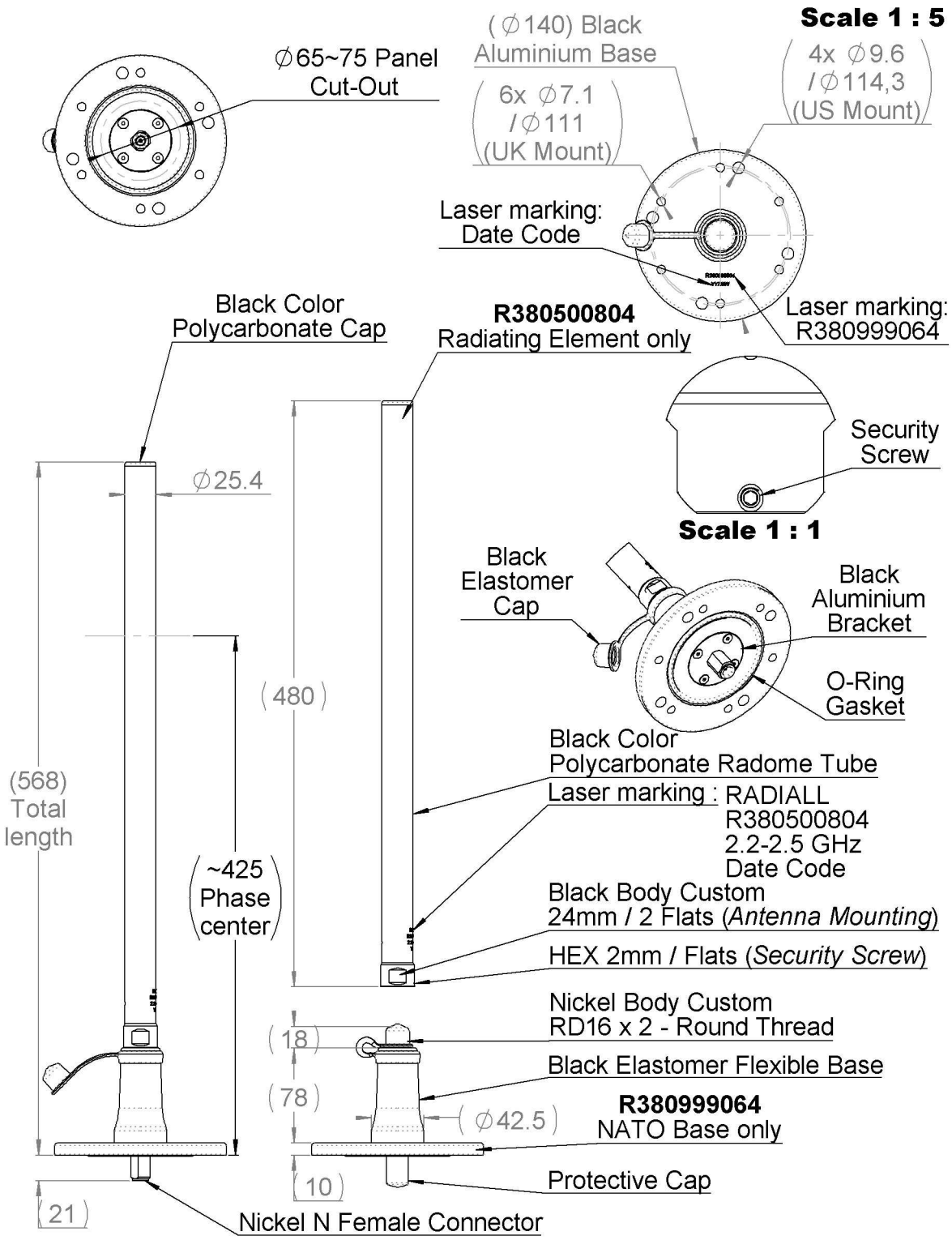


All dimensions are in mm. Tolerances according ISO 2768 m-H

This document contains proprietary information and such information shall not be disclosed to any third party for any purpose whatsoever or used for manufacturing purposes without prior written agreement from Radiall. The data defined in this document are given as an indication, in the effort to improve our products; we reserve the right to make any changes judged necessary.

The **R380990028** is Ground plane Independent Antenna that can be Mast-Mounted without particular impact on Electrical Performances.

ELECTRICAL CHARACTERISTICS

Frequency :	**2.2-2.5**	GHz
Nominal Impedance :	**50**	Ω
VSWR :	**2.0:1**	Max.
Gain :	**5**	dBi typ.
Radiation Pattern		
Horizontal Plane :	**Omni-directional**	
Vertical Plane :	**See patterns**	
Polarization :	**LINEAR VERTICAL**	
Power withstanding :	**20**	W CW
Connector (Antenna side) :	**Custom**	
Connector (NATO Base) :	**N Female**	

MECHANICAL CHARACTERISTICS

Antenna Color :	**BLACK MATTE**	
Antenna Radome Material :	**PC**	
Max. Weight :	**1**	Kg
Total length (without N Connector) :	**568**	mm
Antenna Diameter :	**25.4**	mm
Antenna flexibility *:	**+/- 90°**	

* With good damping thanks to the elastomer overmolding.

ENVIRONMENTAL CHARACTERISTICS

Operating temperature :	**-40/+71**	° C
Storage temperature :	**-55/+85**	° C
Immersion :	**1m, for 1h**	

MIL-STD-810H Compliant

This document contains proprietary information and such information shall not be disclosed to any third party for any purpose whatsoever or used for manufacturing purposes without prior written agreement from Radiall. The data defined in this document are given as an indication, in the effort to improve our products; we reserve the right to make any changes judged necessary.

CURVES

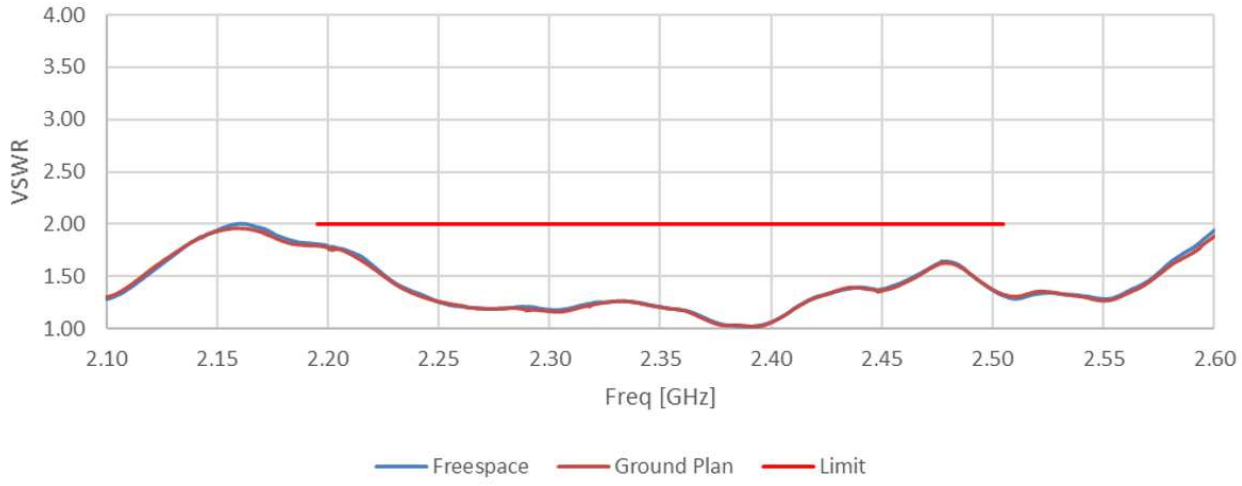


Figure 1: Typical VSWR

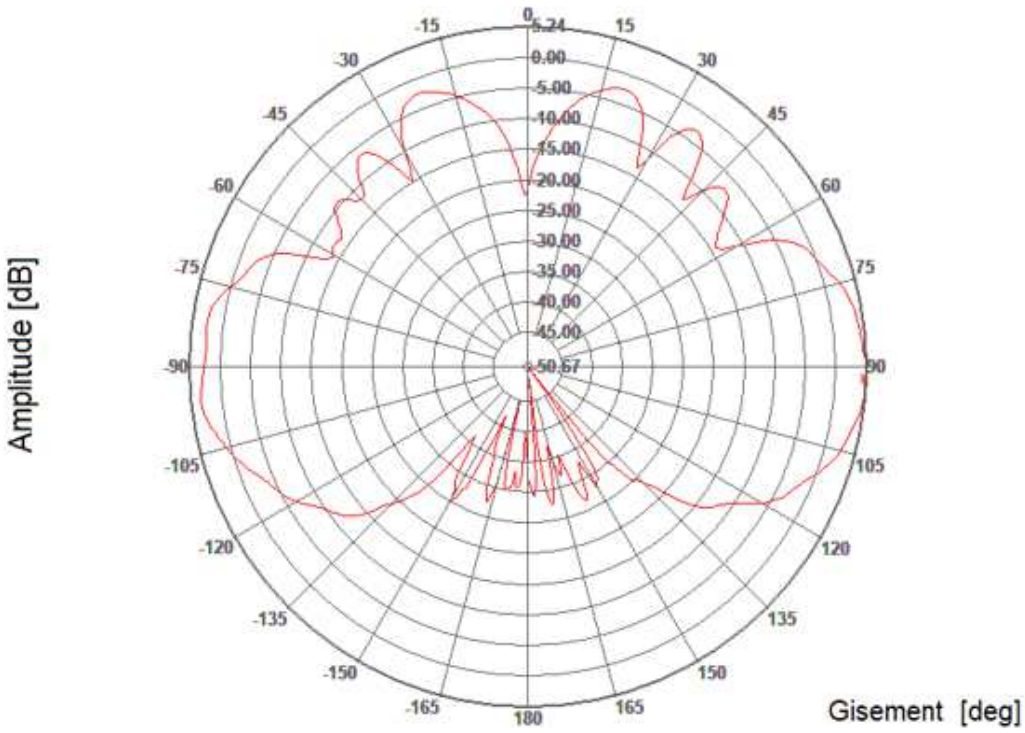
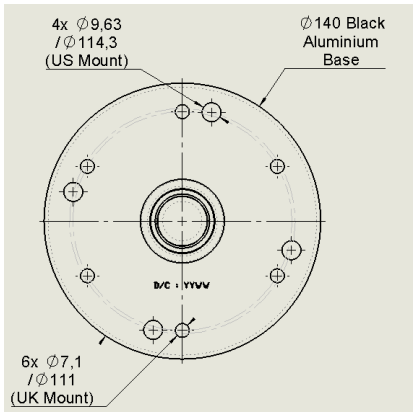


Figure 2: Typical radiation pattern on ground plane

This document contains proprietary information and such information shall not be disclosed to any third party for any purpose whatsoever or used for manufacturing purposes without prior written agreement from Radiall. The data defined in this document are given as an indication, in the effort to improve our products; we reserve the right to make any changes judged necessary.

MOUNTING INSTRUCTIONS

STEP 1:

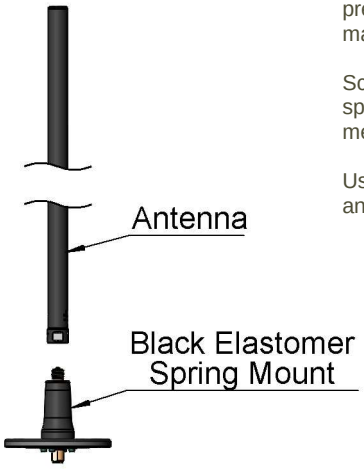


Secure the spring mount on the bracket or on the chassis of the vehicle using one of the two following options:

Option A: use 4 $^{3}/_{8}$ screws (or eq.) to secure the mount through 4 holes equally spaced on a ∅114.3 mm circle.
Option B: use 6 ¼ screws (or eq.) to secure the mount through 6 holes located on a ∅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.

STEP 2:

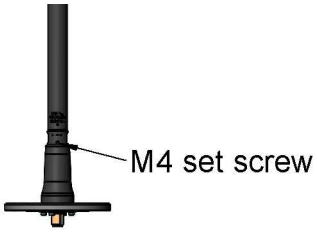


Visually inspect the inner part of the connector of the antenna to make sure no sand, dirt or plastic material will prevent proper electrical mating.

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

Use torque wrench to tighten antenna to a 5 N.m minimum.

STEP 3:



Secure the assembly using the M4 set screw provided with the antenna (2mm Allen Wrench), tighten to the stop or 1N.m.

This document contains proprietary information and such information shall not be disclosed to any third party for any purpose whatsoever or used for manufacturing purposes without prior written agreement from Radiall. The data defined in this document are given as an indication, in the effort to improve our products; we reserve the right to make any changes judged necessary.