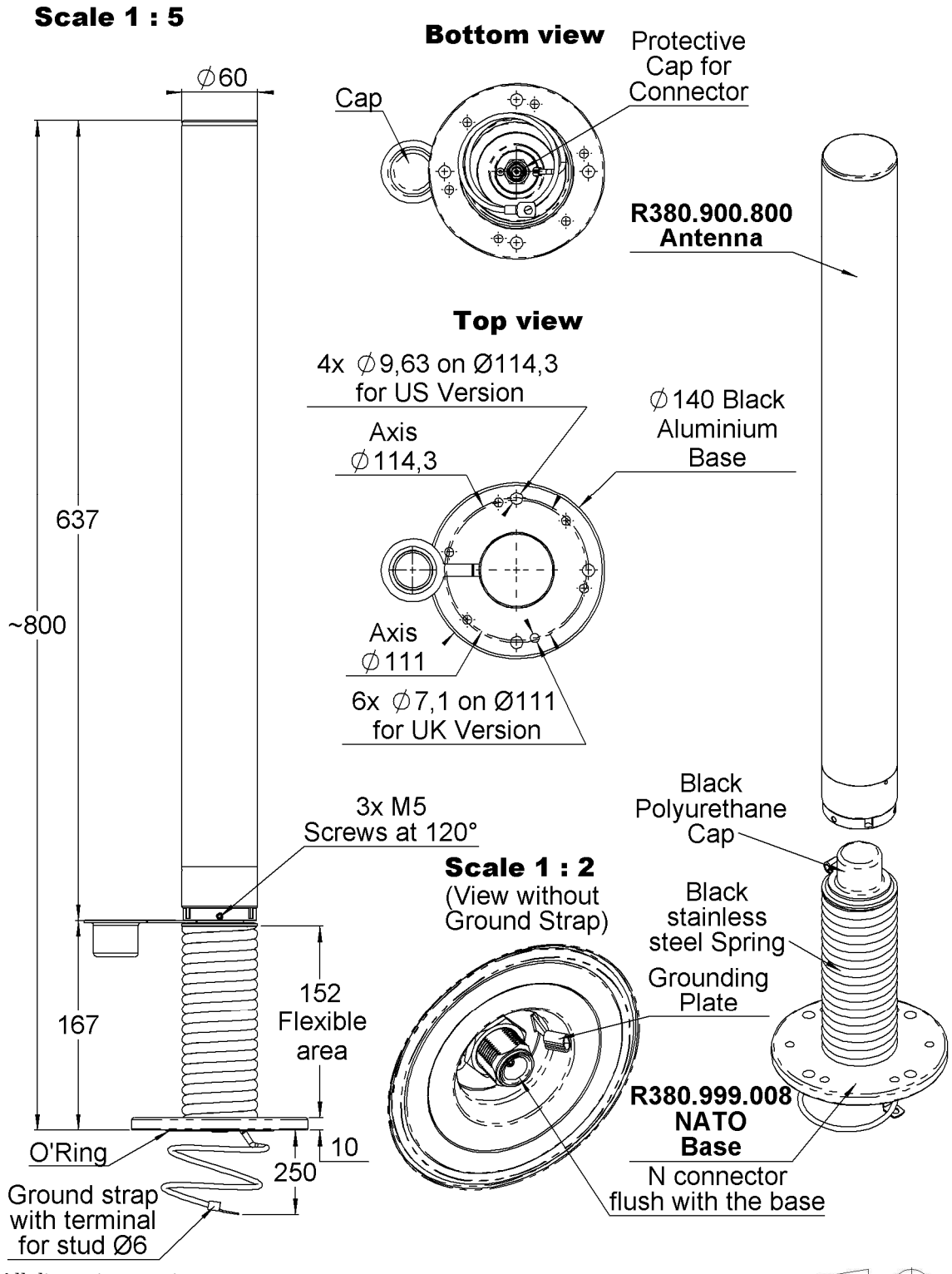
NATO SPRING MOUNT, 3G VEHICULAR ANTENNA

700 - 2500 MHz - N FEMALE RECEPTACLE

R380.990.009

Series : **ANTENNA**



All dimensions are in mm

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Part	Material
Radome	Polycarbonate (NATO green)
Antenna Base	Aluminum, Black
Base Body	Aluminum, Black
Connector bodies	Brass, Black Cr
insulators	PTFE
Central Contacts	Brass, Ni2Au1.3
Spring	Stainless Steel, Black.
Coaxial Cable	Specially developped 5/50Ω coax

The R380.990.009 Broadband Vehicular Antenna is a 50 W, dipolar design. The antenna phase centre is located 570mm above the ground plane (or reference plane). The VSWR performance of the antenna extends above the 2500 MHz mark, but radiation performance for higher frequencies are deteriorated.

The R380.990.009 is composed of the NATO Spring Mount R380.999.008 and the Specific R380.900.800 antenna.

ELECTRICAL CHARACTERISTICS

Frequency :	**700-2500**	MHz
Nominal Impedance :	**50**	Ω
VSWR (700 - 2500 MHz) :	**3.0:1**	Max
	2.5:1	Typ.
Polarization :	**VERTICAL**	
Radiation Pattern:	**OMNIDIRECTIONNAL**	
Ripple in Azimuth Plane:	**± 1**	dB
Power withstanding :	**50**	W
Gain in azimuth plane (1.2 x 1.2 m ground plane):	**0**	**dBi (typ.)**
DC Grounding):	**NO**	

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MECHANICAL CHARACTERISTICS

Connector (Antenna side) :	**custom**	
Connector (NATO Base) :	**N Female Receptacle**	
Weight (including NATO Base):	**4.0**	Kg
Dimensions :		
Overall height :	**~ 800**	mm
Overall antenna height :	**637**	mm
Antenna diameter :	**Ø60**	mm
Spring height (Flexible area) :	**152**	mm
NATO Base height :	**167**	mm
Material :		
Radome :	**POLYCARBONATE**	
Antenna Color :	**OLIVE DRAB**	BS381C:298
Spring :	**STAINLESS STEEL**	
NATO Base Color :	**BLACK PLATING**	
Fixing system for UK Version :	**By 6 screws Ø7 with NATO Base**	
Fixing system for US Version :	**By 4 screws Ø9.5 with NATO Base**	
"Oak" Beam Test :	**25 Times @ 40 km/h @ 0.57 m**	

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ENVIRONMENTAL CHARACTERISTICS

Operating Temperature :.....	**-55 / +71°C** ° C
Storage & Transport Temperature :.....	**-55 / +85°C** ° C
Fluid contamination :.....	**Iaw Mil Std 810F meth. 504**
Ingress Protection :	**IP67**
Salt Spray:	**48 h**
Vibration:	**Iaw Mil Std 810F meth 514.5 proc I, cat.20 (Track & wheeled vehicules)**
Shocks:	**Iaw Mil Std 810F meth 516.5 proc I & V**
Solar Radiation:	**Iaw Mil Std 810F proc II, desert conditions**
Sand & Dust:	**Iaw Mil Std 810F proc I&II**
Flexibility (Spring Mount) :	**10 000 bends at 30° (4 axis)** **1 000 bends at 90° (4 axis)**

Mechanical performance of the antenna is obtained with the specific R380.999.008 spring Mount.

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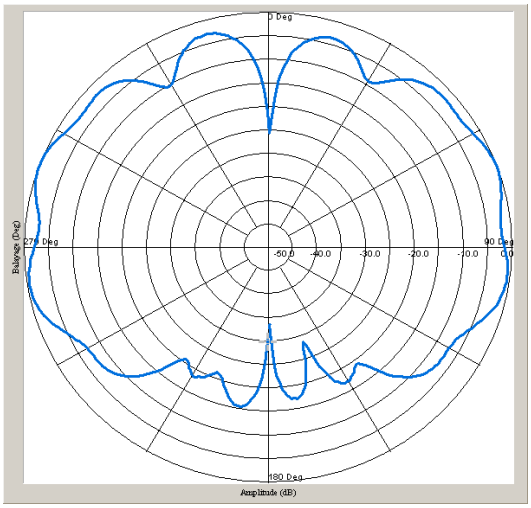
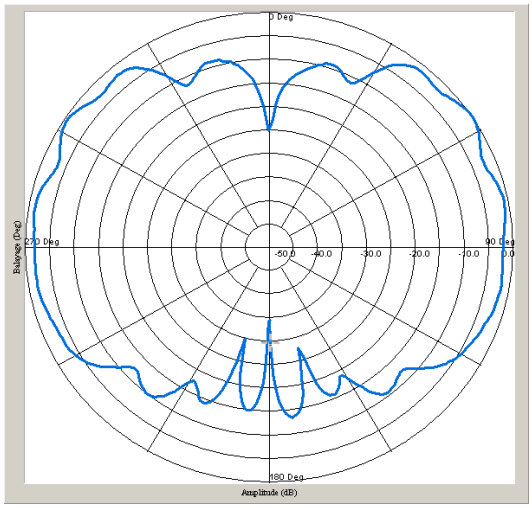
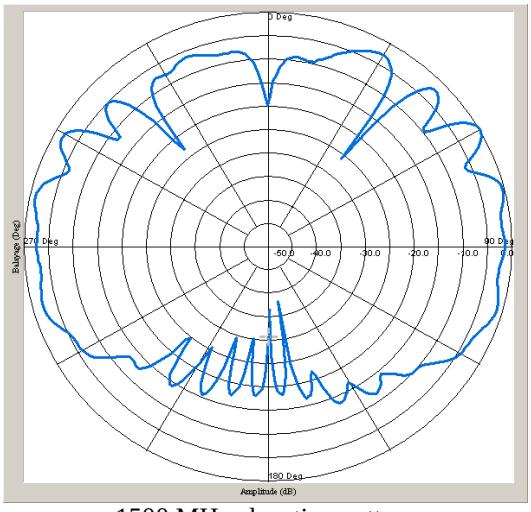
RADIATION PATTERNS (With Ground Plane)



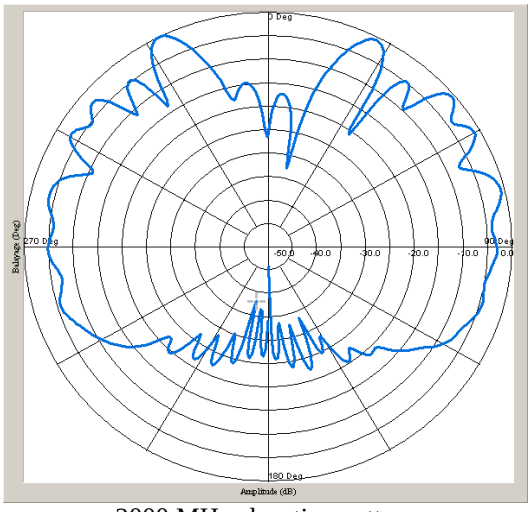
700 MHz Elevation Pattern



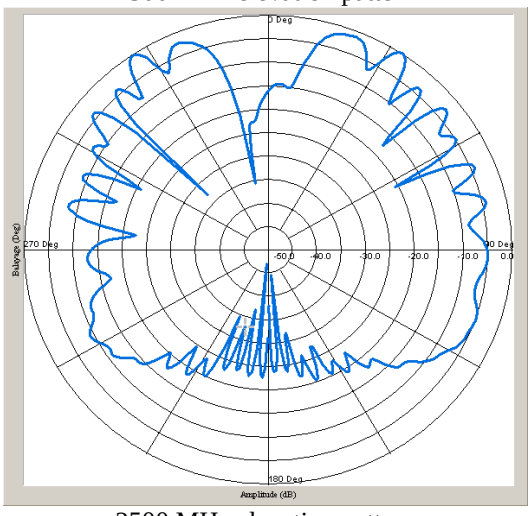
1000 MHz elevation Pattern



1500 MHz elevation pattern



2000 MHz elevation pattern



2500 MHz elevation pattern

Measurements performed in Anechoid chamber with a 1.2 x 1.2 ground plane.

Radiation patterns are Normalized to 0 dB.

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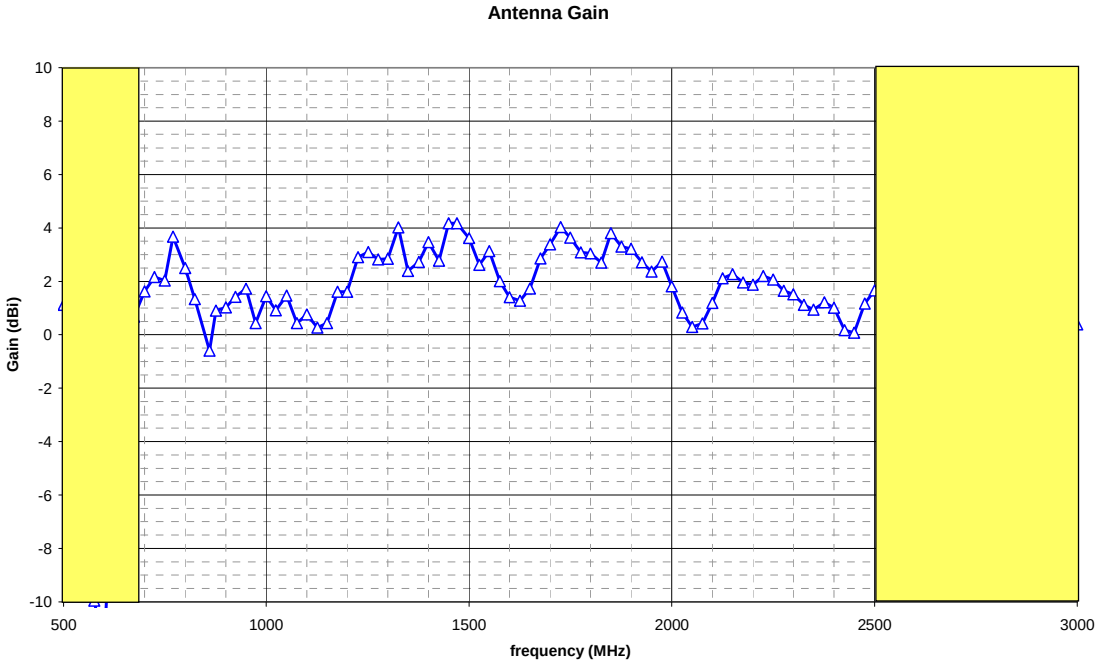
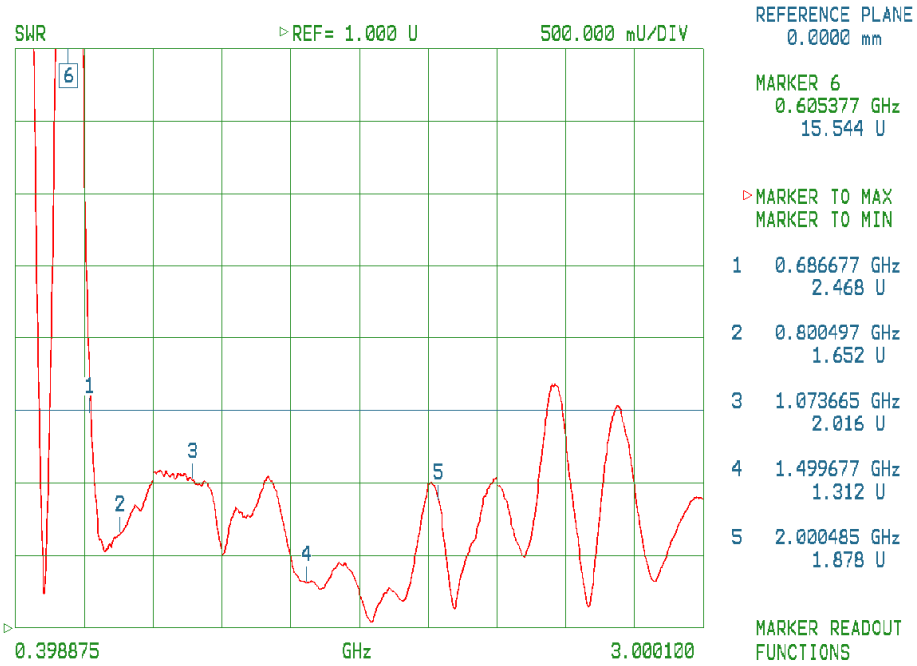
TYPICAL PERFORMANCE (With Ground Plane)

ANTENNA GAIN in AZIMUTH PLANE



(measured on a 1.2 x 1.2 m ground plane).

VSWR



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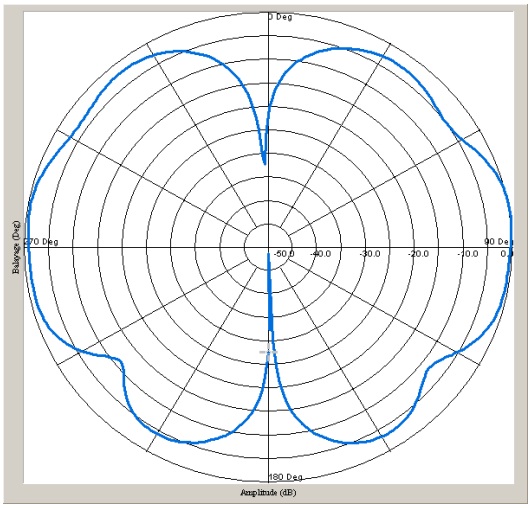
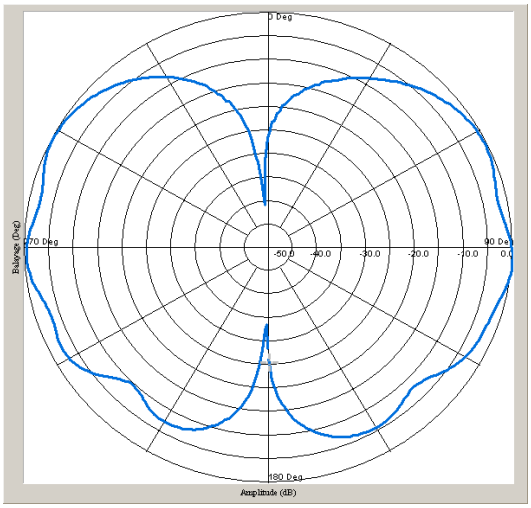
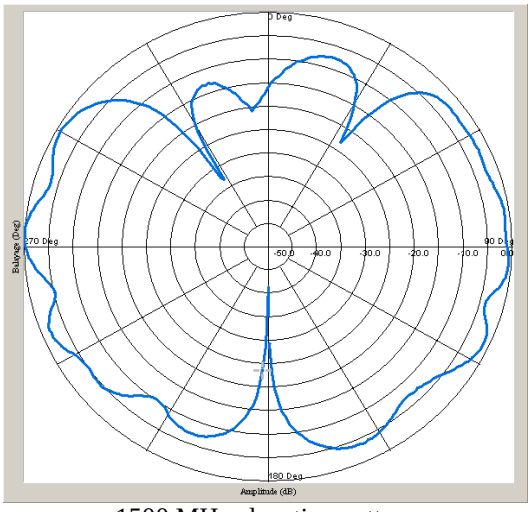
RADIATION PATTERNS (Without Ground Plane)



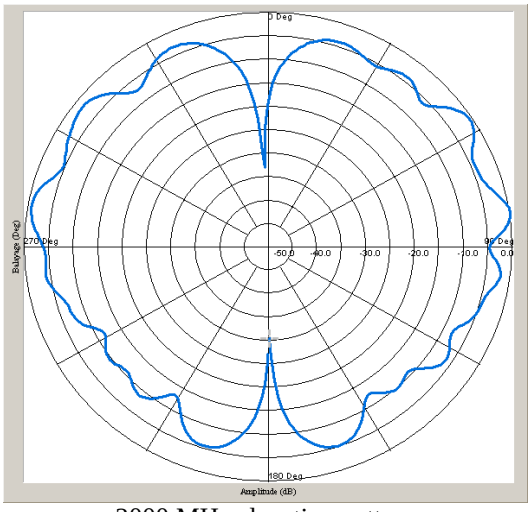
700 MHz Elevation Pattern



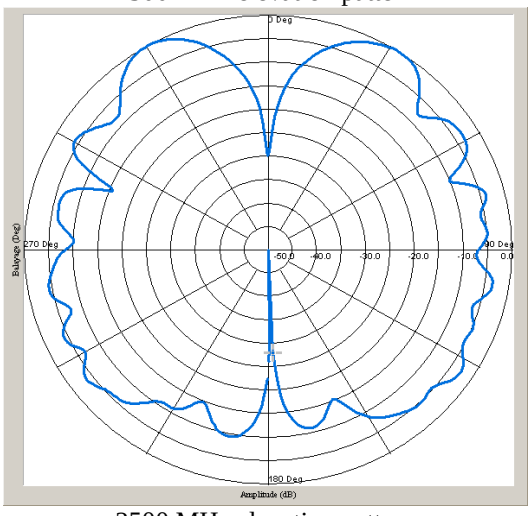
1000 MHz elevation Pattern



1500 MHz elevation pattern



2000 MHz elevation pattern



2500 MHz elevation pattern

Measurements performed in Anechoid chamber with a stand alone antenna.

Radiation patterns are Normalized to 0 dB.

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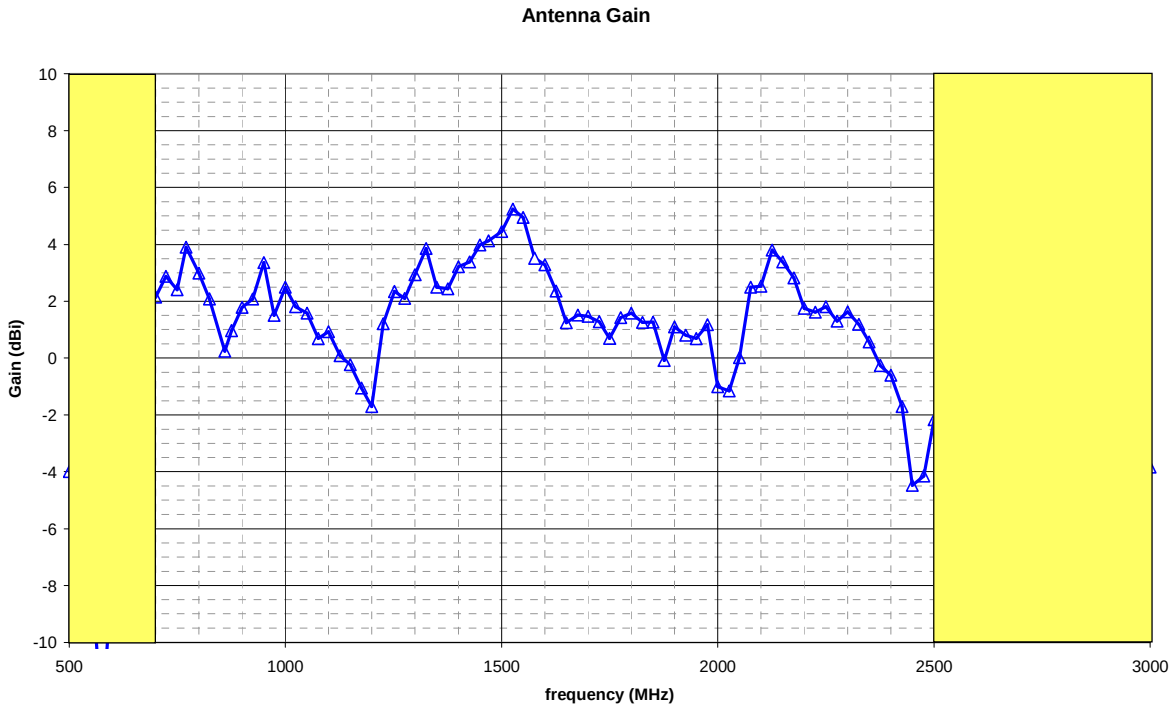
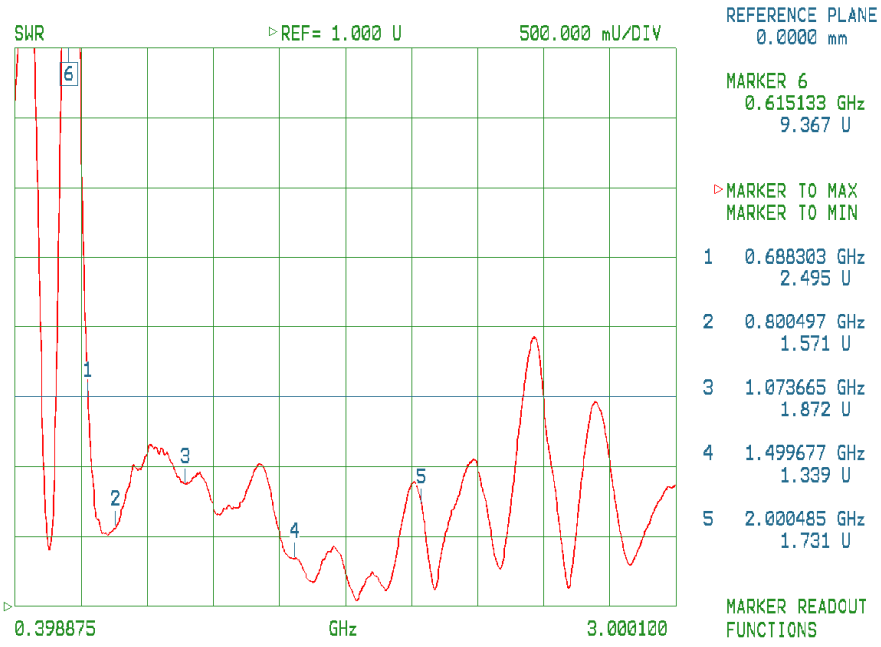
ANTENNA GAIN in AZIMUTH PLANE



(measured stand alone antenna).

VSWR



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