

Quantum

IP-Native Wireless Camera Receiver



Vislink's Quantum is an IP-native, high-performance RF receiver which enables production teams to fully implement remote production systems, increasing production efficiencies and allowing event operations teams to use their staff and resources more productively. By delivering content directly over IP fiber networks and cutting out additional video compression stages, Vislink's Quantum receiver can remove additional equipment CAPEX costs and increase video quality.

Video production organizations can now benefit from utilizing enhanced IP capability to offer new services. Quantum provides in-built SRT capability to contribute video over the unmanaged internet, enabling event production to be achieved at a fraction of the connectivity costs and making delivery of new content financially viable. Quantum significantly extends the number of RF inputs on a wireless camera receiver to 16—enabling wider area coverage and more robust RF reception through sophisticated MRC and Packet switching technology.

With IP connectivity at the heart of the Quantum receiver, content creators can fully modernize their networks to deliver high-impact wireless camera images and simplify the infrastructure required to bring that content home. Built for both remote production and on-site live event coverage, not only is Quantum capable of moving compressed video around all-IP environments, but it is also a SMPTE2110 device which can enable more efficient operational workflows for video production environments as they also evolve to next generation IP architectures.

Key Features

[Dual Channel Decode](#)

[Diversity LMS-T, DVB-T, ISDB-T and DVB-T2 reception with up to 16x RF inputs](#)

[4K UHD and HD decoding with HDR support](#)

[HEVC and MPEG-4 video decode compression technology](#)

[Dual service HEVC HD Decode](#)

[IP transport stream input and output with SMPTE 2022-2, SRT and NDI support](#)

[Instantaneous Data to Decision Makers](#)

Typical Applications

[Live event onsite coverage](#)

[Remote production event coverage](#)

[Central receive applications](#)

[ENG applications](#)

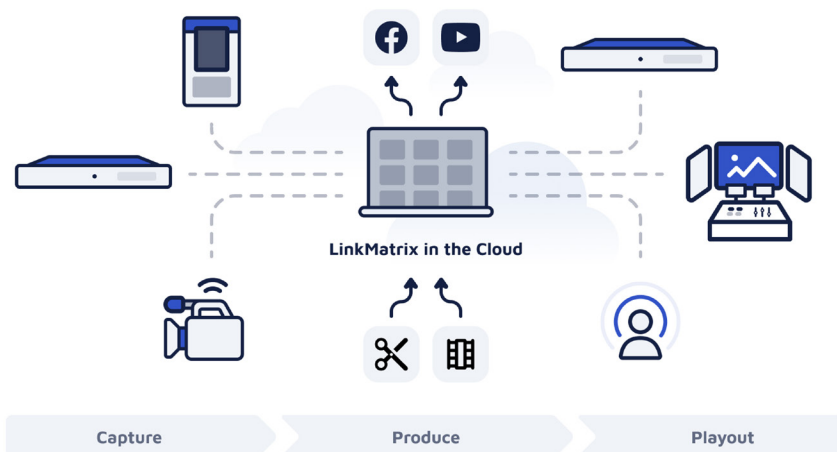
Quantum was created with a modern unit design, incorporating a touchscreen interface and APIs to allow integration into system control and orchestration tools. By enabling an increase in antenna locations, event production teams can achieve greater area coverage with more confidence in robust video transfer without fear of picture breakup. Equipped with low latency video processing technology, Quantum offers multi-format video decoding that supports all major video formats including high frame rate, high dynamic range and 4k resolutions—ensuring premium video productions can benefit from the flexibility and immersive camera views that only wireless camera systems can offer.

Remote Production Workflow with Vislink HCAM and Quantum



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.



Technical Specifications	
RF Parameters	
RF Input	4x RF inputs implementing MRC Diversity reception per demod card, up to 4x demod cards per unit, packet switching diversity between demod cards
Frequency Band	100MHz -20GHz**Use in conjunction with the L3025 series down converters
FEC	1/2, 2/3, 3/4, 5/6, 7/8 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Guard Interval	1/32, 1/16, 1/8, 1/4 DVB-T2: 1/4, 19/128, 1/8, 19/256, 1/16, 1/28
Frequency Selection	Up to 16 pre-set channels, or tuning in 1MHz steps via front panel control
Demodulation	ISDB-T (2K), DVB-T, DVB-T2, LMS-T with deep interleaving
Demodulation Modes	QPSK, 16QAM, 64QAM, 256QAM
Bandwidth	DVB-T bandwidths of 5/6/7/8MHz, LMS-T bandwidths of 3/4/5/6/7/8/10/12; DVB-T2 bandwidth of 1.7, 5, 6, 7, 8, 10, 12, 14, 16 Mhz; Dual Pedestal bandwidths of DVB-T 10/12/14/16MHz; LMST 4,6,8,10,12,14,16,20,24 MHz; ISDB-T bandwidth of 6/7/8 MHz
Receiver Threshold	-92dBm to BER 2.2×10 ⁻⁴ th (nom. QPSK)
Service Multiplexing	RF diversity input + ASI Mux, RF diversity input + TSolP input, TSolP input +ASI input
IP Transport Stream Processing	
IP Inputs	RTP/UDP IP input, up to 100Mbit/s, SMPTE2022-2 ProMPEG FEC, SRT
IP Outputs	RTP/UDP IP input, up to 100Mbit/s, SMPTE2022-2 ProMPEG FEC, SRT
Video CODEC Profiles Supported	HEVC (H.265) UHD & HD: Profile: Main 4:2:2 10 @ L5.1 Sampling: 8bit & 10bit Video rate: 1.0-40Mbps Video format: up to 2160p 60 MPEG-4 AVC (H.264) HD: Profile: 422HP @ L4.2 Sampling: 8bit & 10bit Video rate: 1.0-40Mbps Video format: up to 1080p 60
Video Outputs	3G-SDI SMPTE-424M (UHD), HD-SDI SMPTE-424M (HD); 6G-SDI SMPTE-2081, 12G-SDI SMPTE-2082; HD, HDR, 4K downconversion to HD, OSD monitor
Video Formats	480i @ 29.97 576i @ 25 720p @ 50, 59.94 & 60 1080i @ 50, 59.94 & 60 1080p @ 23.98, 24, 25, 29.97, 30, 50, 59.94 & 60 1080PsF @ 23, 24, 25, 29, 30 2160p @ 23.98, 24, 25, 29.97, 30, 50, 59.94 & 60
Dual Decode	Dual Service decode* (HEVC only), within same frequency band
Audio Decoder Profiles	AAC** (AAC-LC & HE-AAC), MPEG-1 (Layer 1 & Layer 2), Linear PCM Passthrough
Dual Channel Decode	Dual Channel decode for two separate Frequencies (HECV Only) or 1x HEVC & 1x H264

****Check availability**

Video & Audio Parameters	
Audio Outputs	Digital: Up to 8x stereo pair Embedded audio over HD-SDI, 4x over SDI Analogue: 2x stereo pair
Frame Sync	CVBS Black & Burst Tri-level sync
Latency	Single frame latency* *In combination with Vislink HCAM transmitter in HEVC mode and in combination with Vislink L1700 & Clip On-4 transmitters
De-scrambling	BISS-1, BISS-E, AES-128, AES-256, Bcrypt-128, Bcrypt-256
Connectors	<p>Main Video Output: 2x SFP cages each supporting: 4x 3G SDI out 2x 6G SDI out 1x 12G SDI out</p> <p>Monitor Video Output: 2x SFP cages each supporting: 3G SMPTE 2110 Encapsul 4x 3G SDI out 2x SFP cages supporting: 4K SMPTE 2110 (HW option)</p> <p>1x ASI Input Connector: 75 Ω BNC (F)</p> <p>GenLock Connector: 75 Ω Micro BNC (F)</p> <p>1x ASI Output Connector: 75 Ω Micro BNC (F)</p> <p>Audio Connectors: 2x 5-Pin Lemo 1x Stereo pair per connector FocalPoint ODU Tx Head**: 6-Pin LEMO Socket 2x 15-way HD D-Type Return data RS232/RS485/TTL OCP** Sony/Grass Valley/OCP5 Tally** Red/Green Wet/Dry</p> <p>Ethernet Transport Stream Control Connectors: 1 x WAN port RJ45 10/100/1000 3 x LAN port (2 with 802.3at Type 2 "PoE+")** RJ45 10/100/1000</p>
Test Modes	Color bars
Flexibility & Power Supply Power	100 – 240VAC; Up to 230W (approximate, depending on configuration)
Physical & Environmental	Size & Weight: 44 mm (H) x 430 mm (W) x 368 mm (L) (1.7" (H) x 17" (W) x 14.5" (L))

****Check availability**