RRP 200N Air Surveillance Radar Processor for Marine Application





Standard Processor Features

- Application in the upgrade of non-coherent magnetron transceivers to pseudo-coherent systems providing sub-clutter visibility of small air targets
- Direct sampling of transmit and receive signals at Intermediate Frequency
- Sensitivity Time Control (STC)
- Moving Target Indicator (MTI) processing
- Constant False Alarm Rate (CFAR) thresholding

- Azimuth sliding window discrimination
- Air Target Plot Extraction and Tracking
- Comprehensive Built-In Test (BIT) features
- VME form-factor Commercial-Off-The-Shelf (COTS) processors for enhanced supportability
- Compact 19-inch sub-rack packaging

Innovative Solutions...Affordable...Available...

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Performance

- PRF: Up to 2300 Hz
- Stagger: 16 pre-programmed stagger patterns
- MTI: Selectable, 4-pulse maximum
- CFAR: Cell-Averaging-Greater-Of (CAGO)
- Track initialisation: Automatic •
- Track minimum velocity: Selectable >10m/s
- Track capacity: 100 per second

Interfaces

- Mechanical: 19-inch by 6U sub-rack 400 mm deep
- Electrical:
 - Input radar video:100 MHz linear video (Tx and ► Rx)
 - Output Radar Video : LAN Ethernet TCP/IP; pre-> extraction target slashes
 - Turn Data: Azimuth Change Pulse/ Azimuth **Reset Pulse RS422**
 - PRF Trigger: 75 Ohm Coaxial >
 - Magnetron Ref Pulse: 50 Ohm Coaxial ►
 - Plot/Track: LAN Ethernet ASTERIX Protocol >
 - Radar Control: LAN Ethernet SNMP Protocol
 - Power: 230VAC 50 Hz 800 W

Major Components

Signal Processor Receiver Front-End (SP-RFE)

IFR: IF Receiver

SBC: Single-Board Computer

- Input/Output Back-Panel
- **VME** Backplane
- **Routing Backplane** •
- Software Signal Processor (SSP)
- Data Processor (DP)
- Sub-rack with Power Supply
- Integral LAN Switch

Options

- Dual channel configuration for frequency diversity applications
- Maintenance and Test Console
- Jammer detection and reporting
- IFF plot combination
- Dual-pulse operation for improved close range performance
- Time-base interface for track time-stamping
- Video: Selectable pre-processed Clutter Map/MTI/Non-coherent
- Alternative antenna turn data format





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