

ES-5080

Electronic support measures (ESM) and electronic intelligence (ELINT) system

The L3Harris ES-5080 is a combined ESM and ELINT digital receiver system designed for air, land and coastal surveillance in a mobile or fixed-site application.

The ES-5080 is a state-of-the-art, combined ELINT and ESM system. The ES-5080's advanced digital receiver technology intercepts, detects and identifies a variety of wideband radars, including low-probability-of-intercept (LPI) frequency-modulated continuous-wave (FMCW) radars at long ranges. The system can detect radio frequency (RF) emissions from submarines, surface ships, aircraft and land-based radars.

The system architecture combines omnidirectional and high-gain spinning dish antennas with wideband synthesized superheterodyne tuners and digital receivers. This combination provides high system sensitivity and parameter measurement accuracy, which is needed for

receiving today's complex, low-power radars at long ranges. The flexible architecture provides easily tailorable system configurations:

- > Single channel
- > Single-operator system to full multi-receiver
- > Multi-operator ESM and ELINT system

The ES-5080 system uses a Windows interface for emitter graphical analysis and display. The user-friendly, graphics-based human-machine interface (HMI) allows operators to easily interpret and understand the signal environment. The HMI can also be run on multifunction consoles.



Photo by PH1 Larry A. Franklin

Land, air and coastal surveillance

BENEFITS

- > Detects complex, low-power radars at long ranges with high system sensitivity and parameter measurement accuracy
- > Identifies LPI FMCW radars at long ranges
- > Provides flexible operations through customizable system configurations

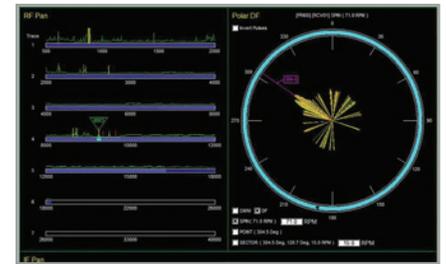


ES-5080

<p>ANTENNA PERFORMANCE</p> <ul style="list-style-type: none"> > 0.5 to 40 GHz standard instantaneous RF coverage with angle of arrival (AOA) on every pulse > High-gain antenna for direction finding and ELINT collection > Antenna gain: 24dB at 9 GHz typical > Omni antennas for 360° field of view 	<p>HUMAN-MACHINE INTERFACE (HMI)</p> <ul style="list-style-type: none"> > Windows graphical user interface > Easily integrated with combat systems > Built-in training
<p>RECEIVER PERFORMANCE</p> <ul style="list-style-type: none"> > Multiple superheterodyne and digital receiver channels > Selectable bandwidths (500 MHz to 2.5 MHz for each channel) > 50 nsec minimum pulse width > FMCW radar detection and identification 	<p>DATA RECORDING</p> <ul style="list-style-type: none"> > Records PDWs and BDIF > Records CDIF using an optional high speed data recorder
<p>PRECISION PARAMETER MEASUREMENT</p> <ul style="list-style-type: none"> > 0.25 MHz RF accuracy > 5 nsec PW accuracy > 10 nsec PRI accuracy 	<p>NETWORKING CAPABILITY</p> <ul style="list-style-type: none"> > Designed to be controlled by remote operators over TCP and IP links > One operator can control many systems > One operator can control several sites > Compression software limits network transmissions to available bandwidth
	<p>OPTIONS</p> <ul style="list-style-type: none"> > Map overlays > Geospatial plot displays > Data share with shipborne ESM systems

FEATURES

- > Wideband synthesized heterodyne tuners
- > High-gain spinning dish antennas
- > User-friendly, graphics-based HMI



ES-5080 RF spectrum display and polar DF display



ES-5080 mobile configuration

ES-5080 ESM and ELINT System

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Nonexport-controlled Information

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