

ANN-MS

High performance active GPS antenna

Highlights

- High performance active GPS antenna
- Low noise figure and high gain coverage
- Fast and easy integration
- No antenna know-how necessary
- Magnetic base suitable for mounting on car roof
- Industrial temperature range: -40°C to $+85^{\circ}\text{C}$
- Wide range of supply voltage: 2.7 to 6 V

Product description

The high performance ANN-MS active GPS antenna with integrated low-noise amplifier (LNA) is the perfect match to u-blox GPS receivers where high sensitivity and optimum sky coverage are essential. ANN-MS offers the high performance to exploit the full capabilities of all u-blox GPS receivers, and can be operated at a supply voltage of 2.7 to 6 V.



ANN-MS:
48 x 40 x 13 mm, 5 m coaxial cable

Patch antenna characteristics

Frequency	1575 $\pm$ 3 MHz
VSWR	Max. 2
Bandwidth	Min. 10 MHz
Impedance	50 Ω
Peak gain	Min. 4 dBic (over 7 x 7 cm ground plane)
Gain coverage	≥ -4 dBic, at $-90^{\circ}\text{C} \leq \theta \leq +90^{\circ}\text{C}$ (over 75% volume)
Polarization	RHCP (Right-handed circular polarization)

Amplifier characteristics

Gain without cable	Typ. 27 dB
Noise figure	Max. 1.8 dB
Output VSWR	Max. 2.0
DC Voltage	2.7V – 6V
DC Current	typ 8.5 mA, $\pm$ 4.5 mA

Ordering information

ANN-MS-0-005-0	ANN active GPS antennas with 5m cable and SMA connector
ANN-MS-1-005-0	ANN Active GPS Antenna 5m cable, SMB connector
ANN-MS-2-005-0	ANN Active GPS Antenna 5m cable, MCX connector
ANN-MS-3-005-0	ANN Active GPS Antenna 5m cable, FAKRA connector

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Mechanical data

Weight	42 g (without cable)
Size	48 x 40 x 13 mm
Cable	5 m RG174 standard
Connectors (choice)	SMA, SMB, MCX, FAKRA
Mounting	Magnetic base
Housing color	Black

Environmental data

Operating temperature	-40°C to 85°C
Storage temperature	-50°C to 85°C
Humidity	95% ~ 100% RH
Vibration	Sine sweep 1G (0-Peak), 10–150–10 Hz each axis

CE approval

Applicable Standards	ETSI EN 301 489-19
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