

OPTIONAL DATA PLAYBACK UP TO 100Gbps



FEATURE SUMMARY

- ✓ A rugged (**MIL-STD-810** compliant) Ethernet recorder featuring **1 x 100GbE** port.
- ✓ Sustained 100% Ethernet capture and record performance at **100Gbps**.
- ✓ Up to **180 Terabytes (SSDs)** of local data storage.
- ✓ Data offload: **USB 3.0** and **10GbE** or optional **25/40/100GbE** ports.
- ✓ **STIG** compliant & **AES256** encryption options.
- ✓ Real-time status monitoring of capture ports.

MOST SUITABLE FOR THE FOLLOWING APPLICATIONS

Embedded systems

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- ✓ RFSoc
 - ✓ GPGPU
 - ✓ FPGA

Radar



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

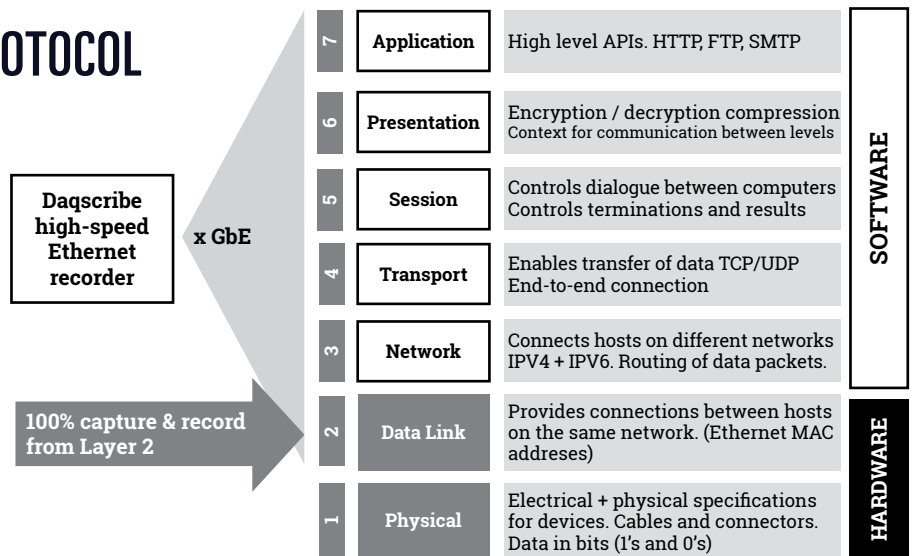
Wireless comms



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

DESIGNED FOR ANY NETWORK PROTOCOL

- ✓ The **RDR7000-R-100G** 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 1 x 100Gbps for packet size 61 - 10,000 bytes ✓ Line rate Tx 1 x 100Gbps for packet size 61 - 10,000 bytes ✓ 100% packet capture
Network Interfaces	<ul style="list-style-type: none"> ✓ IEEE 802.3 100GbE Ethernet support ✓ Network interface: 2 x QSFP28 ports ✓ QSFP28 modules: 100GBASE CR4/SR4/LR4
Hardware Time Stamp	<ul style="list-style-type: none"> ✓ Resolution: 1 ns, Stratum 3 compliant TCXO ✓ Time formats: PCAP-ns/-µs, UNIX 10 ns, 1 ns
Timing/Synchronization	<ul style="list-style-type: none"> ✓ SMA interface for PPS ✓ RJ45 100/1000BASE-T interface for IEEE1588 PTP support ✓ OS time synchronization
Data Format	<ul style="list-style-type: none"> ✓ PCAP format (capture/record only) ✓ NTCAP – PCAP style binary format (capture/replay) ✓ CLI utilities: simple/quick conversion from NTCAP to standard PCAP format or payload extraction
Optional Capture /Record In-Line 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) ✓ 25TB (149TBW), 50TB (298TBW), 120TB (269TBW), 180TB (403TBW) ✓ 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"> ✓ Intel Xeon scalable dual socket CPUs ✓ System memory from 64GB up to 2TB
Peripherals	<ul style="list-style-type: none"> ✓ 2 x rear 10GBASE-T, 1 x 1GbE IPMI ✓ 2 x rear USB3.0 ✓ 1 x rear COM port ✓ Rear VGA/DVI/HDMI display
Data Offload Options	<ul style="list-style-type: none"> ✓ 10G: 2 or 4 x SFP+, 10GBASE-T 40G: 1 or 2 x QSFP+ 100G: 1 or 2 x QSFP28
Environmental Standards	<ul style="list-style-type: none"> ✓ MIL-STD-810, Operational Temperature, Method 501, Procedure I/II: -15°C to +55°C, capable of -40°C to 71°C with select processors ✓ MIL-STD-810, Storage, Method 501, Procedure I/II: -55°C to +85°C ✓ MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with humidity kit ✓ MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport ✓ MIL-STD-810, Vibration, Method 514, Procedure I: 4.63 GRMS, 5-2,000Hz, 60 min/axis with solid state drives + vibration kits ✓ MIL-S-901, Grade B ✓ MIL-S-901, Grade A: With solid state drives + shock kits
Electromagnetic Compatibility Standards	<p>Some standards may require an internal kit</p> <ul style="list-style-type: none"> ✓ AC, FCC compliant ✓ AC, MIL-STD-461, RE102, CE102 compliant ✓ DC, MIL-STD-461, RE102, CE102 compliant ✓ RTCA DO-160 Section 21, Category M
System Cooling	<ul style="list-style-type: none"> ✓ Five high speed, high volume fans CPU temperature controlled
Power Supply	<ul style="list-style-type: none"> ✓ Option 1: 1200W 120/240VAC 1+1 w/PFC ✓ Option 2: 1005W 18-36VDC
Dimensions & Weight	<ul style="list-style-type: none"> ✓ Height: 5.25" (13.34cm) x Width: 17.5" (44.45cm) EIA-310 rack compliant x Depth: 24" (61cm) ✓ Weight: 60-66 lbs. (27-30 kg) [content dependent]
Mounting	<ul style="list-style-type: none"> ✓ Option 1: mounted on Delrin glides ✓ Option 2: fixed mount, front and rear ✓ Option 3: Jonathan rails