

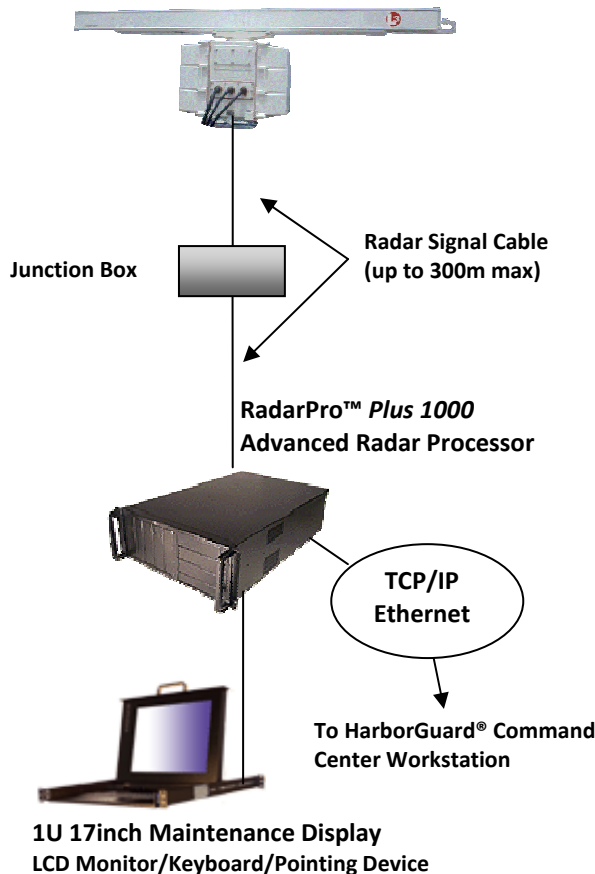


## communications

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# Series 1000-Plus Small Target Detection Radar

## Small Target Detection Radar



## Series 1000-Plus Radar sensor

- Enhanced Capability Radar sensor
- 25kW X-Band Transceiver
- 7ft or 9ft Antenna Array, 1.0° or 0.8° horizontal beam
- Optional high resolution 12ft Antenna 0.6° horizontal beam (up to 40 RPM only)
  - Optional special purpose antenna arrays: Circular Polarized option, Down-tilt option
- COTS design with enhanced capabilities for small target detection
- High performance Log Receiver – 120dB Dynamic Range
  - 4-6dB improvement over conventional marine X-band radar sensor
  - Minimum Discernible Signal(MDS) -104dBm typical
  - System noise figure 5.5dB or better
- Up to 80 RPM (nominal) high update rate scanner
- Multiplexed Down-link/Up-link interface
  - Simplifies remote operation

## RadarPro™ Plus 1000 Advanced Radar Processor

- PC Based system
  - Windows XP Operating System
  - Core Duo Processor (or better)
- Unique signal processing
  - Pulse Processor matched to antenna beam pattern
    - Improves target S/N
    - Suppresses radar interference
    - Reduces rain clutter
  - Scan Average Processor
    - Average up to 64 radar scans
    - Dramatically reduces sea clutter
  - Ordered Statistic CFAR
  - 8 bit 1024 x 1024 Scan Converted display
- Tracker
  - 1000 targets
- Client/Server Support
  - Controls the RadarPro server; returns status, receives radar data, plots and tracks
  - Image Format
    - Device independent bitmap
    - scan converted output
    - Quadrant delivery or full 360° updates
  - Network Protocols
    - TCP/IP
- Client/Server Support (Optional RadarPro™ Client/Server interface)
  - Target Tracks, raw plots (detections) and bit map image data available to clients via Winsock ports
  - Remote client Radar Control and status data
  - Proprietary data format (Interface Control Document available on request)

## Exceptional Small Target Detection Capabilities

### High Up-date Rate

- Radar scans the scene up to 80 times per minute
- Very effective for tracking small, fast craft

### Multiple Scan History Averaging

- Removes interference from wave action
- Extracts very small targets, such as surface swimmers

### Programmable Clutter Map Mask (Option)

- Learns the static environment, reacts to changes
- Effective in shallows, swamps, desert and open terrain against walkers, waders and small vehicles