

Professional Video Codec

QVSD - H.264 SD IP Video Codec

Encoder/Decoder/Transcoder



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 QVSD'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 professional line of advanced video codecs; a line of compact, powerful and cost-effective products designed for real-time encoding, decoding and transcoding for Content Gathering, Monitoring, and Distribution of broadcast quality video over IP networks.

QVSD'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
- Video conferencing
- 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
 - MPEG-2 Main Profile
 - PAL and NTSC Video and conversion
 - Closed Captioning Encoding and Decoding
 - Up & Down Scaling and frame rate conversion
 - 4 Audio Input and Output Channels
- Bi-directional simultaneous encode and decode (optional)
- Real-time High Quality Transcoding
 - IP input to IP output
 - Up & Down Scaling and frame rate conversion
- Robust transmission of Video & Audio
 - Patented Qvidium® ARQ error correction
 - Industry standard ProMPEG FEC
- 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-phono

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
MPEG-2 ↔ H.264
H.264 ↔ H.264, adjustable bit rate
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

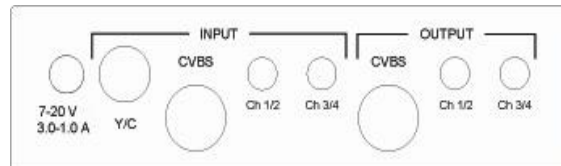
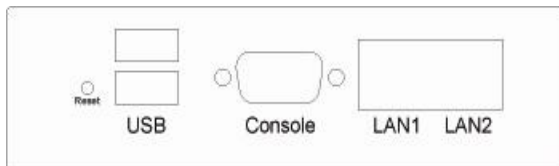
Operating Temperature: 0°C - +55°C
Storage Temperature: -20°C - +70°C
Relative Humidity: 5% to 95%(non condensing)

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 available

Front & Rear Connection Diagrams



AdvancedDigital reserves the right to modify these specifications without prior notice.

Ordering Information

Model #: QVSD - SD H.264 and MPEG-2 Encoder/Decoder/Transcoder

Options: QVSD-BiDir - Bi-directional simultaneous encode and decode

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