TEST SYSTEM

HRTS
Hand-Held Radar and Threat Simulator

Hand-Held All-In-One Electronic Warfare Threat Simulator Test Set

The Hand-Held Radar and Threat Simulator is designed to be an all-in-one, pre-mission or End-of-Runway Go/No Go confidence tester for both radar warning receivers (RWR) and Missile Warning Systems (MWS) installed in most combat and support aircraft.

The HRTS is a fully self-contained, battery-operated, hand-held device with an easy-to-use, integrated 4.3-inch color LED screen. The user interface provides the operator with preloaded threat profiles during test operations. The threat characteristics can also be modified in real-time by the operator during on-aircraft test functions. Preloaded threat files are fully programmable by the end-user using an external laptop and editing application. Mission-specific threat scenarios and threat-specific parameters can be set

to emulate the RF or UV/IR spectrum characteristics that are available during the test sequences through simple menu selections. After the edited file is complete, the program is then transferred to the HRTS memory device.

The RF stimulus covers 625 MHz to 18 GHz for microwave threats and 26 to 40 GHz for millimeter wave threats. The pulse capability covers a wide range of programmable threat characteristics including staggered pulse options.

The standard UVIR stimuli includes a solar-blind (260nm) source for missile plume profiles along with two laser sources at 850 and 1550 nm for laser detection systems. A two-color IR (Red/Blue) source option is also available.

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(continued from front)

The HRTS can be used for both free space RF stimulation or feeding antenna couplers through a simple toggle that directs the stimulus between the HRTS antennae and an external TNC connector when required.

FEATURES

- All-in-one threat emissions; Radar, Laser, & Missile

- Fully programmable .625-18 GHz and 26 to 40 GHz

- CW, pulse and staggered pulse threats

- Programmable UV/IR missile profiles

- Programmable Laser threat profiles

- Fully menu driven system that can be tailored to different languages

- PC support package for test file generation

- Stimulate Radar Warning System through either Free Space or Antenna Couplers

- MOPP4-friendly interface

HRTS PRINCIPAL SPECIFICATION

RF FREQUENCY RANGE

RF	.625 to 18 GHz, resolution 1 MHz
Ka-band	26 to 40 GHz, resolution 1 MHz

MODULATION

CW or pulsed	Pulse width 50 ns to 100 μs, resolution 50 ns PRI 1 μs to 1 second, resolution 50 ns. Various stagger sequences can be set around a nominal PRI

ULTRAVIOLET AND INFRARED

Plume and hostile fire indicator	UV (solar blind), eye safe Class 2 emissions

LASER

CW or pulsed	Pulse width 50 ns to 100 μs, resolution 50 ns PRI 1 μs to 1 second, resolution 50 ns. Various stagger sequences can be set around a nominal PRI

POWER OUTPUT

RF	-21 dBm to +24 dBm controllable in 3 dB steps
Ka-band	+25 dBm to +34 dBm controllable in 3 dB steps
Power (connector)	RF band: up to +12 dBm
External power out	6V DC at up to 3A

DIMENSIONS

Size	Height 12.4" (315 mm), width 6.6" (168 mm), depth 10.6" (270 mm)
Weight	7.05 lbs (3.2 kg)
Presentation	Shipped in plastic Pelicase 20.3" (516 mm) x 15.3" (390 mm) x 9" (228 mm) with two battery packs, battery charger unit, battery charger power brick suitable for US, European or UK power outlets.

INTERNAL POWER

Size	The HRTS is powered by a clip-on Lithium Ion battery pack which provides 4 hours of normal use or 2.5 hours if powering an RF hood as well. The unit is supplied with two battery packs and a charger. Remaining battery capacity is shown on the operators screen.

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