

RDR70-Mini-10G-2

Rugged mini 20Gbps Ethernet recorder

OPTIONAL DATA PLAYBACK UP TO 20Gbps

15.4" (39.11 cm)



FEATURE SUMMARY

- A miniature, rugged (MIL-STD-810 compliant), Ethernet recorder featuring 2 x 10GbE ports.
- Sustained 100% Ethernet capture and record performance at 20Gbps.
- ✓ Up to 60 Terabytes (SSDs) of local data storage.
- ✓ Data offload: USB 3.0, 1GbE, and 10GbE ports.
- Interfaces with VRT/VITA 49 or other digital radio devices.
- **STIG** compliant & **AES256** encryption option.
- Real-time status monitoring of capture ports.

MOST SUITABLE FOR THE FOLLOWING APPLICATIONS Autonomous vehicle Rada Wireless comms .iDAR phased array radar remote radio IoT (i.e., MIPI[®] DSI) synthetic aperture **5G baseband** test & measurement radar u/mmWave 🖊 3D radar MIMO O-RAN DESIGNED FOR ANY NETWORK PROTOCOL Application High level APIs. HTTP, FTP, SMTP Encryption / decryption compression Context for communication between levels Presentation The RDR70-Mini-10G-2 captures data from SOFTWARE Layer-2 through Layer-7 of the Ethernet Controls dialogue between computers protocol stack. Daqscribe Session Controls terminations and results high-speed x GbE This includes recording IPV4 or IPV6 Ethernet Enables transfer of data TCP/UDP Transport recorder protocols at the network layer and **TCP** End-to-end connection or UDP protocols at the transport layer. Connects hosts on different networks Network IPV4 + IPV6. Routing of data packets. The result is our robust, network protocol**agnostic** packet recording tool. Provides connections between hosts 100% capture & record Data Link HARDWARE on the same network. (Ethernet MAC from Layer 2 addreses) Data format - compatible with other popular network monitoring tools like Electrical + physical specifications Physical for devices. Cables and connectors. Wireshark. Data in bits (1's and 0's)

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RDR70-Mini-10G-2 SYSTEM SPECIFICATIONS

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Mounting	 Tray or bulkhead mounted using ears supplied
Dimensions & weight	 Height: 6" (15.24cm) max, Width: 15.4" (39.11cm), Depth: 9.6" (24.38cm) excluding connectors 17 lbs (7.71 kg) - estimated
Power supply	 Option 1: 36 - 72 VDC, 120VAC Watt power brick Option 2: 250VDC
System cooling	✓ Three high reliability 92 mm fans
Environmental standards	 MIL-STD-810 & DO-160 (compliant) MIL-STD-810, Operational Temperature: -40°C to +60°C MIL-STD-810, Storage, Method 501, Procedure I/II: -40°C to +85°C MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport MIL-STD-810, Vibration, Method 514, Procedure I: 5.5G, 10-2000Hz, 60 min/axis, 3 axes MIL-STD-810, Shock, Method 516, Procedures I/V: 20g, 11msec – functional shock; 40g, 11msec – crash hazard shock
Peripherals & data offload options	 ✓ 2 x USB 3.0 ports ✓ 1 x VGA display ✓ 2 x 10GBASE-T ✓ 4 x 1GBASE-T ✓ 2 x 10Gbps SFP+
CPU & memory	 Xeon SoC: options from 8 to 16 physical cores System memory: options from 32GB to 256GB
Storage option	 NVMe NAND flash (enterprise) 3TB (19TBW), 6TB (37TBW), 12TB (75TBW), 60TB (134TBW) Storage in TB with endurance TBW (Total Bytes Written in PB) SSD endurance TBW is based on 128K sequential writing
Optional capture /record features (FPGA processing)	 Filtering based on e.g. L3/L4 criteria GTP, IP-in-IP, GRE and NVGRE tunneling support IP fragment handling Slicing at fixed or dynamic offset
Data format	 PCAP format (capture/record only) NTCAP - PCAP style binary format (capture/replay) Command-line-interface utilities: simple/quick conversion of file formats and UDP payload extraction
Timing/synchronization	 OS time synchronization (default) SMA interface for PPS (optional) RJ45 100/1000BASE-T interface for IEEE1588 PTP support (optional)
Hardware time stamp	 Resolution: 4 ns, Stratum 3 compliant TCXO Time formats: PCAP-ns/-μs, UNIX 10 ns
Network interfaces	 IEEE 802.3 10GbE Ethernet support Network interface: 2 x SFP+ ports SFP+ modules: 10GBASE-CR/SR/LR
Performance	 Line rate Rx 20Gbps (2 x 10Gbps) for packet size 61 - 10,000 bytes Line rate Tx 20Gbps (2 x 10Gbps) for packet size 61 - 10,000 bytes 100% packet capture