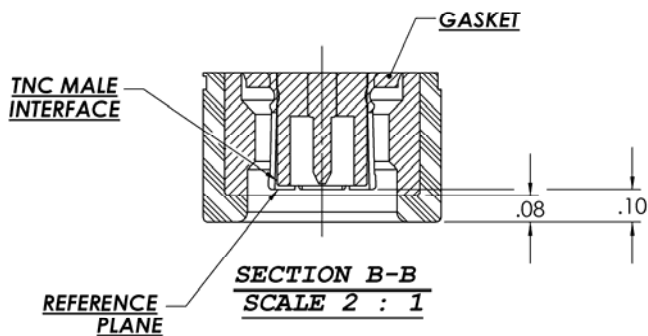
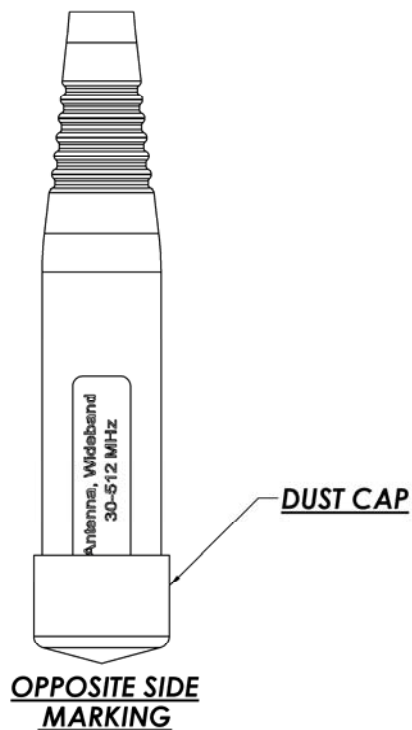
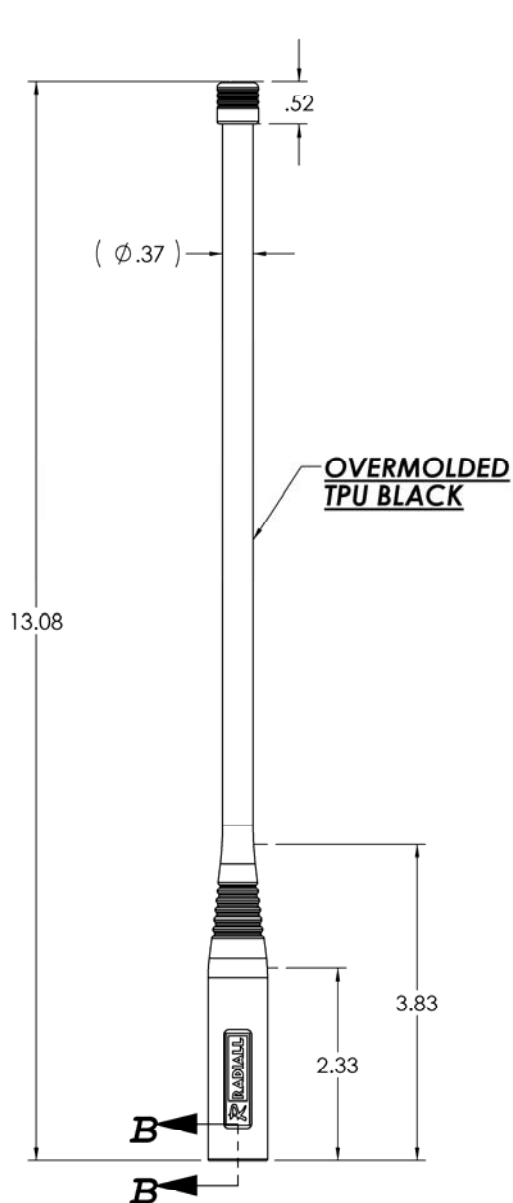


BROADBAND OVERMOLDED WHIP

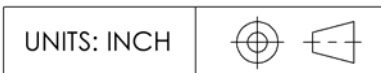
30 MHz –512 MHz

MD 10-004

Series : **Antenna**



All dimensions are inches



Issue : 1007

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



BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**Series : **Antenna****ELECTRICAL CHARACTERISTICS**

Frequency :	30 - 512 MHz
Nominal Impedance:	50 Ω
VSWR (unloaded):	3.5:1 Max
Typical Gain @ 90 deg at the horizon	>-30 dBi 30-90 MHz >-17 dBi 90-150 MHz >-10 dBi 150-200 MHz >-5 dBi 200-420 MHz >-7.5 dBi 420-512 MHz
Radiation Pattern	
Horizontal Plane ($\Theta=90^\circ$):	Omni-directional
Vertical Plane ($\Phi=0^\circ/90^\circ$):	Dipolar
Polarization :	Linear Vertical
Power withstanding :	10 W (CW)
Connector type :	TNC Male

MECHANICAL CHARACTERISTICS

Antenna Color :	Black matte
Antenna Material :	TPU Shore 45D
Antenna Texture :	Mold-Tech MT 11040
Overmolding flexibility:	+/- 180° - 500 cycles
Matching Unit Length:	2.99 Inches
Material :	Polyurethane Texin 245-1500
Weight (antenna):	3.9 Oz
Overall length :	13.0±0.25 Inches

Issue : 1007

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



BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**Series : **Antenna****ENVIRONMENTAL CHARACTERISTICS**

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

Operating Temperature :	-31 / +60 °C
	MIL -STD-810E, Methods 501.3 & 502.3, Procedure II
Storage Temperature :	-33 / +71 °C
	MIL-STD-810E, Methods 501.3 & 502.3, Procedure I
Humidity (Non-condensing):.....	95% Relative Humidity
	Through Operating Temp range MIL-STD-810E, Methods 507.3 & 502.3, Procedure III
Shock :	20g Peak Acceleration
	11ms Duration
	MIL-STD-810E, Method 516.4, Procedure I
Drop Test :	1 Meter
	Top & Sides onto Concrete Floor
Immersion :	20 Meters (sea water)
	2 Hrs
	Equivalent to 43.1 Psia
Vibration :	ANSI/TIA/EIA-603-1992, paragraph 5.3.4
	10-30Hz Frequency range1
	0.38mm Amplitude
	0.76mm Excursion
	30-60Hz Frequency range2
	0.19mm Amplitude
	0.38mm Excursion
	5 Minutes Duration
	3 Times each 3 Principal Axes Times
Altitude (Operational) :	30,000 Ft
	MIL-STD-810E, Method 500.3, Procedures I & II

Issue : 1007

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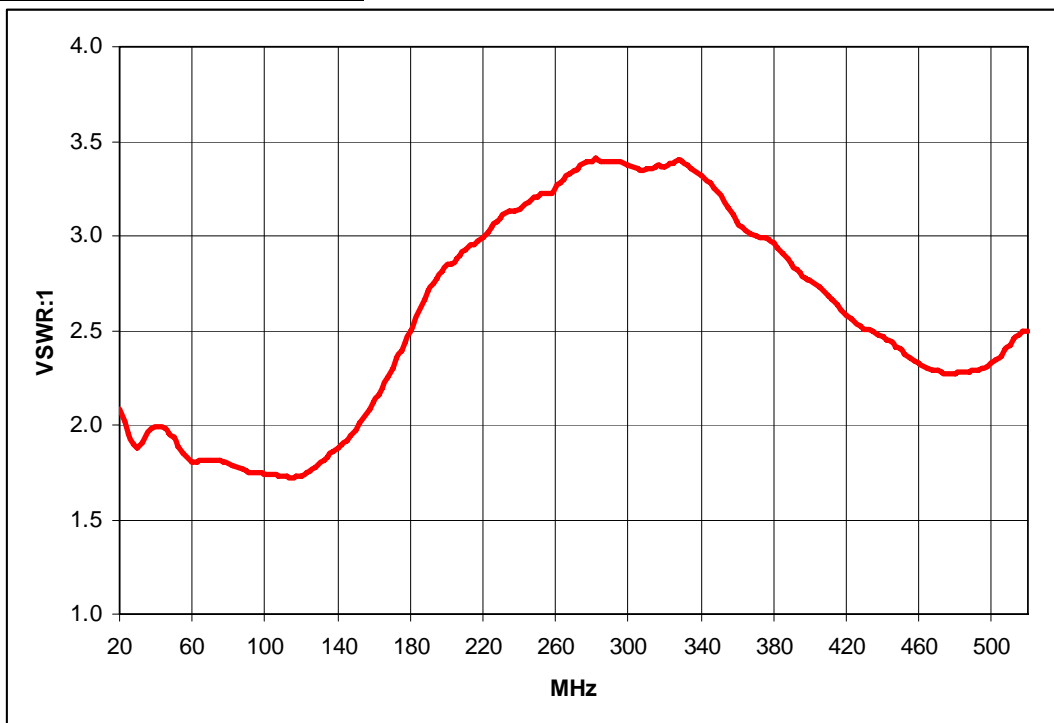
BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**Series : **Antenna****ELECTRICAL CURVES**

Figure 1: Typical VSWR plot of the antenna mounted on a simulated radio chassis.

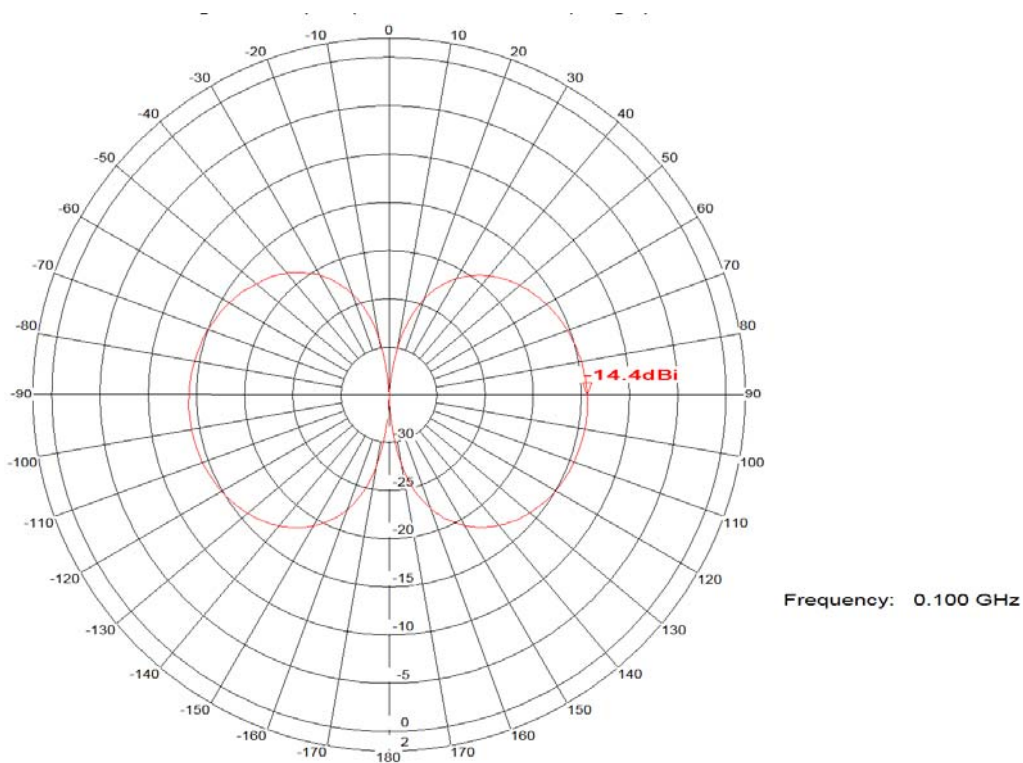
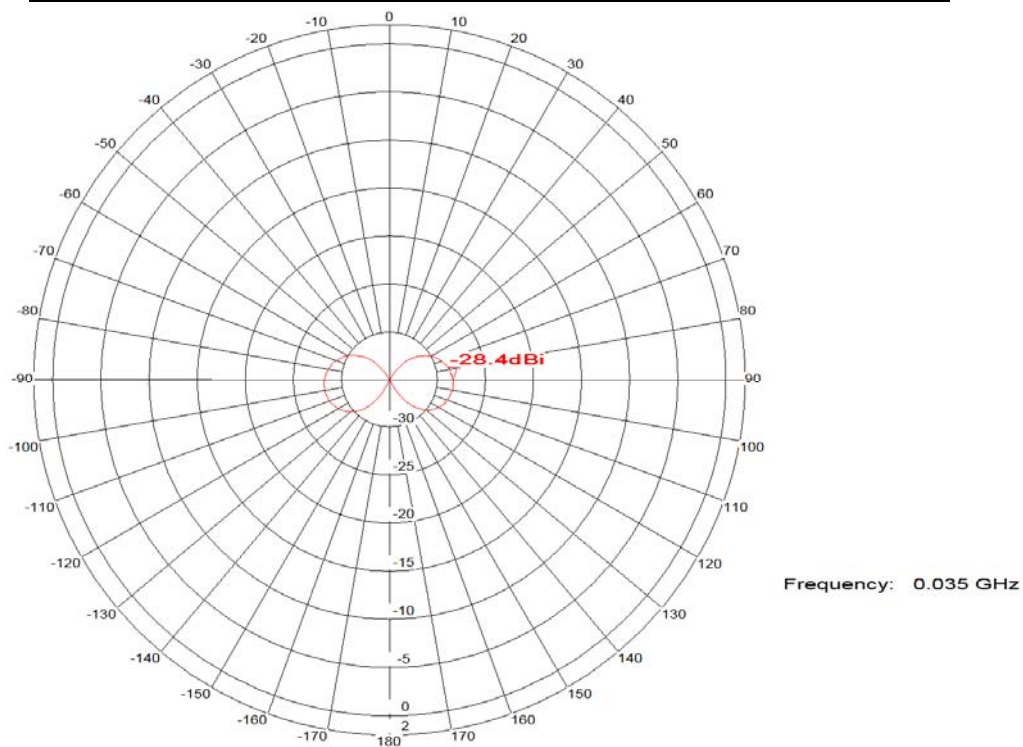
Issue : 1007

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

RADIAL 

BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**

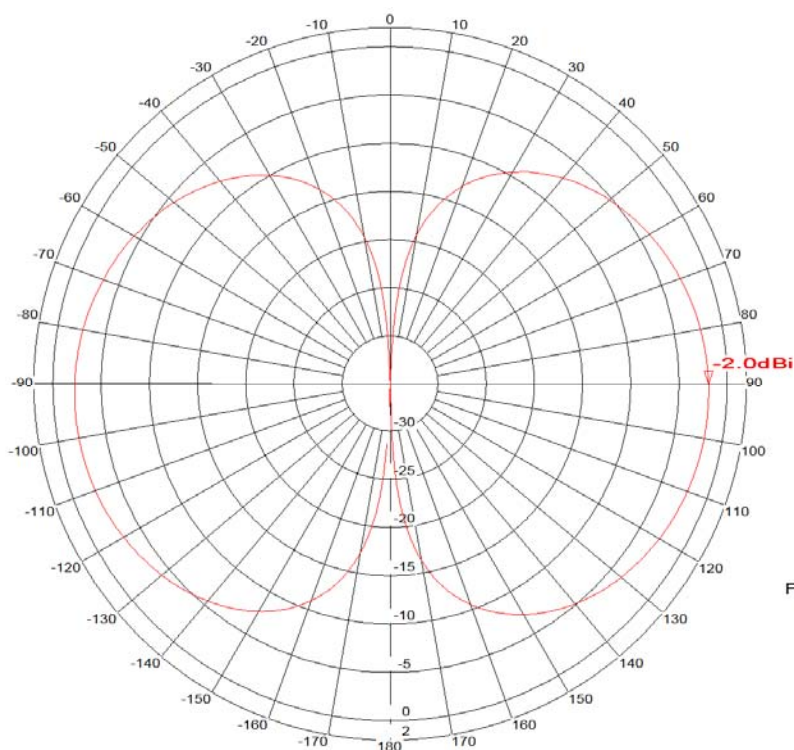
Series : Antenna

Figure 2: Typical Elevation Pattern Data for 35, 100, 200, 300, 400 and 500 MHz**Issue : 1007**

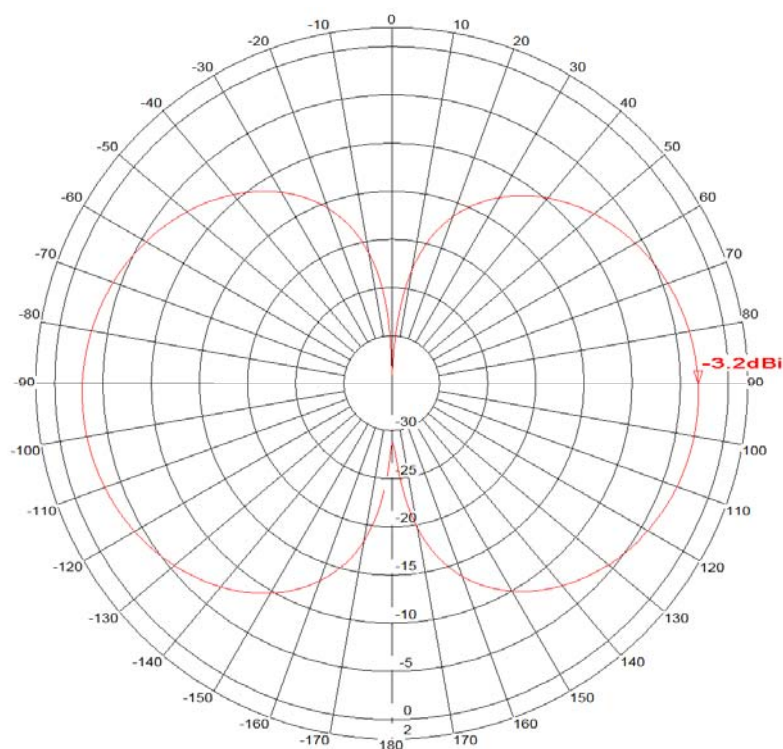
In the effort to improve our products, we reserve the right to make changes judged to be necessary.

BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**

Series : Antenna



Frequency: 0.200 GHz

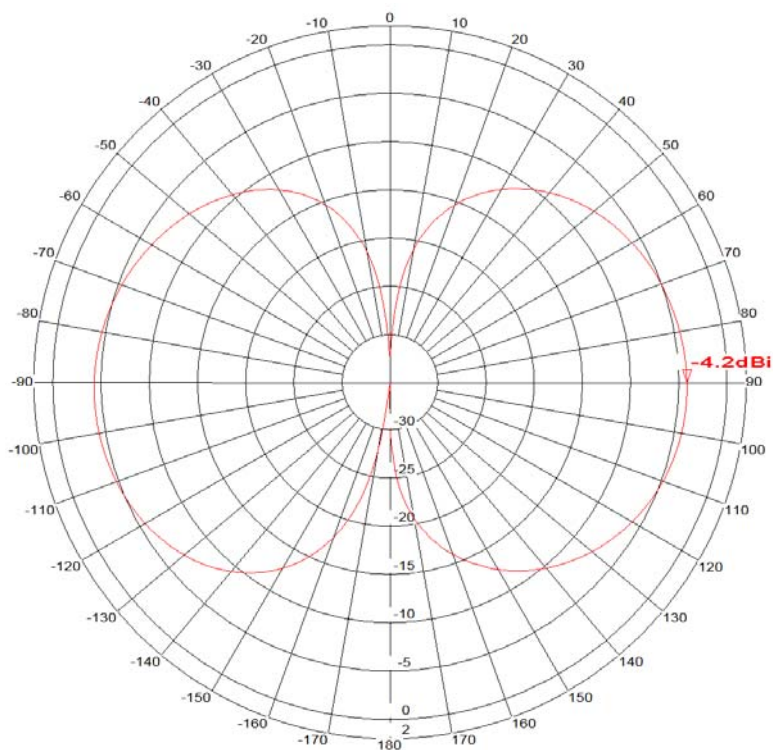


Frequency: 0.300 GHz

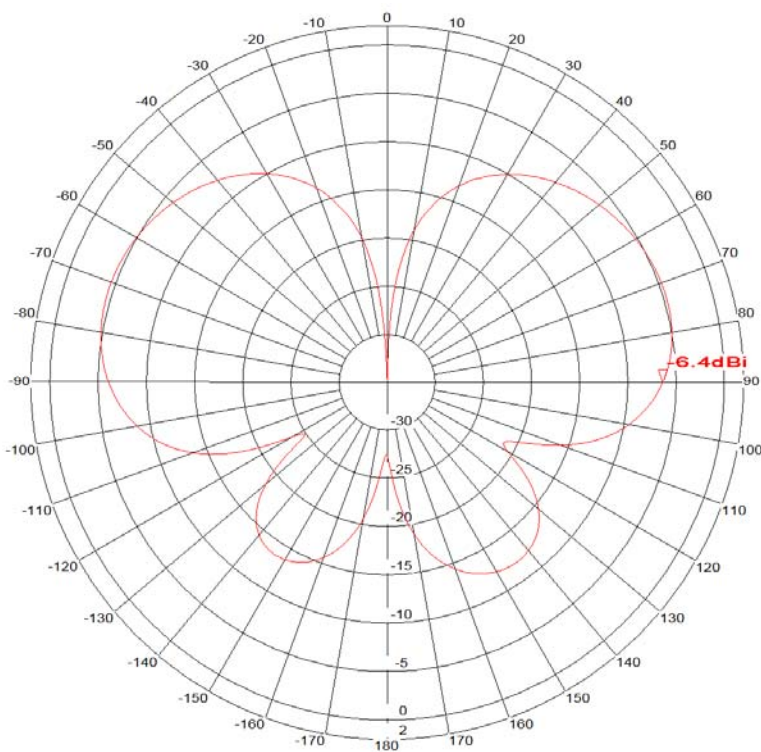
Issue : 1007

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

RADIAL 

BROADBAND OVERMOLDED WHIP**30 MHz –512 MHz****MD 10-004**Series : **Antenna**

Frequency: 0.400 GHz



Frequency: 0.510 GHz

Issue : 1007

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