

# Magicbox HD3

HDMI/AV Video IPTV Streamer



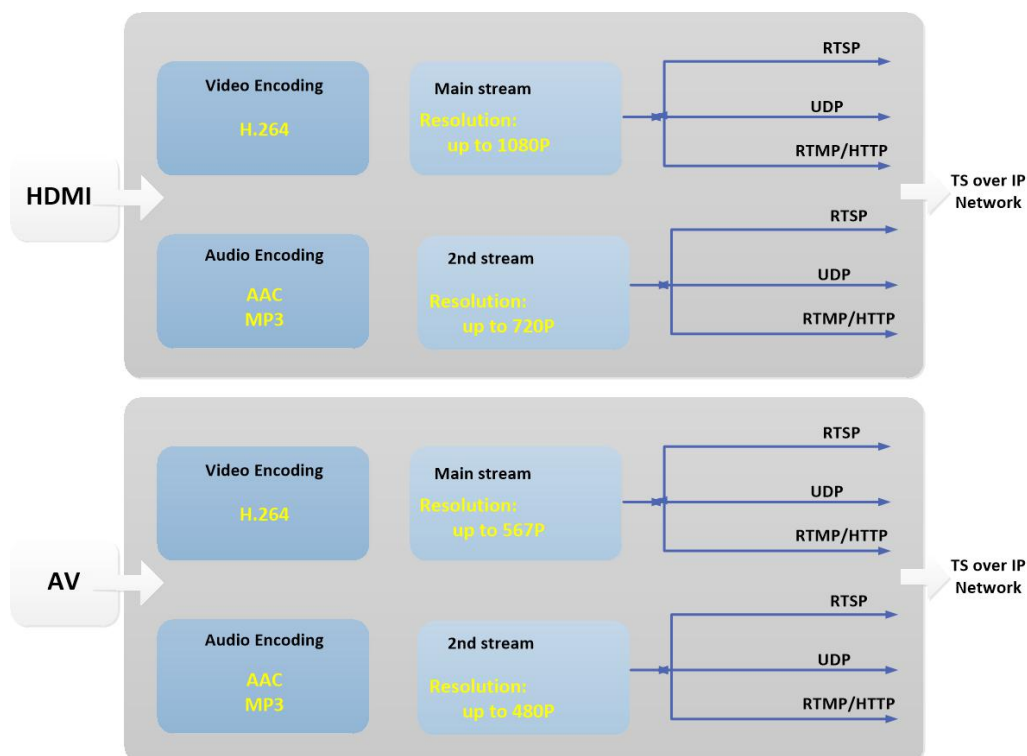
Lowest cost and easy-to-use video streaming appliance designed for professional video producers who need to simultaneously HD and SD stream a live event. The encoder is a professional high and standard definition video coding product. The product has the function of supporting 1 channel HDMI and 2 channels AV of h.264 encoding output and the AAC audio format. The product has high integration and reasonable price. From any HDMI input source such as a camera or switcher, generates an H.264-encoded stream compliant with RTSP, HTTP, UDP and RTMP protocols. The product can be applied to education, health care, IPTV, conference, remote education, news interview, banking, transportation and other industries.

**MagicBox HD3** can deliver H.264-encoding video streams to various servers, such as Adobe Flash Server, Wowza Server, Windows Media Server and some other servers base on UDP/RTSP/RTMP/HTTP protocols.

## Features

- 1 channel HDMI and 2 channels AV Inputs per module
- Two hardware version, 1channel Compact, 4channel 1RU, 16channel 3RU
- Two Protocol, Bitrate, Resolution, Profile per HDMI Source Inputs
- Each channel stream can simultaneously support any one among the UDP/RTSP/HTTP protocol, including RTMP protocol output, DHCP, ONVIF protocol
- Support the standard flow driven architecture of Microsoft , (the WDM architecture), Support the WMENCODE of Microsoft.
- Be compatible with Windows VFW software architecture and WDM pattern
- Support simultaneous display of one computer and multiple devices
- H.264 High/Main/Baseline Profile, AAC, MP3 audio
- Video bit rates: 16-12000kbps
- Audio bitrate: 24-256kbps
- HD-to-SD downscale conversion
- Superior video quality at ultra-low bitrates, generally video bitrate advised SD about 680kbps, 720p about 1mbps, 1080p about 3mbps for lowest bitrate
- Support Blue Ray HD
- Support CBR and VBR mode
- WEB Management
- Easy-to-Use System Management

## Principle Chart



## Main Application

- Low Bitrate Video and audio compression transmit
- IPTV, conference, remote education
- Backhaul/Monitoring for Broadcasters

## TECHNICAL SPECIFICATIONS

### Video Inputs

	1*HDMI + 2*AV per module 1/4/16 channels optional
Progressive	1920x1080 @ 60/59.94/50/24/23.98 Frames per second 1280x720 @ 60/59.94/50 Frames per second
Interlaced	1920x1080i 29.97/25 frames per second Video Input Format is Auto-Detected

### Audio Inputs

Processes first two channels of audio embedded in HDMI input signal	
Unbalanced analog stereo input via 1/8" (3.5mm) jack(option)	

### OUTPUTS

IP Output type	RJ45 providing 10/1000Base-T Ethernet with Static or DHCP addressing;
Protocol	RTMP/RTSP/HTTP/UDP
Multi-Screen	Up to 2 channels High def. and any resolution of streams simultaneously out per

### Users Interface

Computer Based control	HTTP via standard PC or web browser using Command Center. The simple Control API and SDK is also available to programmers to create their own application
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### Pre-processing

Frame rate	from 5fps to 60fps
Image insertion	OSD insertion

### H.264/MPEG-4 Part 10 (AVC) Video Encoding

Bitrate mode	VBR, CBR
<b>HDMI</b>	
First stream	1920*1080, 1280*720, 1024*576, 850*480, 720*576, 704*576, 640*480, 640*360, auto 1280*720, 800*450, 720*576, 720*408, 704*576,640*480, 640*360, 352*288, 320*240, 320*180, auto
Second Stream	

### AV

First stream	1024*576, 850*480, 720*576 704*576, 640*480, 640*360, auto
Second Stream	720*408, 704*576,640*480, 640*360 352*288, 320*240, 320*180, auto
Encode Frame Rates	Encode frame rates representing 1:1, 1/2 and 1/4 of the input frames rates are supported Note that the maximum encoded frame rate is 60fps when input resolution is 1920x1080
Encoding Profiles	H.264 Main Profile/High Profile/Baseline Profile
Video Bitrate	16kbps to 12Mbps
Encoding Controls	1.2, 2.0, 3.0, 4.0, 5.0 Level Support Variable bit rate Support Average max/min data rate controls Deblocking Filter
Key Interval	5-200

### Audio Encoding

Audio encoding	AAC, MP3
Bit Rates	Range from 48 kbps to 256 kbps
Resample Rate	32Khz, 44.1Khz
Audio Channel	L+R, L, R

### Control

	1000M Base T Ethernet, RJ45,auto-negotiation Management via Web Language English/Chinese
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### Environment

Power Supply	+12V (Compact size), 220V (1RU/3RU)
Power consumption	28W
Operation temperature	0 -50°C (32 -122°F)
Storage temperature	-40 -70°C (-40-158°F)
Dimensions	110mm x 100mm x 40mm (Compact) 430mm x 250mm x 45mm (1RU) 484mm x 365mm x 148mm (3RU)
Weight	1.0kg (Compact); 4.0kg (1RU); 7.5kg (3RU)

### Ordering Information

1 HDMI channel+2 channels AV inputs --- Magicbox HD301
4 HDMI channels+8 channels AV inputs --- Magicbox HD304
16 HDMI channels+32 channels AV inputs --- Magicbox HD316
4 channels HDMI inputs in compact model--- Magicbox HD304M