



AN/PRD-13(V)2 Man Portable Signal Intelligence System

Linkabit's AN/PRD-13(V)2 Man Portable Signals Intelligence (SIGINT) System incorporates sophisticated RF intercept and Direction Finding (DF) processing capabilities into a low power, light-weight, ruggedized, and reliable system that satisfies the most demanding applications and mission requirements.

The AN/PRD-13(V)2 has been developed to support tactical SIGINT missions by providing:

- Signal Environment Characterization
- Signal Exploitation
- Signal Location
- Threat Warning

The AN/PRD-13(V)2 contains a powerful signal search capability that allows quick and accurate characterization of the signal environment. The system can support directed search, general search, or a combination of searches, providing the user greater flexibility.

For directed searches, the system allows the user to program a channel list of up to 400 normal plus 20 priority channels.

The system's general search capability allows for the monitoring of up to 9 bands. Three band search strategies are supported: automatic, semi-automatic, and new energy. In addition, a frequency pass list of up to 400 signals can be maintained.

When signals are detected, the system can maintain an active signals list measuring center frequency, bandwidth, time-first-seen, percent time active, DF bearing, and signal strength. An optional recorder is available to record and playback intercepted audio and signal parameters.



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The system has been optimized for the man portable tactical mission. The entire system can be transported and operated by a single person, set-up in less than 5 minutes, and weighs just 19.5 kg (43 lbs) including the MB-5700 NiCd Battery and all field accessories. The system, cables, and components fit in a single pack and can be parachute jumped in support of airborne operations.

Key system components include the:

- MD-405A Receiver/Processor
- MA-445C HF/VHF/UHF DF Antenna (2-2000 MHz)
- MA-715A HF/VHF/UHF Monitor Antenna (2-2000 MHz)
- MA-308 Handheld DF Antenna (2-500 MHz)

The heart of the AN/PRD-13(V)2 is the MD-405A Receiver/Processor. This unit includes all system interfaces, three receivers, and dual microcontrollers, plus associated



THE MD-405A RECEIVER/PROCESSOR IS THE HEART OF THE AN/PRD-13(V)2 SYSTEM.

display and man-machine interface (MMI) functions. The task-managed MMI provides easy, convenient operator access to all receiver resources and system features. The processor uses a patented single channel interferometer DF technique providing accurate DF and excellent sensitivity in a system that is low power and lightweight. It provides superior performance with most modulation signal types including SSB and OOK-Morse. The DF histogram display is particularly effective during weak signal conditions, simplex nets, or adverse propagation conditions that typify lower frequency bands.

The lightweight, low profile MA-445C HF/VHF/UHF antenna provides accurate DF coverage from 2 to 2000 MHz. The MA-715A broadband dual whip antennas provide monitoring capability from 2 to 2000 MHz. The MA-308 is a handheld DF antenna used to support localization of nearby transmitters during on the move missions, such as locating a downed pilot's beacon. Other antennas may be used with the system to optimize it for ground vehicle, maritime, or fixed site applications.

The use of a low power design and effective power management allows the system to be operated using the internally mounted MB-5700 NiCd or other approved battery. An optional solar panel can be provided to power the system for extended operations or to recharge the MB-5700 NiCd battery. Additionally other power sources can be utilized with use of the provided accessory kit including local power at 110 or 220 VAC at 50 or 60 Hz, and direct DC power from 10 - 28 VDC.

“Linkabit is the world leader in small, lightweight, low power signal intercept, direction finding, and signal processing systems for tactical Signals Intelligence (SIGINT) applications.”

Features

Frequency Coverage	2 - 2000 MHz DF and Intercept (MA-445C) 2 - 2000 MHz Monitor (MA-715A) 2 - 500 MHz DF (MA-308)
Demodulators DF/Intercept Receiver Monitor Receivers	FM (200 kHz, 50 kHz, 15 kHz), AM (15 kHz, 6 kHz), SSB (6 kHz, 3 kHz), CW (3 kHz, 0.5 kHz) FM (15 kHz), AM (15 kHz, 6 kHz), SSB (6 kHz, 3 kHz), CW (3 kHz, 0.5 kHz)
DF Accuracy	3° RMS Typical (Antenna and Location Dependent)
DF Coverage	360° Azimuth, 0° to +60° Elevation
Graphical Displays	PAN (50kHz, 200kHz, 900kHz, 5MHz spans) DF (Histogram and Vector)
Number of Receivers	1 DF/Intercept and 2 Monitor Receivers; manual independent receiver control by user
Remote Interface	RS-232C
Receiver Operating Modes	Directed Search (Channel Scan): 400 Normal channels, 20 priority channels General Search (Band Sweep): Automatic, semi-automatic, new energy modes Bands: Selectable, 9 bands Signal List: Log up to 400: Center frequency, BW, time statistics Pass List: Avoid up to 400 channels Built-In-Test: End-to-end system test, includes: Start-up, Operator Initiated, and background
Physical Characteristics	System Weight: 19.5kg (43 lbs) including MB-5700 NiCd Battery and all field accessories Power: 9.5 watts max Power Input: 10 to 28 VDC Temperature: -20°C to +50°C Operating -40°C to +70°C Storage Humidity: 0 to 100% Condensing Altitude: 15,240 meters (50,000 feet) Submersion: 1 meter (3 feet) for 1 minute (MD-405A) Rain, Salt Fog, Vibration: Tested to MIL-STD-810E modified

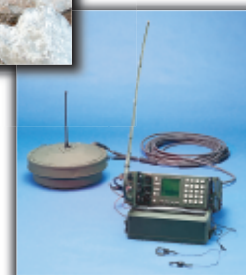
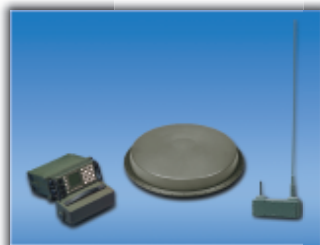
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21st Century Leadership in Small, Lightweight, Low Power SIGINT Systems

— Linkabit is the world leader in small, lightweight, low power signals intercept, direction finding, and signal processing systems for tactical signals intelligence (SIGINT) applications. U.S. and international military forces and law enforcement agencies use our systems to provide critical SIGINT capability for a multitude of missions. These include systems for man portable and small platforms, such as ground vehicles and patrol boats.

Located in San Diego, we are committed to providing the best high technology-based SIGINT products and services to our customers. This commitment ensures that our systems provide maximum self-protection and situational awareness to users on the electronic battlefield, regardless of the climatic condition or location.

Today's information-intensive operations are a forerunner to tomorrow's exciting challenges. We are uniquely positioned to help Government and commercial customers succeed by delivering optimum solutions at the best value. Since the early 1980's, we have continuously delivered leading edge solutions to our customers, while steadily expanding our capabilities, products, and performance reputation.



Note: All specifications subject to change without notice

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