

MGW HD

High Definition Encoder MPEG-4 AVC (H.264) HD



Optibase MGW HD is a professional MPEG-4 AVC (H.264) high definition encoder. Pushing encoding efficiency to new levels of excellence, MGW HD enables the delivery of exceptional video quality in a wide range of bit-rates from 3 to 25 Mbps for various broadcast applications over IP infrastructures.

With the ability to encode real-time uncompressed HD content to bandwidth-efficient MPEG-4 AVC (H.264) streams, MGW HD is the ideal solution for broadcasters, Telco and content contribution operators for delivering crisp, vibrant, superior video while maintaining low-bandwidth utilization.

MGW HD is a hardware-based encoder that provides the processing power reliability and availability required for 24x7 applications. Its rich feature set and management capabilities, combined with the advanced MPEG-4 AVC (H.264) HD compression tools, offer a top-of-the-line platform, optimized for streaming in networks where bandwidth is limited.

MGW HD is integrated with the Cluster Manager, Optibase's professional management suite, for simplified configuration, monitoring and enabling of N+K redundancy. With its web-based interface application, MGW HD's configuration, resolutions, bit-rates and compression tools can be easily modified on-the-fly.

Benefits

- A range of resolutions
- Exceptional video quality at under 4 Mbps
- Ability to provide more HD channels over given bandwidth without affecting video quality
- Front LCD offers fast configuration and monitoring
- SNMP management interfaces
- On-the-fly modification of configuration, resolutions, bit-rates and compression tools

Applications

- Telco IPTV over xDSL or FTTH
- HD broadcast contribution
- Digital signage
- Monitoring and surveillance

Key Features

- Advanced MPEG-4 AVC (H.264) MP@L4 or HP@L4 video processing
- DVB-ASI output
- MPEG-2 TS/UDP or RTP over IP network
- Supports multiple HD format
- Flexible GOP structure with adaptive I-frame insertion
- Automatic input format detection
- Integrated pre-processing filtering
- Advanced audio format encoding
- Integrated with Optibase Cluster Manager
- Ancillary data pass-through
- Web-based interface application

Technical Specifications

Inputs

HD Video

- HD-SDI serial digital video (SMPTE 292M)

Audio

- Up to 8 stereo pairs can be de-embedded from HD-SDI
- Dolby® Digital AC-3 5.1 pass-through

Outputs

IP Output

- 2 x Ethernet (10\100\1000 Base-T)

Streaming

- IP unicast or multicast

MPEG-2 Transport

- MPEG-2 Transport Stream over UDP/IP or RTP/IP
- MPEG-2 Transport Stream over DVB-ASI

Video

Compression Standards

- MPEG-4 AVC (H.264) MP@L4 or HP@L4

Bit-Rates

- 3 Mbps to 25 Mbps (adjustable on-the-fly)

Resolutions

- 1080 x 1920/1440/1280/960i 25
- 1080 x 1920/1440/1280/960i 29.97 and 30
- 720 x 1280/960/640p 50
- 720 x 1280/960/640p 59.94 and 60

Processing Tools

- Interlaced and Progressive modes
- CABAC/CAVLC entropy coding
- I, P, B and IDR frames with multiple references modes
- Fixed or adaptive configuration
- Automatic scene detection

Ancillary Data

- Closed Captioning EIA-608 and EIA-708B

Audio

Compression Standards

- MPEG-1 Layer 2
- MPEG-2 AAC-LC
- MPEG-4 AAC-LC, AAC-HE
- Dolby Digital (AC3) Pass-through only
- Sampling frequency 48 KHz

Bit-Rates

- MPEG-1 Layer 2 - 128 to 384 Kbps (stereo)
- AAC - 64 to 192 Kbps (stereo)
- Dolby Digital (AC3) Pass-through - 32 to 640 Kbps

Management

- Front panel with LCD for monitoring and control
- Cluster Manager for monitoring and control
- Built-in web-based HTTP management interface

Physical

- Dimensions: 19" 1RU (19" x 1.75" x 13.5")
- Weight: 6.15Kg/13.55Lbs

Power

- Input voltage range: 90 - 240V
- Max power consumption: 85W

Environmental Conditions

- Operating Temperature - 10°C to 50°C (14°F to 122°F)

Compliance

- CE marked in accordance with EU
- EMC Compliance: EN55022, EN55024, FCC CFR47 Part 15B Class A

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