

Hi-Fidelity DRFM Based Radar Target Generator

Features

- ◆ Operational Bandwidth 400 MHz to 4 GHz
- ◆ 200 MHz instantaneous bandwidth
- ◆ 12-bit sampling, 16-bit DSP and reproduction
- ◆ 8 scatters with overlap capability
- ◆ JEM/HMB and scintillation capabilities
- ◆ Up to 16 independent and coordinated range, doppler, amplitude target returns per DRFM channel
- ◆ Rack-mountable
- ◆ Remote control operation

Applications

- ◆ Radar Performance Evaluation and Validation
- ◆ Radar ECCM Development
- ◆ Radar Training

Description

Kratos-CTI (CTI) Digital RF Memories (DRFM) are the main building blocks of Electronic Counter Measure (ECM) systems, hardware-in-the-loop Radar Target Generators and ECM/Target simulators. The transmitted radar signals are delayed, modulated, and doppler shifted to create false targets, clutter, and ECM of very high fidelity. A wide variety of coherent and non-coherent ECM techniques and target models are available.

The Kratos-CTI DRFM-RTG with a single channel can generate multiple overlapping targets and/or ECM returns, each having their own delay, Doppler, amplitude and phase.

Kratos-CTI is delivering advanced Radar Target Generators (RTG) using our latest high fidelity DRFM and unique RF design to provide up to -65 dBc spurious free dynamic range over a tunable band of 400 MHz to 4 GHz. This RTG surpasses the fidelity of all other previously delivered RTGs worldwide.

This new technology is being used by radar manufacturers worldwide, where low cost, high fidelity, programmability and reliability is required.

Kratos-CTI can also custom tailor designs to meet your specific applications. Contact the factory to discuss your special requirements.

Technical Specifications and Demonstrated Performance

Operational Bandwidth	3600 MHz (other options available consult factory)
Sampling	12-bit, 16-bit DSP and reproduction
Delay Resolution	2 ns
Scatter Simulation	8 with overlap capability
Modes	Pipeline Mode, Triggered Delay, Waveform Recording, and Waveform Playback
Dynamic Range	>65 dBc spurious free
Memory Depth	Up to 8 ms
Channels	8 DRFM channels per 19 inch rack
Dimensions	7" X 19" X 24" Rack-mountable