



# Omnidirectional Antennas



## > Applications

- Frequencies from 1.3-15 GHz (in bands)
- Gains from 2dBi to 11dBi
- Small Profiles suitable for UAVs
- Fixed and Rotary Wing Aircraft (up to 6dBi)
- 9dBi and 11dBi Models for fixed Receive or Transmit Sites

## > Benefits

- True Coaxial Collinear Elements
- Linear Polarity
- Cylindrical Profile
- Excellent Transmission and Reception Characteristics
- Requires No Ground Plane

## > Overview

The BMS Model BMA-x-O Series Omni-directional Antennas offer several variants. Some are suitable for airborne use and some more suited to fixed transmit or receive locations.

The antennas are of collinear design, which means that no ground plane is required to operate to specification. The antenna may be mounted on any nonmetallic surface. The antenna is protected with a cylindrical radome which is transparent to the RF field generated by the antenna elements.

Airborne versions are capable of withstanding airspeeds up to 300 mph (<15" long), or 170 mph (up to 20" long).

Available gains from 2dBi to 11dBi.

RF Characteristics	
Frequency Range	(See Chart)
Antenna Gain	(See Chart)
Polarization	Linear Vertical (CP available on some models, consult factory)
Elevation Beamwidth	(See Chart)
Azimuth Beamwidth	360°
VSWR	≤ 1.7:1
Input Power	60W Maximum
Connector	(See Chart)

Environmental Characteristics	
Operating Temp.	-48°C to +70°C
Storage Temp.	-54°C to +71°C
Vibration	20g rms, 20 - 2,000 Hz
Shock	20g, 11 ms pulse, Any Axis Half-Sine
Maximum Altitude	30,000 ft. AMSL
Mounting	(See Drawing)

Physical Characteristics	
Dimensions:	(See Chart)
Weight	</=7.5" <3 ounces (<85 gram) </=12" <12 ounces (<341gram) </=21" <16 ounces (454 gram)
Construction	Fiberglass reinforced high density foam
Color	White (Fed Std 27925) Others Available

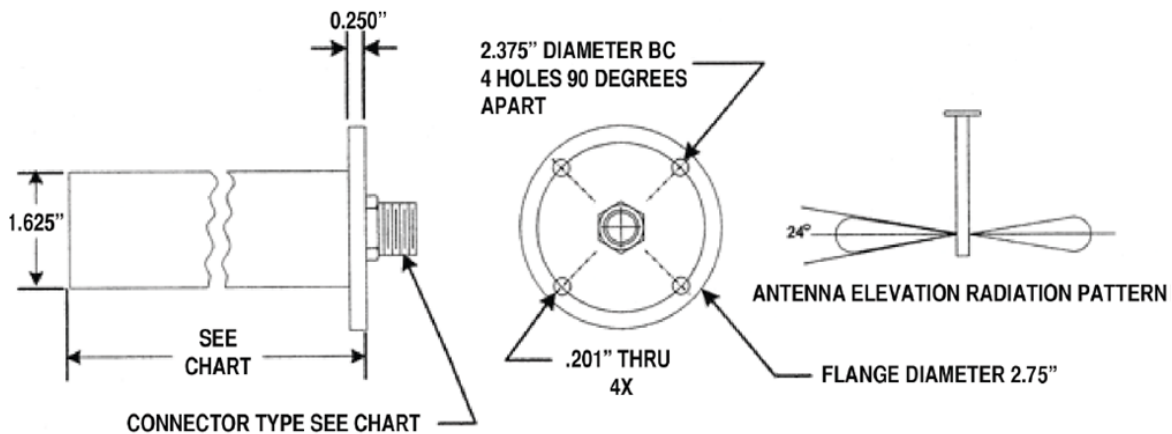
Notes: (consult factory for details)

\*Circular Polarity Available on Some Models

\*Length of Radome Dependent Upon Frequency and End Use

\*Smaller size/weight variants available for 2 and 6dBi models

Model	BMA-2-O	BMA-6-O	BMA-9-O	BMA-11-O
Frequency Available (in bands, refer to % band width below)	1.3-15 GHz	1.3-15 GHz	1.7-2.7 GHz	2.0-2.5 GHz 2.3-2.7 GHz
VSWR	1.5:1 Max.	1.5:1 Max.	1.5:1 Max.	1.5:1 Max.
Polarization	Linear	Linear	Linear	Linear
Gain	2 dBi	6 dBi	9 dBi	11 dBi
Power	60W	60W	60W	60W
Bandwidth	20%	12%	6%	20%
AZ Beamwidth	360°	360°	360°	360°
EL Beamwidth	46°	22°	12°	8°
Length	4.5" Min. (11.43 cm)	12" Min (30.48 cm)	24" Min. (60.96 cm)	50" (127 cm)
Radome Diameter	0.84" / 1.6" Min. (2.13 cm / 4.06 cm)	1.6" Min. (4.06 cm)	1.6" Min. (4.06 cm)	3.75" (9.53 cm)
Maximum Airspeed	<15" length, 300 mph (480Km/h) Max. >15" length, 170 mph (272Km/h) Max.		For fixed operation. Not suitable for aircraft	
Connector	Specify N(f) or SMA(f). (Others consult factory)			



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