

## Radar Distribution and Display System

### Features

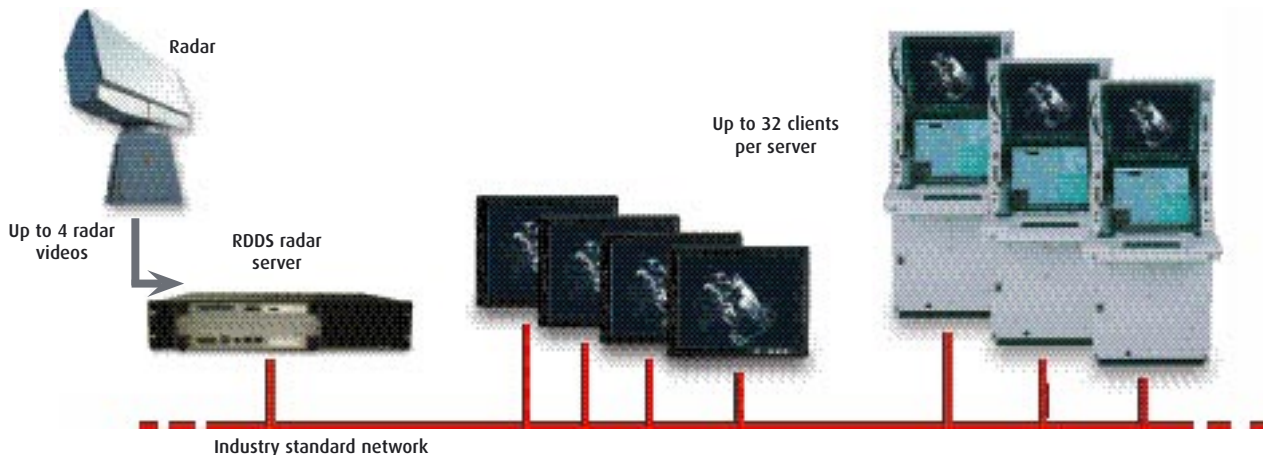
- Low latency: radar signals are processed and distributed as received
- Uncompromised radar resolution and quality
- Low network load: 1 Mbps per client window
- Deterministic network behavior: pre-computable worst case network load
- Easy to increase number of operator positions
- Mix up to four video channels per radar
- Software API for custom integration
- Smooth sweep and simulated phosphor decay
- Mixing of radar, video and client graphics independent from client system's CPU
- Server fail-over capability

RDDS is Barco's state-of-the-art solution for networked distribution and display of radar information. The RDDS server is capable of processing multiple radar videos and distributing them simultaneously over today's industry standard networks to up to 32 clients. A single network wire can now replace complex and bulky analog cabling and switching hardware.

Barco's RDDS client-server architecture provides radar information that can be adapted to the specific needs of any operator. Through the use of optimized compression algorithms, a high-quality radar image is distributed, always at full resolution and in real-time, while maintaining minimal network loading. Note that the transmission of the radar data is loss-less. In combination with the real-time mixing features of existing Barco hardware, a client workstation can visualize the radar image with minimal impact on its performance.

RDDS clients are provided as a board level solution to be implemented in any type of workstation.

## System description



Barco's RDDS server processes up to four radar video sources. The server keeps track of the radar window size and requested area of radar coverage. It transmits the required part of the digitized radar signal over a standard network, optimized for the specific viewing requirements of any workstation.

The RDDS client hardware and software scan-converts the radar data for mixing and viewing on any standard computer display. Each client has separate, independent

control over its viewing parameters, such as range, center, brightness, decay and other typical settings.

Barco is providing several board solutions for combining radar images with computer graphics without compromising the workstation performance. Alternatively, Barco can provide full console products, featuring computing hardware, display, and client radar processing, ready out of the box.

## Technical specifications

### RADAR INTERFACE

Video interfaces

- 4 analog video 1-3 Volts
- Internal test pattern
- Sample frequency: 40 MHz

Azimuth interfaces

- ACP / ARP / ANP / EOS
- RADDs
- Parallel azimuth
- AN/UYQ-21
- Synchro (optional)

Trigger

- Level: 5 to 55V

Switchboard / other interfaces

- RADDs sensor select
- AN/UYQ-21 select
- IFF, SIF
- True bearing

### MECHANICAL

Server: 2U 19" rack-mountable enclosure

Client form factor: PCI, VME

### NETWORK PERFORMANCE

Typical load: 1 Mbps per client window

Latency: typical < 200ms

### RELATED PRODUCTS

**EVS6000:** PMC graphics accelerator with RDDS client support

Please contact us for custom options and features.

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Technical specifications are subject to change without prior notice

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