

## DESCRIPTION

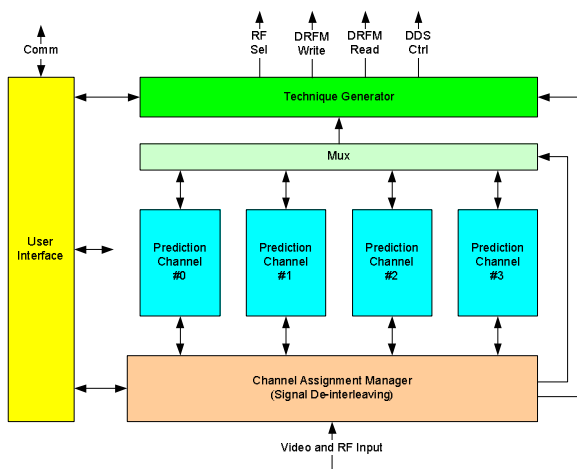
PRI Prediction is an exciting new technology opening up vast capabilities for both existing and developmental ECM systems.

Radar systems frequently make use of various PRI modulation schemes (staggerers or wobulation for example) that impair the ability of the jammer to produce credible up-range false targets. PRI prediction allows the jammer to regain the edge by compensating in real-time for changes in PRI.

PRED sub-systems can be easily integrated with either DRFM or VCO based systems bringing the benefits of PRI prediction to both coherent and non-coherent architectures alike.

PRI Prediction not only opens up new ECM possibilities but also improves traditional techniques. For example, range bin masking (head-to-tail) integrates properly only when prediction is used. Prediction also allows multiple in-bound false targets to be placed faithfully beyond a PRI.

Ask us how a PRED PRI predictor can help you to achieve your mission.



## PREP - PRI PREDICTION

### DESCRIPTION

The PRED series of PRI Predictors combine real-time pattern recognition with advanced algorithm design to adaptively acquire and track the complex pulse repetition interval patterns employed by modern radar-guided weapons systems.

While the primary function of the PRED is to make the generation of inbound false targets possible, multiple operating modes provide increased technique generator functionality, and a compact size allows for easy integration into a variety of digital radio frequency memory (DRFM) or VCO-based ECM systems - from lab prototypes to pod-mounted jammers.

### FEATURES

- PRI Pattern Recognition - Works with constant, staggered and wobulated PRI patterns
- Complete Radar Coverage - Operates for a wide range of PRI values and pattern lengths
- Adaptive Prediction - Reduces ECM response time
- Pulse De-Interleaving - Allows multiple prediction channels to jam multiple radars simultaneously
- Time Gating - Prevents spurious signals from overwriting DRFM contents
- Signal Fade/Receiver Blanking - Improves track accuracy and stability and signal re-acquisition
- Automatic ECM assignment - Produces unique techniques for different emitter modes
- Integrated Techniques Generator - add technique generator functionality or enhance existing techniques
- Built in controller (Channel assignment manager) to automatically follow emitters as they change RF channels or PRI modes

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# ▶ Key Features and Benefits

## PRED-5 General Specifications

Parameter	Typical
<b>Input</b>	Detected video RF_Tag from DFD (optional)
<b>Output</b>	DRFM_Write command DRFM_Read command RF Operating Band Centre Frequency Doppler control word (for CRV techniques)
<b>PRI Limits</b>	0.5 us to 20 ms
<b>Constant PRI</b>	0.5 us minimum
<b>4 position stagger</b>	50 us minimum
<b>128 position stagger</b>	100 us minimum
<b>Wobulated (sine modulation)</b>	100 us minimum
<b>False target position accuracy</b>	± 25 ns
<b>ECM</b>	RGPO, RGPI, CRV, CRBM, APRM, pre-trigger
<b>Features</b>	Real-time pulse de-interleaving Fast Re-acquisition DRFM_Write strobe filtering Multiple ECM techniques ECM timeshare CRV Doppler control word for DDS RF Agility prediction option

▶ PRED PMC CARD



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▶ PERFORMANCE ENVELOPE

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