Shefer System ESM-360 Airborne System





360-Degree Passive Situational Awareness From 0.5 to 40 GHz

The ESM-360A System is an airborne electronic support measures (ESM) system that enables RF situational awareness of threat radars. It rapidly detects and identifies commercial and military radars, providing real-time situational awareness to users. The ESM-360A System is designed for remote control operation, providing situational awareness data over line-of-sight (LOS) and beyond-line-of-sight (BLOS) datalinks. The ESM-360A is based on SNC's mature, field-proven AE-4500 ESM System installed on UAV and commercial aircraft platforms around the world.

ESM-360 Airborne System

OVERVIEW

The ESM-360A solution is based on the TRL 9 hardware and software used in the AE-4500 ESM System, providing identical data outputs and using the same scan plan and threat database inputs. The system uses four Single Element Antenna Assemblies (SEAA) arranged to provide 360-degree instantaneous azimuth coverage. Each SEAA receives and provides RF signal conditioning for 0.5 to 40 GHz signals. The other hardware in the ESM-360A System is identical to or modified from the AE-4500 ESM System. The parameter measurement range, resolution and accuracy are the same as the AE-4500 ESM System.

SYSTEM SPECIFICATIONS

 Frequency Coverage 	0.5 to 40 GHz
Instantaneous DF Coverage	360 degrees
DF Accuracy	12 degrees typical
• SEAA Size	6.65" (L) x 3.23" (Diameter)
• 2CH REA Size	5.91" (W) x 9.25" (L) x 2.25" (H)
• RPA Size	8.75" (H) x 6.25" (W) x 14.5" (D)
System Weight	60 lbs
• System Power	+28 V, 420 Watts
 Operating Temperature 	-55° to +65° C
 Control Interface 	Gigabit Ethernet LAN
PDW Data Output	Same as AE-4500 ESM System
• EDW Data Output	Same as AE-4500 ESM System
 Threat Database 	Same as AE-4500 ESM System
• Scan Plan	Same as AE-4500 ESM System
• EPED GUI	Same as AE-4500 ESM System

EQUIPMENT

- SEAA Single Channel Antenna Assembly (0.5 to 40 GHz)
- 2CH REA RF Electronics Assy
- ILA In-Line Amplifier (Optional)
- RPA Receiver Processor Assy



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Receiver Processor

Assembly (RPA)

FEATURES Image: Start Sta

The ESM-360A System is easily installed onto a wide range of airborne platforms to provide single platform geolocation. The ESM-360A is designed to work with the AE-4500 ESM System, providing detection and direction finding coverage to the nose and tail sectors that the AE-4500 ESM System does not cover. The two ESM systems provide data over a narrowband datalink to a common, map based graphical user interface, providing real-time situational awareness, simplified operation and using the same pre-mission planning, in-mission operation and post-mission analysis tools.