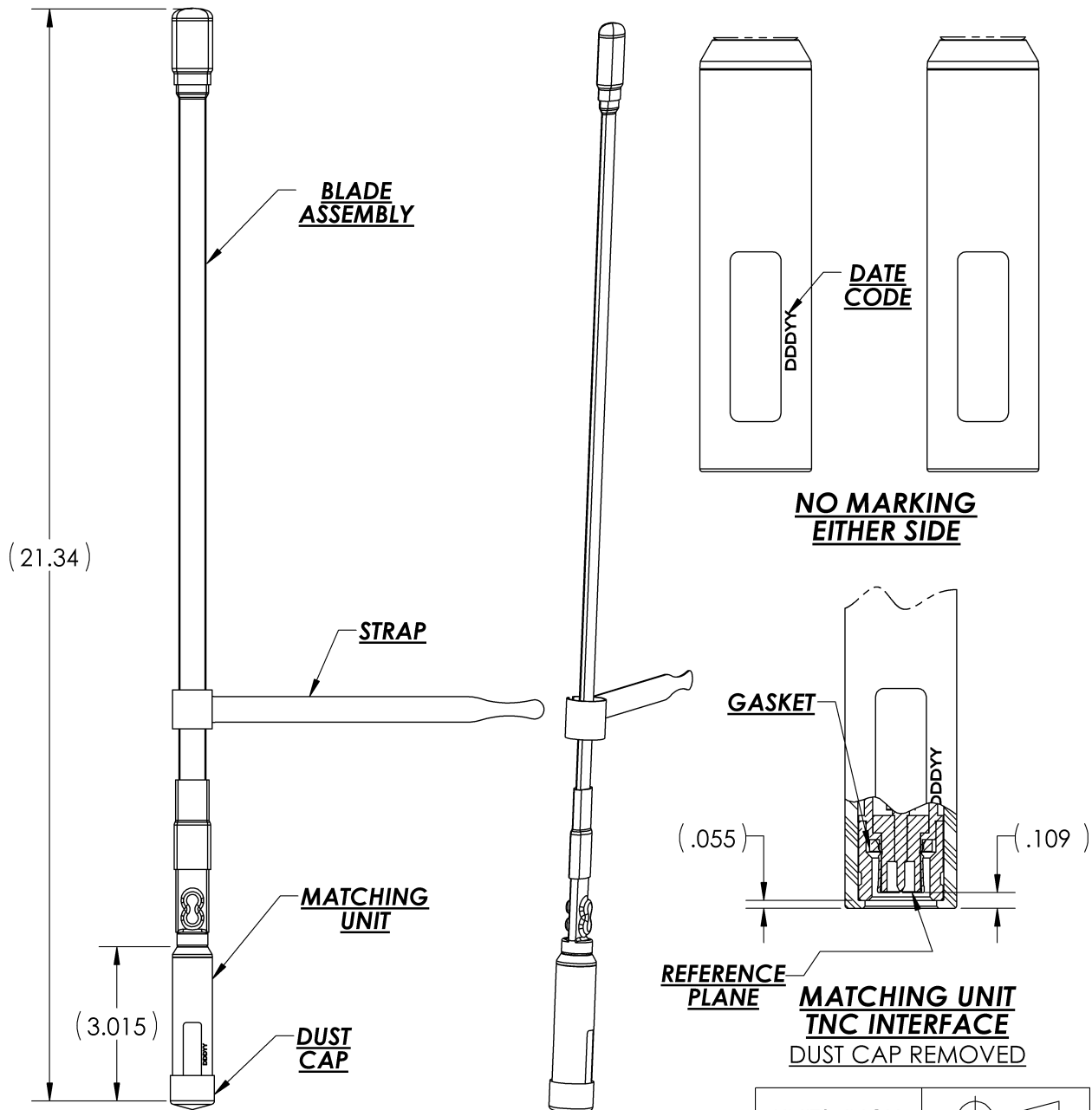


HIGH POWER BROADBAND, 21", BLADE ANTENNA

30 MHz –512 MHz

MD 11-052

Series : Antenna



All dimensions are inches

PRELIMINARY

Issue : 1423

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



HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052**Series : **Antenna****ELECTRICAL CHARACTERISTICS**

Frequency :	30 - 512 MHz
Nominal Impedance:	50 Ω
VSWR:	3.5:1 Max
Typical Gain @ 90 deg at the horizon	>-30 dBi 30-90 MHz >-10 dBi 90-150 MHz >-6 dBi 150-200 MHz >-6 dBi 200-420 MHz >-10dBi 420-512 MHz
Typical Peak gain	>-30 dBi 30-90 MHz >-10 dBi 90-150 MHz >-6 dBi 150-200 MHz >-3 dBi 200-420 MHz >-2.5dBi 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 :	20 W duty cycle (1 min on/ 1 min off)
Connector type :	TNC Male

MECHANICAL CHARACTERISTICS

Antenna Color :	Black matte
Matching Unit Material :	PET 35% GF (Dupont Rynite 935)
Matching Unit Texture :	Mold-Tech MT 11040
Matching Unit Length:	3.015 Inches
Blade Material	Stainless Steel
Blade Flex Test	500 Cycles 0-90° around $\varnothing 5''$
Weight (antenna):	3.9 Oz
Overall length :	21.37±0.25 Inches

Issue : 1423

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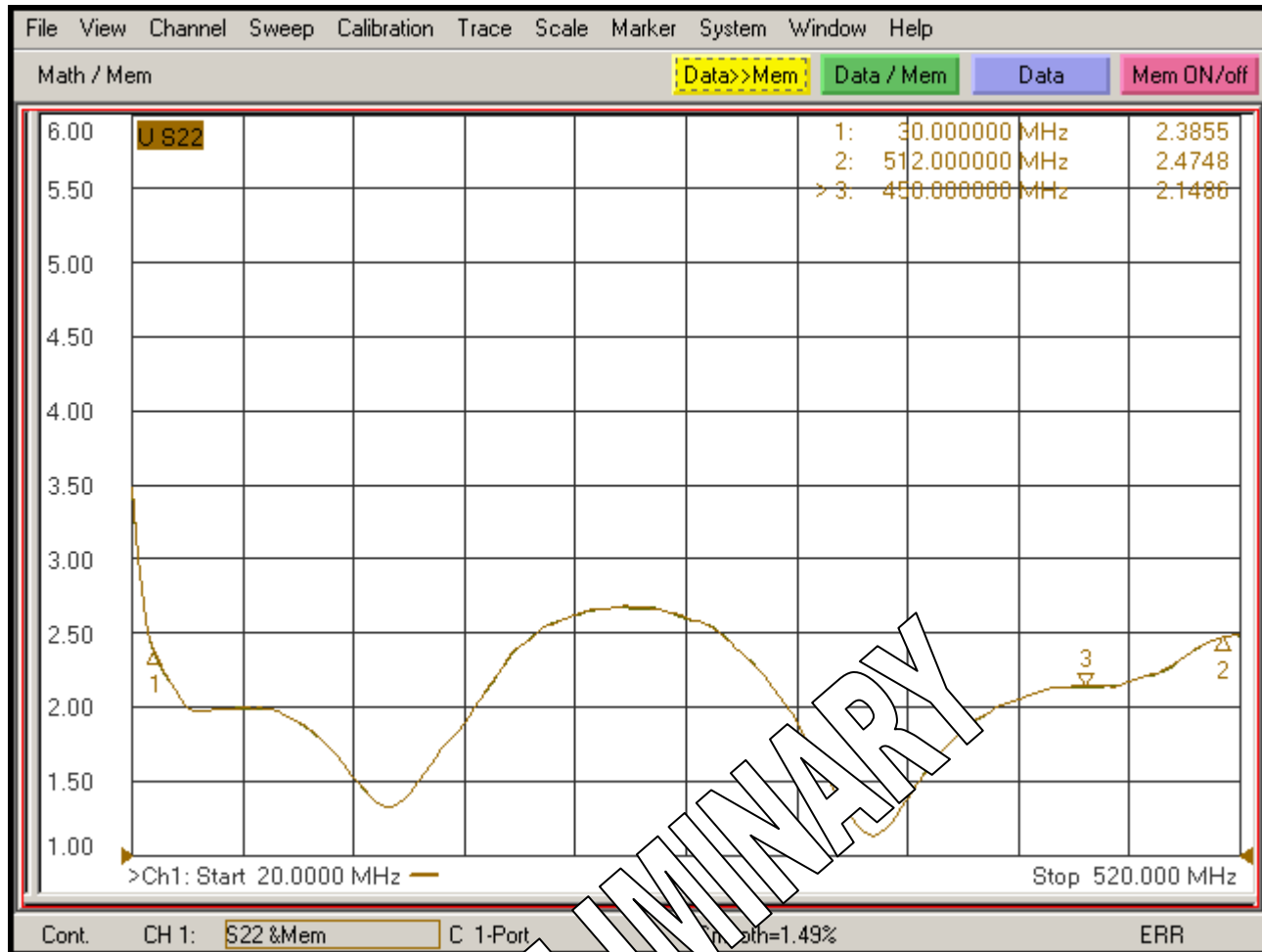
HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052****Series : Antenna****ENVIRONMENTAL CHARACTERISTICS**

Operating Temperature :	-40 / +70 °C MIL-STD-810F, Methods 501.4 & 502.4, Procedure II
Storage Temperature :	-40 / +85 °C MIL-STD-810F, Methods 501.4 & 502.4, Procedure I
Thermal Shock:	Range 1: +25 +65 -40 °C Range 2: +25 +65 +85 °C MIL-STD-810F, Methods 503.4, Procedure I Steady State
Humidity (Non-condensing) :	95% Relative Humidity Through Operating Temp range MIL-STD-810E, Methods 507.3 & 502.3, Procedure III
Salt Fog:	5% Salt Concentration 96 Hours MIL-STD-810F, Methods 509.4 Encapsulate Antenna in Ice
Icing / Freezing:	Ice Thickness 13 mm min MIL-STD-810F, Methods 510.4, Procedure I & Procedure II
Sand & Dust:	US Standard Set Of Test Fungi Duration 28 Days MIL-STD-810F, Methods 508.5 Test Category A1, Curve W
Fungus:	MIL-STD-810F, Methods 505.4, Procedure I
Solar Radiation:	2 Meters (sea water) 30 Minutes MIL-STD-810F, Methods 512.4, Procedure I, with a 27°C above ambient preconditioning temperature
Immersion :	30,000 Ft MIL-STD-810E, Method 500.3, Procedures I & II
Altitude (Operational) :	MIL-STD-810F, Method 514.5, Procedure II, Category 5, Attached to transceiver & Stand alone,
Vibration (loose cargo transport):	Drop Height 48 Inches MIL-STD-810F, Methods 516.5, Procedure IV, 26 Drops (Stand Alone)
Shock (Transit Drop):	

Issue : 1423

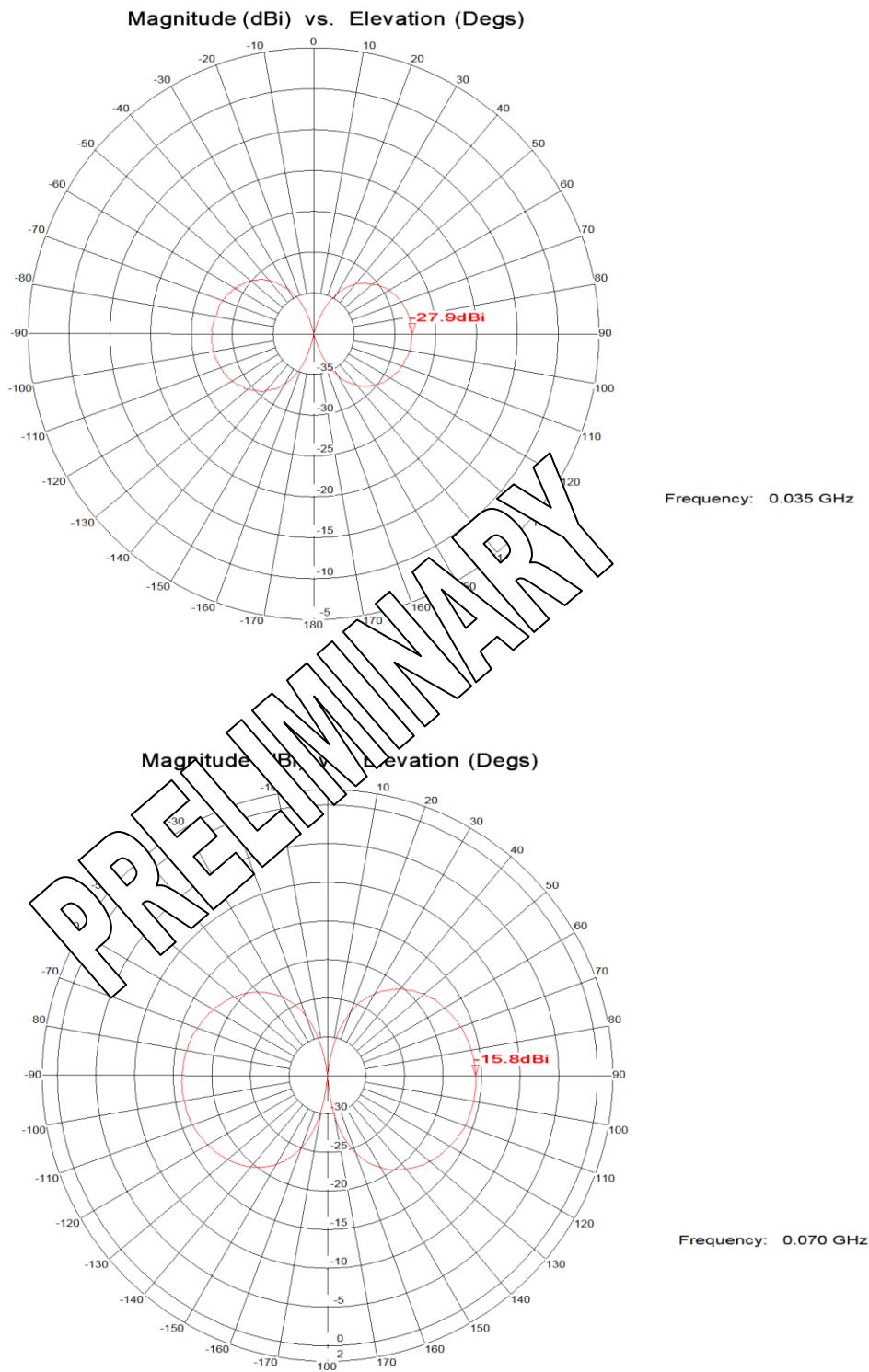
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HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052****Series : Antenna****ELECTRICAL CURVES****Issue : 1423**

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HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052****Series : Antenna****Figure 2: Typical Elevation Pattern Data for 35, 100, 200, 300, 400 and 500 MHz****Issue : 1423**

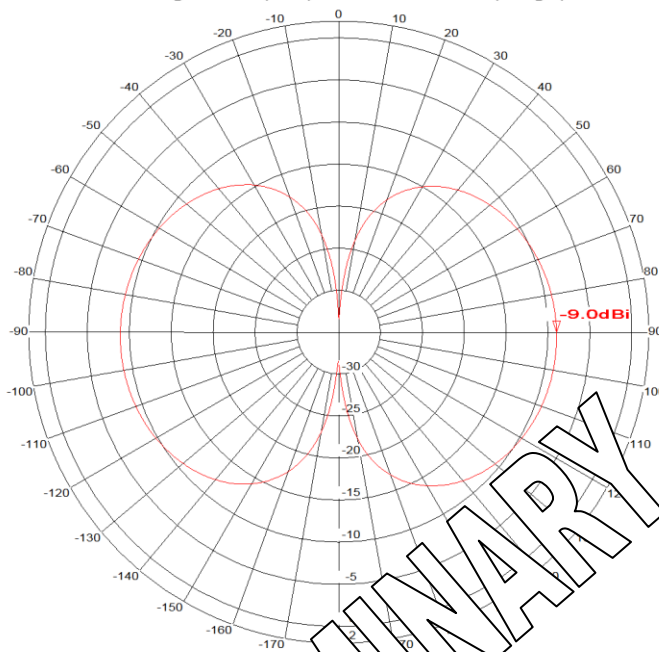
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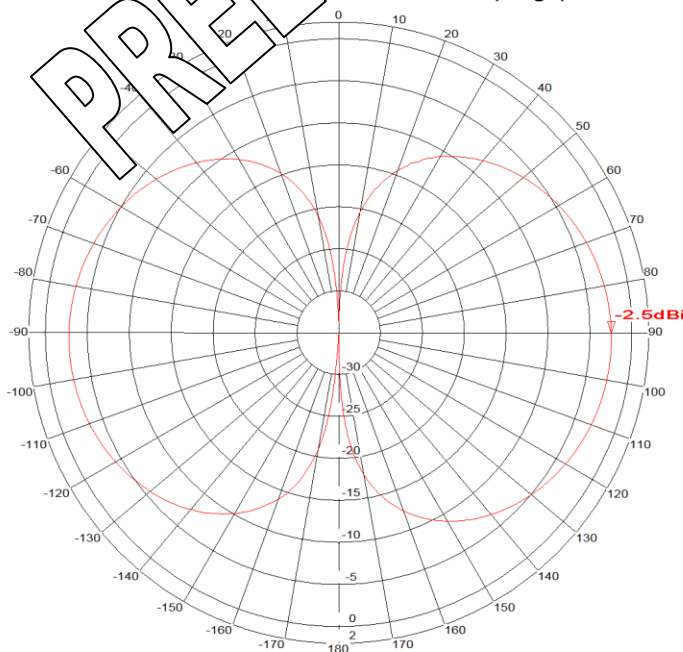
HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052**

Series : Antenna

Magnitude (dBi) vs. Elevation (Degs)

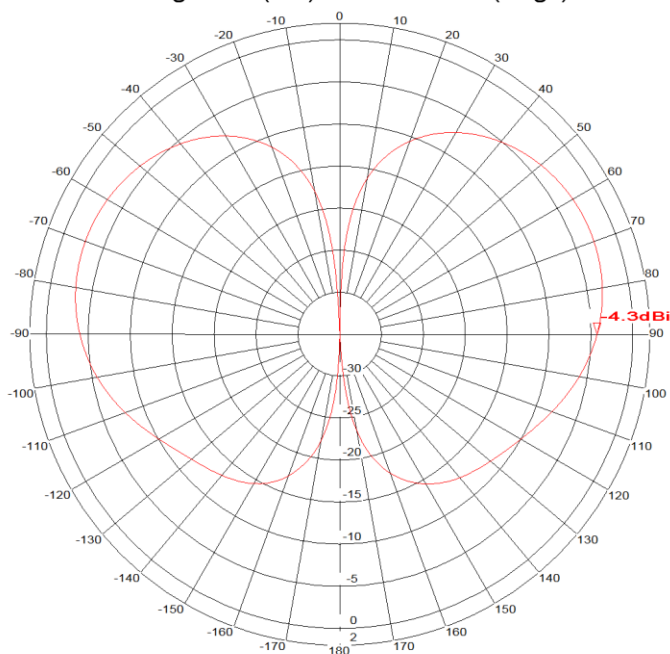


Magnitude (dBi) vs. Elevation (Degs)

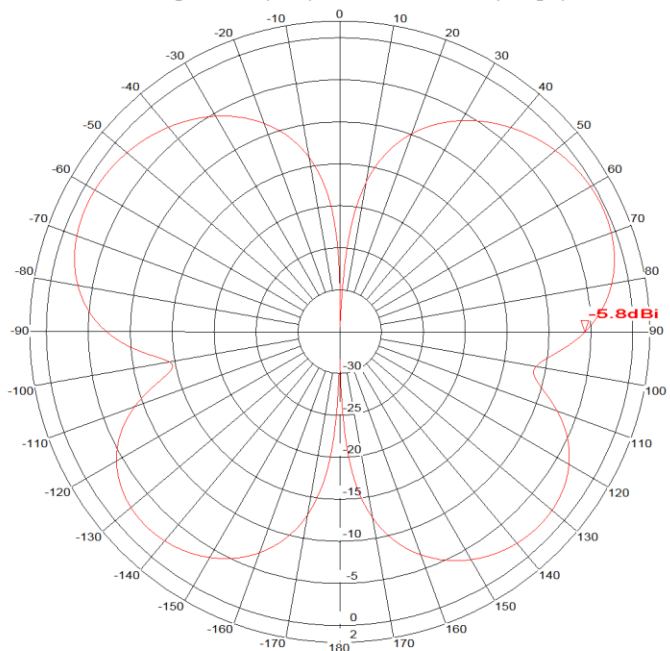
**Issue : 1423**

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HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052****Series : Antenna****Magnitude (dBi) vs. Elevation (Degs)**

Frequency: 0.300 GHz

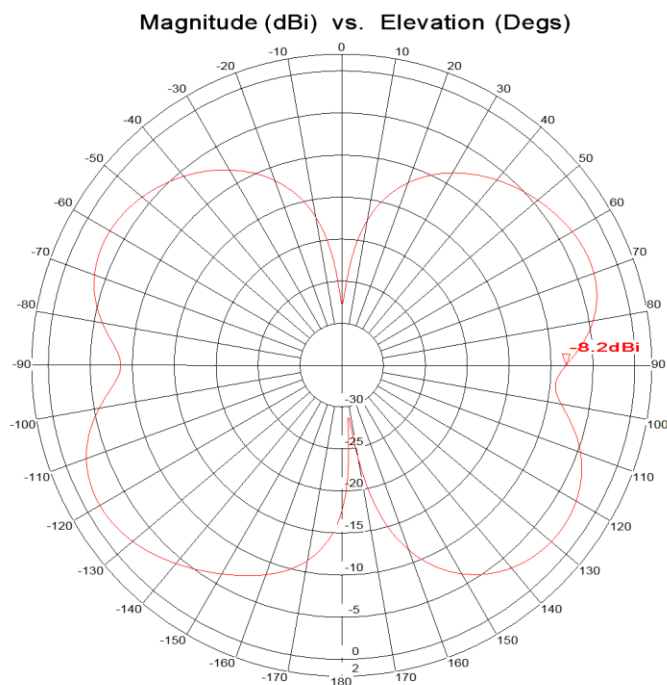
Magnitude (dBi) vs. Elevation (Degs)

Frequency: 0.400 GHz

Issue : 1423

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HIGH POWER BROADBAND, 21", BLADE ANTENNA**30 MHz –512 MHz****MD 11-052****Series : Antenna****Issue : 1423**

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