Magicast

MPEG-2 H.264 H.265 To H.264 H.265 IPTV Transcoder



Magicast series High performance and flexible real time **H.264/HEVC** Video transcoding solution supporting MPEG-2, H.264(MPEG-4 AVC) and H.265(HEVC) video codecs sources and a wide variety of audio codecs. It is ideally suited for any content re-purposing, edge transcoding, or video distribution network bandwidth optimization application. It is very suitable for HD transcoding or HD-to-SD down conversion of Deliver Video solution.

Magicast series boasts an all-hardware compression chip for real time encoding with advanced audio and meta data handling – all packaged in a portable device with low power consumption. The product has been designed to meet the demanding requirements of the IPTV, Hotel, Education Youtube Internet Live TV, Banking, Transportation, enterprise video delivery and streaming video markets.

Magicast series provides optimal solutions for real-time Transcoding of IP video for multi-screen video delivery, over-the-top (OTT) Services and Mobile Streaming. The scalable and cost effective modular design is capable of simultaneously transcoding One High Definition video services.

It can deliver transcoding HD video streams to various servers, such as Adobe Flash Server, Wowza Server, Windows Media Server and some other servers base on UDP/RTSP/ RTP/ RTMP/ RTMPS/HTTP/HLS/SRT protocols.

Features

- High density compact/1-RU/3-RU platform can transcode up to 1/4/16*Full HD 1080p
- Optimized , 3Mbps for HD 720p,
- 5Mbps for HD 1080p
- Baseline, main profile & high profile with variable GOP
- Mulltiple Codec, Protocol, Bitrate,Resolution, Profile per channel
- Up to two Protocols out per source IP inputs
- HD-to-SD down conversion
- GbE IP In/outputs –UDP, RTSP, RTP, RTMPS, RTMP, Pull/Push HTTP, HTTP Live Smooth(HLS), SRT
- Support B frame input,TTL setting
- Support text and image logo insert
- Frame rate down- and up-conversion
- High quality pre-processing including filtering, Deinterlacing, cross scaling, image insertion
- Support CBR and VBR maximizes adaptive streaming video quality and bandwidth efficiency
- Real time monitoring the picture quality of live streaming
- Easy configuration via Web GUI
- Designed for secure 24*365 operation

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Main Application

- Distribute HD Video to Ethernet
- Need the highest price ratio HD Transcoding Solution in IPTV and Cable TV operator
- IPTV live stream transcoding
- Convert H.265 to H.264 and MPEG-2 to H.264 H.265 transcoding
- Headend transcoding in Android IPTV/OTT Market, Hotel TV system

TECHNICAL SPECIFICATIONS

I/O Per Modular

Connector Type	Two RJ45 100/1000M Ports for IP streaming and Control GUI
IP Protocol	1x IP input per modular TS Over RTP/RTSP/HTTP UDP/IP (Unicast and Multicast) RTMPS/RTMP(Flash) HTTP Live streaming Apple HLS (m3u8) **Two** different Profile out per Transcoding Channel
Max. Numbers	1x HD (Compact) 4x HD (1RU) 16x HD (3RU)

Pre-processing

Frame rate	5fps to 60fps, by default configure to 30fps
Image insertion	Logo(bmp file), OSD insertion
Enhancement filter	Deinterlacing; Noise reduction; Sharpening; Visual Optimizing; Filtering
MTU	1~1500
TTL	1~255
Encoding Schemes	VBR,CBR

HD to SD down conversion
Frame rate reduction

Video Transcoding

Input:
MPEG-4 AVC HP@L4.0, HP@L4.2 (HD)
MPEG-4 AVC MP@L3.0 (SD)
MPEG-2 HP@HL (HD)
MPEG-2 MP@ML (SD)
MPEG-4 AVC HP@L4.0, HP@L4.2 (HD)
MPEG-4 AVC MP@L3.0 (SD)
MPEG-H HEVC (ISO/IEC 23008-2)

Output:
MPEG-4 AVC HP@L4.0, HP@L4.2 (HD)
MPEG-4 AVC MP@L3.0 (SD)
MPEG-4(HIGH/MAIN /Baseline)
MPEG-H HEVC (ISO/IEC 23008-2)

Video resolution

Input:
1920×1080@60P, 1920×1080@60i,
1920×1080@50P, 1920×1080@50i,
1920×1080@30P,1280×720@60P, 1280×720@50P
720×576@50i,720×480@60i
640×480/360, 480×270, 320×240, 320×180

Output:
19201080@30P, 1920×1080@30P,
1920×1080@25P, 1920×1080@25P
1280x720@60P, 1280x720@50P
720×576@25P,720×480@30P
Auto

Bitrate of Res.

720x576 (D1)	800-1500kbps
1080x720p (HD)	1500-3000kbps
1920x1080p (Full HD)	3500-6000kbps
Video Bitrate	16kbps to 12Mbps

Audio Transcoding

MPEG-1 Layer II stereo
MPEG-4 AAC-LC stereo
MP3
G711(Only RTSP IP protocol support)

Environment

Power Supply	+12V (Compact size), 110/220V (1RU/3RU)
Power consumption	<5W (compact) <15W(1RU) <80W (1/3RU)
Operation temperature	0 -50°C (32 -122°F)
Storage temperature	-40-70°C (-40-158°F)
Dimensions	180 x110x 50 mm (Compact) 430 x 250x 45mm (1RU) 560 x 450x 270 mm (3RU)
Weight	1.0kg (Compact); 4.0kg (1RU); 7.5kg (3RU)

Ordering Information

1 Modular (Compact)
4 Modular (1RU)
16 Modular (3RU)

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