

EN5-1U-4H

HEVC/H.265 UHD Encoding Module



OVERVIEW

EN5-1U-4H is an HEVC/H.265 encoding module for the DMP900 platform. A single DMP900 platform can contain up to 5 modules, encoding up to 5 UHD (2160p) or 20 FHD (1080p) services. With 30-50% bitrate reduction compared to MPEG-4/H.264, HEVC provides compression efficiency required to distribute UHD TV programs using existing bandwidth, a key for service providers to upgrade.

As the first chip-based encoder, EN5-1U-4H is more stable and has lower power consumption versus a software-based product. It also integrates with various audio codecs and supports comprehensive ancillary data and metadata, fully satisfying the needs of contribution or primary distribution.

KEY FEATURES

- HEVC video encoding at up to UHD resolutions
- Up to 5 UHD or 20 FHD services in 1 RU
- 4x 3G-SDI (quad) inputs and 1x HDMI input (future)
- MPEG2, AC-3 and AAC audio support
- Platform-based Modular Design

ORDERING INFORMATION

Model	Description
WAV-DMP900-EN5-1U-4H	HEVC/H.265 encoder of 1 UHD or 4 FHD/HD/SD programs
WAV-DMP900-EN5-4H	HEVC/H.265 encoder of 4 FHD/HD/SD programs
WAV-DMP900-CHASSIS	Chassis (1RU, embedded MUX, 6 x slots, Dual PSU, hot-swappable)

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CHANNELS

Video: 4 channels of FHD/HD/SD programs
1 channel of UHD programs
Audio: 4 pairs of audio

INPUT

Interface: 4 x 3G/HD-SDI input(level B, A-future)
HDMI 2.0 (future)

OUTPUT/ENCODING

HEVC/H.265 Profiles: Main
Main10
Main10 4:2:2
Main still picture
Level: 4.0 ~ 6.2
Resolution: 3840x2160 (UHD)
1920x1080 (FHD/HD)
1280 x 720
720 x 576
720 x 480
Bit Depth: 8/10 bit
Frame Rate: 60p/i, 59.94p/i, 30p, 29.97p, 23.97p,
50p/i, 25p, 24p(future)
Rate Control: CBR, VBR(future), capped VBR(future)
GOP Control: Support
Aspect Ratio: Automatic
Manual: 4:3 or 16:9 (future option)
Letterbox/Cropped (future option)
Latency: 0.5s (low latency mode, future)
1.0s
3.0s (default)
HDR: HDR 10 (future)

AUDIO ENCODING

Audio Codecs: MPEG-1 Layer II
Dolby Digital AC-3
Dolby Digital Plus E-AC3
AAC (LC/HE v1/2)
Audio Bit-rate: MPEG-1 LayerII: 64 - 384 kbps
AC-3: 32 - 384 kbps
AAC: 32 - 384 kbps
Max. 504 kbps@5.1 mode (future)
Audio Mode: Stereo (2.0, including down-mix)
5.1 Surround (future)
Audio Sampling Rate: 48kHz
Audio Volume Leveling: Support