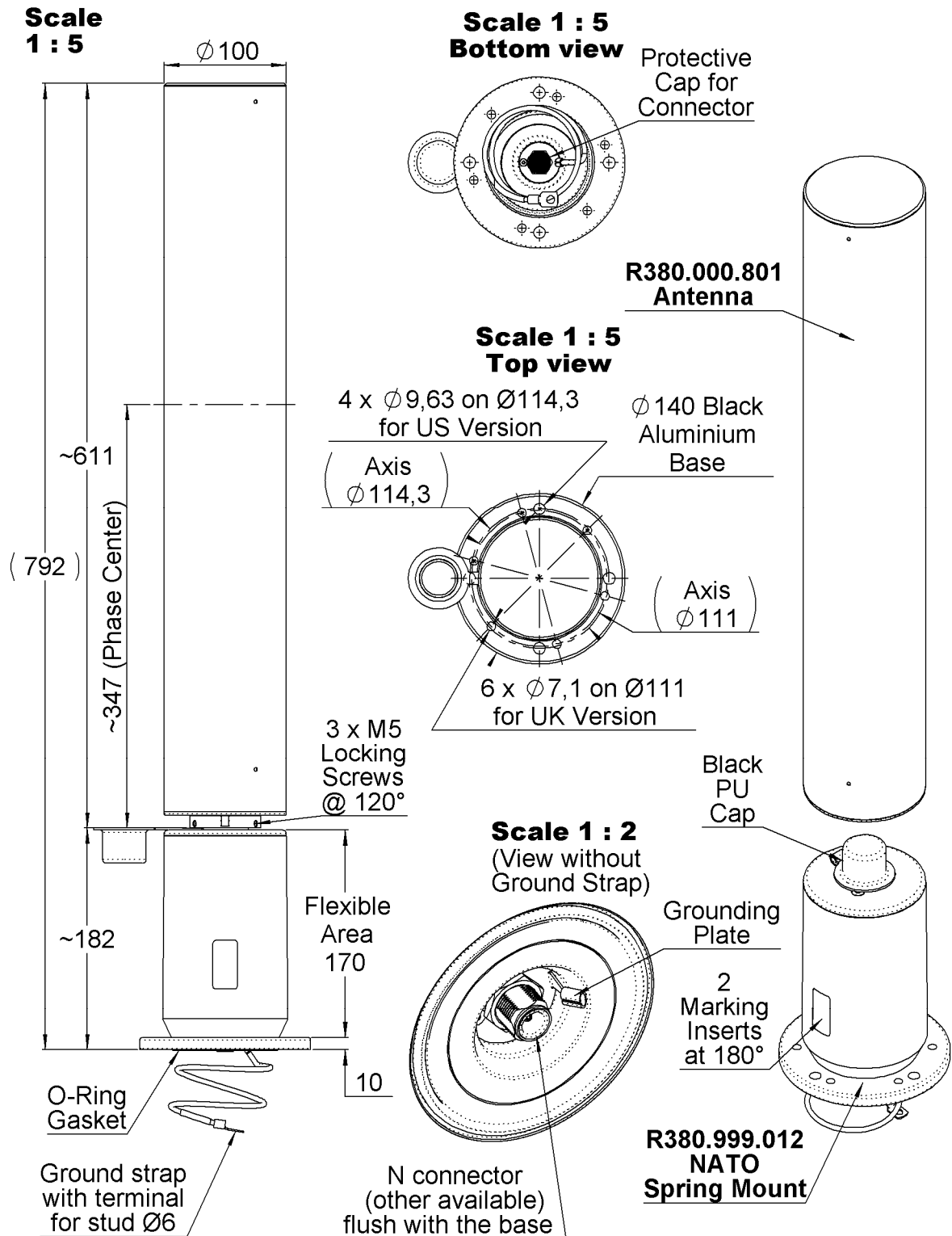


NATO SPRING MOUNT, VEHICULAR ANTENNA

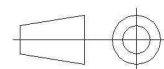
225 - 520 MHZ - 300W - N FEMALE RECEPTACLE

R380.000.800

Series : ANTENNA



All dimensions are in mm



Issue : 1018 A

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

RADIAL

NATO SPRING MOUNT, VEHICULAR ANTENNA**225 - 520 MHZ - 300W - N FEMALE RECEPTACLE****R380.000.800**

Series : ANTENNA

Part	Material
Radome	Polycarbonate, NATO Green, Matt
Antenna Base	Aluminum, Black
Base Body	Aluminum, Black
Connector bodies	Brass, Black Cr.
Insulators	PTFE
Central Contacts	Brass, Ni2Au1.3
Spring	Stainless Steel, Black.
Compression Spring	Polyurethane, Black
Coaxial Cable	Specially developed 5/50Ω coax

The **R380.000.800** is a 300W, Dipolar Design, Broadband Vehicular Antenna. The Phase-Center is located near the Middle of the Tubular Radome..

The **R380.000.801** is a Ground plane Independent Antenna, that can be Mast-Mounted without particular impact on Electrical Performances.

ELECTRICAL CHARACTERISTICS

Frequency :	225-520 MHz
Nominal Impedance :	50 Ω
VSWR (225 - 520 MHz) :	2.5:1 Max
	2.0:1 Typ.
Polarization :	VERTICAL
Radiation Pattern:	OMNIDIRECTIONNAL
Ripple in Azimuth Plane:	± 1 dB
Power withstanding :	300 W CW
Connector (Antenna side) :	Custom
Connector (NATO Base) :	N Female
Gain (1.2 x 1.2 m ground plane):	2 dBi (typ.)
Gain in Azimuth plane (1.2 x 1.2 m ground plane):	1.5±2 dBi
DC Grounding):	NO

Issue : 1018 A

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RADIAL 

NATO SPRING MOUNT, VEHICULAR ANTENNA**225 - 520 MHZ - 300W - N FEMALE RECEPTACLE****R380.000.800**

Series : ANTENNA

MECHANICAL CHARACTERISTICS

Radome material:.....	PolyCarbonate
Finish :	NATO green , Matt
Weight (incl. NATO Spring Mount) : .	6,40 kg (TBC)
Antenna length (with NATO Spring Mount):	792 mm (TBC)
Antenna Diameter:	100 mm
“Oak” Beam Test :.....	25 Times @ 40 km/h @ 0.55 m

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 vehicles)
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) :	5 000 90° bends (1 250 in each direction) 40 000 30° bends (10 000 in each direction)

Mechanical performances of the antenna are obtained with the specific R380.999.012 Spring Mount .

Issue : 1018 A

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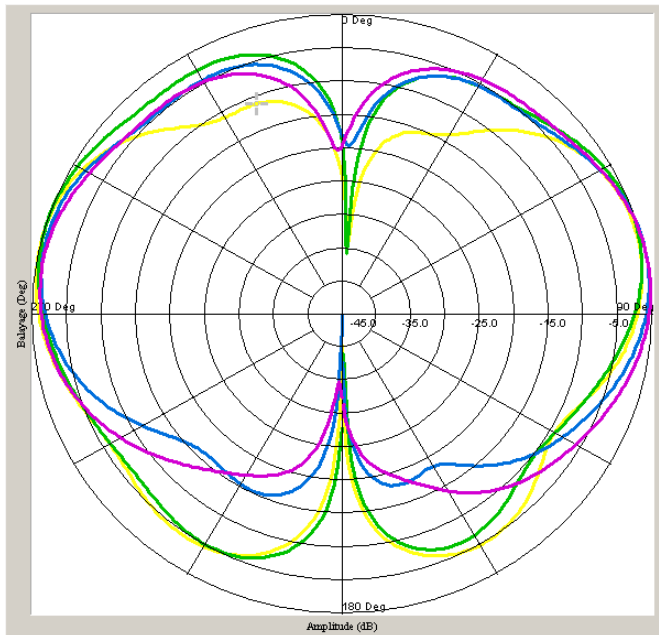
RADIAL 

NATO SPRING MOUNT, VEHICULAR ANTENNA**225 - 520 MHz - 300W - N FEMALE RECEPTACLE****R380.000.800**

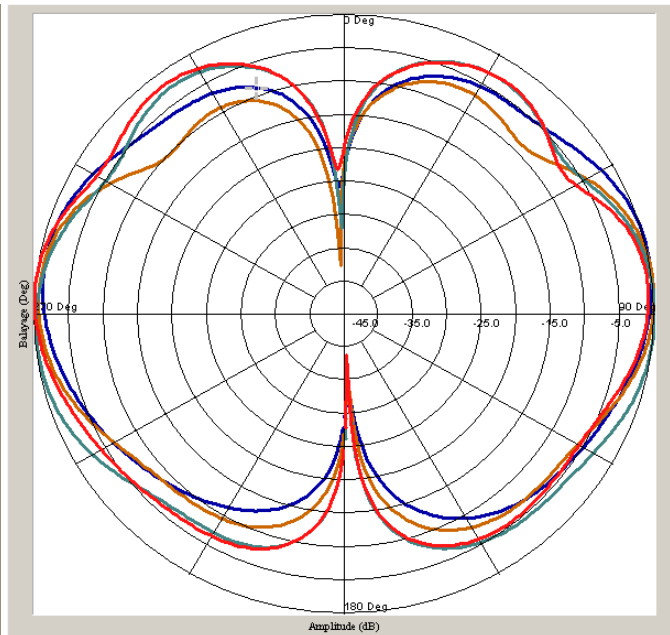
Series : ANTENNA

RADIATION PATTERNS (With Ground Plane)

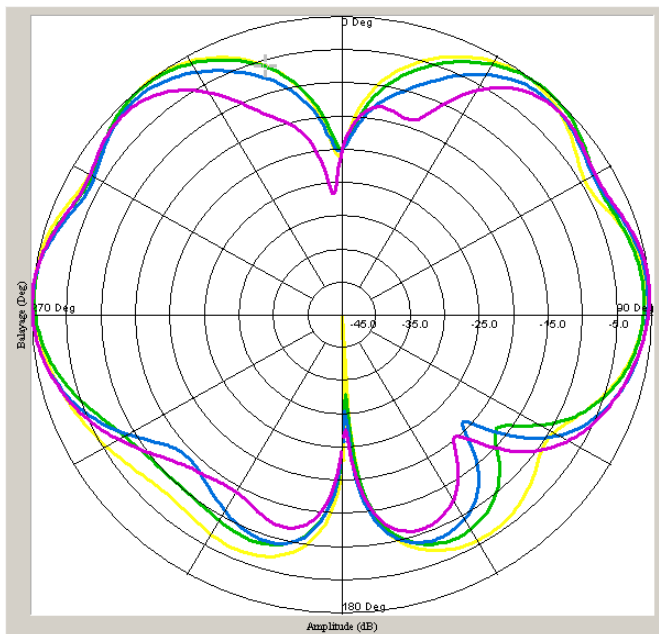
Radiation Patterns measured in Anechoïd Chamber with a 1.2 x 1.2 m ground plane.
(radiation patterns are normalized to 0dB)



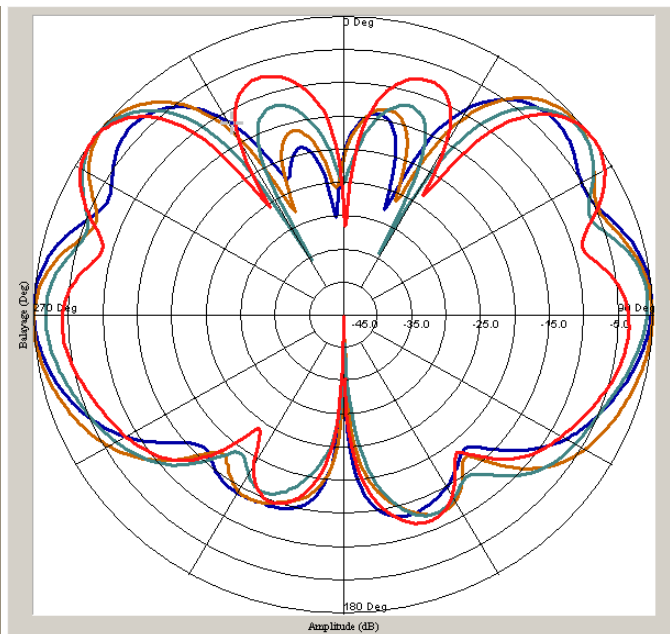
Frequency 220→280 MHz



Frequency 300→360 MHz



Frequency 380→440 MHz



Frequency 460→520 MHz

Issue : 1018 A

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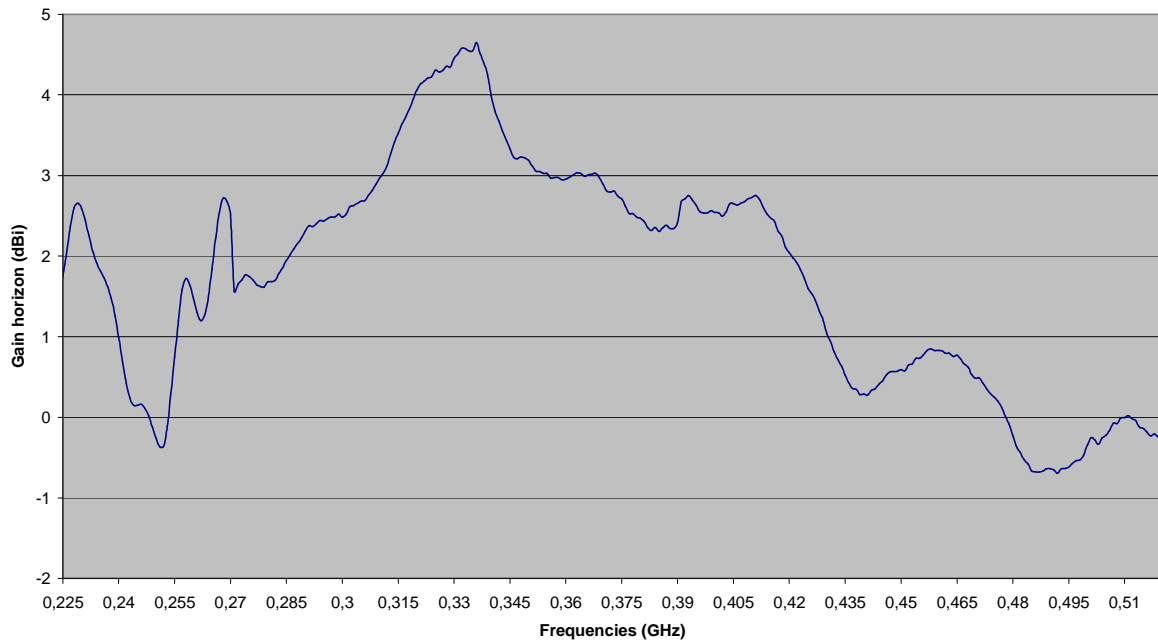
RADIAL 

NATO SPRING MOUNT, VEHICULAR ANTENNA**225 - 520 MHz - 300W - N FEMALE RECEPTACLE****R380.000.800**

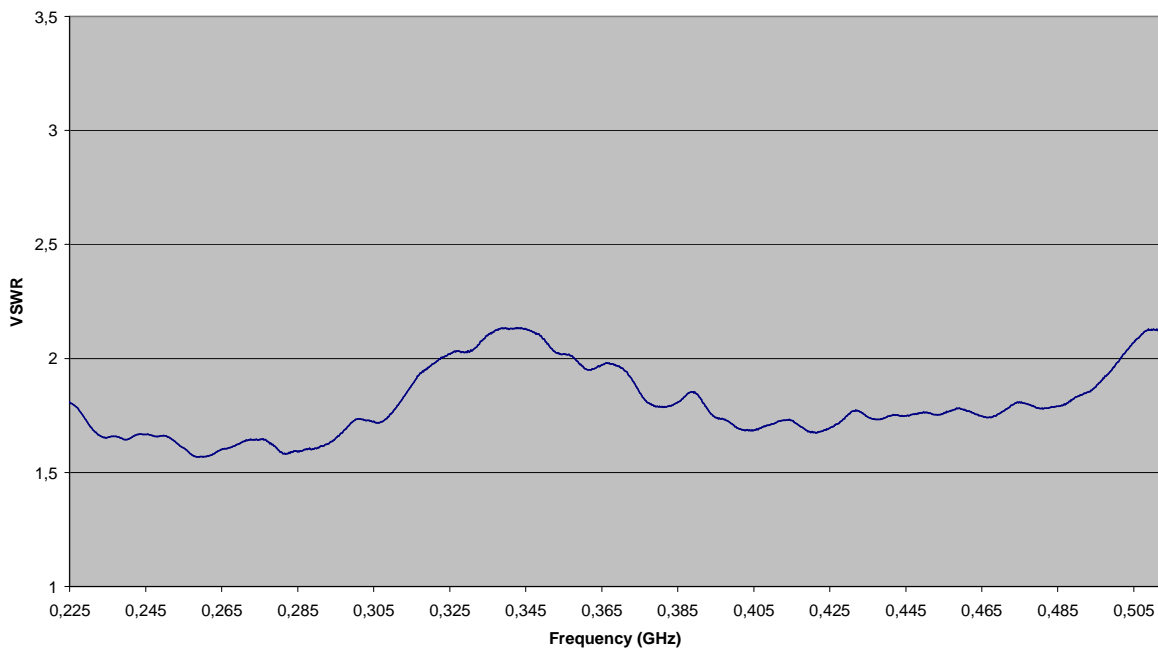
Series : ANTENNA

TYPICAL PERFORMANCE (With Ground Plane)**ANTENNA GAIN in AZIMUTH PLANE**

horizon gain with ground plane 1.2x1.2m

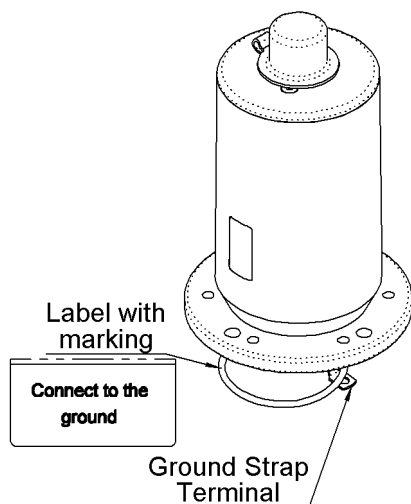
**VSWR**

VSWR with ground plane 1.2x1.2m

**Issue : 1018 A**

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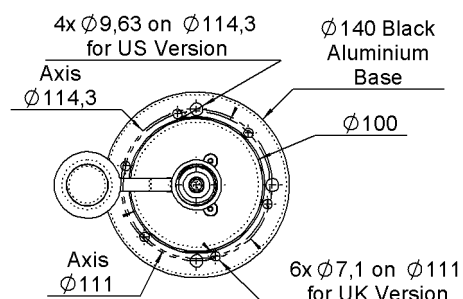
RADIAL 

NATO SPRING MOUNT, VEHICULAR ANTENNA**225 - 520 MHZ - 300W - N FEMALE RECEPTACLE****R380.000.800****Series : ANTENNA****MOUNTING INSTRUCTIONS****STEP1:**

Connect the terminal of the ground strap provided with the spring mount to the chassis of the vehicle for ground reference.

The terminal is compatible with M6 studs / screws.

Connect the connector of the cable assembly to the N connector located in the base of the spring mount. Recommended mating torque is 130N.cm

STEP2:

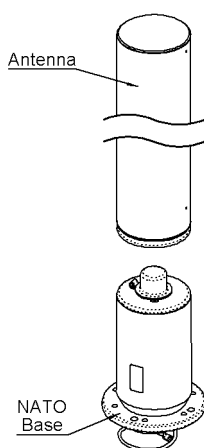
Secure the spring mount on the bracket or on the chassis of the vehicle using one of the two following options:

Option A: use 4 3/8 screws (or eq.) to secure the mount through 4 holes equally spaced on a $\phi 114,3$ mm circle..

Option B: use 1/4 screws (or eq.) to secure the mount through 6 holes located on a $\phi 111$ mm circle

Refer to the technical drawing of the base for more details on both options.

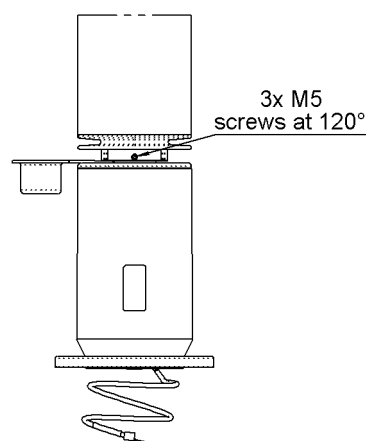
Washers should be used to prevent major scratches that might reduce the mount's compatibility to salt spray.

STEP3:

Remove the protective cap located on top of the spring mount.

Inspect visually the inner part of the connector of the antenna to make sure no sand, dirt or plastic material will prevent proper electrical mating.

Screw the antenna tube onto the spring mount until it comes a mechanical stop.

STEP4:

Secure the assembly using the M5 screw sets provided with the antenna tube.

At least one out of the 3 screws shall be tightly screwed to prevent un-mating of the antenna with shocks or vibrations.

Issue : 1018 A

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