ULTRA | Intelligence & Communications

PTS 8000

MULTI SPECTRAL TEST SET

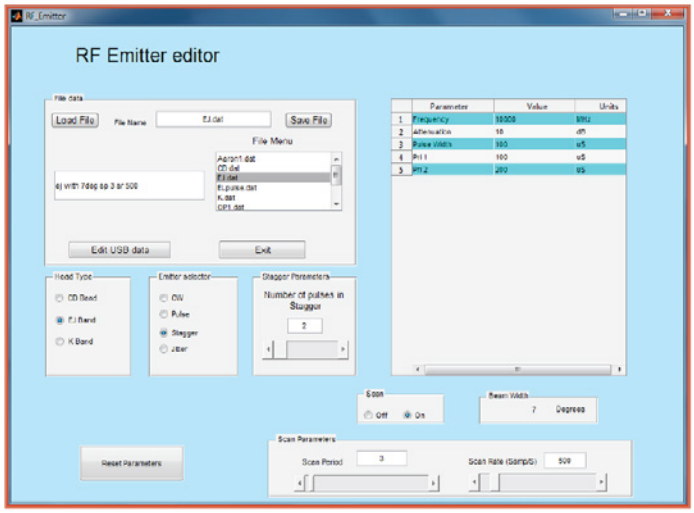
Features

- First line testing of radar, UV laser warning receivers
- Programmable over a wide range of parameters
- Rechargeable battery with built in charger
- Robust weather-proof case, controls and displays
- Removable memory media

Overview

The PTS 8000 is a modular multi-spectral flight line system designed to give maintenance technicians and aircrew confidence in the operation of their Defensive Aid Suite.

Modularity is provided in the form of a Common Control Unit (PTS 8000 CCU) and a number of specific test heads, used to stimulate the various DAS sensors found on modern military platforms.



Currently a C/D band RF head (PTS 8000CD), an EJ band RF head (PTS 8000 EJ), a Ka band RF head (PTS 8000K), a UV head (PTS 8000 UV) and a combined UV/LWR head are available. Being modular, the user only needs to purchase the CCU and respective test heads he needs, should changes be made to platform sensor suite, new low cost heads can be purchased separately at a later date without the need for the core unit to be returned for upgrade.

The PTS 8000 RF system consists of two ruggedised assemblies: the Common Control Unit (PTS 8000 CCU) and the Antenna head (PTS 8000 EJ). In use these 2 modules are normally connected via a control cable and free space radiating RF heads can reach up to 20m depending on RWR sensitivity, optional 20m extension cables are available whereby the control unit may be used in the aircraft cockpit allowing the technician to operate the unit and interpret the RWR display, whilst minimal skill level being needed at the antenna head.

The PTS 8000 (UV) is a battery powered, self contained, lightweight ruggedised assembly which operates independent from the CCU and RF system, taking its threats from internal memory stimulating UV Missile and HFI Warning systems from up to 20m. A combined UV/LWR Head is now available which includes Laser Rangefinder, Laser Target Designator and Laser Beamrider threats and UV in a single EO head.

The respective units are programmed via an intuitive graphical user interface and threats downloaded via USB interface.

Technical Specification

Common Control Unit

The PTS 8000 CCU provides the Interface to various RF heads. Large, easily activated controls and illuminated display allows operation in full NBC or foul weather clothing, at night or in poor visibility. Up to 6 selectable preset threats per RF head can be programmed in non volatile memory and adjusted locally at the CCU, whilst use of a pre programmed USB memory module provides virtually limitless additional threat capacity.

The unit is Mains/Battery operated with inbuilt auto sensing charger allowing operation from 115v/230v, or from 400Hz for aircraft or ship borne recharging. Typical battery duration is minimum 17 hours operational use at 20% duty cycle.

Built in test confirms battery charge state and comprehensive assessment of system functionality.

PTS 8000 CCU Specifications

- Internal power supply: 10.8v 4.5AH NiMH battery
- Recharge time from full discharge 7 hours
- Charger inputs: 115v /230v 50/60Hz ± 20% (auto sensing) or 40 Hz - 440 Hz
- Operating temperature -20°C to +55°C
- Storage temperature -40°C to + 70°C
- Dimensions: 220mm x 175mm x 255mm
- Weight: > 4kg

PTS 8000 (CD), (EJ), (K), Radar Warning Test Head

The PTS 8000 (EJ) and optional (CD), (K) band RF heads are self contained, synthesised heads holding respective calibration data which allows for interchangeability with the CCU. Threats stored in either of the 6 presets or USB memory module are recalled, simply point and shoot at the sensor under test (SUT) which allows free space radiating signals up to 20m depending on RWR sensitivity.

The head (s) feature Built in Test which confirms RF output levels, pulse parameters and battery charge status. The individual heads and CCU can be changed without recalibration and the CCU automatically senses which RF head is connected.

Programming software with intuitive graphical user interface (GUI) is provided to generate complex emitters with stagger, Jitter and scan parameters, simply save and download to USB memory dongle for an enhanced test capability.

PTS 8000 (CD), (EJ), (K) Specification

- Frequency selectable: 500 MHz -2.000 GHz (CD), 1.65GHz - 18.0 GHz (EJ)
- 32 - 40GHz(Ka)
- Frequency accuracy 1 MHz (pulsed or CW)
- Standoff distance: up to 20m
- Output dynamic range: 0-60dB in 1dB steps
- Pulse width: 50 ns to 400 us in 50 ns steps
- PRI range: 0.01ms-40 ms in 0.01ms steps
- Stagger: (USB Only) up to 16 levels
- Jitter: (USB only) up to 99% of nominal PRI
- Output polarisation: switched dual sinuous(EJ), linear (CD & Ka)
- Dimensions (Max): 103mm x 103mm x 315mm
- Weight: 1.5Kg

PTS 8000(UV) Missile Approach Warner Test Head

The PTS 8000 (UV) utilises the latest UV Led technology and provides up to 8 generic (unclassified) threat profiles including HFI test patterns each typically lasting up to 10 seconds duration with Photon irradiance being programmable in 1 msec steps. The test profile is selected via switches on the rear of the unit.

The unit is programmed off line and threat profiles downloaded directly to the handset via USB. A Software GUI programme is provided to allow complex profiles to be easily generated.

PTS 8000 CCU Specifications

- Wavelength: Solar Blind
- Operating Range: up to 20m
- Profile duration: up to 10 s in 1ms steps
- Profile stability: < ± 1%
- Power supply: 4 AA type battery > 100 firings per charge
- Dimensions: 103mm x 103mm x 210mm
- Weight: 1.5Kg

PTS 8000 Combined UV/LWR Test Head

Incorporating the latest UV technology as above the integrated LWR module is fully programmable to replicate generic LRF, LTD and LBR threats.

The combined capability is housed in a single EO Head with dimensions as above.

PTS 8000 (CD), (EJ), (K) Specification

- Wavelengths: 525, 905 and 1550nm
- PRI: 0.018 - 2,000ms
- PW: 0.1-10,000us (525nm) 10-100ns (905/1550nm)
- Max Radiant Pwr/ Energy (Average): 11mw/1.1uJ (905nm)
- Laser Class: 3R (905nm), 1 (1550nm)

Ultra reserves the right to vary these specifications without notice.

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