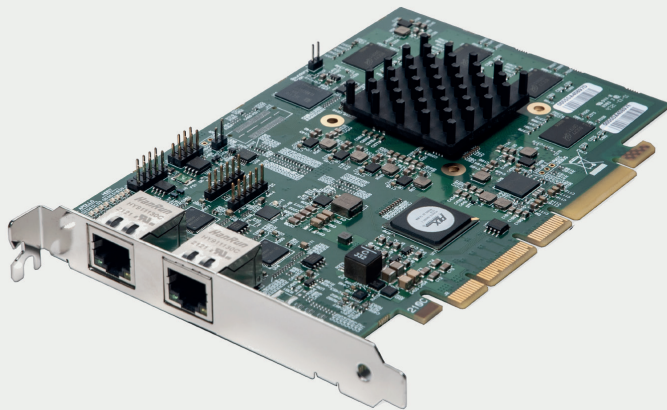


Active SQX2

IP Decode Card Capable of 1x UHD or 6x HD, HEVC, H.264



Network-based IP decode card designed for video wall systems. It supports decoding of one UHD or up to six HD streams in HEVC or H.264 formats, enabling flexible, high-quality content delivery from IP sources directly to large-scale display arrays.

Active SQX2 is a high-performance AV-over-IP solution built on VITEC's scalable SQX technology, enabling reliable encoding and decoding of large volumes of HD video streams. Fully compatible with industry standards for video compression and streaming, it ensures seamless integration into professional AV workflows.

Each card features a dedicated onboard processor, offloading all compute demands from the host system. This allows multiple Active SQX2 cards to operate concurrently within a single chassis, supporting high-density deployments with simultaneous encode and decode operations.

Designed for flexibility, Active SQX2 can be installed alongside graphics and video capture cards—such as the VITEC Vision range—delivering powerful IP stream handling in mission-critical environments. Whether distributing local sources across the network or integrating IP feeds into local displays, Active SQX2 provides a unified platform for scalable, low-latency AV processing.

Features & Benefits

- Dedicated encode/decode card with dual RJ45 Ethernet interfaces
- Decode up to six 1080p60 streams or equivalent for flexible playback
- Encode up to four 1080p60 streams or equivalent for scalable distribution
- Supports industry-standard AVC H.264 and HEVC H.265 compression formats
- Dual Ethernet ports enable connection to separate networks for enhanced routing and redundancy

* All encode/decode operations share resources; maximum performance is achieved when only encoding or only decoding is active.

Technical Specification

Video Input

Interfaces

- 2x Gigabit Ethernet ports

Resolutions/Frame Rates

- 3840x2160p @60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz (UHD)
- 2048x1080p @60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz (2K)
- 1920x1080p @60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz (HD)
- 1920x1080i @60, 59.94, 50Hz
- 1280x720p @60, 59.94, 50, 30, 29.97, 25Hz
- 720x480/576i @60, 59.94, 50Hz (SD)

HEVC (H.265) MPEG-H HEVC (ISO/IEC 23008-2)

- Modes: Main
- Level 4.2 - 5.2
- Bit rate: 10 Mbps default, configurable
- Selectable GOP structure and size: IP only
- Frame rate configurable
- Bit rate regulation mode: Constant (CBR)

H.264 (MPEG-4 AVC art 10) - ISO/IEC 14496-10 MPEG-4 AVC – Rec. ITU-T H.264

- Profiles:
 - Constrained Baseline Profile
 - Baseline Profile
 - Main Profile
 - High Profile
- Level 4.2 - 5.2
- Bit rate: 10 Mbps default, configurable
- GOP structure: IP only
- Frame rate configurable
- Bit Rate Regulation Modes: Constant (CBR), Variable (VBR)

Video Output

Interfaces

- 2x Gigabit Ethernet ports

Resolutions/Frame Rates

- 3840x2160p @60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz (UHD)
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HEVC (H.265) MPEG-H HEVC (ISO/IEC 23008-2)

- Modes: Main
- Level 4.2 - 5.2
- Bit rate: 10 Mbps default, configurable
- GOP structure: IP only
- Frame rate configurable
- Bit rate regulation mode: Constant (CBR)
- Output resolution configurable

H.264 (MPEG-4 AVC art 10) - ISO/IEC 14496-10 MPEG-4 AVC – Rec. ITU-T H.264

- Profiles:
 - Main Profile
- Level 4.2 - 5.2
- Bit rate: 10 Mbps default, configurable
- GOP structure: IP only
- Frame rate configurable
- Bit Rate Regulation Modes: Constant (CBR), Variable (VBR)
- Output Resolution configurable

Network Protocols

- UDP TS: MPEG transport stream over UDP
- RTP TS: MPEG transport stream over RTP
- RTSP
- Unicast and Multicast (IGMPv2) streaming
- HTTPS

Network Interfaces

- 2x Gigabit Ethernet port for streaming and (10/100/1000 Base-T, auto detect, half/full duplex)
- DHCP/Static IP address, IPv4 and IPv6 support

Environmental/Regulation

- Operating Temperature: 0° to 35°C/32° to 96°F
- Relative Humidity: 5% to 90% (non-condensing)
- EMC Standards: FCC part 15/ICES-003 Class A & CE
- Power: 15W max, typical 15W
- MTBF: 64 years
- Not controlled under ITAR
- TAA-compliant

Physical

- Dimensions: 4.37" (H) x 0.72" (W) x 6.57" (D), 111mm (H) x 18.25mm (W) x 167mm (D)
- Weight: 0.31lbs (0.137kg)

Ordering Information (P/N)

- 19351 - Active SQX2 - IP Encoder/Decoder Card - HEVC - 6x HD or 1x 4K

Performance

	Encode	Decode
Streaming Methods	Unicast support	Multicast & Unicast support
Streaming Codecs	H.264, VC-1, MPEG2 Part 2, MJPEG, H.265	H.264, VC-1, MPEG2 Part 2, MJPEG, H.265
Streaming Containers	MPEG4 Part 1, MPEG2-TS, WMV, MOV	MPEG4 Part 1, MPEG2-TS, WMV, MOV
Streaming Protocols	HTTP, RTSP, RTP, UDP	HTTP, RTSP, RTP, UDP
Density	2x 2160p30 6x 1080p60 12x 1080p30	1x 2160p60 3x 2160p30 6x 1080p60 12x 1080p30 10x 1080i30
De-interlacing	No	Supported

Input Cards

	VisionSC UHD2	VisionSC DP2	VisionSC SDI4	VisionSC HD4+	Active SQX2
Inputs	2x HDMI	2x DisplayPort	4x SDI	4x HDMI	2x 1Gb Ethernet
Max. Resolution	4Kp60 (4:4:4)	4Kp60	HDp60	4Kp60 (2x) (4:2:0) or HDp60 (4x)	4Kp60 (1x) or HDp60 (6x)
Usage Category	HDMI Capture	DisplayPort Capture	SDI Capture	HDMI Capture	IP Stream Capture