



# Product summary

# ANN-MB series

## L1/L2 multi-band, high precision GNSS antennas

### Highlights

- Multi-band (L1, L2/E5b/B2I) active GNSS antennas with excellent price-performance ratio
- Supports GPS, GLONASS, Galileo, and BeiDou
- Fast and easy antenna solution for high precision applications
- Versatile mounting and connector options



60.0 x 82.0 x 22.5 mm

### Product description

The u-blox ANN-MB multi-band (L1, L2/E5b/B2I) active GNSS antennas are designed to reduce time-to-market for the next generation of high precision GNSS applications, which require highly accurate location abilities. The compact design, excellent price-performance ratio, and versatile mounting and connector choices provide customers with fast, easy, and reliable multi-band antenna solutions. The ANN-MB antenna is a perfect match to the latest u-blox F9 platform including the ZED-F9P module, thus providing customers with the valuable antenna solution they need to minimize design-in efforts.

### Patch antenna characteristics

	L1 Band	L2/E5b/B2I Band
Frequency	1559 - 1606 MHz	1197 - 1249 MHz
VSWR	Max. 2.0	Max. 2.0
Impedance	50 Ω	50 Ω
Peak gain (on Ø15 cm ground plane)	Typ. 3.5 dBic	Typ. 0 - 2.0 dBic
Polarization	RHCP	RHCP

### Amplifier characteristics

	L1 Band	L2/E5b/B2I Band
Frequency	1559 - 1606 MHz	1197 - 1249 MHz
Gain without cable (at 5 V)	28 ± 3.0 dB	28 ± 3.0 dB
Noise figure (at 5 V)	Max. 2.8 dB	Max. 3.2 dB
Output VSWR	Max. 2.0	Max. 2.0
DC voltage	3.0 - 5.0 V	
DC current (at 5 V)	Typ. 15.0 mA	

### Mechanical data

Weight	173 g (typ. including cable)
Size	60.0 x 82.0 x 22.5 mm
Cable	5 m RG174 standard
Connectors (choice)	SMA, SMB, MCX
Mounting	Magnetic base, fixed installation option
Housing color	Black

### Certifications and approvals

CE approval	Based on Radio Equipment Directive (RED) 2014/53/EU and the Restriction of the use of certain Hazardous Substances Directive (RoHS) 2011/65/EU and 2015/863/EU
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### Environmental data

Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Water proof	IP 67

### Product variants

ANN-MB-00	Multi-band active GNSS antenna with 5 m cable and SMA connector
ANN-MB-01	Multi-band active GNSS antenna with 5 m cable and SMB connector
ANN-MB-02	Multi-band active GNSS antenna with 5 m cable and MCX connector

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For more product details and ordering information, see the product data sheet.