Data Sheet

SCO-1090-5 (N/f)
SCO-1090-MO (N/f)
SCO-1090-3M-MCX
SCO-1090-10M-SMA

	SCO-1090-5	SCO-1090-MO	SCO-1090-10M-SMA	SCO-1090-3M-MCX
Electrical data				
Type	Ground Plane Collinear 3x 1/2 l			
Design Frequency	1090 MHz (ADS-B, Mode-S, SSR)			
Impedance	50 Ohms			
Radation (H-plane)	360° omnidirectional			
Radiation (E-plane)	Beamwidth @ -3 dB: 23.8°			
Polarization	Linear Vertical			
Gain	4.8 dBi			
Ground protection	All metal parts are DC-grounded, the inner conductor shows an open circuit			
Cable Type/Length			CO100AF / 10m	RG-174U / 3m
Connector	N-female, gold plated center pin		SMA-male	MCX-male
Mechanical data				
Radome Material	Fiberglass, PCB			
Base Material	Chromed Brass	AISI-316 (V4A)	Chromed Brass	
Bracket & Hardware Material	Aluminium, Stainless steel	AISI-316 (V4A)	Aluminium, Stainless steel	
Wind Load /Resistance	18 N @ 150 km/h, max. 200 km/h			
Wind surface	0.013 m²	0.016 m²	0.013 m²	
Height (approx.)	555 mm	561 mm	550 mm	550 mm
Weight antenna (approx.)	0.29 kg	0.89 kg	0.26 kg	0.26 kg
Weight Bracket/Hardware	0.12 kg	0.55 kg	0.12 kg	0.12 kg
Storage Temperature	-55 .. +80°C			
Operating Temperature	-40 .. +80°C			
P/N Antenna assy	67020	67305	67088	67120
P/N Antenna	67920	67922	67921	67940
P/N Bracket	67204	67239	67204	67204

Qualifications/Certifications				
Conformité Européenne	2006/96/EC Waste Electrical and Electronic Equipment (WEEE) 2011/65/EC Restrictions of Hazardous Substances (RoHS)			
MIL-STD		MIL-STD 810G, 509.5 (48/48H)		

	Fixing bracket P/N 67204	**Fixing bracket P/N 67235**
Material	Extruded aluminium	AISI-316 stainless steel
Hardware	Stainless steel	AISI-316 stainless steel
Bolt	1 V-bolt	2 straight bolts
Washers	3 spring lock type	6 spring lock type
Nuts	3 nuts	6 nuts
Screws	1 head screw	

Material AISI 316

Important handling and installation instructions

In order to retain a corrosion free installation it is important:

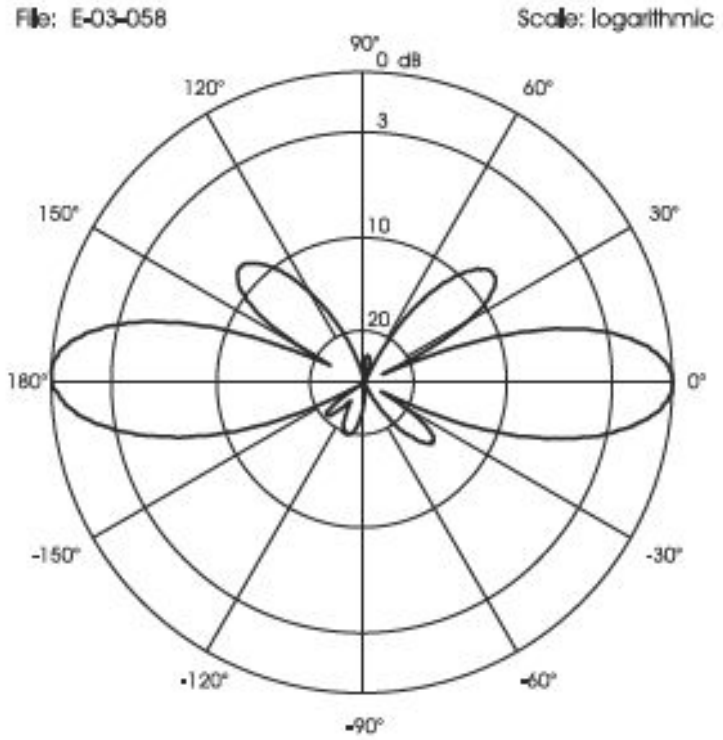
Do only use AISI 316 tools or equivalently qualified tools to install the Antenna and Antenna Clamp.

The use of ordinary tools, especial from material that contains iron (Fe), may constitute a future base of corrosion.

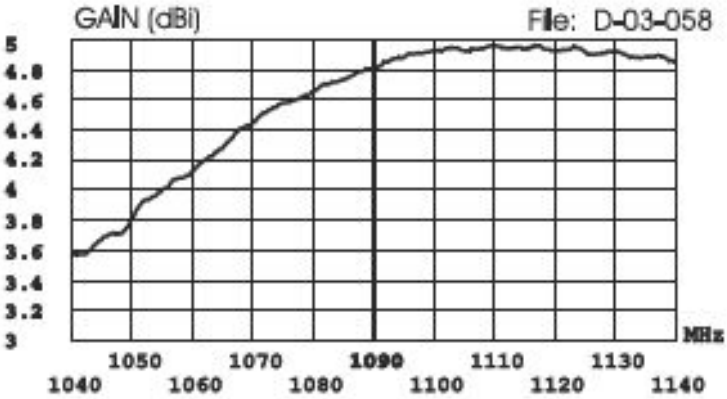
After installation completely clean the Antenna and Antenna Clamp from any iron filings.

Planevision Systems GmbH denies any responsibility with regard to defects that arise from the use of improper tooling or improper use of tooling.

TYPICAL RADIATION PATTERN in E-plane at 1090 MHz



TYPICAL GAIN DIAGRAM vs FREQUENCY



TYPICAL S.W.R. RESPONSE