

QVidium® Professional Video Decoder

QVDEC H.264/MPEG2 IP Video Decoder

QVidium's QVDEC decoder is part of a reliable, high-performance solution for the decoding and transport of SD and HD video/audio signals for broadcast applications.

Advanced H.264 High Profile compression, coupled with QVidium's patented ARQ Video Transport and Error correction, helps to maintain broadcast quality video distribution over nearly any IP network, including wireless networks and the Internet.



The QVDEC is part of the QVidium® professional line of advanced video codecs; a line of compact, powerful and cost-effective products designed for real-time encoding, and decoding for Content Gathering, Monitoring, and Distribution of broadcast quality video over IP networks.

QVidium's 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 broadcasters an efficient, affordable and scalable solution for professional quality video distribution quality over nearly any IP network.

The QVDEC provides H.264 High Profile video decompression, up to **1080p50/60**, along with support for up to 4 audio channels, multicasting, and multi-unicasting to allow cost-effective audio/video broadcast and IPTV solutions.



Applications

- Professional broadcast video distribution
- Live Event / Electronic News Gathering
- Confidence monitoring
- IPTV systems
- Web streaming from Web Cams & YouTube

Key Features

- **Real-time HD Video Decoding**
 - MPEG-4 AVC / H.264 High, Main and Baseline
 - ▶ Only 1.5 to 6 Mbps required for HD Decoding
 - ▶ Supports CBR & VBR bitrates up to 30 Mbps
 - ▶ Up to level 4.1
 - MPEG-2 Main Profile
 - Up to 4 audio channels (2 stereo pairs)
 - SDI/HD-SDI/3G-SDI, Composite output
 - AC3 Pass-Through on S/PDIF and SDI outputs
 - Video decoding up to **1080p50/60** resolutions
 - IP Streaming and USB or Remote File Play-out
 - PAL & NTSC, SD and HD Decoding
 - Up and Down Scaling & Frame-rate conversion
 - PAL/NTSC format conversion
 - AES128/256 Video Decryption
 - Full CEA-608/708 & Line 21 Closed Captioning
- **Robust transmission of Video & Audio**
 - Patented QVidium® ARQ error correction
 - Optional SRT and RIST (Simple & Main Profile)
 - Industry std. ProMPEG FEC (SMPTE-2022)
 - MPEG Transport Stream
- **Durable, Compact, cost-effective solution**
 - Complete transmitter / receiver ½ width - 1RU
 - Can install 2 units in a single 1RU slot
 - Internal power supply
 - Internal fan for high temperature environments
- **User-friendly configuration and control**
 - WEB-based remote configuration & control

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– SNMP Trap support for NMS systems

Specification

Video/Audio Interfaces

Video Outputs: 1x 3G-SDI / HD-SDI / SDI (SMPTE 425M(A&B), 424M, 292M, 259M), 1x CVBS
Audio Outputs: 2x Stereo Audio, 1x AC3 Pass-Through
Input Connectors: 2x Female BNC, 2x Mini-phono, 1x S/PDIF

Video Decoding (HD & SD)

Video Decoding: MPEG4-AVC (H.264)
▶ High Profile, up to Level 4.1
▶ High, Main, and Baseline Profiles
MPEG-2 Main Profile
Constant bit rate or Variable bit rate
Bit rate: 128 Kbps to 30 Mbps (w/o ARQ)
Minimum Latency: MPEG4-AVC (H.264), MPEG-2
Closed Captioning: < 300 ms from QVENC encoder
CEA-608, CEA-708, Line 21

Audio Decoding

Audio Decoding: MPEG-1 Layer2,
MPEG-2 & MPEG-4 AAC-LC,
AC3 (Pass-Through)
Sample rate: 32, 44.1, & 48 KHz
Bit rate: 16 Kbps (mono) to 384 Kbps (stereo)
Audio Channels: 4 mono-audio channels (2 stereo pairs)

IP Encapsulation

IP Encapsulation: MPEG-2 Transport Stream over
RTP/UDP/IP, UDP/IP, RTMP/Flash(opt)
IP Bitrate: 160 Kbps to 30 Mbps, 15Mbps w/ARQ
Error Correction: QVidium® ARQ (feedback-based)
US Patents:7551647 & 7522528;
Option: SRT & RIST (Simple & Main)
SMPTE 2022 FEC annex B
Encryption: AES128 (Opt:256) Video Decryption

Video Resolutions

SD Video: 625 lines, 25 frames/s (576i)
525 lines, 29,97 frames/s (480i)
HD Video: 1080p60/59.94/50/30/25/24/23.98,
1080i60/59.94/50, and 720p60/59.94/50

Storage & Network Interfaces

Networking port: 10/100/1000 Base-T Gigabit Ethernet
Protocols: IEEE802.3 Ethernet
RTP, IPv4, TCP/UDP, IGMP v3
Connectors: 1x RJ45
External storage: Flash & Hard drives via 2 USB connectors

Control and Management

Type: 10/100/1000 Base-T Gigabit Ethernet
Features: Element control through HTTP/WEB.
SNMP traps for integration with Network Management System (NMS)
Protocol: HTTP, SNMP v2 traps
Connector: RJ45
USB Ports: 2
Maintenance Port: 1x RS232 9 pin D-SUB

Physical and Power

Input Voltages: 100-240VAC, 50-60Hz or 7-16 VDC
Typ. Input Current: 85mA@120VAC, 0.65A@12VDC
Max Input Current: 150mA
Input Power: Typical: 8W (DC), 10W (AC); Max: 18W
DC Connector: 2.5mm I.D. x 5.5mm O.D. x 9.5mm Female
Chassis: 209 x 135 x 44 mm (WxDxH)
8.25" x 5.32" x 1.75"
Two units in 19" 1RU rack space
Installation: 19" 1 RU rack mounting kit
Coupler for 2 units in 1 RU slot
(Both rack-mount accessories optional)

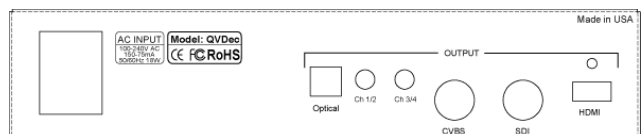
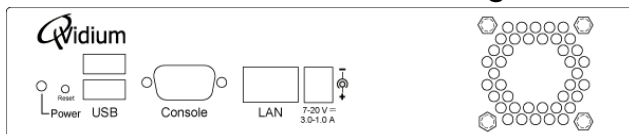
Environmental Conditions

Operating
Temperature: 0°C - +55°C
Storage
Temperature: -20°C - +70°C
Relative Humidity: 5% to 95%(non condensing)

Compliance

CE: 73/23/EEC (Low voltage equipment)
89/336/EEC (Electromagnetic compatibility)
Safety: IEC60950 and EN60950
EMC: EN55022, EN55024, EN6100-3-2

Front & Rear Connection Diagrams



Ordering Information

Model #: QVDEC (options: **SRT/RIST, QVRM-KIT, QVRM3-KIT**)

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