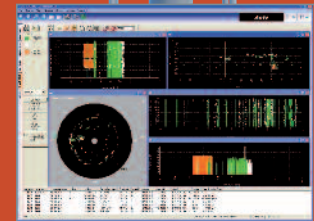


A WORLD-CLASS COMPACT SOLUTION FOR SELF-PROTECTION AND COMINT

Compact naval CISM solution for alert, situation awareness and COMINT

- ▷ Frequency band: V/UHF (30 - 3000 MHz), HF (down to 1 - 30 MHz optional)
- ▷ Single Direction Finding antenna design for HF and V/UHF band
- ▷ Wide band interception and DF to cope with most modern signals
- ▷ High precision Direction Finding accuracy
- ▷ COMINT capacity
- ▷ AIS data monitoring
- ▷ Easy integration and scalable architecture from one to several operator positions



RADIOCOMMUNICATION PRODUCTS AND SOLUTIONS

ALTESSE

Naval CISM/COMINT Solution





RADIOCOMMUNICATION PRODUCTS AND SOLUTIONS

ALTESSE

Naval CESH/COMINT Solution



ALTESSE is a compact ship borne wideband Communication ESM (CESM) solution, providing alert and situation awareness capabilities based on Interception/Direction Finding of the radio communication signals.

CESM sensors are passive sensors with greater detection range than radar, and are key assets for asymmetric threats detection and position fixing in all maritime environments.

ALTESSE is a scalable solution. It can also provide COMINT capacity:

- Audio monitoring
- Signal analysis with real-time demodulation and decoding
- Recording of intercepted emissions for off-line analysis

Thanks to its compactness ALTESSE can be integrated in all classes of surface ships from frigates to OPV.

The wideband instantaneous bandwidth and processing capacities of ALTESSE allow it to cope with both conventional and complex or frequency hopping signals.

Besides the vector correlation DF method used for HF frequency band provides easy filtering of sky-wave signals.

Real-time emitters bearing allows ALTESSE to quickly provide threats alert data to the Combat Management System (CMS) for command and control of the ship self-protection means.

ALTESSE provides AIS data monitoring and position for CMS data display.

A dedicated Communications Blanking Unit (CBU) provides compatibility between the on-board communications and the CESH/COMINT system.

ALTESSE solution implements an easy-to-use operational Man Machine Interface through multi-windows display on standard PC/laptop, and can be used in standalone configuration or integrated to a comprehensive Combat Management System.

Main Features

General characteristics

Frequency band:

- DF: 30 - 3000 MHz, down to 1 - 30 MHz (option)
- Monitoring: 20 - 3000 MHz, down to 0.01 MHz (option)
- DF method: interferometry (V/UHF), vector correlation (HF)

Instantaneous IF bandwidth: up to 40 MHz

Scanning speed: up to 40 GHz/s

Sensitivity: < -120 dBm

DF accuracy*:

- < 1 RMS (V/UHF)
- < 4° RMS (HF)

* Measured in reflection free environment

Modulation recognition: AM, FM, A3E, F3E, J3E, H3E, OOK, BPSK, QPSK, FSK, CPM, OFDM

Audio monitoring: AM, FM, USB, LSB, ISB

Data monitoring: OOK, DPSK, Pi/2 DBPSK, Pi/4 DQPSK, QAM, FSK, CPM, MSK, GMSK...

Data decoding: more than 120 decoders (refer to TRC 6000 suite)

Open library for demodulators and decoders

Recording: I&Q wide band and narrow band audio signal

Physical characteristics

Rack cabinet: CBU, power supply, PC

COMINT/DF for sensor: TRC 6200 Family

Antenna: ANT 207 2S V/UHF (fully passive)

- Dimension: Ø165 x h110 cm
- Weight: < 45 kg

Antenna: ANT 207 HF (option)

- Dimension: L113 x W113 x H201 cm
- Weight: < 35kg

Environmental characteristics

(For outdoor equipment)

Operating temperature: -20 °C to +50 °C

Storage temperature: -40 °C to +70 °C

MIL-STD-810F and MIL-STD-461E