MILKED-4S
HF Direction Finding (DF) System
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MILKED-4S HF Direction Finding and Monitoring system is a typical fixed site installation of ASELSAN COMINT/DF capabilities against HF band communications emitters. The system can be operated locally or remotely via ethernet interface with full functionality. With its wide aperture antenna array MILKED-4S provides accurate and stable line of bearing information. While MILKED-4S has also Single Site Location (SSL) fixing capability, triangulation techniques based on collected LOBs from different sites are used to achieve excellent accuracy in the estimation of target location. With the above mentioned configuration MILKED-4S serves perfectly for HF band strategic COMINT/DF operations.

A core equipment of the system is ARD-4008 HF DF Receiver which is a high-end, state-of-the-art receiver for all types of COMINT-DF applications. ARD-4008 is ready to provide 8-channel digital data for accurate direction finding functionality in fixed and land mobile platforms.

Almost all COMINT operations necessitate monitoring of multiple communications nets simultaneously. MILKED-4S contains ARM-4001 which is a Digital Monitoring Receiver which is designed for military and professional applications where high end products are needed. 1U Half Rack form factor and compact size (compared to its specifications and features) make it easy to stack for multiple monitoring channel requirements.

General Features

- Modular, scalable design,
- Fully digital receiving architecture,
- 7+1 element passive (1 in the center and 7 antenna around a circle) monopole antenna array,
- 1 passive monopole monitoring antenna,
- Correlative interferometer based DF algorithm,
- Remote Command Center,
- Demodulation capability for AM, FM, LSB, USB, ISB, CW, I/Q signals,
- Remote controlled operation via Ethernet interface,
- Automated or manual operation,
- Extensive built-in self test,
- Channel scan, threat list, frequency lock-out features,
- Recording and offline analysis software,
- Location fixing on digital map display,
- Secure communications infrastructure.

Technical Specifications

- HF Frequency Band Coverage
- DF Accuracy : < 2.0° RMS
- Azimuth Coverage : 360°
- Antenna Array Radius : 40 m

Receiver Sensitivity

- AM (8 kHz BW, 10 dB) : -106 dBm
  SINAD, Fmod = 1 kHz, m=0.5
- FM (16 kHz BW, 17 dB) : -104 dBm
  SINAD, dev=4.8 kHz
- SSB (3.2 kHz BW, 10 dB) : -108 dBm
  SINAD
- CW (0.1 kHz BW, 10 dB) : -125 dBm
  SINAD
- Operating Temp. : -30/-50°C
- Storage Temp. : -40/-60°C