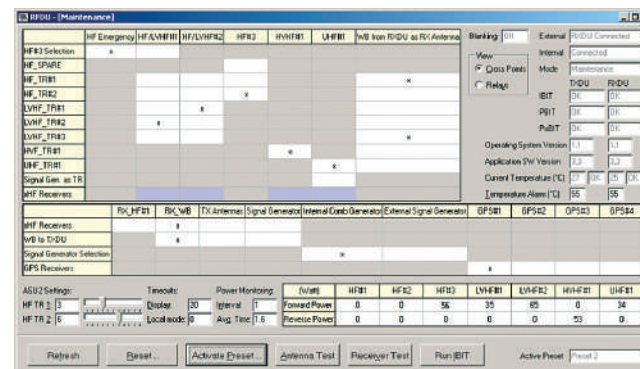


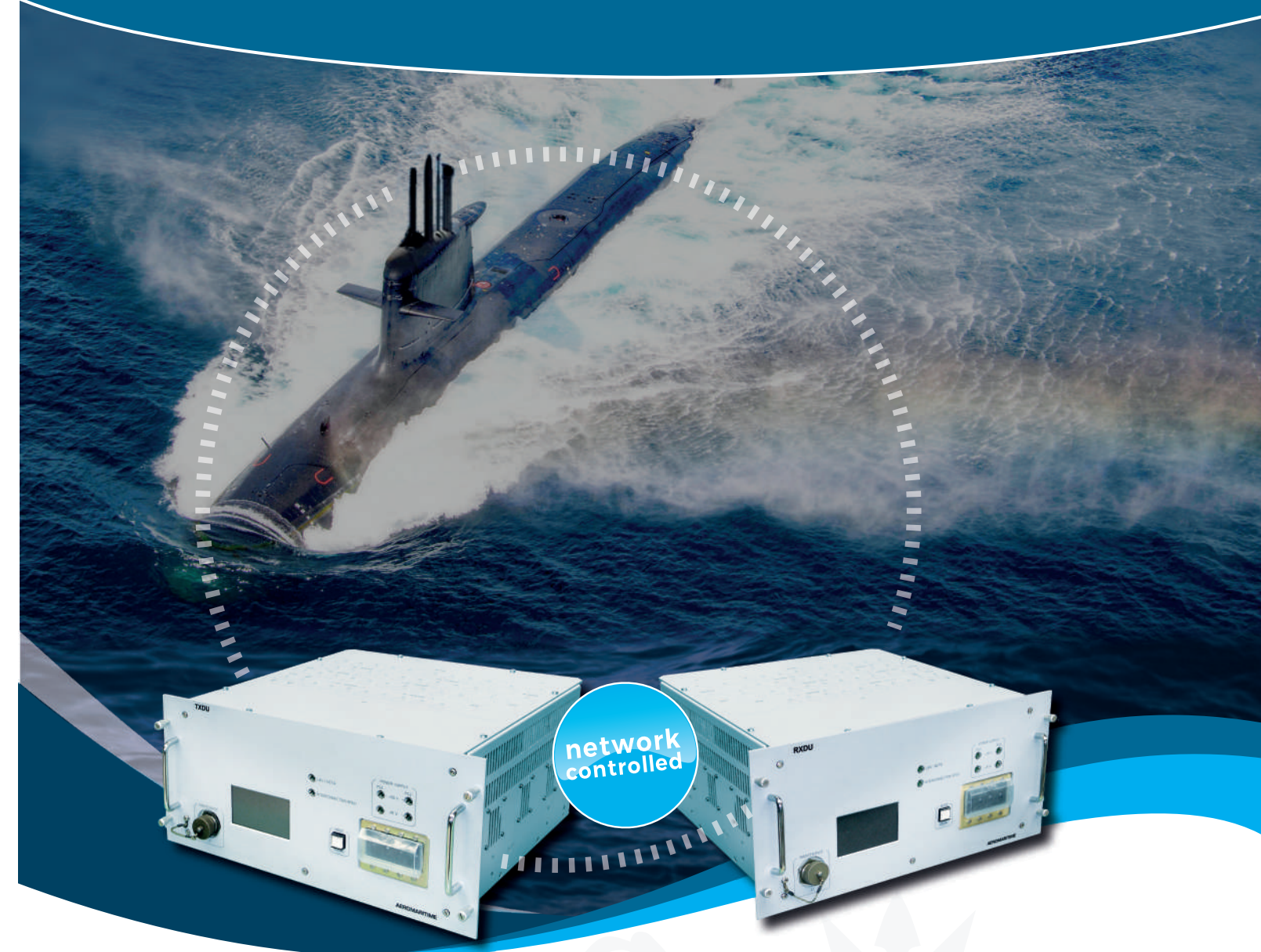
The maintenance software will be used to configure, manage, monitor, control and maintain the system. It can be installed on a maintenance PC which will be connected either to the RXDU or TXDU USB port.

FUNCTIONALITY

- › Presets/Configuration
- › Antenna Test
- › Receiver Test
- › Build-In-Test
- › Cross Point Settings (High Level)
- › Relay Settings (Low Level)
- › Easy configuration and firmware update
- › Web server based network integration
- › Info Area with status indication about blanking, internal / external connection, operating mode, short results of BIT tests, SW version, current temperature and power monitoring values.



Software-Interface: The API.DLL library provides a software interface for system configuration, controlling, managing and monitoring. AEROMARITIME's Configuration and System Management Software – COSYMA already includes this API.DLL.



FEATURES:

- › RF capability for 500W CW
- › Individual default setting
- › RF Power monitoring
- › RF Relays test w/ indication signals
- › RF path testing w/ internal signal generator

RFDU

Radio Frequency Distribution Unit

RFDU

RADIO FREQUENCY DISTRIBUTION UNIT



The Software controlled Radio Frequency Distribution Unit RFDU automatically combines transceivers and receivers with active and passive antennas in the frequency range of 2 to 500 Mhz and an optional capability of GPS & GALILEO.

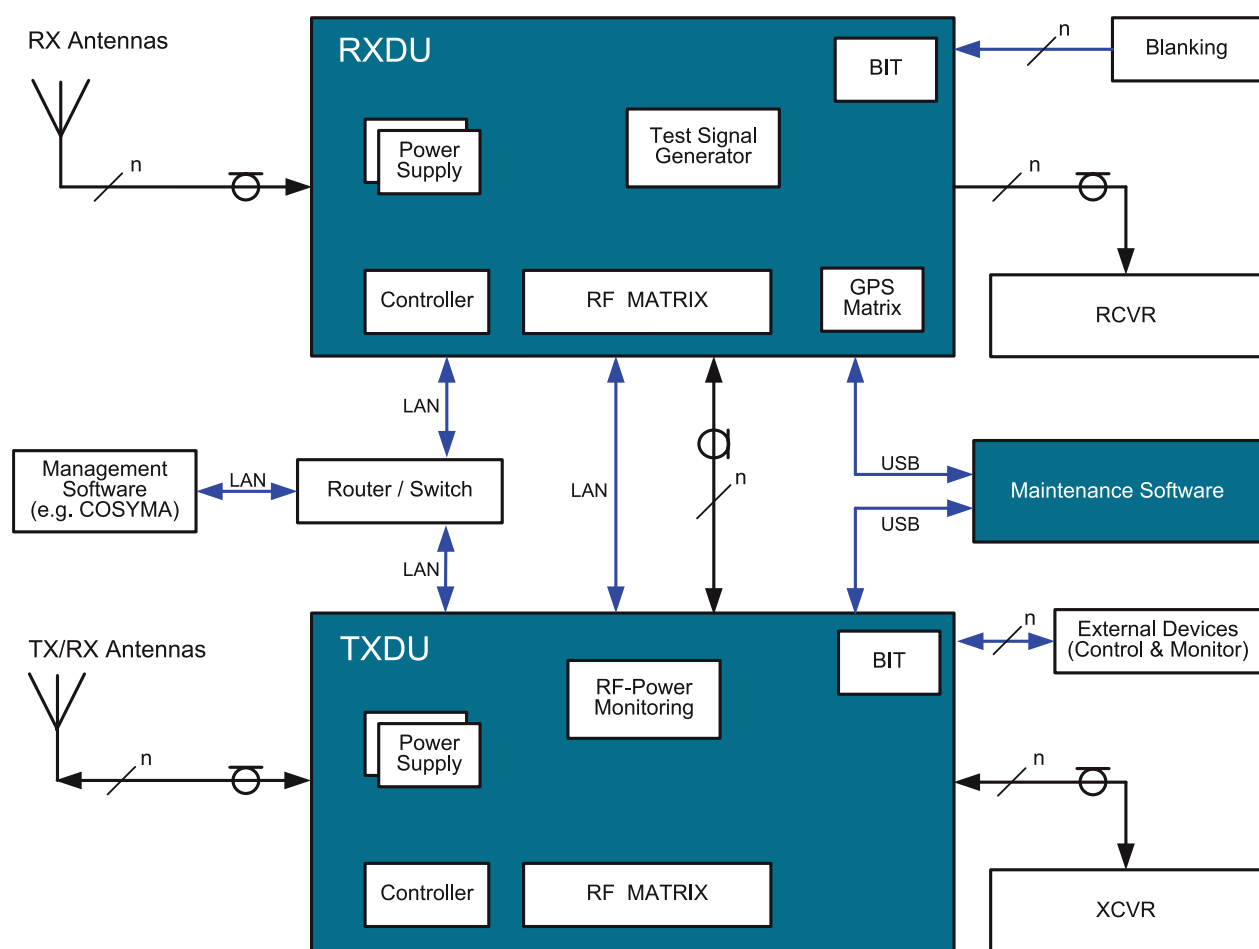
The RFDU basically consists of a Receive- (RXDU) and Distribution Units. The number of inputs and outputs can be freely determined. The RFDU is designed for applications in ships ranging in size from submarines to frigates and copes with RF signals of up to 500W CW (1kW peak). The RXDU & TXDU units can be individually used and remotely controlled via Ethernet interface.

TRANSCEIVER DISTRIBUTION UNIT (TXDU)

The key function of the TXDU is to connect transceivers to antennas. As a secondary function the system can be connected to auxiliary outputs and inputs.

RECEIVE DISTRIBUTION (RXDU)

The RXDU distributes RF signals from the receive (Rx) antennas and external inputs to the receivers and to several auxiliary outputs.



Radio Frequency Distribution Unit
(General System Overview)

FEATURES

- Comfortable operation via LCD display with touch screen
- RXDU / TXDU Back-up function
- Previous switching conditions are automatically restored @ mains failure or after switching off
- Key Lock RF-Transmission
- Capable to control external switches and devices e.g. vacuum relays, digital matrix
- Internal "Build-in-Tests"
- Redundant power supplies
- Operation Modes: Remote, Local, Maintenance
- System monitoring of RF relays, temperature, power supplies and driver units
- Individual RF-Signal amplification and distribution
- GPS & GALILEO RF Matrix inside RXDU (optional)
- Individual setting of temperature alarm level
- Blanking functionality
- Low acoustic noise (Normal condition Fans off)

Description	Specification	Comments
Dimensions	Width:19", Depth: 400mm, Height: According customer request	
Mains Power Supply	+ 24 VDC; Range: +18 VDC to +32 VDC comply to STANAG 1008	Other mains supply possible
Temperature Range	Operation 0°C...+60°C, Storage -10°C...+65°C	
Humidity	+60 oc @ 95%RH	
Degree of Enclosure	Drip Proof @ 45 degrees, front panel only	
Fungus	Immune to fungus	
Acoustic Noise	@50°C ambient temperature with Fans ON the sound pressure level is in accordance with DIN EN ISO 3746 < 49 dBA	
Atmospheric Presssure	800 - 1400 mbar	
Vibration (Operation)	According to MIL-STD-167-1 a) 4 ÷ 12.5Hz: D=0.05" Peak to Peak (1.27mm) b) 12.5 ÷ 40Hz: A=0.4 G peak (4 m/s2)	
Shock (Operation)	Half Sine shock with 22g peak @ 20ms	
EMC	Conducted and radiated emission and susceptibility acc. per MIL-STD 461E	
MTBF	> 30,000 hours	
Useful Life	> 15 years	
Maintanance Control	USB interface	At the front panel
Remote Control	Ethernet interface	At the rear panel
Frequency Range	2-500 MHz / GPS L1 and L2	Receive and Transmit / Receive only
Antenna Inputs	According to customer request	
Transceiver Outputs	According to customer request	
Receiver Outputs	According to customer request	
Impedance	50 Ohm	
Gain	0...5 dB (typical)	From any Input to any Output
Signal Level RX	30 dBm max.	
Signal Level TX	500 W CW max. / 1kW peak max.	
Noise Figure RX	5...10 dB (typical)	
1dB Gain compr.	10...15 dBm (typical)	For the RX unit only
Input IP 3	+25 dBm min.	
Input IP 2	+35 dBm min.	
Isolation	60 dB min.	Output to Output
Default Mode	Communication by power failure possible with 'Failsafe Relays'	
Switching Time	20 msec	

