

WE'RE ENGINEERING A
BETTER TOMORROW

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AN/APR-52(V)1

DIGITAL ELECTRONIC SUPPORT MEASURES/RADAR WARNING RECEIVER
LEADING THE RWR REVOLUTION





CONFIDENT PERFORMANCE: RAPID DETECTION – ACCURATE IDENTIFICATION

The AN/APR-52(V)1 Digital Electronic Support Measures (ESM)/Radar Warning Receiver (RWR) system increases aircraft survivability and provides maximal threat awareness in the most complex and dense electronic battlefield environments. Highly accurate threat information, from even the most modern and sophisticated radars, is autonomously measured and processed to protect and alert the warfighter with unparalleled performance. The fidelity of the AN/APR-52(V)1 ESM/RWR is the result of Lockheed Martin's 50 years of experience developing, fielding and supporting advanced Electronic Warfare (EW) and survivability products.

OPERATIONAL OVERVIEW

The AN/APR-52(V)1 ESM/RWR system performs concurrent situational awareness and threat warning functions to provide early audio and visual cueing to the platform for threat avoidance with a low false alarm rate. The digital receiver system performs 360-degree simultaneous detection while rapidly scanning through the Radio Frequency (RF) environment for threats both at low power and long range. The system is able to unambiguously identify emitters through algorithms that have been matured over five decades and are continually refined on numerous fielded platforms. These autonomous algorithms leverage the system's improved Angle of Arrival information for concise and accurate emitter reporting, reducing operator workload while maximizing survivability.

A downloadable emitter library is used to dynamically tailor the system for the specific Area of Responsibility (AOR) and can be reloaded in flight for other regions. Our proven Mission Data Load Tool optimizes system performance for specific mission objectives and provides predictable results that instill pre-mission operator confidence.

SYSTEM ADAPTABILITY

The APR-52 system is a passive, low-cost, low-risk, high-performance digital receiver-based system, which enables manned or unmanned airborne, land and sea-based platforms to rapidly detect, identify and locate radar threats. The system's small footprint and modular/scalable architecture eases integration into a variety of platform configurations. Performance can be optimized for a variety of mission equipment packages.

THE AN/APR-52 IS DESIGNED FOR OPTIMAL PERFORMANCE IN THE MOST CHALLENGING RF ENVIRONMENTS

RECEIVER PROCESSOR

ANTENNA SWITCH ASSEMBLY

ANTENNA ASSEMBLY

LOW BAND ANTENNA

ANTENNA ASSEMBLY

ANTENNA SWITCH ASSEMBLY

RECEIVER PROCESSOR

ANTENNA ASSEMBLY

ANTENNA SWITCH ASSEMBLY

ANTENNA ASSEMBLY

LOW BAND ANTENNA

PROVEN PERFORMANCE

Our multi-domain experience provides the essential skills to develop and seamlessly integrate an ESM/RWR subsystem into fielded platforms. As both an EW subsystem supplier and a mission system integrator, Lockheed Martin has a complete understanding of the EW mission and interoperability between EW and other platform subsystems.

MODERN THREAT DETECTION
ACCURATE AND RAPID AWARENESS

ENHANCED SITUATIONAL AWARENESS
OPERATION IN THE DENSEST THREAT ENVIRONMENTS

LONG RANGE DETECTION
INCREASED SENSITIVITY WITH DIGITAL CHANNELIZER

HIGH PROBABILITY OF INTERCEPT
WIDEBAND, SIMULTANEOUS 360-DEGREE COVERAGE

UNAMBIGUOUS IDENTIFICATION
ELINT QUALITY MEASUREMENT ON EVERY PULSE

CHARACTERISTICS

- VOLUME: 1.4 CUBIC FT
- TOTAL WEIGHT: 69.9 LBS
- POWER: 500 WATTS
- COOLING: INTERNAL FAN
- MEAN TIME BETWEEN FAILURE (MTBF) >2400 HRS

ENHANCED SITUATIONAL AWARENESS = INCREASED SURVIVABILITY