

QVidium® Professional Video Codecs

QVSD H.264 IP Video Codec

QVidium® QVSD Codecs provide reliable, high-performance solutions to coding and transport of SD video and audio signals for broadcast applications.

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



The QVSD 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, decoding or transcoding 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 QVSD provides H.264 High Profile video compression for standard definition video, along with support for up to 4 audio channels, and closed captioning to allow cost-effective audio/video broadcast and IPTV solutions.



Applications

- Professional broadcast video distribution
- Electronic News Gathering (ENG)
- Confidence monitoring
- Live event coverage
- IPTV systems

Key Features

- Real-time SD Video Encoding & Decoding
 - MPEG-4 AVC / H.264 High Profile
 - ▶ Bitrates from 128 Kbps to 20 Mbps
 - ▶ High, Main, & Baseline profiles to Level 4.1
 - Closed Captioning Encoding and Decoding
 - Up & Down Scaling
 - 4 Audio Input and Output Channels

Real-time High Quality Transcoding

- IP input to IP output
- Up & Down Scaling
- Robust transmission of Video & Audio
 - Patented QVidium® ARQ error correction
 - Industry standard ProMPEG FEC
 - MPEG-2 Transport Stream Support
- Compact, cost-effective solutions
 - Ultra-compact mobile chassis
 - 3 in 1: encode or decode or transcode video
- User-friendly configuration and control
 - WEB-based remote configuration & control
 - Easy integration to NMS systems with SNMP Trap support

QVSD H.264/MPEG2 IP Video Codec

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Specification

Video/Audio Interfaces

Input: 1x Composite (NTSC/ & PAL formats)
1x S-Video (NTSC & PAL formats)
2x unbalanced stereo audio

Output: 1x Composite (NTSC & PAL formats)
2x unbalanced stereo audio

Connectors: 2 Female BNC (composite), 1 S-Video
4x 3.5 mm stereo audio mini-phone

Video Encoding & Transcoding

Video Encoding: 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 20 Mbps

Transcoding: H.264 ↔ MPEG-2, H.264 ↔ H.264
Constant bit rate* or Variable bit rate

Closed Captioning: EIA 608 and EIA 708*

Audio Encoding

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

Audio Channels: 1 mono, 1 stereo pair or 2 stereo pairs*

Transcoding: MPEG1Layer2↔MPEG4AAC
AC3 Pass-through

IP Encapsulation

IP Encapsulation: MPEG-2 Transport Stream over
RTP/UDP/IP or UDP/IP

IP Bitrate: 160 Kbps to 20 Mbps

Error Correction: QVidium® ARQ (feedback-based)
US Patents:7551647 and 7522528
ProMPEG FEC COP 3. 2* (SMPTE 2022)

Video Resolutions

SD Video: 625 lines, 25 frames/s (576i)
525 lines, 29,97 frames/s (480i),
720x576, 720x480, 352x576, 352x480
352x288, 352x240

External Storage

Devices: USB Hard drives via 2 USB connectors

Network Interfaces

Type: 10/100/1000 Base-TX Gigabit Ethernet

Protocols: IEEE802.3 Ethernet
RTP, IPv4, TCP/UDP, IGMP v3

Connectors: 2 RJ45

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: Two RS232 9 pin D-SUB

Physical and Power

Input Voltages: 7-20 VDC
Input Currents: 3.0-1.0 A for DC
Input Power: 18W
DC Connector: 2.5mm I.D. x 5.5mm O.D. x 9.5mm Female
Chassis: 123 x 183 x 33 mm (WxDxH), 750 g

Environmental Conditions

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

Compliance

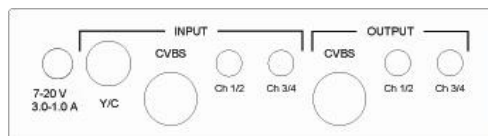
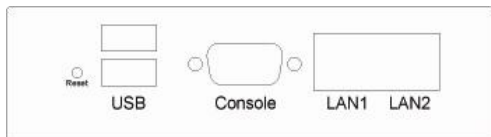
CE: 73/23/EEC (Low voltage equipment)
89/336/EEC (Electromagnetic
compatibility)

Safety: IEC60950 and EN60950

EMC: EN55022, EN55024, EN6100-3-2

* Currently not yet available

Front & Rear Connection Diagrams



Ordering Information

Model #: QVSD (option: QVSD-BiDir for simultaneous encode and decode)

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