



Low-Band ESM



Low-Band Frequency Extension for AE-4500 Auto ESM System

SNC's Low-Band Frequency Extension for the AE-4500 Auto ESM System (AE-4500) enables RF awareness of critical VHF/UHF threat radars by rapidly detecting and identifying the early warning radars that are part of all Surface to Air Missile (SAM) systems and Integrated Air Defense Systems (IADS). These high-powered VHF signals may also be used for detection of low observable stealth aircraft.

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RF Electronics Assembly – Low (REA-L)



REA-L OVERVIEW

The REA-L is a single channel front end receiver that extends the AE-4500's frequency range down to 30 MHz for a total system frequency coverage of 0.03 to 40 GHz. The REA-L accepts the RF inputs from two blade antennas and provides narrowband filtering to enable isolation and detection in dense RF environments and AE-4500 hardware and software processing.

When the REA-L is used with the AE-4500, it connects to one or two on-board blade antennas to provide omni-directional coverage for VHF/UHF emitter detection and identification. This allows the radar ESM system to the on-board low-band DF system to measure the direction of or locate the threat radar when a high priority VHF/UHF signal of interest is detected.

REA-L SPECIFICATIONS

| | |
|-------------------------|---------------------------------|
| • Frequency Coverage | 30 MHz to 500 MHz |
| • IF Bandwidths | 25 MHz, 10 MHz and 1.5 MHz |
| • Size | 3.4" (H) x 6.0" (W) x 10.4" (D) |
| • Weight | 7.3 lbs |
| • Power | +28 V, 12 Watts typical |
| • Control Interface | RS-422 or Ethernet LAN |
| • Operating Temperature | -55 to +65 Deg C |

FEATURES

- Detect, identify & locate VHF/UHF early warning radars
- Output processed by AE-4500 Auto ESM System
- Low-band frequency up conversion

RELATED EQUIPMENT

- APA – 0.5 to 18 GHz Antenna Panel Assy
- APA-X – 0.5 to 40 GHz Antenna Panel Assy
- REA – RF Electronics Assy (0.5 to 18 GHz)
- REA-X – RF Electronics Assy with Frequency Extension (18 to 40 GHz)
- RPA – Receiver Processor Assy
- ILA – In-Line Amplifier (Optional)



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