

GENERIC RES TO SUPPORT MULTIPLE RADARS

KOR Electronics is the world's largest supplier of DRFM based and DSP/Synthesizer based RES systems. These RF Direct Inject simulators have been developed to be generic to support multiple types of Radar systems. The RES systems are used for applications ranging from Anechoic Chamber and Open Air Range (OAR) to laboratory based Radar Production Testing and Comprehensive Radar Performance Evaluation.

To date, KOR Electronics has produced RES systems to test over forty (40) different Radars and Seekers. The RES designs utilize advanced ASIC, FPGA, DSP, and DDS technologies for high fidelity signal capture, modulation, and regeneration. Coupled with PowerPC processors on an open VMEbus standard architecture the RES systems are very cost-effective and flexible solution for most Radar testing applications.

KOR Electronics manufactures many varieties of RES products based on several different signal processing technologies allowing KOR Electronics to tailor the best available technology to each customer's requirement.



KEY FEATURES

- Up to 500 Targets per Scenario
- Up to 16 Simultaneous Channels
- Each Channel can be a Target, ECM, Clutter or Chaff Simulation
- Wide Variety of ECM Techniques and Target Modulation
- Wide Instantaneous Dynamic Range
- Outputs: Digital, IF and RF - Baseband to 100GHz
- Closed Loop Operations w/Radar
- Real-Time External or Local Host control
- Modular/Configurable Design
- Standard VMEbus Architecture
- Windows Based Graphical User Interface (GUI)
- Real-Time, Runtime Displays of SUT, Targets, ECM, etc
- Plan, Range/Bearing and HUD Displays Available
- High Speed Scenario Update Rate
- High Reliability
- Comprehensive BIT and Calibration Software
- Optional Free Space Interfaces for Range and Anechoic Chamber Support
- Optional Data Link, IFF, and Video Support
- Supports Monopulse, Multi-Channel, Multi-Beam Radars
- Supports Mechanical and Electronically Steered Antennas
- Data logging for post test correlation

APPLICATIONS

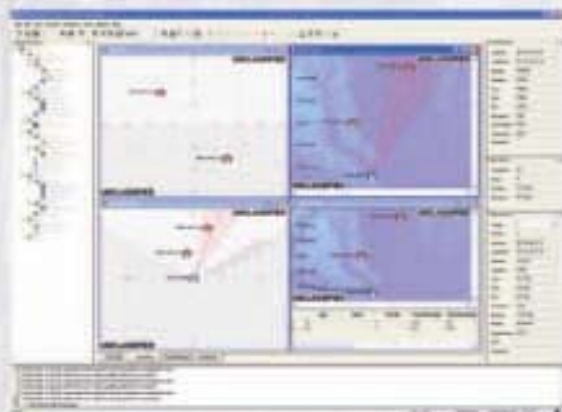
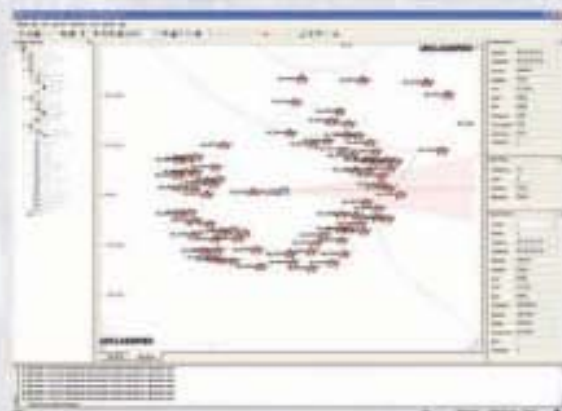
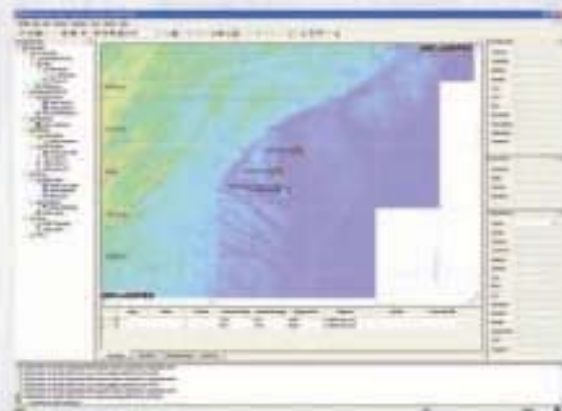
- Radar Performance Evaluation
- ECM Vulnerability Assessment
- Radar Production testing
- ECCM Training/Tactics Development
- Advanced Missile Seeker/Fuse Testing
- Air Defense Personnel Training
- Receiver/Processor Development

*Extensive List of Options Available
(see back page)*

SPECIFICATIONS

Parameter	
SCENARIO	
Targets In Scenario	Up to 500
Targets in Beam	Up to 16
Jammers in Scenario	Up to 12
Jammers in Beam	Up to 4
Chaff in Scenario	Up to 12
Chaff in Beam	Up to 4
Weather in Scenario	Up to 4 cells
Weather in Beam	Up to 2
Ground/Ship Clutter	Downloadable 360° Clutter Definition
Airborne Clutter	Dynamic MLC, SLC, and ALR
SIGNAL FIDELITY	
Frequency Range	SUT Dependent-VHF to W Band
Antenna Types	Mechanical, Electronic, Combination
Waveform Types	CW, Pulse, Phase Coded, FM (Linear & Non-Linear)
Pulse Width	50ns to CW
PRI	<10 Hz to > 5 MHz
Spurious	<65 dBc typical Up to <-60 dBc worst case
Dynamic Range	>120db
Amplitude Resolution	0.25 dB
RF ON/OFF Isolation	100 dB
Doppler Range	>+5 MHz
Doppler Resolution	<0.1 Hz
Range	50m to 1500km
Range Resolution	<0.3m
TARGET FIDELITY	
Mean RCS Value	0.001 to 1,000,000 m ²
3-D RCS Patterns	±180° EL, ±90° AZ ±30dB at 0.25dB Resolution
Scintillation	Swirling Cases 0-4 + User Defined
Geometry Modeling	6 (DOF)
Jamming Assets	Combination Coherent and Non-Coherent and Chaff
Target Modulations	User Definable Modulations for JEM, Blade, etc. Aspect Angle Dependant

EXAMPLE RES GUI SCREENS



INTERFACE OPTIONS

- External Computer Control
- Interfaces to Additional Radars
- Jammer in the Loop Interfaces
- IFF Simulation (Mark XII, All Modes)
- IRIG A/B/G for Synchronization
- Free Space Transmission
- Man/Pilot in the Loop
- Video PPI and Data Link Support
- Data Logging of SUT/Target Data