

# MPEG-4 AVC/H.264 HD

## High Definition Encoding Module

Optibase's MPEG-4 AVC HD enables live encoding and transcoding of high definition MPEG-4 AVC with Optibase's MGW IPTV platforms. Featuring exceptional video quality, the module provides operators with flexibility when offering advanced IPTV services.

As IPTV services become a reality, operators need evaluate innovative content strategies to ensure differentiation from the traditional TV, increase IPTV uptake and maximize revenue sources.

One of the most attractive offering to subscribers is high definition content, which enhances TV viewing experience, and can be easily added into existing IPTV deployments utilizing Optibase's MGW HD.

MGW HD combines top quality HD video with the low bandwidth of MPEG-4 AVC. This enables operators to offer high quality HD content and maximize revenue per stream either as an HDTV premium package or as a bundled package with Standard Definition channels.



### Main Benefits

- High quality content delivered utilizing lower bandwidth requirements
- Increased compression efficiency, allowing operators to increase revenue per channel
- Flexible architecture, enabling operators to offer bundled HD & SD packages
- Smooth integration into existing deployments

### Main Features

- MPEG-4 AVC/H.264 video compression standards
- Automatic input format detection and configuration
- Multiple HD video resolutions and various audio formats
- Web-based SNMP configuration and management application

# Technical Specifications

## Input/Output Signals

Video Input:	HD-SDI (SMPTE292M) Video input HD 1080i and 720p
Audio Input	Embedded in SDI, up to 2 stereo pairs or one 5.1 multi-channel
Output Interfaces	2x independent Ethernet ports (100/1000 BaseT connectors) 1x Dedicated to service streaming 1x Out-of-band, dedicated to management 1x DVB-ASI (75 Ohm BNC connector)*



## VIDEO CODEC

- Compression Standard MPEG-4 AVC / H.264 Main Profile up to Level 4
- Supported AVC tools Interlaced (MBAFF) and Progressive
- CABAC/CAVLC entropy coding
- I, P and B frames with multiple references
- All intra prediction modes
- Weighted prediction
- In-loop deblocking filter (applied over the whole frame)
- GOP structure; fixed or adaptive configuration, automatic I frame insertion
- Automatic input format detection and configuration
- PSF support



## AUDIO CODEC

- Compression formats MPEG-1 Layer II
- MPEG-4 LC-AAC, HEv1-AAC, HEv2-AAC
  - Dolby Digital (AC.3) pass-through only
  - Sampling frequency 48 kHz
- Compressed Output Bitrate MPEG-1 Layer II 64 to 384 kb/s (stereo channel)
- MPEG-4 AAC 16 to 512 kb/s (stereo channel)
  - Dolby Digital (AC.3) Pass-through (same as input)



## OUTPUT TRANSPORT LAYER SPECIFICATIONS

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

## VIDEO RESOLUTION

- Resolutions
- 1080i x 1920, 1440, 1280 and 960 pixels
  - 720p x 1280, 960 and 640 pixels
- Frame rates
- 1080i@25, 29.97 and 30 Hz
  - 720p@50, 59.94 and 60 Hz

## CONFIGURATION AND MANAGEMENT

- System Management
- SNMP (v2) with remote SNMP supervisor
  - Embedded Web-server configuration
  - Cluster Manager: Multi-client-server application that controls and monitors cluster MGW platforms as well as 3rd party products

**Platform**  
Supported by MGW5100\*, MGW1100\* and MGW1000 platforms

\*check for availability

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