

EN2SDI-2HD

2-Channel MPEG-2/H.264 HD Encoding Module



OVERVIEW

EN2SDI-2HD is a 2-channel MPEG-2 / H.264 HD encoding module that compresses programs from SDI or CVBS inputs into MPEG-2 / H.264 HD / SD streams with embedded Closed Caption and AC3 audio. It is designed to support high-density video compression in SMP platform (6 channels) and DMP platform (10 channels) in 1RU chassis.

With EN2SDI-2HD modules, pay-TV service providers can offer HD programs to commercial customers in a STB-free setting in a cost-effective way.

KEY FEATURES

- MPEG-2/4 HD compatible
- Closed Caption (608/708) support
- AC-3 and AAC audio support
- Platform-based Modular Design

ORDERING INFORMATION

Model	Description
WAV-DMPSMP-EN2SDI-2HD	2-CH MPEG-2 & H.264 HD SDI/CVBS encoding module
WAV-SMP100-CHASSIS	Chassis 1RU, embedded MUX and IP/ASI, 3x slots
WAV-DMP900-CHASSIS	Chassis 1RU, embedded MUX, 6x slots, Dual PSU, hot-swappable
WAV-DMPSMP-IP-ASI	IP & ASI 2-in-1 interface module (for DMP platform)

SPECIFICATIONS

Channels

Video: 2 channels of HD/SD programs encoding
 Audio: 2 pairs of audio (1 pair per service)

Input

Video: 2 x BNC for HD/SD-SDI or CVBS
 Audio: 2 x pin strips for bal/unbal, CVBS
 Embedded audio for SDI

Video Encoding

H.264/AVC Profile (4:2:0): SD: MP/HP@L3.0/3.1/3.2
 HD: MP/HP@L4.0/4.1/4.2

MPEG-2 Profile (4:2:0):

SD: MP@ML
 HD: MP@HL

Resolution:

1920 x 1080@25p, 30p, 50i, 60i
 1280 x 720@50p, 60p
 720 x 576@50i
 720 x 480@60i

Rescaling:

HD to SD down conversion

Video Bit-rate:

MPEG-2 SD: 1Mbps ~ 8 Mbps
 MPEG-2 HD: 3Mbps ~ 20 Mbps
 H.264 SD: 800Kbps ~ 5 Mbps
 H.264 HD: 2 Mbps ~ 15 Mbps

Encoding Latency:

≤500ms

Rate Control:

CBR & VBR

GOP Control:

Support

Aspect Ratio:

Automatic

Manual: 4:3 or 16:9

Aspect Processing:

Letterbox/Cropped

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Audio Encoding

Audio Codecs:	MPEG-1 Layer II AC-3 AAC (LC/HE)
Audio Bit-rate:	MPEG-1 LayerII: 64 - 384 kbps AC-3: 32 - 504 kbps AAC: 32 - 504 kbps
Audio Mode:	Stereo (2.0, including down-mix)
Audio Sampling Rate:	48kHz
Audio Volume Leveling:	0-8dB

DATA Processing

Ancillary Data:	Closed Caption (CEA 608/708) Teletext/DVB-Subtitle
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Platform

Multiplexing:	Supported in SMP or DMP chassis
PID Processing:	Supported
Total Maximum Capacity:	SMP: 6 channels DMP: 10 channels
TS Interfacing:	SMP: 1xIP and 2xASI (in-chassis) DMP: 2xIP and 2xASI (with 'IPASI' module)