ES-5080

ELECTRONIC SUPPORT MEASURES (ESM) AND ELECTRONIC INTELLIGENCE (ELINT) SYSTEM

The Harris ES-5080 is a combined ESM and ELINT digital receiver system designed for 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/ELINT system

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

FEATURES

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

ANTENNA PERFORMANCE
- 0.5 – 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 @ 9 GHz typical
- Omni antennas for 360° field of view

RECEIVER PERFORMANCE
- Multiple superheterodyne / digital receiver channels
- Selectable bandwidths - 500 MHz to 2.5 MHz for each channel
- 50 nsec minimum pulse width
- FMCW radar detection and identification

PRECISION PARAMETER MEASUREMENT
- 0.25 MHz RF accuracy
- 5 nsec PW accuracy
- 10 nsec PRI accuracy

HUMAN-MACHINE INTERFACE (HMI)
- Windows graphical user interface
- Easily integrated with combat systems
- Built-in training

DATA RECORDING
- Records PDWs and BDIF
- Records CDIF using an optional high speed data recorder

NETWORKING CAPABILITY
- Designed to be controlled by remote operators over TCP/IP links
- One operator can control many systems
- One operator can control several sites
- Compression software limits network transmissions to available bandwidth

OPTIONS
- Map overlays
- Geospatial plot displays
- Data share with shipborne ESM systems

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Harris Corporation is a leading technology innovator, solving customers’ toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.
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