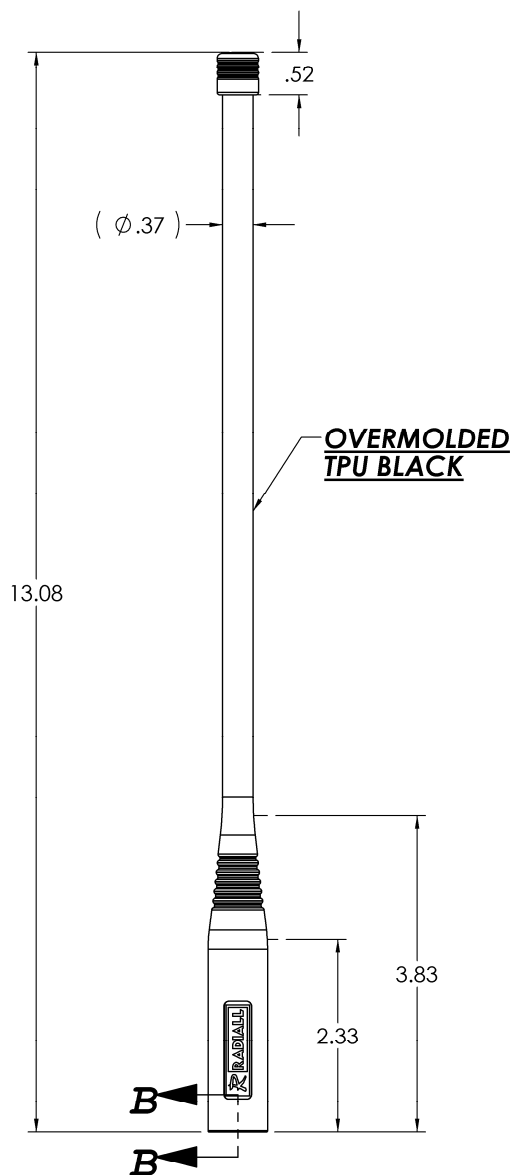


VHF ANTENNA, FLEXIBLE WHIP

136 MHz – 174 MHz

MD10-003

Series : Antenna



UNITS: INCH	
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All dimensions are inches

Issue : 1041

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



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**MD10-003**

**136 MHz – 174 MHz**

Series : **Antenna**

**ELECTRICAL CHARACTERISTICS**

Frequency : .....	<b>136 - 174 MHz</b>
Nominal Impedance: .....	<b>50 Ω</b>
VSWR*: .....	<b>3.0:1 Max</b>
Peak Gain: .....	<b>&gt;-2 dBi</b>
Radiation Pattern	
Horizontal Plane (Θ=90°):	<b>Omni-directional</b>
Vertical Plane (Φ=0°/90 ):	<b>Dipolar</b>
Polarization : .....	<b>Linear Vertical</b>
Power withstanding : .....	<b>8 W (CW)</b>
Connector type : .....	<b>TNC Male</b>

**MECHANICAL CHARACTERISTICS**

Antenna Color : .....	<b>Black matte</b>
Antenna Material : .....	<b>Texin 245</b>
Antenna Texture : .....	<b>Flat</b>
Flexibility: .....	<b>180° - 500 cycles</b>
Matching Unit Length: .....	<b>2.70 Inches</b>
Weight (antenna): .....	<b>3 Oz</b>
Overall length : .....	<b>13.23 Inches</b>

\*: Measured when antenna is mounted on a handheld radio chassis held by hand

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**ENVIRONMENTAL CHARACTERISTICS**

*Product Compliant with the RoHS (Restriction of Hazardous Substances) and WEEE (Waste Electrical and Electronics Equipment) requirements*

Operating Temperature :.....	<b>-33 / +60 °C</b> <b>MIL-STD-810F, Methods 501.4 &amp; 502.4, Procedure II</b>
Storage Temperature :.....	<b>-51 / +71 °C</b> <b>MIL-STD-810F, Methods 501.4 &amp; 502.4, Procedure I</b>
Sand & Dust: .....	<b>Ambient +70 °C</b> <b>Concentration 2.2 &amp; 10.6 g/m<sup>3</sup></b> <b>Velocity 3450-5700 &amp; 300-1750 ft/min</b> <b>MIL-STD-810F, Methods 510.4, Procedure I &amp; Procedure II</b>
Salt Fog:.....	<b>5% Salt Concentration</b> <b>96 Hours</b> <b>MIL-STD-810F, Methods 509.4</b>
Humidity: .....	<b>95% Relative Humidity</b> <b>+30/+60 °C</b> <b>MIL-STD-810F, Methods 507.4</b>
Fungus: .....	<b>US Standard Set Of Test Fungi</b> <b>Duration 28 Days</b> <b>MIL-STD-810F, Method 508.5</b>
Shock (Transit Drop):.....	<b>Drop Height 19.7 Inches</b> <b>MIL-STD-810F, Method 516.5, Procedure IV, 26 Drops</b>
Vibration : (Loose Cargo Transportation) .....	<b>MIL STD 810F Stand alone &amp; attached to the radio at ambient temperature</b> <b>Method 514.5</b> <b>Procedure II</b> <b>Category 5</b>
Immersion :.....	<b>MIL-STD-810F 2 Meters,</b> <b>Method 512.4 Salt Water</b> <b>Complete Immersion 2 Hours</b> <b>Conditioning Temperature: 27 ° Celsius</b> <b>above water temperature</b>
Flexibility : .....	<b>180 degree bend, 500x, .5 Hz Max</b>

**OTHER CHARACTERISTICS**

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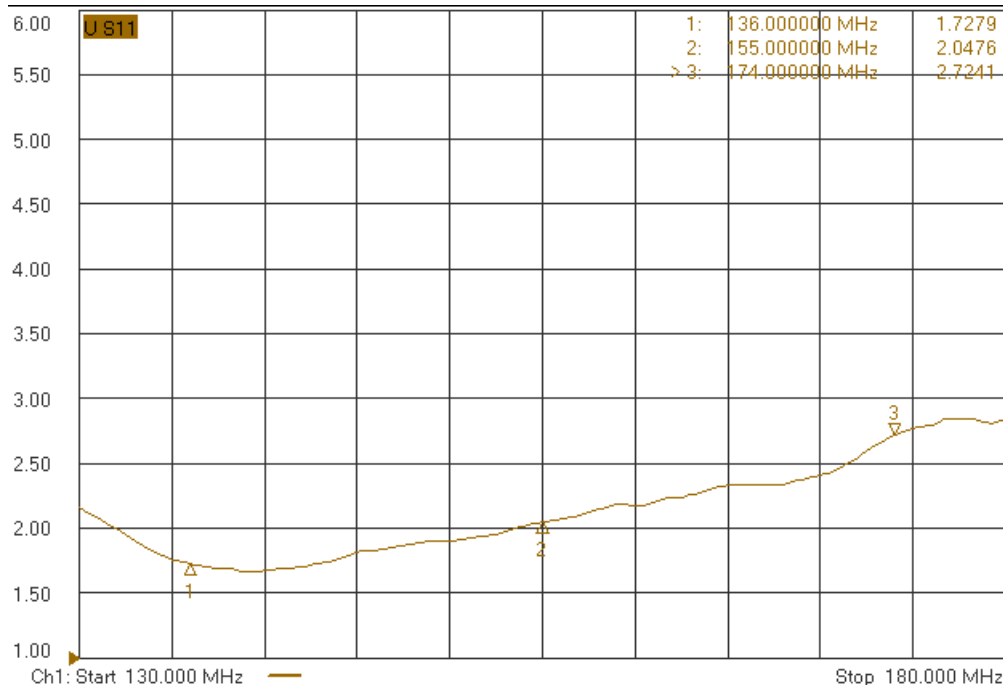
VHF ANTENNA, FLEXIBLE WHIP

**MD10-003**

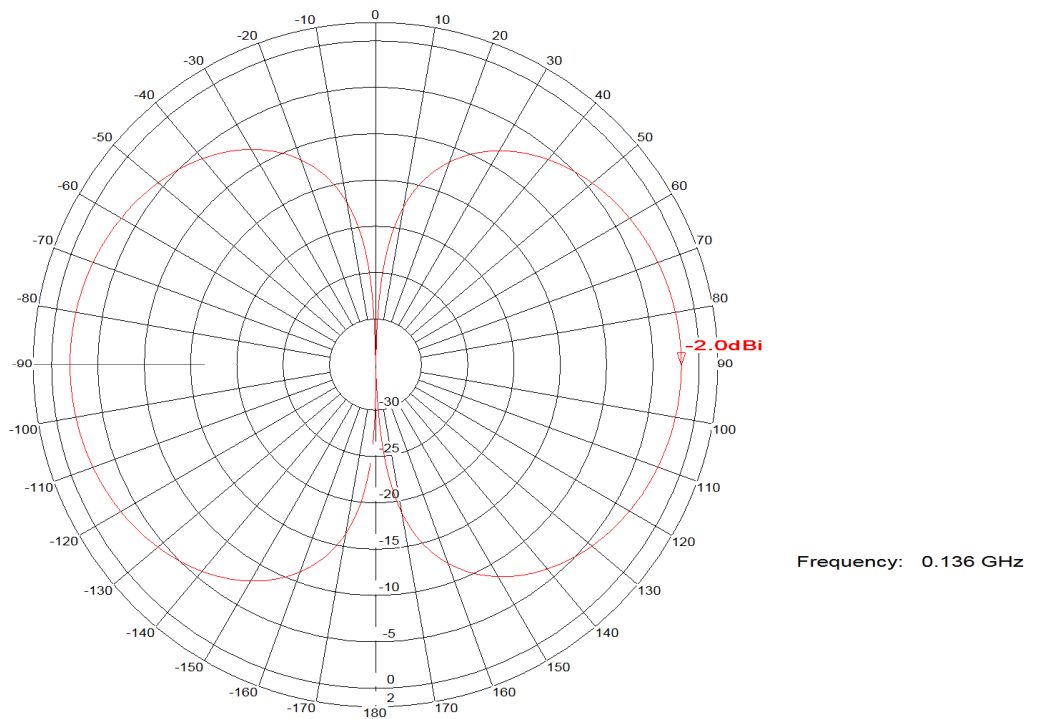
136 MHz – 174 MHz

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**CURVES**



**Figure 1: VSWR measured holding the radio chassis.**



**Figure 2: Elevation Gain Patterns @ 136 MHz**

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VHF ANTENNA, FLEXIBLE WHIP

**MD10-003**

136 MHz – 174 MHz

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Frequency: 0.155 GHz

**Figure 3: Elevation Gain Patterns @ 155 MHz**



Frequency: 0.174 GHz

**Figure 4: Azimuth & Elevation Gain Patterns @ 174 MHz**

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