CRYSTAL™

RS1104 Rugged ISR Encoder

A new standard for ISR.

Crystal Group's rugged ISR encoder module uses the Haivision Makito X1 encoder to deliver real-time streaming of MISB-compliant full motion video capabilities required for demanding intelligence, surveillance and reconnaissance (ISR) applications.

The fully integrated system combines a Makito X1, eight-port switch, six 2.5" SSD storage drives and dual Intel® Xeon® scalable processors into our RS1104 1U server to optimize performance and SWaP. At just under 22 pounds, this ultra-compact rugged server tackles the workload of three separate 1U units, including two simultaneous compression functions via two separate encode engines. This provides a high-quality video stream for machine learning applications running on the RS1104 and a low-bitrate video stream to reach remote users over constrained network links. The system also delivers efficient, high-performance mission computing, storage, layer 2+ switching, and encoding capability.

Mechanical specs

- Height: 1.75" (4.45 cm)
- Width: 16.93" (44.45cm)
- Depth: 19" (48.26cm)
- Weight: 20 lbs. (9.07 kg)

Key features

- Network adaptive H.265/HEVC encoding
- Interoperable video and metadata
- Built-in management interface
- Ultra-low latency
- Intel® Xeon® Scalable CPU
- 8 or 16 external switch ports
- Supports 802.1Q VLAN switch with 8K MACs, 4K VLAN and link aggregation (IEEE 802.3ad)
- One low-profile or full-height PCIe x16 slot

Optional features

- MIL-CIRC power connector
- EMI filter
- Humidity protection
- Dust filter
- Sanitization
- Tamper evident seals
- Tamper proof coatings
- Chassis intrusion indicator
- USB 3.0 headers

Designed to MIL-STD-810

| Humidity | Salt Fog | Shock | Electromagnetic Compatibility | Vibration | Sand Dust |

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