

CHAMELEON II

RADAR TARGET AND ECM SIMULATOR



ENHANCED ECM AND RADAR TARGET SIGNAL GENERATION

FEATURES

- 500 MHz to 40 GHz coverage
- 10-bit amplitude DRFM technology
- 800 MHz bandwidth
- IFM/LOG video receiver
- READ/WRITE control to DRFM memory
- Complex radar target modelling, chaff and clutter
- Advanced ECM techniques

DESCRIPTION

CHAMELEON II provides a complete solution for radar target generation and ECM signal generation in one package. Using a multiple channel, multi-DRFM architecture, Chameleon- II is able to simultaneously generate complex radar targets together with jamming signals.

The simulator features 3D radar target modelling, clutter, and ECM signal generation using a full software GUI running under Windows. With its

PowerPC technology, CHAMELEON II provides real-time, high performance signal generation with the ability to create your own synthesised RF outputs using a unique DRFM READ/WRITE interface facility.

CHAMELEON II is ideally suited for hardware-in-the-loop and radiating applications for radar and ECM test, evaluation and training.

RF CHARACTERISTICS

- Standard 2-18 GHz continuous operation

with expansion to 0.5- 40 GHz

- 800 MHz instantaneous bandwidth
- IFM/LOG video threshold receiver
- -60 dBm sensitivity
- >100 dB dynamic range
- 0 dBm output power (typical)
- <-45 dBc harmonics/spurious

DRFM FEATURES

- 8 msec memory depth
- 0.5 ns delay resolution
- Up to 8 memory files
- User read/write to memory
- +/- 60 MHz Doppler at 0.5 Hz resolution
- Programmable system threshold
- CW operation
- Pipeline mode
- Doppler Correction

TARGET GENERATION FEATURES

- Full GUI Implementation
- 4 coherent Doppler targets per DRFM
- Range extent target models
- 3-D targets with 6 DOF movements
- JEM line models using user definable I/Q data pairs
- Realistic Chaff mode
- Clutter (main beam, ALR)
- Multiple range targets
- Swerling Fluctuations
- Variable RCS

ECM FEATURES

- Full GUI Implementation
- 19 Programmable ECM techniques including:
 - RGPO/I
 - VGPO/I
 - Coordinated RGPO/I-VGPO/I
 - Noise: spot (burst, swept, blinking/Doppler), barrage
 - Inverse gain
 - Range/frequency false targets
 - Amplitude modulation
 - Range and velocity bin masking
 - Synthetic CW and stretch pulse
 - Masking techniques
 - Pulse capture and synthesis
- User-defined ECM libraries

ADDITIONAL SPECIFICATIONS

- Optional PRI Predictor
- Optional DF Interfaces (Amp/Phase/Monopulse/Mechanical)
- Remote control interface
- VxWorks™ real-time processing
- Built-in test
- 110–240 VAC operation
- 19" rack mountable
- In-production availability



making a difference

Ultra Electronics

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