

Man-portable digital interrogator

The BAE Systems man-portable digital interrogator (MDI) is a compact, ground-to-air interrogator designed for use with man-portable and vehicle-mounted air defense weapons. It provides positive identification of friendly aircraft, facilitating rapid engagement of enemy targets at maximum distance. The MDI features interrogator sidelobe suppression (ISLS) and receiver sidelobe suppression (RSLs) capabilities for superior accuracy while using small antennas. The MDI is compatible with all short-range air defense systems.

The MDI consists of a receiver-transmitter, a video processor, a reply processor, circuitry for timing and control, self-test, code memory, power conditioning, and

a battery. All are packaged in a small, lightweight, rugged, belt-mounted unit. Extensive use of ASIC and MMIC technology achieves low power and small size.

A separate PC-based code loader is used to configure the MDI's operational parameters and, when the interrogator is used with a KIV-6 crypto module and supporting enclosure, load the Mode 4 mission code data. The MDI operator control is the interface for mode selection, initiation of challenges, and target identification. Security of the system's code memory is protected through predetermined code-erase protocols.

FEATURES

- Compact, lightweight, and rugged
- Man-portable and vehicle-mounted
- ISLS and RSLs processing
- Four days' stored code, automatic access
- Provides short- and mid-range performance
- Completely solid-state
- Digital processing
- Modes 1, 2, 3/A, C, and Mode 4 secure



SPECIFICATIONS

Electrical

Transmitting frequency	1030 \pm 0.2 MHz
Peak power output	10 watts
Duty cycle	Up to 1%
Receiver center frequency	1090 \pm 0.2 MHz
Sensitivity	-68 dBm

Physical

Weight	6.8 lbs. (3.0 kg)
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Dimensions

Height	8.62 in. (218 mm)
Width	6.81 in. (172 mm)
Thickness	3.85 in (96 mm)

Environmental

Temperature	-40°C to +70°C
Vibration	Per MIL-STD-819 Method 514, Procedure X, curve AX 3.5 Gs sinusoidal
Fungus	Meets MIL-STD-810
Salt spray	Meets MIL-STD-810
Humidity	95% @ 60°C Per MIL-STD-810
EMC	Per MIL-STD-461E

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