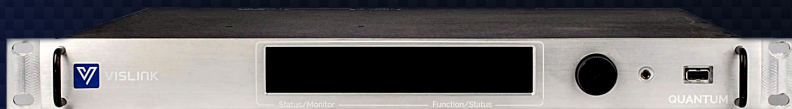


Quantum Encoder

IP-Native Contribution Encoder



Vislink's Quantum Encoder provides high-quality, low-latency encoding, offering multi-service HD encoding as well as superior 4K UHD. With support for 4:2:2 10-bit HDR, the Vislink Quantum Encoder delivers stunning visuals that preserve the detail of the camera image throughout the broadcast chain. Its cost-efficient HEVC encoding achieves low data rates with ultra-low latencies, enabling production teams to create dynamic and responsive programming.

With high-density capabilities, the Quantum Encoder can encode four simultaneous HD signals, significantly reducing hardware costs while maximizing operational efficiency. Sync mode allows all four HD inputs to be synchronized and encoded with end-to-end latency of less than 35 milliseconds in progressive formats—making it ideal for the fast-paced demands of live sports coverage. Additionally the Quantum encoder offers single HD/UHD end to end in sub frame latency, ensuring minimal delay for critical content delivery.

In addition to supporting up to 16 channels of embedded audio and 4 channels of analogue audio, the Quantum Encoder features optional AES or BISS encryption, ensuring secure transmission for sensitive content. It also supports SRT (Secure Reliable Transport) for robust, low-latency video delivery over unreliable networks. As an IP-native device, it interfaces seamlessly with globally connected infrastructure, delivering video content to any geographic location—a perfect fit for modern remote productions.

Key Features

4K UHD HDR encoding

4 x HD signal transmission at up to 1080p50/59

Sync mode - 4 x HD signals in Ultra Low Delay

10-bit Luma and 4:2:2 Chroma profile video support

HEVC Ultra Low Latency encoding

IP and DVB-ASI I/O supported

Reduces bit rate by as much as 50% compared to H.264

Legacy H.264 & MPEG2 supported

Typical Applications

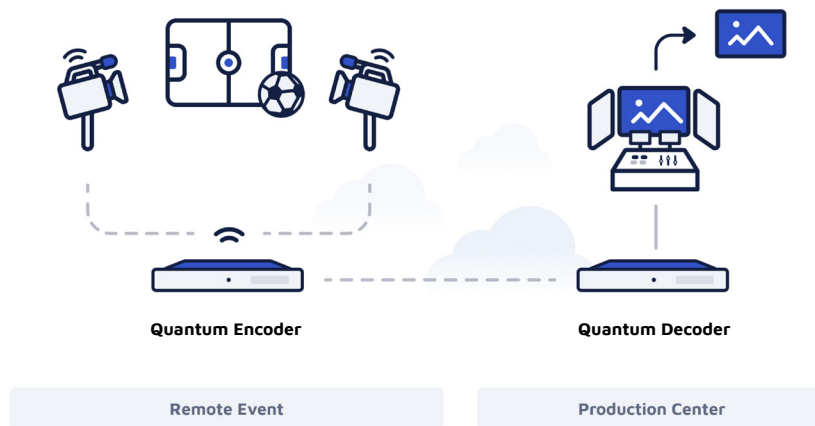
Live event contribution

Content backhaul

Remote Production

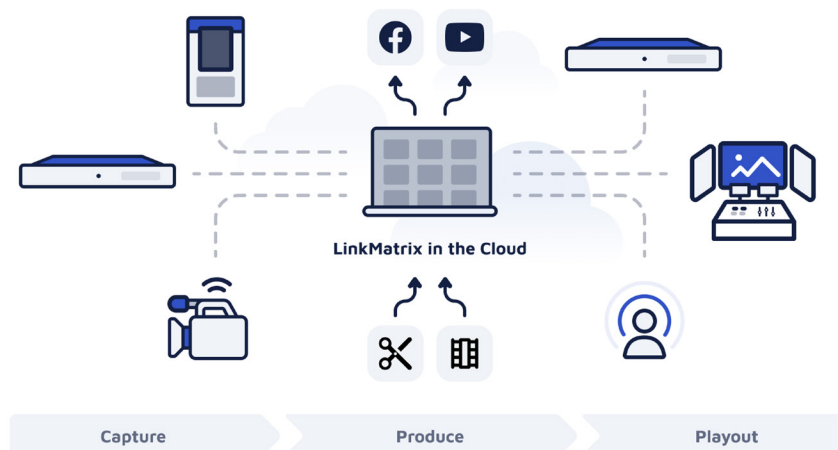
Outside broadcast production

Remote Production Workflow with Vislink Quantum Encoder and Quantum Decoder



LinkMatrix Centralized Control and Configuration

Vislink's LinkMatrix control platform provides the ability to remotely configure and control Quantum devices from an operations center. By utilizing the LinkMatrix management platform, staff can work more efficiently and workflows can be streamlined. LinkMatrix can be used to simplify ways of working for ad-hoc or scheduled events to ensure that configurations and signal paths are set for data streaming as required.



Quantum Encoder Datasheet



Technical Specifications	
Video Inputs	2 SFP+ module slots supporting electrical interfaces: 12G-SDI SMPTE-2082 (4K UHD) Quad 3G-SDI SMPTE-424M (4K UHD and HD)
Number of Inputs	1x 4K UHD 4x HD (synchronous or unsynchronized multiple HD inputs)
Video Formats	720p @ 50, 59.94 & 60 fps 1080i @ 50, 59.94 & 60 fps 1080p @ 23.98, 24, 25, 29.97, 30, 50, 59.95 & 60 fps 1080psF 23, 24, 25, 29, 30 2160p @ 23.98, 23, 25, 29.97, 30, 50, 59.94 & 60 fps
Video Encoding	HEVC, H.264 and MPEG2
Video Encoding Profiles	HEVC (H.265) UHD, HD & SD - Main, Main 10, Main 4:2:2 10 MPEG-4 AVC (H.264) HD & SD - Main, High, Baseline up to Level 5.2, High 10/High 4:2:2 MPEG-2 (H.262) HD & SD - 4:2:0 8 bit, up to 1080i60
HDR	HLG, PQ and S-Log
Embedded Audio	16 Channels / 8 Stereo Pairs
Analogue Audio	4 Channels / 2 Stereo pairs (also supports 4x mono inputs)
Audio Profiles	AAC (AAC-LC & HE-AAC), MPEG-1 (Layer 1 & Layer 2), Linear PCM Passthrough
Streaming	
DVB-ASI	Transports stream up to 90Mb/s
Supported Formats	UDP/RTP/RTSP/SRT
Connectors	
Video In 1-4	2x SFP+ module slots supporting electrical interfaces: 12G/ 3G SDI HD BNC Via SFP
ASI IN	75 Ω BNC (F)
ASI Out	75 Ω BNC (F)
LAN	1000Base-T Ethernet - RJ45 ×3
WAN	1000Base-T Ethernet - RJ45 ×1
Audio in	2 × 5 Pin Lemo
Power AC	IEC C16
Optional	Extra ASI IN Card - BNC
Latency (when paired with Quantum Decoder)	
Encode + Decode	Sub 35ms*
User Interface	Touchscreen and push-wheel controlled front panel control and monitoring Web GUI remote control
Test Modes	Color bars Audio test tone
Physical	Size & Weight: 44 mm (H) x 430 mm (W) x 404mm (427mm including SFP) (L) 1.7" (H) x 17" (W) x 15.9" (16.8" including SFP) (L)
Power	100 – 240VAC; Up to 230W (approximate, depending on configuration)

Note:

* format dependant.

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