

GPS Antenna with a 1/2 λ Antenna for the 156 - 162 MHz Band (VHF)

DESCRIPTION

- > Heavy-duty magnetic mount.
- > Provided with two 3 m cables attached:
 - > 3 m RG 58 cable with UHF-male connector for VHF.
 - > 3 m RG 174 cable with TNC-male connector for GPS.
- > ECE R118.02 approved cable.
- > External antenna whip mounted on the magnetic base (MG) which includes antenna for Global Positioning System (GPS).
- > The antenna whip is fixed on the mount and should not be mounted parallel or close to other metal parts. Free mounting and as high as possible is preferable.
- > Built-in high-gain, low-noise amplifier.
- > 5 V supply voltage (3 V available on request).
- > DC supply via TNC-connector.



SPECIFICATIONS

Electrical	
Model	AIS 2/GPS-MG
Frequency	156 - 162 MHz
Antenna Type	Reduced 1/2 λ dipole, end-fed
Max. Input Power	50 W
Polarisation	Vertical
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	-1 dBd (1.2 dBi)
VSWR	≤ 1.6 @ f. res.
Bandwidth	≥ 6 MHz @ VSWR ≤ 1.8
Mechanical	
Compliance	ECE R118.02 approved cable
Connection(s)	UHF(m) (male with 3 m RG 58 cable for VHF) TNC(m) (male with 3 m RG 174 cable for GPS)
Weight (Whip)	Approx. 0.156 kg / 0.34 lb.
Materials	Stainless steel, Black-chromed brass, Weather- and shockproof plastics
Colour	Black
Dimensions	Total height : Approx. 40 mm / 1.57" Diameter : 130 mm / 5.12"
Materials (Whip)	Glass fibre whip with copper wire winding, polyethylene-covered. Bright-chrome brass. Housing : Chrome brass
Height	Approx. 460 mm / 18.11 in.
Weight	Approx. 0.9 kg / 1.98 lb.

GPS Antenna	
P1dB (GPS Amplifier)	Approx. 7 dBm
Coverage (GPS)	Hemispherical
Gain (GPS)	28 dBic in axial direction (typ.)
Mounting (GPS)	Centre of vehicle roof for best omnidirectional coverage
Antenna Type (GPS)	Active patch antenna
Noise Figure (GPS Amplifier)	< 1 dB (typ.)
Cross Polar Discrimination (GPS)	> 10 dB (typ.)
Gain (GPS Amplifier)	> 30 dB (typ.)
Selectivity (GPS Amplifier)	> 20 dB down @ ± 100 MHz
VSWR (GPS Amplifier)	< 2.0:1
Selectivity (GPS)	> 45 dB down @ ± 45 MHz
Frequency (GPS)	1575 MHz
Power Supply (GPS)	5 ± 0.5 V DC (3 V resp. 12 V on request)
Current Consumption (GPS Amplifier)	Approx. 25 mA
Polarisation (GPS)	RHCP
Impedance (GPS)	50 Ω

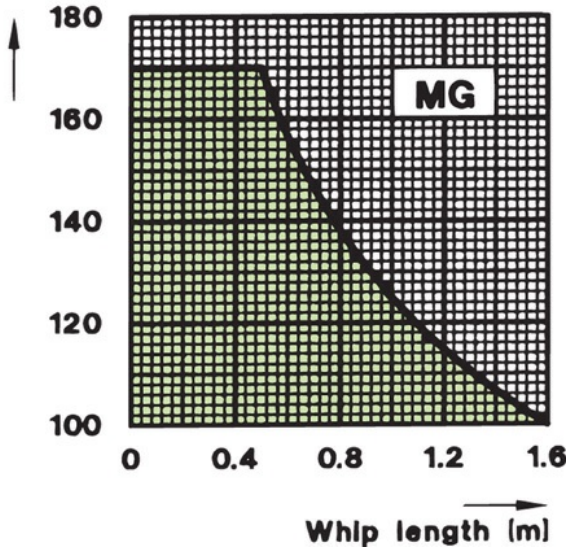
Environmental	
Operating Temperature Range	-35 °C to +75 °C

ORDERING

Model	Product No.
AIS 2/GPS-MG	112000063

TYPICAL RESPONSE CURVE

Max. car speed (km/h)



INSTALLATION

The magnetic mount should be mounted in the middle of the vehicle roof or rear locker to obtain best omnidirectional coverage.

