

# CHAMELEON II Radar Target and ECM Simulator

FOR HARDWARE -IN-THE -LOOP  
APPLICATIONS



## CHAMELEON II



- ✓ **8-Bit Amplitude DRFMS**
- ✓ **Dual DRFM Architecture**
- ✓ **1-18 GHz Coverage**
- ✓ **Up to 500 MHz Bandwidth**
- ✓ **IFM /LOG Video Analysis Receiver**
- ✓ **READ/WRITE Control to DRFM Memory - including Digital Receiver**
- ✓ **Radar Target Modelling & Clutter**

CHAMELEON-II is an enhanced version of the successful CHAMELEON ECM simulator. This version provides two DRFM channels, each with 8-bit amplitude encoding systems for applications where high signal replication performance is required. CHAMELEON-II also includes a digital receiver facility for ELINT signal analysis.

The simulator features radar target modelling, clutter and ECM signal generation using a full software GUI running under Windows NT™. With its Power PC™ 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 applications such as anechoic chamber system test and evaluation and radar performance testing.

## RF Characteristics

- ❑ 1-18 GHz Continuous Operation
- ❑ 400 MHz Instantaneous Bandwidth (500 MHz Option Available)
- ❑ IFM/LOG Video Threshold Receiver
- ❑ Digital Receiver (1 nsec rate) for Signal Analysis
- ❑ -60 dBm Sensitivity
- ❑ >60 dB Dynamic Range
- ❑ 0 dBm Output Power (typical)
- ❑ <-30 dBc Harmonics/Spurious

## DRFM Control Features

- ❑ 1000 msec Memory Depth
- ❑ <16 nsec Delay Resolution
- ❑ Up to 8 Memory Files
- ❑ User READ/WRITE to Memory
- ❑ 10 MHz Doppler at 0.5 Hz Resolution
- ❑ RF Output Amplitude Control
- ❑ Programmable System Threshold
- ❑ CW Operation
- ❑ Pipeline Mode
- ❑ By-Pass Modes

## Software Features

- ❑ Full Suite of ECM Techniques
  - \*RGPO
  - \*VGPO
  - \*Co-ordinated RGPO/VGPO
  - \*Noise - Spot/Burst/Swept/Blinking/Doppler
  - \*Inverse Gain
  - \*Range/Frequency False Targets
  - \*Amplitude Modulation
  - \*Simulated Coherent Clutter
- ❑ Windows™ GUI Software
- ❑ READ/WRITE DRFM Memory Control for Signal Analysis and Target Synthesis
- ❑ "Fill-in-the-blanks" ECM Techniques
- ❑ User Defined ECM Libraries
- ❑ Simulated Target with Variable RCS Modelling
- ❑ Range and Doppler Clutter Models

## Other Features

- ❑ Internal VME Bus Structure
- ❑ Built-in-Test
- ❑ VxWorks™ Real Time Processing
- ❑ Power PC™ Implementation
- ❑ 110-240 VAC Operation
- ❑ 19" Rack Mountable
- ❑ In Production Availability

Information Subject to Change Without Notice



Visit the EWST Web Site at [www.ewst.co.uk](http://www.ewst.co.uk)

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