna Gain	5.0 dBiC at zenith (typical)
Conversion Delay	Typically 170 ns +/- 5 ns
Conversion Gain	59 dB +/- 3 dB
Noise Figure	1.8 db (typical), 3 dB (maximum) @ +25 °C
Reception Polarization	Right-handed circular polarization
Pre-Selection	1575.42 MHz +/- 20 MHz (-20 dB)
Axial Ratio	Max. 3 dB at zenith
Mixing Frequency	10 MHz (from receiver)
Intermediate Frequency (IF)	35.4 MHz
Out-of-Band Rejection	Min. 70 dB @ 1555 MHz Min. 55 dB @ 1595 MHz

Voltage Standing Wave Ratio (VSWR)	Max. 1.5 : 1
Physical Dimensions	[2] Click here for dimensioned drawing
Product Weight	1,4 kg inkl. Montage-Kit
Supported Temperature	-60 °C to 80 °C (-76 °F to 176 °F)
Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

The English manual is available as a PDF file: [3][Download \(PDF\)](#)

Links:

[1] <https://www.meinbergglobal.com/english/contact/>

[2] <https://www.meinbergglobal.com/english/products/>

[3] <https://www.meinbergglobal.com/download/docs/manuals/english/gpsantv2.pdf>