

PRTS™ PORTABLE RANGE THREAT SIMULATOR



TEST, TRAINING & SIMULATION

PROVIDING CONFIDENCE AND RELIABILITY THROUGH RADIO FREQUENCY (RF) TEST AND TRAINING SOLUTIONS

The Portable Range Threat Simulator (PRTS) is a modular package that is designed to be an affordable, transportable long range training tool. PRTS is capable of generating complex, multispectral signals for search, launch, track and other scenarios. It offers multispectral capability including UV, RF and EO/IR. The PRTS system is designed to be transported to field sites and set up quickly. It can be loaded into a full-size pickup truck, and requires only a small area for setup.

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TEXTRON Systems

► PUSHING PAST POSSIBLE

PORTABLE RANGE THREAT SIMULATOR (PRTS)

Using the advanced RF, UV and IR capabilities of the Textron Systems Model 527, UV Malina and IR Phoenix range simulators, respectively, PRTS is designed to be a confident and reliable test and training solution.

SPECIFICATIONS



FREQUENCY

PRTS: 2-18 GHz amplified out
Model 527 Radar Signal Simulator: 500 MHz to 18 GHz; 28-40 GHz; 10-500 MHz (optional)



RF SOURCE

One RF source
2-18 GHz amplified frequency range



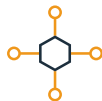
FREQUENCY SWITCHING SPEED

< 200 μ sec single frequency (closed loop)
< 1 μ sec multiple frequency (open loop)



AVAILABLE OPTIONS

Low-power man-portable
High-power trailer-mounted



SUPPORTING SYSTEMS

- Ruggedized tripod
- High-gain antenna assembly
- Portable power source



PULSE TRIGGERS

Synchronized TTL logic pulse triggers



EFFECTIVE RADIATED POWER

90 dBm typical



FREQUENCY ACCURACY
 $\pm 0.001\%$ (single-frequency)



ANTENNA DIAMETER
4 ft



RANGE
5 mi, typical

NUMBER OF TIME-MULTIPLEXED EMITTERS

- > Up to eight

FREQUENCY RESOLUTION

- > Less than 500 kilohertz (kHz)

ANTENNA POLARIZATION

- > Vertical linear

PROFILE SELECTION

- > Via software, utilizing programmable scenarios

UV/IR SOURCE/SENSOR (OPTIONAL)

- > Testing out to 5 kilometers (km)
- > Flight test of missile warning receivers, directional IR countermeasures, and chaff/flare
- > UV Mallina with Nemesis IR beacons and laser range finder
- > Independent or triggered in RF sequence

MODES OF OPERATION

- > Continuous wave
- > Pulsed

SCAN MODULATION TYPES

- > Circular
- > Conical
- > Dwell
- > Height finder
- > Helical
- > Loro
- > Orthogonal
- > Palmer modifier
- > Raster
- > Sector
- > Spiral

INTEGRATED PRODUCTS



MODEL 527™ RADAR SIGNAL SIMULATOR

The PRTS module enables Textron Systems' handheld Model 527 Radar Signal Simulator to operate at extended ranges.

UV LED MALLINA™

The PRTS can incorporate preprogrammed Mallina profiles, which can be triggered to operate with the RF signals or used independently.

