

Marine Asset Tracker

Technical Specification for MAT1

Pole Star's Marine Asset Tracker system (MAT) is comprised of reliable satellite tracking hardware linked to a powerful web-based service. It provides an effective way of automatically tracking powered and unpowered marine assets in real time.

The system enables the operator of any marine asset to monitor the safe passage of their powered vessels and their towed unpowered vessels through adverse weather and sea conditions or through high security risk areas which may be affecting trade routes

A flexible “pay as you go” service, MAT is designed primarily for use by tug and barge, support vessel and inshore operators.

The MAT1 satellite transceiver is specifically designed for powered vessels which have a 12-24v DC power supply on board.



Note: Diameter: 160mm x Height: 52mm

via 
inmarsat

Powered by

Purplefinder 

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PHYSICAL	
Transceiver dimensions	Diameter: 160mm x Height: 52mm
Transceiver weight	580g
ENVIRONMENTAL	
Operating Temperature Range	-40° to +70° C
Storage Temperature Range	-40° to +85° C
Humidity	95% Relative Humidity at 30° C
Vibration	5-20 Hz: 1.92 m2/s3 random noise 20-500Hz: -3dB octave random noise
Shock (survival)	Half sine 6ms, 300m/s2
Transceiver environmental rating	IP56
ELECTRICAL	
Input Voltage Range	12 to 30 VDC
Power Consumption (typical. @ 12Vdc)	Receive: 0.9W
Idle:	0.25W
GPS Active:	+1.0W;
Heater Active:	+5.0W
Transmit:	10W;
Mating Connector	Conxall Mini-Con-X® 6282-8SG-3DC
SATELLITE	
Coverage:	Global, four overlapping regions & Spot Beams
Frequency Range:	Rx: 1525.0 to 1559.0 MHz
Tx:	1626.5 to 1660.5 MHz
Sensitivity:	> -25dB/K
EIRP:	0 dBW to 9 dBW (0dBW at < 5 degrees)
Elevation Angle Range:	0 to 90 degrees
Modulation:	Forward channel: 32-ary FSK, 20bps
Reverse Channel:	binary FSK, 4-128bps
Forward Error Correction:	Forward channel: Reed-Solomon (31,15)
Reverse channel:	Half-rate convolutional (k=7)
GPS	
Frequency:	1575.42 MHz
Channels:	16 parallel
CERTIFICATIONS	
	Inmarsat D+ Type Approval , CEMark

