

+ RFDU

RADIO FREQUENCY DISTRIBUTION UNIT



FEATURES

- RF capability for 500 W CW
- Individual default setting
- RF power monitoring
- RF relay test with indication signals
- RF path testing with internal signal generator

RFDU

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.

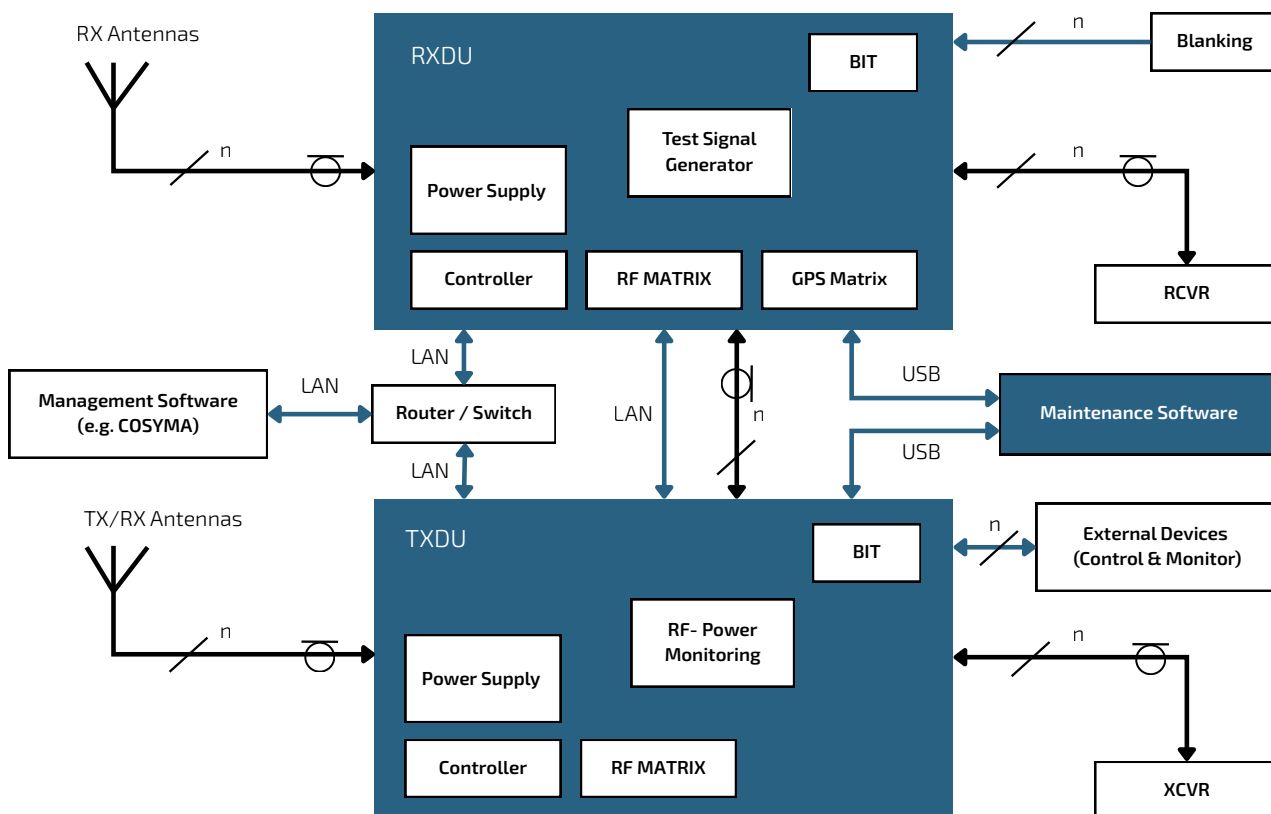
The RFDU basically consists of a Receive- (RXDU) and Distribution Units. The number of inputs and outputs can be freely determined. The RFDU is designed for applications in ships ranging in size from submarines to frigates and copes with RF signals of up to 500 W CW (1 kW peak). The RXDU & TXDU units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

TRANSCIVER 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 UNIT (RXDU)

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



FEATURES

- Comfortable operation via LCD display with touch screen
- RXDU / TXDU Back-up function
- Previous switching conditions are automatically restored
- 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)

Functions	Specification
Dimensions	Width: 19", Depth: 400 mm, Height: according to customer request
Mains Power Supply	+24 VDC, Range +18 VDC to +32 VDC
Temperature Range	Operation 0°C...+60°C, Storage -10°C...+65°C
Humidity	+60°C @ 95% RH
Degree of Enclosure	Drip Proof @ 45° front panel only
Fungus	Immune to fungus
Acoustic Noise	49 dBA (per DIN EN ISO 3746)
Atmospheric Pressure	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/s ²)
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
Maintenance Control	USB interface
Remote Control	Ethernet interface
Frequency Range	2–500 MHz (Rx & Tx)/ GPS L1 and L2 (Rx-only)
Antenna Inputs	According to customer request
Transceiver Outputs	According to customer request
Receiver Outputs	According to customer request
Impedance	50 Ohm
Gain	0 to 5 dB (typical)
Signal Level RX	30 dBm max
Signal Level TX	500 W CW max / 1 kW peak max
Noise Figure RX	5 to 10 dB (typical)
1 dB Gain Compression	10 to 15 dBm typical (Rx-only)
Input IP3	+25 dBm min.
Input IP2	+35 dBm min.
Isolation	60 dB min
Default Mode	Communication by power failure possible with "Failsafe Relays"
Switching Time	20 msec

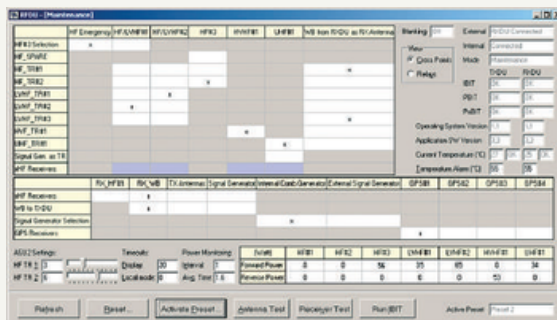
RFDU

RADIO FREQUENCY DISTRIBUTION UNIT

The maintenance software is used to configure, manage, monitor, control and maintain the system. It can be installed on a maintenance PC connected to either 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
- Information area with status indication about blanking, internal/external connection, operating mode, BIT results, software version, current temperature and power monitoring values



Software-Interface. The API.DLL library provides a software Interface for system Configuration and SYsystem MAnagement software - COSYMA already includes this API DLL.

info@aeromaritime.fr
info@aeromaritime.de

For more information visit our website:

aeromaritimegroup.com