

Preliminary specifications - subject to change



FEATURE SUMMARY

- ✓ The fastest compact and rugged Ethernet recorder model
- ✓ Capture and record 100% of **40Gbps** Ethernet traffic
- ✓ Suitable for any Ethernet sensor recording, including wideband receivers, LiDAR, photonics, etc.
- ✓ Order this system with up to **25 Terabytes (SSDs)** of local data storage
- ✓ Fast data-offload options via **USB 3.0, 10GbE** port(s), or other

SMART ETHERNET RECORDER HIGHLIGHTS

- ✓ Built to rugged environment specifications
- ✓ Minimized footprint
- ✓ Optional conduction cooling
- ✓ Interfaces with **VRT/VITA 49** or any other digital radio devices
- ✓ **STIG** compliant
- ✓ **AES256** encryption options

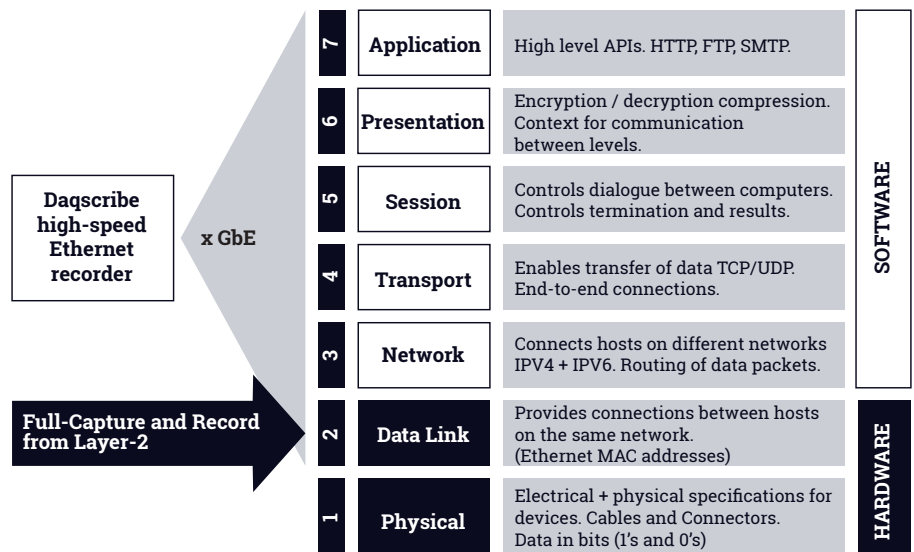


ANY NETWORK PROTOCOL

The **RDR70-Mini-40G** captures data from Layer-2 through Layer-7 of the Ethernet stack.

This includes recording IPv4 or IPv6 protocols at the network layer and TCP or UDP protocols at the transport layer.

The result is a full, **protocol-agnostic**, 100% Ethernet packet capture and record solution.



Performance	<ul style="list-style-type: none"> ✓ Line rate Rx 40 Gbps for packet size 64 – 10,000 bytes ✓ Line rate Tx 40 Gbps for packet size 64 – 10,000 bytes ✓ 100% packet capture
Network Interfaces	<ul style="list-style-type: none"> <li style="width: 50%;">✓ QSFP+ 40GBASE-LR4 <li style="width: 50%;">✓ QSFP+ 40GBASE-BiDi <li style="width: 50%;">✓ QSFP+ 40GBASE-SR4 <li style="width: 50%;">✓ QSFP+ breakout to 4x 10GBASE-SR <li style="width: 50%;">✓ QSFP+ 40GBASE-CR4 <li style="width: 50%;">✓ QSFP+ breakout to 4x 10GBASE-CR
Hardware Time Stamp	<ul style="list-style-type: none"> ✓ Resolution: 1 ns ✓ Time formats: PCAP-ns/-µs, UNIX 1 ns
Timing/Synchronization	<ul style="list-style-type: none"> ✓ OS Time Synchronization, NTP
Inline Rx Packet Processing	<ul style="list-style-type: none"> ✓ HW time stamping with 1 ns resolution ✓ Multi-port packet merge sequenced in time stamp order ✓ L2, L3 and L4 protocol classification ✓ Filter match conditions: Network port, protocol, length check and error condition filters ✓ Filter actions: Drop, Forward to port, Forward to capture process, Optional flow ID in packet descriptor, Slice ✓ Slicing at dynamic offset or fixed offset from start or end of packet
In line Tx Packet Processing	<ul style="list-style-type: none"> ✓ Replay as captured with nanoseconds precision ✓ Port to any port forwarding
Storage Options	<ul style="list-style-type: none"> ✓ NVMe NAND Flash (Enterprise) ✓ 6TB (37TBW), 12TB (74TBW), 25TB (149TBW) ✓ 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 ✓ M 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 (TBD)	<p>MIL-STD-810 & DO-160 (certification pending)</p> <ul style="list-style-type: none"> ✓ MIL-STD-810, Operational Temperature: -40°C to +40°C ✓ MIL-STD-810, Storage, Method 501, Procedure I/II: -55°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"> ✓ Fan-less; passively cooled through heat-pipe technology with no moving components ✓ Thermostatically controlled fans, air over components cooling design
Power Supply	<ul style="list-style-type: none"> ✓ 12VDC, 15A ✓ 100-240VAC 50-60Hz
Dimensions & Weight	<ul style="list-style-type: none"> ✓ 348 x 289 x 100mm (W x D x H) (109mm H including feet) ✓ 13.7" x 11.4" x 4" ✓ 14.3lb / 6.5kg
What's Included	<ul style="list-style-type: none"> ✓ Optional durable transportation case ✓ Optional rack-mount kit