

# KNOW BEFORE YOU GO.

## PORTABLE RANGE THREAT SIMULATOR (PRTS)



Providing confidence and reliability through electro-optic/infrared (EO/IR) and radio frequency (RF) test and training solutions.

The PRTS is a modular package that provides long-range capabilities to AAI's Model 527 Radar Signal Simulator.

It incorporates the same ruggedized tripod and 48-volt direct current power supply as the Ultraviolet (UV) Mallina Stimulator, which is produced by AAI's UK subsidiary ESL Defence. As a result, the PRTS is an affordable, easily transportable range test and training tool.

AAI's PRTS package offers multispectral capability including UV, RF, and IR. Employing the PRTS module allows the same RF, EO, and IR emitter files to be used at extended ranges.

### Portable Range Threat Simulator part number: 39297-40000

(Specifications are for the base system. Higher power options are available.)

<b>RF Source:</b>	<ul style="list-style-type: none"><li>■ High-power RF output from 2-18 GHz</li><li>■ Testing out to 5 km</li><li>■ Full threat modulations using the enhanced Model 527 Radar Signal Simulator source with millimeter wave module</li></ul>
<b>UV/IR Source/Sensor:</b>	<ul style="list-style-type: none"><li>■ Testing out to 5 km</li><li>■ Flight test of missile warning receivers, directional IR countermeasures, and chaff/flare</li><li>■ UV Mallina with Nemesis IR beacons and laser range finder</li></ul>
<b>Supporting Systems:</b>	<ul style="list-style-type: none"><li>■ Ruggedized tripod</li><li>■ High-gain antenna assembly</li><li>■ Portable power source</li></ul>
<b>Number of RF Sources:</b>	<ul style="list-style-type: none"><li>■ One</li></ul>
<b>Modes of Operation:</b>	<ul style="list-style-type: none"><li>■ Continuous wave</li><li>■ Pulsed</li></ul>
<b>Number of Time Multiplexed Emitters:</b>	<ul style="list-style-type: none"><li>■ Up to eight</li></ul>
<b>Frequency Range:</b>	<ul style="list-style-type: none"><li>■ PRTS: 2-18 GHz amplified output</li><li>■ Model 527 Radar Signal Simulator: 500 MHz to 18 GHz; 28-40 GHz; 10-500 MHz (optional)</li></ul>
<b>Frequency Accuracy (Absolute):</b>	<ul style="list-style-type: none"><li>■ +/- 0.001% for a single frequency emitter</li></ul>
<b>Frequency Resolution:</b>	<ul style="list-style-type: none"><li>■ &lt; 500 kHz</li></ul>
<b>Frequency Switching Time:</b>	<ul style="list-style-type: none"><li>■ &lt; 200 µsec single frequency (closed loop)</li><li>■ &lt; 1 µsec multiple frequency (open loop)</li></ul>
<b>Pulse Triggers:</b>	<ul style="list-style-type: none"><li>■ Synchronized TTL logic pulse triggers for external traveling wave tube amplifiers (TWTA)</li></ul>
<b>Interface to External TWTA:</b>	<ul style="list-style-type: none"><li>■ Uses USB/Ethernet to RS-232/RS422</li><li>■ Allows TWTA monitoring, safety interlock, and interface to laptop via external controller</li></ul>
<b>Triggering of UV Mallina:</b>	<ul style="list-style-type: none"><li>■ Allows AAI's Model 527 Radar Signal Simulator to trigger UV Mallina</li></ul>

# PORTABLE RANGE THREAT SIMULATOR

- Scan Modulation Types:
- Circular
  - Conical
  - Dwell
  - Height finder
  - Helical
  - Loro
  - Orthogonal
  - Palmer modifier
  - Raster
  - Sector
  - Spiral

Effective Radiated Power: ■ +90 dBm typical

Spurious/Harmonics: ■ -50 to 3 dBc typical

Beam Width: ■ ≤ 2 degrees

Antenna Polarization: ■ Vertical linear

Antenna Diameter: ■ Four feet

Profile Selection: ■ Via software utilizing programmable scenarios

*Specifications subject to change without notice.*

## RELATED PRODUCTS



*The PRTS module enables AAI's handheld Model 527 Radar Signal Simulator to operate at extended ranges.*



*Using the PRTS, the Model 527 Radar Signal Simulator can trigger AAI's ruggedized UV Mallina.*

### For further information and prices contact:

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