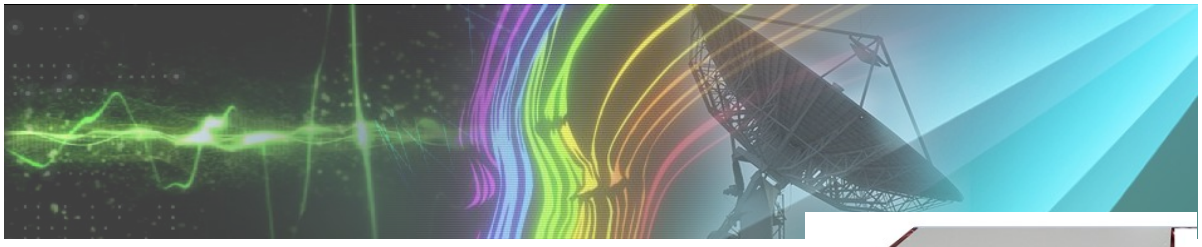

NSS – RADAR Echo Simulator

Release 2.3

Targeted Applications

- Military RADAR field testing
- In system calibration of RADARs
- RADAR Operator Training

Product overview

The NSS Radar Echo Simulator (NSSRES) product is RF level echo simulator based on Digital Radio Frequency Memory (DRFM) technology. The product can generate multiple echo signals corresponding multiple targets with different delays and Dopplers. The product allows the user to select various parameters on the PC controlled GUI and configures DRFM dynamically. The simulator is capable of generating various environment effects such as clutter and multipath. The input waveform can be any conventional CW/pulsed or modern LPI signals including linear FM chirp, nonlinear FM chirp, and phase coding types.

Product offers multiple high range difference simulation DRFM paths for simulating multiple targets. Also low range difference simulation paths upto 20 are offered so that large sized objects can be simulated with spreaded echo signal.

This product is ideal choice for RADAR related algorithm developer and field testing. External RS422/Ethernet based control can be given to simulate the angle of Targets. Additional RF amplifiers/attenuators and Horn antennas at input and output path are provided based on the required dynamic range.

Ordering information

Part number: NSSRSE2.3

Product Features

- DRFM Range : X band
- Programmable bandwidth up to 100 MHz
- Two types of Range/delay simulation.
- Number of simultaneous high range difference paths - 8
- Number of simultaneous low range difference paths - 20
- Delay range (high range difference paths) : 2 usec to 1 msec
- Delay range (low range difference paths) : 5 nsec to 100 nsec
- Doppler shift range : - 5 MHz to + 5 MHz
- Amplitude scaling range : -50 dB to +20 dB, with 1 dB step
- Input signal range : -55 dBm to -5 dBm
- Supported input waveforms
  - Conventional CW and Pulsed CW
  - Linear FM or Non Linear FM (upward or downward chirp)
  - barker codes (2,3,4,5,7,11 and 13 bit length)
  - Frank coded
  - Poly phase P1, P2, P3 and P4 code
  - Poly time T1,T2,T3 and T4 code
- Adjustable AWGN noise level for noise jammer simulation upto 50 MHz bandwidth
- CW and Sweep jammers with adjustable power
- Programmable RADAR cross section of the target in range of -20 dBsqm to +30 dBsqm
- User friendly GUI on PC
- AC 110/230V or DC-24V power supply
- One year warranty

CONTACT

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