

# QVidium UHD 4K Streaming Video Decoder

## QVDEC4K HEVC/MPEG4-AVC Decoder

QVidium's QVDEC4K codec is a reliable, high-performance solution for receiving and decoding 4K/UHD and HD video and audio signals from Internet streams and broadcasts.

HEVC and AVC 4:2:0 decoding, coupled with SRT, RIST & QVidium's patented ARQ Video Transport and Error correction, helps to maintain broadcast quality transport for a wide range of interoperability over nearly any IP network, including wireless networks and the Internet.

The QVDEC4K is QVidium's® next generation professional line of advanced video decoders; a line of compact, powerful and cost-effective products designed for real-time decoding for Internet streaming and broadcast applications.

QVidium's Emmy Award-winning, advanced video transport couples broadcast and networking standards with patented error correction to take advantage of the inherent flexibility of IP and the Internet, providing Internet content providers an efficient, affordable and scalable solution for professional quality video over nearly any IP network. QVidium is the foremost pioneering expert in Video over Internet transport, and supports all major video transport technologies, including SRT and RIST.

The QVDEC4K supports HEVC and MPEG4-AVC video decoding, up to **2160p50/60** resolution (4:2:0 10-bit), along with support for up to 8 audio channels or 7.1 Dolby Digital Plus pass-through to allow cost-effective audio/video streaming and broadcast solutions.

The QVDEC4K includes such advanced features and HDR Metadata pass-through for vivid images and brilliant colors, and SCTE-35/SCTE-104 support for Ad Insertion systems.

### Applications

- Professional Broadcast Video Monitoring
- Live Internet Streaming
- IPTV Streaming from CDNs

### Key Features

- **Real-time UHD 4K Video Decoding**
  - HEVC / MPEG-4 AVC / MPEG-2 UHD/4K Video Decoding
  - 4:2:0 8-bit and 10-bit Decoding
  - 1x BNC interface port for 12G-SDI output
  - 1x SFP interface port for 12G-SDI output
  - Video resolutions up to **2160p50/60, 8-bit & 10-bit**
  - IP Streaming and USB or Remote File Record
  - 8-channels of Audio (4 stereo pairs)
  - 7.1 AAC Surround-Sound Audio
  - Dolby Digital & Dolby Digital Plus (AC3/eAC3) Pass-through
  - CEA708 Closed Caption Pass-through
- **Robust reception of Video & Audio**
  - Patented QVidium® ARQ error correction
  - SRT, Zixi, and RIST Simple and Main Protocols
- **Durable, Compact, cost-effective solution**
  - Compact 160mm x 125mm x 52mm chassis
  - DC input up from 6 Volts to 24 Volts
  - Low power
- **User-friendly configuration and control**
  - WEB-based remote configuration & control
  - Optimized web interface for smart phones
- **HDR Metadata Processing**
  - Enable brilliant colors on SDI output
- **SCTE-35/SCTE-104 Processing**
  - Transfer SCTE-35 messages to SDI output

## QVDEC4K HEVC/MPEG4-AVC Professional Video Decoder

## Specification

### Video/Audio Interfaces

Video Output: 1x BNC : 12G-SDI / 6G-SDI / 3G-SDI / HD-SDI (SMPTE 424M, 292M, 259M),  
1x SFP : 12G-SDI / 6G-SDI / 3G-SDI / HD-SDI

Audio Output: SDI Embedded 8x Channel Audio, AC3/eAC3

### Video

HEVC Profiles: Main, Main Intra, Main10, Main10 Intra,  
AVC (H.264) Profiles: Baseline, Main, High, High10, High 4:2:2, High10 Intra, High 4:2:2 Intra to Level 5.2  
Chroma Sampling: 4:2:0  
Bit Depth: 8-bit, 10-bit  
Resolution: 3840x2160p, 1920x1080, 1280x720  
Frame Rates: 23.98/24/25/50/59.94/60p, 50/59.94i  
Decoding Bitrate: 500Kbps to 40 Mbps  
Closed Captioning: CEA-708  
HDR Metadata: Passes through HDR Metadata on SDI output

### Audio

Audio Decoding: MPEG-1/L2, AAC-LC, Opus, AC3 5.1->Stereo  
Audio Format: Up to 4 stereo pairs, AC3, E-AC3 Pass-through  
Sample rate: 48 KHz @ 16-bit, 20-bit decode  
Bit rate: 16 Kbps (mono) to 384 Kbps (stereo)  
Audio Channels: 8 channel SDI embedded audio, 5.1, 7.1

### IP Encapsulation

IP Encapsulation: MPEG-2 TS over RTP/IP, UDP/IP, RTSP, HLS, RTMP, RTMPS, SCTE-35 to SCTE-104  
IP Bitrate: 160 Kbps to 40 Mbps  
Error Correction: QVidium® ARQ (feedback-based)  
US Patents: 7551647 & 7522528;  
SRT, Zixi and RIST (main & simple) Protocols  
Decryption: PSK (RIST Main Profile & SRT), AES-128, AES-192, AES-256

### Storage & Network Interfaces

Networking ports: 2x RJ45 10/100/1000 Gigabit Ethernet  
Protocols: IEEE802.3 Ethernet  
RTP, IPv4, IPv6, TCP/UDP, IGMP v3  
Connectors: 1x USB3.0 Type-A & 1x USB3.0 Type-C  
External storage: Flash & Hard drives via 1x USB3.0 Type-A & 1x USB3.0 Type-C connector

### Control, Management, and Monitoring

Type: 10/100/1000 Base-T Gigabit Ethernet  
Control: Web Browser Interface  
Ethernet: 2x RJ45 Gigabit Ethernet  
Console Port: 1x USB2.0 MicroB Connector

### Physical and Power

Input Voltage: 6-22 VDC  
Input Current: 0.51A@12VDC, 0.90A @ 6VDC  
Input Power: 7W max AC, 6.1W @ 12 VDC  
Weight: 1.5 lbs / 0.68 Kg  
Chassis: 165 x 125 x 52 mm

### Environmental Conditions

Operating Temp.: 0°C - +40°C  
Storage Temp.: -20°C - +70°C  
Maximum Humidity: < 95% non condensing

### Compliance (Not yet tested)

CE: 73/23/EEC (Low voltage equipment)  
89/336/EEC (Electromagnetic compatibility)  
Safety: IEC/EN 62368-1:2018  
EMC: EN55032:2015, EN55035:2017,  
EN61000-3-2, EN61000-3-3



QVDEC4K Rear View

## Ordering Information

Model #: QVDEC4K-SA

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