

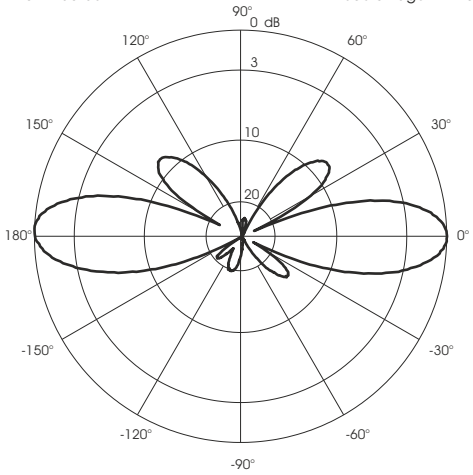
SCO-1,09-5 & SCO-1,09-5 GPS

Base Station Antennas ADS-B 1090 MHz

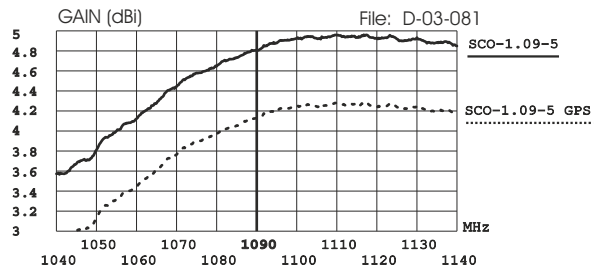
TYPICAL RADIATION PATTERN in E-plane at 1090 MHz

File: E-03-081

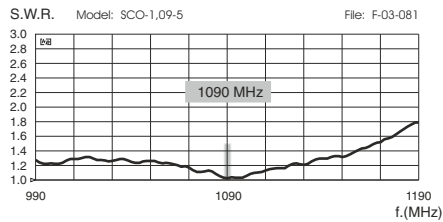
Scale: logarithmic



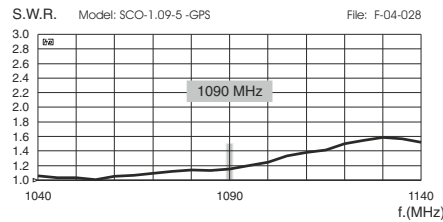
TYPICAL GAIN DIAGRAM vs FREQUENCY



TYPICAL S.W.R. RESPONSE



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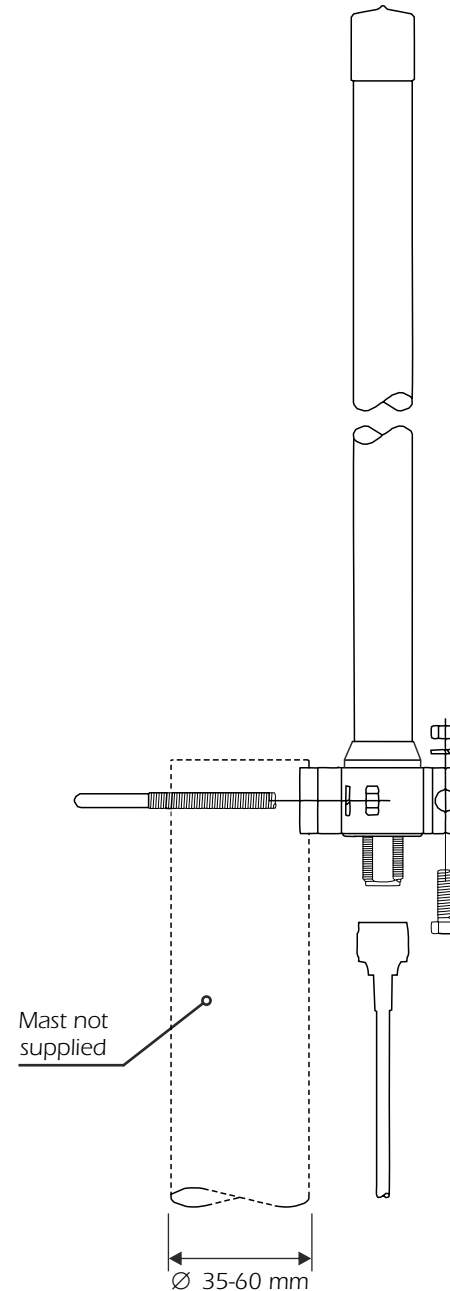
SPECIFICATIONS

Electrical Data	SCO-1,09-5	SCO-1,09-5 GPS
Type	Ground Plane Colinear 3x 1/2 λ	
Design Frequency	1090 MHz (ADS-B system)	1090 MHz (ADS-B system) 1575.42 MHz (GPS receiver)
Impedance	50 Ω	
Radiation (H-plane)	360° omnidirectional	
Radiation (E-plane)	Beamwidth @ -3 dB: 23.8°	ADS-B: Beamwidth @ -3 dB: 24.5°
Polarization	Linear Vertical	ADS-B: Linear Vertical GPS: RHCP
Gain	4.8 dBi	ADS-B: 4.1 dBi GPS LNA: +18 dB (typical)
Required supply	/	3 ± 0.3 Vcc (+V on connector central pin)
Current consumption	/	10 ± 1 mA @ 3 Vcc
LNA noise figure	/	max 2.0 dB
Grounding Protection	All metal parts are DC-grounded	
Connector	N-female, gold plated central pin	

Mechanical Data

Housing & Radome Material	Fiberglass, Chromed Brass, Nickel plated brass, PCB	
Bracket & Hardware Material	Aluminium, Stainless steel	
Wind Load / Resistance	18N @150 Km/h;93 Mi/h / 200 Km/h;124 Mi/h	19N @150 Km/h;93 Mi/h / 200 Km/h;124 Mi/h
Wind Surface	0.013 m ² ; 0.14 ft ²	0.015 m ² ; 0.16 ft ²
Height (approx.)	555 mm; 1.8 ft	625 mm; 2.05 ft
Weight (approx.)	with bracket: 400 gr. Without bracket: 288 gr	with bracket: 420 gr. Without bracket: 310 gr
Operating Temperature	-40 °C to +80 °C	
Installation type	Mast: Ø 35-60 mm; Ø 1.4-2.4 in with V-bolt	

MOUNTING INSTRUCTIONS



Fixing bracket:



Bracket part list

Q.ty	Description
1	Extruded aluminium bracket
1	M6x206 V-bolt
1	M6x20 Exagonal head screw
3	M6 Spring lock washer
3	M6 Hexagonal nut
Materials:	extruded aluminum
Hardware:	stainless steel
Dimensions:	80 x 65 x 25 mm
Weight:	110 g
Re-order code: P/N SA303	