



## RSS8000/P Radar Threat Simulators

### *For Portable EW Training, Test and Evaluation Applications*

- Portable, lightweight unit
- Rugged construction
- 100MHz to 40 GHz coverage
- Complex emitter generation
- Windows™ GUI software
- Laptop PC control
- In-service, reliable and proven technologies
- Available in two mechanical formats:
  - *RSS8000/P*
  - *RSS8000/CP (compact)*

The **RSS8000/P Radar Threat Simulator** offers the latest digital, RF and software technologies for generating accurate signals in an easy-to-use, portable format. Capable of 8 to 80 independent multiplexed emitters, the RSS8000/P offers unsurpassed performance. Standard capabilities include pulse (including PD) and CW generation.

The DirectorLt® software provides a unique, fast setup method for signal generation. A standard laptop PC provides the user with a single page fill-in-the-blanks form to program each emitter. Emitters can then be programmed directly or periodically switched on and off using an event script. Emitters can be sequenced together to provide a dynamically changing environment over time. Data is stored on the PC hard disc for re-use.

The RSS8000/P is ideal both for specific operator controlled testing and for lengthy automated system testing, whether at the dockside, flight-line, or test facility.

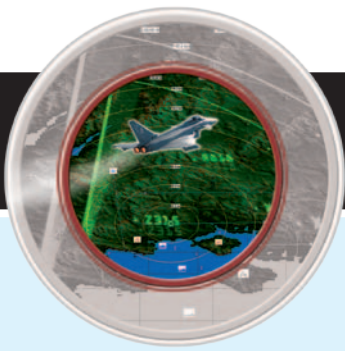
The RSS8000/P also provides remote control facilities for integration with other equipment. Databases are compatible with larger multi-channel RSS8000/DF systems.



*RSS8000/P*



*RSS8000/CP*



# RSS8000/P Radar Threat Simulators

## Specifications

### System

- Laptop PC simulation controller
- C++ / MATLAB® software
- Microsoft Windows™ application
- VME64 bus architecture
- 1000 Mbps Ethernet control link
- Embedded PowerPC & VxWorks™ OS
- Real-time simulation engine
- Dynamic update of emitter parameters
- Employs live threat databases
- DirectorLT® static test builder
- Microsoft Excel™ - based pattern data entry
- Microsoft Access™ - based emitter database
- Database import/export

### RF Source

- Complete 100 MHz to 40 GHz coverage
- Frequency resolution 250 KHz
- Fast-tuning internal FLO or synthesiser
- Up to 800 kpps
- >90 dB dynamic range
- <-85 dBm/MHz noise
- <-60 dBc spurious level
- <-60 dBc harmonic level
- Modular banded operation
- 0 dBm RF output power (others available)

### Digital Pulse Generator (DPG)

- Up to 80 complex emitters
- Modular DPG card architecture
- Simultaneous FMOP & PMOP/AMOP
- Scan to pulse train synchronization
- Fast synthesizer option

### Additional Facilities

- Event file logging
- Pulse timing sync output
- PDW and video output options
- Portable 19" rack-mounted format
- Automatic BIT fault isolation to LRU
- Unattended RF calibration possible
- Remote control of emitter parameters/activity
- 12U and 5U packaged formats
- LAN/IRIG-B/1553B interfacing

### Emitters

- 1.1  $\mu$ s (+PW) to 800 ms PRI range
- 10 ns PRI resolution
- 20 ns to 160 ms and CW PW range
- 10 ns PW resolution
- Overlapping Co-Pulse Emitters
- Modulation
  - *Stable*
  - *Agile*
  - *Sinusoidal*
  - *Sawtooth*
  - *Periodic*
  - *Groups*
  - *Burst*
  - *Switcher*
  - *Cycler*
  - *Synch*
  - *Stagger*
  - *Jitter*
  - *Triangular*
  - *Exponential*
  - *Discrete*
  - *Doublet and triplet*
  - *Drift*
  - *Dwell*
  - *Wobble*
  - *User defined*
- 8k staggered and hopper tables with 512 pattern definitions per emitter and 64k pulse repeats
- Jitter: uniform or Gaussian, up to 99%
- Up to 8 synchronized pulse trains or beams
- Scan patterns
  - *Stable*
  - *Circular*
  - *Helical*
  - *Conical*
  - *Spiral*
  - *Nodding*
  - *Lobing*
  - *Multibeam*
  - *Lock-on*
  - *Unidirectional sector*
  - *Bidirectional sector*
  - *Unidirectional raster*
  - *Bidirectional raster*
  - *TWS*
  - *Electronic*
  - *User defined*
- Scan rates: 0.005–500 Hz
- Electronic beam dwell period: 100  $\mu$ s to 1 s
- Antenna Beam Patterns
  - *SinX/X*
  - *CosX*
  - *Cos2X*
  - *Cosec2X*
  - *Cos Array*
  - *Cosine Taper*
  - *Isotropic*
  - *User Defined*
- 0.5° to 40° antenna beam width
- 0.1° beam-width resolution
- Antenna coverage: Az  $\pm$ 180°, El  $\pm$ 90°
- 90 dB modulation range

Information Subject to Change Without Notice.