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ANN

Active GPS Antenna

Data Sheet



Abstract

The ANN active GPS antenna with integrated low-noise amplifier (LNA) is the perfect match to the u-blox GPS receivers.

Data Sheet

your position is our focus

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1 Functional Description

1.1 Overview

ANN offers the performance to exploit the full capabilities of all u-blox GPS receivers. ANN can be operated at a supply voltage of 3 - 5V. ANN is available with SMA, SMB and MCX connectors.

1.2 Benefits

- Easy to use
- Compact size
- High performance
- Fast and easy integration
- No antenna know-how necessary

1.3 Features

- Built-in low noise amplifier with 27 dB gain and 1.5 dB noise figure
- 5 m coaxial cable
- Magnetic base suitable for mounting on car roof
- Industrial temperature range: -40 ... +85°C
- Wide range of supply voltage: 3 ... 5 V

2 Mechanical Specification

2.1 Dimensions

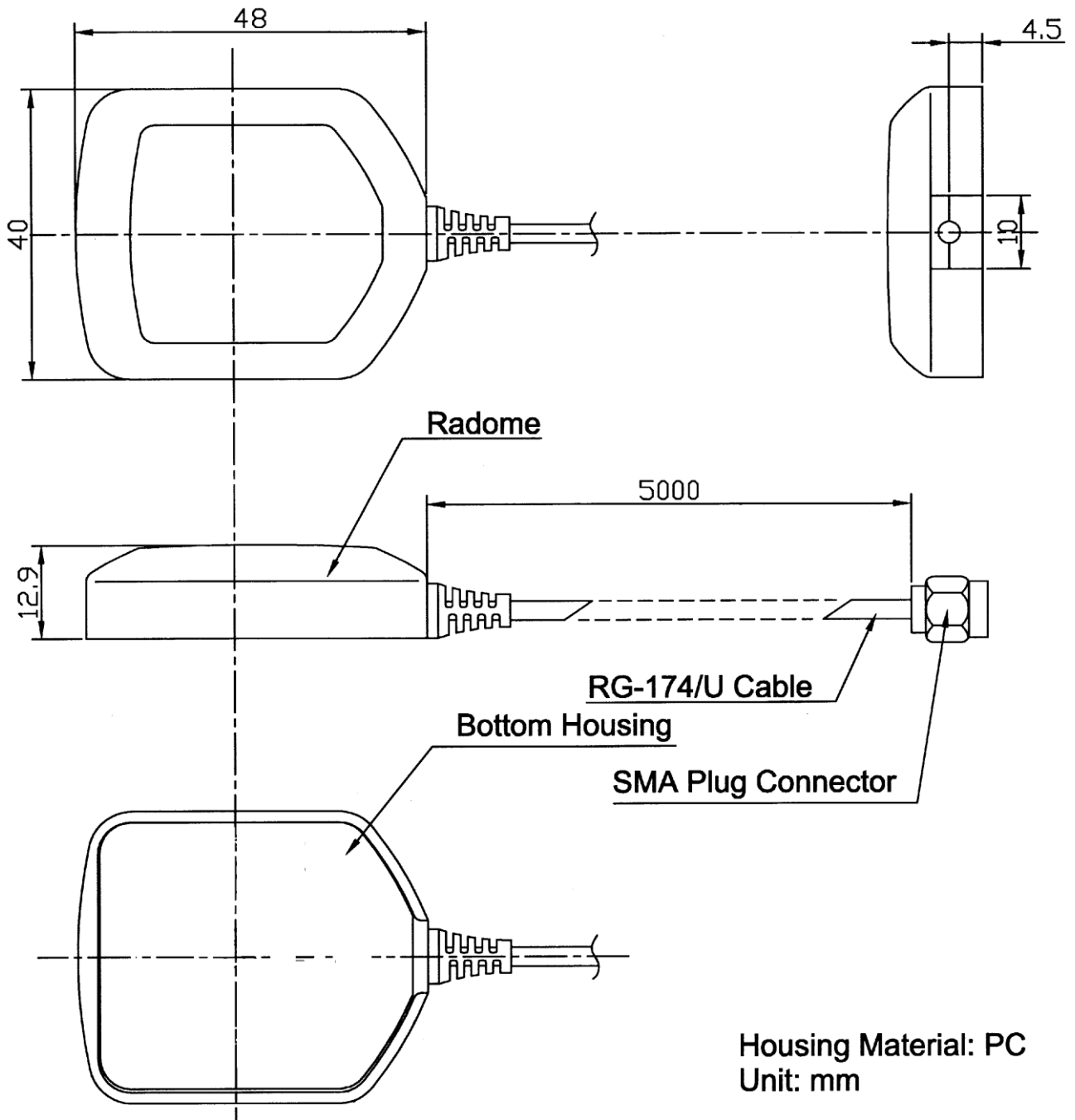


Figure 1: Mechanical Outline

2.2 Mechanical Data

Parameter	Specification
Weight	≤ 105 grams
Size	48 x 40 x13 mm
Cable	5m RG174 standard
Connector	SMA, SMB, MCX
Mounting	Magnetic base
Housing Color	Black

Table 1: Mechanical Specification

2.3 Connectors

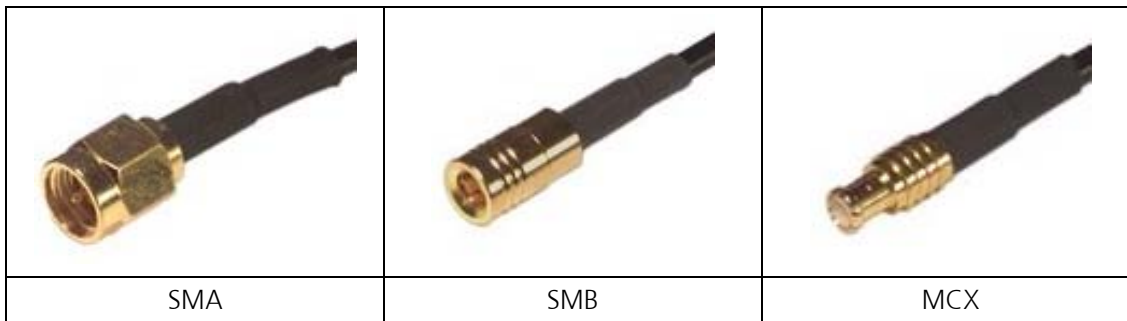


Figure 2: Connectors

3 Electrical Specification

Parameter	Specification
Frequency	1575 ± 3 MHz
VSWR	max. 2
Bandwidth	min. 10 MHz
Impedance	50 Ω
Peak Gain	4 dBic min. (on 7cm x 7cm ground plane)
Gain Coverage	≥ -4dBic at -90° ≤ θ ≤ 90°(over 75% volume)
Power Handling	1 watt
Polarization	RHCP
Amplifier Gain	typ. 27 dB (without cable)
Noise Figure	typ. 1.5 dB
Output VSWR	max. 2.0
Filtering	-35dB (±100 MHz)
DC Voltage	3 to 5 V DC
DC Current	max. 22 mA

Table 2: Electrical Specification

4 Environmental Specification

Parameter	Specification
Operating Temperature	-40 °C ... +85 °C
Storage Temperature	-40 °C ... +85 °C
Vibration	Sine Sweep, 1G(0-P), 10-150-10Hz each axis
Humidity	95%~100% RH

Table 3: Environmental Specification

5 Product Lineup

Ordering No.	Product
ANN-MS-0-005-0	ANN Active Antenna, 5m cable, SMA connector Single units
ANN-MS-1-005-0	ANN Active Antenna, 5m cable, SMB connector Single units
ANN-MS-2-005-0	ANN Active Antenna, 5m cable, MCX connector Single units

Table 4: Ordering Information

Related Documents

All these documents are available on our homepage (<http://www.u-blox.com>).

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