

DX-10G

Broadband Digital RF Exciter



19" Rackmount Enclosure (2U)



A Powerful, Multi-Band, Reconfigurable, Signal-Stimulus Solution for Direct Digital Wideband RF Signal Creation

The DX-10G is a digital wideband arbitrary waveform generator (AWG) capable of creating high-resolution advanced waveforms for radar, satellite and RF agile communication systems. Operating at 10 GS/s with up to 10-bit resolution the DX-10G simultaneously provides 3 GHz of modulated bandwidth and a wide dynamic range.

The DX-10G can provide a drop-in replacement for earlier generation waveform generators which can provide an instant technology infusion for legacy or next-generation systems. The DX-10G is available a standard 19" rackmount enclosure or can be custom packaged to meet your system needs.

The DX-10G uses a dual-port memory design that enables users to seamlessly update and instantly transition between waveforms without interruption. This allows systems to have exceptional flexibility and responsiveness to change spectral characteristics. The system can use random or pre-set patterns to simulate frequency hops, multiple contacts, incoming threats, or custom scenarios. A flexible user interface allows up to 32 waveforms to be simultaneously programmed into memory with unlimited mission-specific waveform sequencing.

Specifications

Available Configurations:	19" rackmount or custom enclosure
Clock Speed:	Up to 10+ GS/s
Modulation Bandwidth:	3 GHz (5 GHz Nyquist)
Resolution:	Up to 10 bits Available: 10 bits (No Marker Output) or 8 bits (with Two Marker Outputs)
Waveform Length:	128 to 32M points
Spurious Free Dynamic Range:	> 40 dB at output frequency up to 2 GHz
Total Memory Depth:	32M sample record length
Size:	Rackmount Enclosure – 19" x 17" x 3.5" (2U) 2-Slot

➤ Features

- Broadband digital to RF converter with a clock speeds of up to 10 GS/s and user-selectable 10-bit or 8-bit DAC resolution
- Multiple waveforms can be stored in memory and seamlessly transitioned within one clock cycle
- New waveforms can be loaded while unit is in operation.
- Two differential, variable level marker outputs
- 32 Mega-sample memory for waveform storage
- Allows precise RF spectrum shaping for bandwidth efficiency and interference reduction
- 10/100/1000 Ethernet I/O Interface

➤ Applications

- Radar Exciter for:
 - Software-Defined Radar
 - Multi-band Radar
 - Synthetic Aperture Radar
 - Mission-Programmable Radar
- Software-Defined Radio (SDR)
- RF Spectrum Tailoring
- Cognitive Radio
- Electronic Warfare (EW)
- Signal Intelligence (SIGINT)
- Remote Sensor Operations
- Satellite Communication
- Frequency Agile Communications
- System Validation
- Simulation

Preliminary Specifications Subject to Change

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