



# Product Summary

# ANN-MB series

## Multi-band, high precision GNSS antennas

### Highlights

- Multi-band (L1, L2/E5b) 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



ANN-MB  
60.0 x 55.0 x 22.5 mm

### Product description

The u-blox ANN-MB multi-band (L1, L2/E5b) 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 Band
Frequency	1559 - 1606 MHz	1197 - 1249 MHz
VSWR	Max. 2.0	Max. 2.0
Bandwidth (@ -10dB)	Min. 200 MHz	Min. 200 MHz
Impedance	50 $\Omega$	50 $\Omega$
Peak gain (on $\varnothing$ 15 cm ground plane)	Typ. 3.5 dBic	Typ. 0 - 2.0 dBic
Polarization	RHCP	RHCP

### Amplifier characteristics

	L1 Band	L2/E5b Band
Frequency	1559 - 1606 MHz	1197 - 1249 MHz
Gain without cable (@ 5 V)	28 $\pm$ 3.0 dB	28 $\pm$ 3.0 dB
Noise figure (@ 5 V)	Max. 2.7 dB	Max. 3.8 dB
Output VSWR	Max. 2.0	Max. 2.0
DC voltage	3.0 - 5.0 V	3.0 - 5.0 V
DC current (@ 5 V)	Typ. 16.0 mA	Typ. 16.0 mA

### Mechanical data

Weight	167 g (Typ. including cable)
Size	60.0 x 55.0 x 22.5 mm
Cable	5 m RG174 standard
Connectors (choice)	SMA, SMB, MCX
Mounting	Magnetic base, fixed installation option <sup>1</sup>
Housing color	Black

1 = Fixed mounting option planned for Q4 2018

### 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

\* = Planned for Q4 2018, contact local u-blox sales for more information.

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