

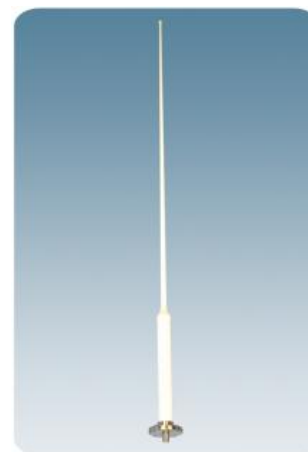
## Dual Band Antenna for the AIS system

### DESCRIPTION

- This active antenna has been designed for use by the Universal Shipborne Automatic Identification System (AIS) on all waterways.
- The antenna consists of a high-performance glass fibre encapsulated antenna element and an active GPS antenna.
- The latter is built into the bottom part of the antenna together with a diplex filter. Only one down lead cable is therefore necessary.
- The antenna element is a  $\frac{1}{2} \lambda$  antenna for the maritime VHF frequency range 156 - 162.5 MHz.
- The GPS antenna has a full hemispherical coverage and a built-in high-gain, low-noise amplifier.
- The necessary supply voltage (5 V DC) for the amplifier is delivered through the down lead coaxial cable. Up to 30 m of RG 214/U coaxial cable can be used between the antenna and the receiver/transceiver.
- By careful choice of materials, the AIS 2/GPS 4 is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.

### ORDERING

Type	Product No.
AIS 2/GPS 4-N	112000039
DM Mounting Kit	112000001
SM-MAS	110000196
DIPX 1000/1550 DC-H	200000749
PRO-DIPX 1000/1550 DC-H XS	200001998



### SPECIFICATIONS

Electrical	
Model	AIS 2/GPS 4
Frequency	156 - 162.5 MHz
Antenna Type	$\frac{1}{2} \lambda$ antenna element
3 dB Beamwidth, H-Plane	Omnidirectional
Polarisation	Vertical
Impedance	50 $\Omega$
Gain	0 dBd (2.2 dBi)
VSWR	< 1.5:1
Maximum Input Power	25 W

Mechanical	
Wind Area	0.031 sq. m / 0.33 sq. ft
Connection(s)	N(f)
Materials	Shroud : Polyurethane coated glass fibre Flange : Chromed brass
Colour	Marine white
Height	1350 mm / 53.15 in.
Wind Load	50 N (160km/h)
Weight	0.9 kg / 1.98 lb
Mounting	On 30 - 44 mm mast tube using stainless steel clamp type SM-MAS or on deck using DM Mounting Kit

GPS Antenna	
P1dB (GPS Amplifier)	Approx. +10 dBm
Noise Figure (GPS Amplifier)	< 3 dB (typ.)
Cross Polar Discrimination (GPS)	> 10 dB (typ.)
Gain (GPS Antenna)	32 dB
Selectivity (GPS Amplifier)	> 20 dB down @ +/- 100 MHz
VSWR (GPS Amplifier)	< 2.0:1
Frequency (GPS)	1575 MHz
Power Supply (GPS)	5 +/-0.5 V DC (3 V and 12 V respectively available on request)
Current Consumption (GPS Amplifier)	Approx. 44 mA
Polarisation (GPS)	RHCP
Impedance (GPS)	50 $\Omega$

Environmental	
Operating Temperature Range	-30°C to +70°C

