

### OPTIONAL DATA PLAYBACK UP TO 150Gbps



### FEATURE SUMMARY


- ✓ A rugged (**MIL-STD-810** compliant) Ethernet recorder featuring **6 x 25GbE** ports.
- ✓ Sustained 100% Ethernet capture and record performance at **150Gbps**.
- ✓ 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.

#### Wireless comms



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

#### Autonomous vehicle



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

#### Embedded systems

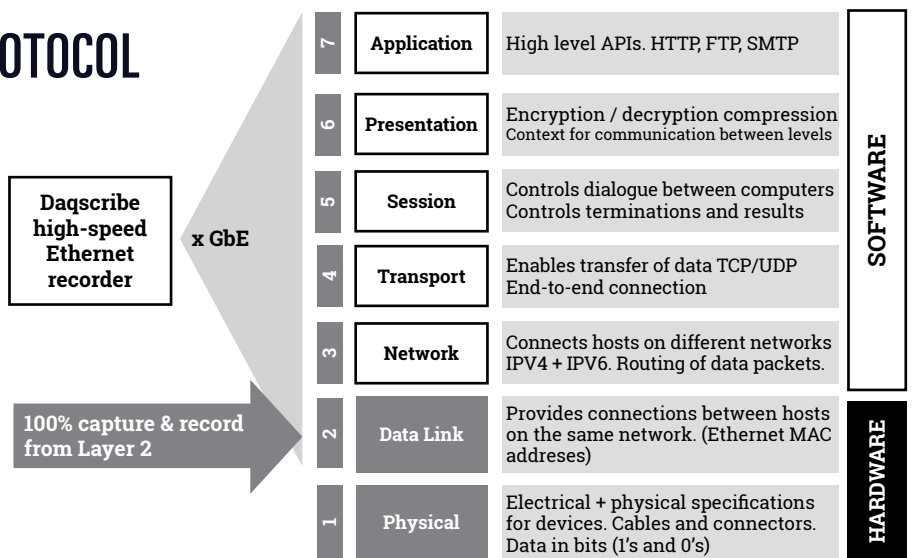


FPGAs

- ✓ RFSoc
- ✓ GPGPU
- ✓ FPGA

## DESIGNED FOR ANY NETWORK PROTOCOL

- ✓ The **RDR7000-R-25G-6** 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**.



<b>Performance</b>	<ul style="list-style-type: none"> <li>✓ Line rate Rx 150Gbps (6 x 25Gbps) for packet size 61 - 10,000 bytes</li> <li>✓ Line rate Tx 150Gbps (6 x 25Gbps) for packet size 61 - 10,000 bytes</li> <li>✓ 100% packet capture</li> </ul>
<b>Network Interfaces</b>	<ul style="list-style-type: none"> <li>✓ IEEE 802.3 25GbE Ethernet support</li> <li>✓ Network interface: 2 x QSFP28 port or 6 x SFP28</li> <li>✓ QSFP28 modules: 4 x SFP28 CR/SR breakout from QSFP28</li> <li>✓ SFP28 modules: 25GBASE-CR/SR/LR/LR-BiDi, dual-rate 10/25GBASE-SR/LR</li> </ul>
<b>Hardware Time Stamp</b>	<ul style="list-style-type: none"> <li>✓ Resolution: 1 ns, Stratum 3 compliant TCXO</li> <li>✓ Time formats: PCAP-ns/-µs, UNIX 10 ns, 1 ns</li> </ul>
<b>Timing/Synchronization</b>	<ul style="list-style-type: none"> <li>✓ SMA interface for PPS</li> <li>✓ RJ45 100/1000BASE-T interface for IEEE1588 PTP support</li> <li>✓ OS time synchronization</li> </ul>
<b>Data Format</b>	<ul style="list-style-type: none"> <li>✓ PCAP format (capture/record only)</li> <li>✓ NTCAP – PCAP style binary format (capture/replay)</li> <li>✓ CLI utilities: simple/quick conversion from NTCAP to standard PCAP format or payload extraction</li> </ul>
<b>Optional Capture /Record In-Line Features (FPGA Processing)</b>	<ul style="list-style-type: none"> <li>✓ Filtering based on e.g. L3/L4 criteria</li> <li>✓ GTP, IP-in-IP, GRE and NVGRE tunneling support</li> <li>✓ IP fragment handling</li> <li>✓ Slicing at fixed or dynamic offset</li> </ul>
<b>Storage Options</b>	<ul style="list-style-type: none"> <li>✓ NVMe NAND flash (enterprise)</li> <li>✓ 38TB (223TBW), 76TB (448TBW), 153TB (896TBW), 180TB (403TBW)</li> <li>✓ Storage in TB with endurance TBW (Total Bytes written in PB)</li> <li>✓ SSD endurance TBW is based on 128K sequential writing</li> </ul>
<b>CPU &amp; Memory</b>	<ul style="list-style-type: none"> <li>✓ Intel Xeon scalable dual socket CPUs</li> <li>✓ System memory from 64GB up to 2TB</li> </ul>
<b>Peripherals</b>	<ul style="list-style-type: none"> <li>✓ 2 x rear 10GBASE-T, 1 x 1GbE IPMI</li> <li>✓ 2 x rear USB3.0</li> <li>✓ 1 x rear COM port</li> <li>✓ Rear VGA/DVI/HDMI display</li> </ul>
<b>Data Offload Options</b>	<ul style="list-style-type: none"> <li>✓ 10G: 2 or 4 x SFP+, 10GBASE-T   40G: 1 or 2 x QSFP+   100G: 1 or 2 x QSFP28</li> </ul>
<b>Environmental Standards</b>	<ul style="list-style-type: none"> <li>✓ 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</li> <li>✓ MIL-STD-810, Storage, Method 501, Procedure I/II: -55°C to +85°C</li> <li>✓ MIL-STD-810, Humidity, Method 507, Procedure II: 240 hours with humidity kit</li> <li>✓ MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport</li> <li>✓ MIL-STD-810, Vibration, Method 514, Procedure I: 4.63 GRMS, 5-2,000Hz, 60 min/axis with solid state drives + vibration kits</li> <li>✓ MIL-S-901, Grade B</li> <li>✓ MIL-S-901, Grade A: With solid state drives + shock kits</li> </ul>
<b>Electromagnetic Compatibility Standards</b>	<p>Some standards may require an internal kit</p> <ul style="list-style-type: none"> <li>✓ AC, FCC compliant</li> <li>✓ AC, MIL-STD-461, RE102, CE102 compliant</li> <li>✓ DC, MIL-STD-461, RE102, CE102 compliant</li> <li>✓ RTCA DO-160 Section 21, Category M</li> </ul>
<b>System Cooling</b>	<ul style="list-style-type: none"> <li>✓ Five high speed, high volume fans CPU temperature controlled</li> </ul>
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>✓ Option 1: 1200W 120/240VAC 1+1 w/PFC</li> <li>✓ Option 2: 1005W 18-36VDC</li> </ul>
<b>Dimensions &amp; Weight</b>	<ul style="list-style-type: none"> <li>✓ Height: 5.25" (13.34cm) x Width: 17.5" (44.45cm) EIA-310 rack compliant x Depth: 24" (61cm)</li> <li>✓ Weight: 60-66 lbs. (27-30 kg) [content dependent]</li> </ul>
<b>Mounting</b>	<ul style="list-style-type: none"> <li>✓ Option 1: Mounted on Delrin glides</li> <li>✓ Option 2: Fixed mount, front and rear</li> <li>✓ Option 3: Jonathan rails</li> </ul>