

QVidium® Advanced Video Codecs

QVAVC-HD IP Video Codec

QVidium® Advanced Video Codecs provide ideal solutions to coding and transport of SD and HD video and audio signals.

Advanced H.264 High Profile compression, coupled with QVidium® Advanced Video Transport, maintains broadcast quality video distribution over nearly any IP network, including wireless networks and the Internet.



The QVAVC-HD is part of the QVidium® Advanced Video Codec line of products; a line of compact, powerful and cost-effective products designed for real-time video encoding, decoding and transcoding for Content Gathering, Monitoring, and Distribution of broadcast quality video over IP networks.

QVidium's advanced video transport takes advantage of the inherent flexibility of IP and the Internet, providing broadcasters an efficient, affordable and scalable solution for professional quality video distribution.

The QVAVC-HD provides advanced H.264 High Profile compression of video signals, coupled with QVidium's patent-pending error correction and IP video transport, allowing cost-effective transmission of high quality over nearly any IP network.



Applications

- Professional broadcast video distribution
- Electronic News Gathering (ENG)
- Confidence monitoring
- High-quality video surveillance
- Live event coverage

Key Features

- **Real-time High Quality Video Encoding**
 - MPEG-4 AVC / H.264 High Profile & Baseline
 - ▶ Only 1.5 to 6 Mbps required for HD Encoding
 - ▶ Up to 20 Mbps video encoding
 - MPEG-2 Main Profile
 - Realtime encoding of 1080i, 720p, 576i, & 480i
 - Output to IP or ASI

Real-time High Quality Transcoding

- DVB-ASI input to IP output
- IP input to DVB-ASI output
- **Real-time High Quality Video Decoding**
 - MPEG-4 AVC / H.264 High Profile & Baseline
 - MPEG-2 Main Profile
- **Robust transmission of Video & Audio**
 - QVidium® ARQ error correction
 - MPEG-2 Transport Stream & MP4 Support
- **Compact, cost-effective solutions**
 - Complete transmitter / receiver ½ width - 1RU
 - User configurable as transmitter or receiver
- **User-friendly configuration and control**
 - WEB-based remote configuration & control
 - Easy integration to NMS systems with SNMP Trap support

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Specification

Video Interfaces

Input: 1x HDS/SDI / SDI / ASI (SMPTE 292M, SMPTE 259M, DVB-ASI), 1x HDMI, 1xComposite/1xS-Video (NTSC/PAL)
Output: 1x HDS/SDI / SDI / ASI (SMPTE 292M, SMPTE 259M, DVB-ASI), 1x HDMI, 1xComposite (NTSC/PAL)
Connectors: 4 Female BNC (2 SDI/DVB-ASI, 2 Composite), 4-pin Mini-Din (Y/C)

Audio Interfaces

Input: Stereo Analog unbalanced
Output: Stereo Analog unbalanced
Connector: 2 Stereo Mini-phono (3.5mm)

Video Encoding & Transcoding (HD & SD)

Video Encoding: MPEG4-AVC (H.264)
 ▶ High Profile, up to Level 4.1
 ▶ Baseline Profile
MPEG-2 Main Profile
Bitrate: Min to Max bitrates:128 Kbps to 19 Mbps
Transcoding: H.264 to MPEG-2, MPEG-2 to H.264, MPEG-2 to MPEG-4 SP/ASP

Audio Encoding

Audio Encoding: MPEG-1 Layer2, MPEG-2 & MPEG-4 AAC
Sample rate: 32, 44.1, & 48 KHz
Bitrate: 16 Kbps (mono) to 384 Kbps (stereo)
Transcoding: MPEG1Layer2↔MPEG4AAC

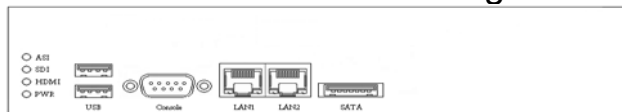
IP Encapsulation

IP Encapsulation: MPEG-2 Transport Stream or MP4 over RTP/UDP/IP or UDP/IP
IP Bitrate: 160 Kbps to 20 Mbps Encode w/o ARQ
Max 15Mbps Decode w/o ARQ
Max 15Mbps Enc / 5Mbps Dec w/ARQ
Error Correction QVidium® ARQ (feedback-based)
US Patents:7551647, 7539187, 7522528

Video Resolutions

SD Video 625 lines, 25 frames/s (576i)
525 lines, 29,97 frames/s (480i)
HD Video 1080i30, 1080i25 and 720p30

Front & Rear Connection Diagrams



External Storage

Devices: USB Hard drives via USB connector
SATA Hard drives via eSATA connector

Network Interfaces

Type: 10/100 Base-TX Ethernet
Protocols: IEEE802.3 Ethernet
RTP, IPv4, TCP/UDP, IGMP v3
Connectors: 2 RJ45

Control and Management

Type: 10/100Base-T 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: Two RS232 9 pin D-SUB

Physical and Power

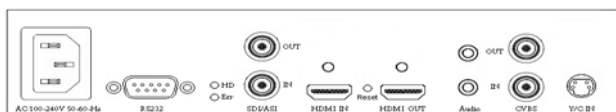
Input Voltage: 100-240VAC, 50-60Hz
Input Power: 12W
Chassis 1RU, 1/2-width, 209 x 182 x 44 mm
Dimensions: (WxDxH). Two units in 19" 1RU rack space
Installation: 19" rack mounting kit

Environmental Conditions

Operating Temperature: 0°C - +50°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



Ordering Information

Model #QVAVC-HD (or Model #QVAVC-HD-Lite without HD Encode), add QVAVC-TC for Transcoding Option

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