

OPTIONAL DATA PLAYBACK UP TO 50Gbps



FEATURE SUMMARY

- ✓ A miniature, rugged (**MIL-STD-810** compliant), Ethernet recording system featuring **2 x 25GbE** ports.
- ✓ Sustained 100% Ethernet capture and record performance at **50Gbps**.
- ✓ 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 options.
- ✓ Real-time status monitoring of capture ports.

MOST SUITABLE FOR THE FOLLOWING APPLICATIONS

Radar



- ✓ phased array radar
- ✓ synthetic aperture radar
- ✓ 3D radar

Wireless comms



- ✓ remote radio
- ✓ 5G baseband
- ✓ μ /mmWave
- ✓ MIMO
- ✓ O-RAN

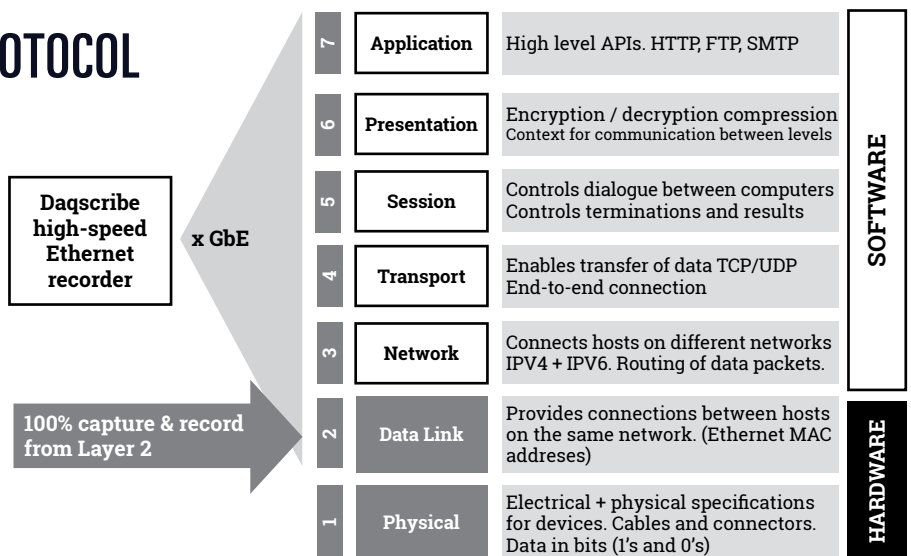
Autonomous vehicle



- ✓ LiDAR
- ✓ IoT (i.e., MIPi® DSI)
- ✓ test & measurement

DESIGNED FOR ANY NETWORK PROTOCOL

- ✓ The **RDR70-Mini-25G-2** captures data from **Layer-2** through **Layer-7** of the Ethernet protocol stack.
- ✓ This includes recording **IPV4** or **IPV6** protocols at the network layer and **TCP** or **UDP** protocols at the transport layer.
- ✓ The result is our robust, **network protocol-agnostic** packet recording tool.
- ✓ Data format - compatible with other popular network monitoring tools like **Wireshark**.



Performance	<ul style="list-style-type: none"> ✓ Line rate Rx 50Gbps (2 x 25Gbps) for packet size 61 - 10,000 bytes ✓ Line rate Tx 50Gbps (2 x 25Gbps) for packet size 61 - 10,000 bytes ✓ 100% packet capture
Network interfaces	<ul style="list-style-type: none"> ✓ IEEE 802.3 25GbE Ethernet support ✓ Network interface: 2 x SFP28 ports ✓ SFP28 modules: 25GBASE-CR/SR/LR/LR-BiDi, dual-rate 10/25GBASE-SR/LR
Hardware time stamp	<ul style="list-style-type: none"> ✓ Resolution: 4 ns, Stratum 3 compliant TCXO ✓ Time formats: PCAP-ns/-µs, UNIX 10 ns
Timing/synchronization	<ul style="list-style-type: none"> ✓ OS time synchronization (default) ✓ SMA interface for PPS (optional) ✓ RJ45 100/1000BASE-T interface for IEEE1588 PTP support (optional)
Data format	<ul style="list-style-type: none"> ✓ 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
Optional capture /record features (FPGA processing)	<ul style="list-style-type: none"> ✓ 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
Storage options	<ul style="list-style-type: none"> ✓ NVMe NAND flash (enterprise) ✓ 12TB (75TBW), 25TB (149TBW), 60TB (134TBW) ✓ Storage in TB with endurance TBW (total bytes written in PB) ✓ SSD endurance TBW is based on 128K sequential writing
CPU & memory	<ul style="list-style-type: none"> ✓ Xeon SoC: Options from 8 to 16 physical cores ✓ System memory: Options from 32GB to 256GB
Peripherals & data offload options	<ul style="list-style-type: none"> <li style="width: 50%;">✓ 1 x USB 3.0 ports <li style="width: 50%;">✓ 2 x 10GBASE-T <li style="width: 50%;">✓ 1 x VGA display <li style="width: 50%;">✓ 4 x 1GBASE-T <li style="width: 50%;">✓ 2 x 10Gbps SFP+
Environmental standards	<p>MIL-STD-810 & DO-160 (compliant)</p> <ul style="list-style-type: none"> ✓ 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
System cooling	<ul style="list-style-type: none"> ✓ Three high reliability 92 mm fans
Power supply	<ul style="list-style-type: none"> ✓ Option 1: 36 - 72 VDC, 120VAC Watt power brick ✓ Option 2: 250VDC
Dimensions & weight	<ul style="list-style-type: none"> ✓ Height: 6" (15.24 cm) max, Width: 15.4" (39.11 cm), Depth: 9.6" (24.38 cm) excluding connectors ✓ 17 lbs (7.71 kg) - estimated
Mounting	<ul style="list-style-type: none"> ✓ Tray or bulkhead mounted using ears supplied