MILKED-3S3
FIXED SITE V/UHF DIRECTION FINDING AND MONITORING SYSTEM
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MILKED-3S3 Fixed Site Direction Finding and Monitoring System is a typical fixed site installation of ASELSAN COMINT/DF capabilities against communications emitters. The system can be operated locally or remotely via ethernet interface with full functionality. With its specifically designed DF antenna, MILKED-3S3 provides accurate and stable line of bearing information. By means of operating more than two systems, location fixing is performed on a digital map display.

The core equipment of the system is ADF-3401 DF Receiver which is a high-end, state-of-the-art receiver for all types of COMINT-DF applications. As a key member of ASELSAN COMINT products, ADF-3401 is ready to provide 4-channel digital data for accurate direction finding functionality in fixed and land mobile platforms. With its capability of direct digital reception (DDR), it is able to demodulate signals within its instantaneous bandwidth.

Almost all COMINT operations necessitate monitoring of multiple communications nets simultaneously. MILKED-3S3 contains ARM-3401 which is a Digital Monitoring Receiver designed for military and professional applications where high end products are needed. MILKED-3S3 system provides software tools for further analysis of results. DF Analysis, Signal Analysis and Communication Records Analysis tools help user to respond swiftly to the operational conditions.

Meeting the challenge of the modern signal environment, MILKED-3S3 utilizes the latest technology to achieve outstanding DF performance and high sensitivity monitoring.

General Features
• Wide Frequency coverage
• 4 Channel DF Receiver
• Correlative Interferometry DF Algorithm
• 4 element DF Antenna (contains lightning rod)
• 360° omnidirectional azimuth coverage
• Sector-based operation and digital map aided
• wideband automatic location fixing capability
• DF Analysis Software that provides opportunity for analysis of DF results
• DDR based Demodulation capability for AM/FM/
LSB/USB/CW signals,
• Separate Wide Band Monitoring Antenna, RF
• Distribution Unit and 4 Monitoring Receivers
• Wide Band IF Recording and Analysis Capability
• Narrow Band Signal Analysis Software & Protocol
• Decoding Tool for signals with Digital Modulation
• Channel/band scan, target/detected emissions list and frequency lock-out features
• Networking via wired/wireless communication links.

Technical Specifications
V/UHF Frequency band coverage
DF Accuracy (clear site) : 1° RMS or better
Instrumental DF Accuracy : 0.3° RMS or better
Tuning Resolution : 100Hz
Min. Detectable : 1 ms

Signal Duration
Scan Rate : 2.5 GHz/s (40 MHz IF BW, 25 kHz frequency resolution and 10% spectrum occupancy)
Instantaneous IFBW : 40/10/1 MHz (3 IF filters)
FFT Resolution : 100/50/25/12.5/6.25 kHz (40 MHz)
60/30/15/7.5/3.75 kHz (10 MHz) 4/2/1/0.5/0.25 kHz (1 MHz)
Frequency stability : ±1 ppm or better
Power input : > 4 hours (40 MHz IF BG)

Size : 20-32 VDC (=175W)
Shock, Vibration : 19 inch, 4U, 36 cm depth
EMI/EMC : MIL-STD-810G (DF receiver)
MIL-STD-461E (DF receiver)
Operating Temp.Range : 0/+50°C (DF receiver)
-30/+50°C (DF antenna)
Storage Temp. Range : -40/+60°C
Backup Power Source : 2x13 kVA Dual System Generators
Sensors : Temperature-humidity-wind sensors,
energy analyzer, fire detector, container door open/closed detector,
generator fuel level detector
Supporting Units : Static Voltage Regulator (SVR),
Uninterruptable Power Source (UPS), Air Conditioning Units,
Lightning Protection Unit, IP Controlled AC/DC Power Distribution
Units (PDU)