



AT-5000 Series

UHF - DAMA SATCOM & MULTIFUNCTIONAL SYSTEM



FEATURES

- Full duplex UHF - DAMA SatCom operation
- Suitable for land-mobile, surface ship and submarine applications
- Omni-hemispherical pattern, satellite tracking is not necessary
- Compatible with all established UHF-SatCom Transceivers
- Multifunctional communication antenna operation with the German Navy and various NATO countries
- Includes: Interface Module IM-5000 & Remote Control RC-5000





AT-5000 Series

The AT-5000 antenna system series is designed for omnidirectional transmission and reception of signals for UHF-DAMA SatCom communication on land-based vehicles as well as on board of surface ships or submarines. The antenna is optimized for high data rate UHF-DAMA (Demand Assigned Multiple Access). The antenna fully meets the rugged environmental conditions and the space limitations encountered on mobile and swimming platforms. Besides UHF-DAMA SatCom functionality, the AT-5000 Series can also be used as a multifunctional communicational antenna depending on the individual configuration.

Bandwidth / Antenna Type	AT-5000	AT-5005	AT-5110	AT-5115
SATCOM	•	•	•	•
UHF-LOS 220-400 MHz		•		•
HF-RX 2-30 MHz			•	•
VHF-RX CH 70			•	•
Number of Antenna Ports	2	2	3	3

ELECTRICAL DATA

Antenna	
Frequency Range	UHF-SATCOM
Receive Band	240 - 270 MHz
Transmit Band	290 - 320 MHz
Optional: UHF-LOS	220 - 400 MHz
VHF-RX	Ch. 70
HF-RX	2 - 30 MHz
Impedance nominal	50 Ohms
Isolation between Rx and TX antennas	> 15 dB
Polarization	Right hand circular
Gain	2 dBi. typical
Radiation Pattern	Omni-hemispherical
Transmit Power Handling	200 W
Front-end Electronics	
Receive Gain	> 30 dB
Transmit Power Handling	200 W (CW)
Input Filter + LNA Characteristics	
High Linearity Optimization	
Noise Figure (Input Filter + LNA)	NF < 2.5 dB
1 dB Compression Point	approx. 50 dBm
3 rd Order Intercept Point	approx. 50 dBm
Crossband Isolation (to TX Band)	approx. 50 dB
Connector Type	N-female
Supply Voltage	24 V DC / 2 A

MECHANICAL DATA

Antenna (Surface Ship version)	
Diameter	170 mm
Length	924 mm incl. connectors
Weight	approx. 20 kg
Antenna (Submarine version)	
Diameter	194 mm
Length	1110 mm incl. connectors
Weight	approx. 48 kg
Interface Module	
Main Supply	85 - 264 V AC; 50 to 60 Hz alternative 24 V DC
Power Consumption	approx. 70 W
Dimensions	19", 2 HU or fitted to specific requirements
Weight	approx. 15 kg

ENVIRONMENTAL CONDITIONS

Shock	Vertical	165 g for 1 ms
	Horizontal	400 g for 1 ms
	Vertical / Horizontal	55 g for 6 ms
Temperature	Operating	-25°C to +55°C
	Non-operating	-40°C to +70°C
Pressure (Submarine version)	Operating	70 bar
	Tested	90 bar
Wind load (Surface ship version)	Calculated	200 km/h

Beyond: The versatility of the services we provide makes all the difference. Drawing on more than 55 years of experience in the systems business, Aeromaritime Group provides Antenna Performance and Top Deck Design Studies - Placement, transmitter simultaneous operation ranges and onboard areas of hazardous radiation.

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