

100 Channels High Density H.265/H.264 DVB/OTT Transcoder



With the number of video formats increasing fast, DTV operators require the ability to have a transcoding solution to simplify their headend architecture and to reduce the amount of headend equipment needed. To achieve this, they need products able to deal with both HEVC and MPEG-4 AVC video streams from different Sources.

SONG 宋, HEVC/H.264 multi-channel UHD OTT/DVB transcoder can flexibly support DVB live broadcast and streaming media transcoding services, with H.264/H.265 mutual transcoding. It can effectively reduce the video bit rate and support traditional devices.

SONG 宋, a new generation HEVC/AVC Multi-channel HD OTT/DVB Transcoder, It can greatly reduce the single channel usage and maintenance costs. Suitable for traditional broadcast transcoding or Internet video playback, cloud games, AR/VR, video conferencing, home surveillance, social video calls, and live webcasting.

Features

- H.265/H.264 real-time transcoding
- Up to 4K @P60 transcoding (H265->H264 only, others up to 4K @P30)
- High density 1U chassis
- 4-channel 4K program transcoding or 28-channel full HD program transcoding or 100-channel SD program (576P25) transcoding
- support one channel input to multiple outputs with different resolutions
- Support multiple IP protocols including UDP, RTP, HLS, RTSP and RTMP
- Support logo insertion, subtitle, and translucent watermark
- SPTS/MPTS supported
- Support HDR10 and HDR10+
- Support video scaling within 4K resolution
- Supports multiple audio passthroughs including AC3
- audio transcoding: MPEG-1 Audio Layer II, MPEG-2 Audio, AAC-LC, HE-AAC v1/v2, MP3, etc
- up to 100 input streams, 100 output streams
- Low-power transcoding solution, 80% lower power consumption than graphics card solutions
- Support FEC
- Designed for secure 24*365 operation
- Web management

Focusing on benefits

Live and Streaming

It is suitable for various business forms such as traditional radio and television live broadcast services and Internet streaming media. Support 1-channel transcoding and 1-channel to multi-channel different resolutions.

HEVC and Ultra HD

H.265/H.264 input and H.265/H.264 output in various resolutions including UHD, HD and SD.

High-density SD/FHD/4K transcoding

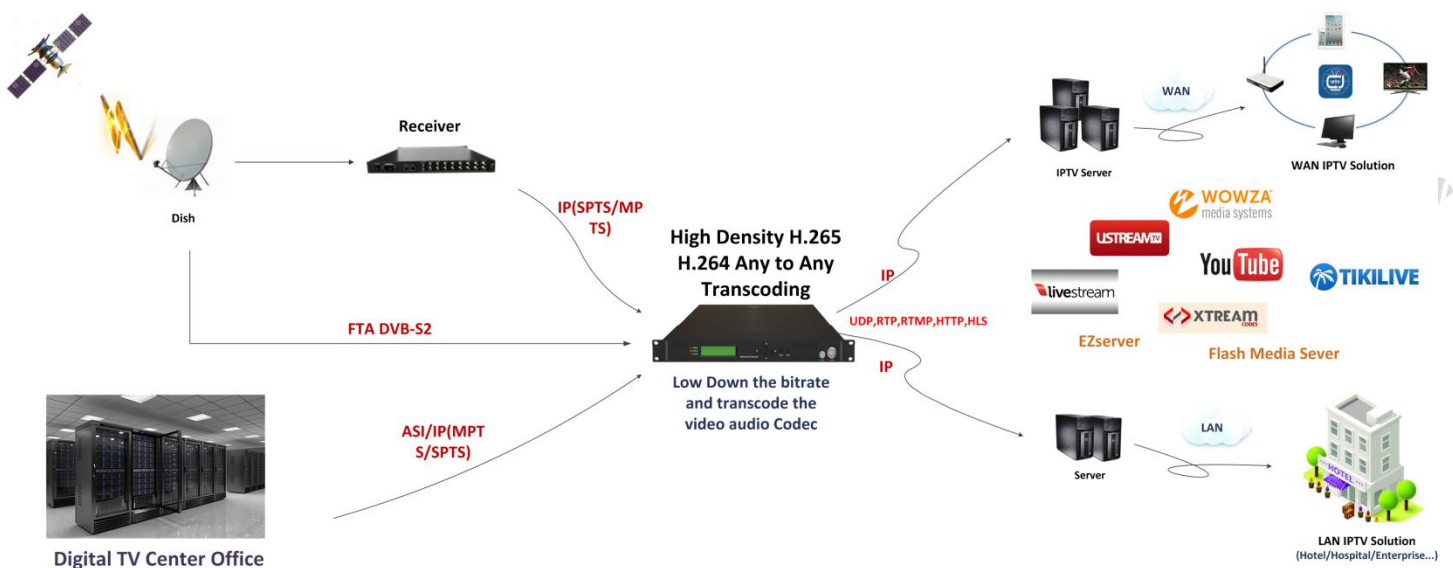
The 1U chassis can support 4 channels of 4K program transcoding or 28 channels of full HD transcoding or 100 channels of SD transcoding.

Cost-effective

Effectively reduce the cost of use, the more the number of channels, the lower the cost per channel.

Application

	Scenes	input source	input code	input resolution	output encoding	output resolution
1	DVB system	satellite downlink	H.265	4K	H.264	4K
2	DVB system	satellite downlink	H.265	4K	H.264	1080P
3	DVB system	IP	H.264	1080P	H.264	1080P with Lower bitrate
4	DVB system	IP	H.264	576/480	H.264	576/480 with Lower bitrate
5	Streaming Media	IP	H.265	4K	H.265/H.264	4K/H.265: OTT STB 2K/H.265: Mobile phone 1080P/H.264: low end STB
6	Streaming Media	IP	H.264	4K	H.265/H.264	4K/H.265: OTT STB 2K/H.265: Mobile phone 1080P/H.264: low end STB



TECHNICAL SPECIFICATIONS

IP input/output

Interface	2 x 100/1000 Base-T Ethernet
physical interface	RJ45
interface rate	Input: ≤800Mbps Output: ≤1000Mbps
Interface Protocol	IPv4/ARP/ICMP/IGMPv1//IGMPv2/ IGMPv3, UDP, RTP, HLS, RTSP, RTMP
Interface streaming	Input: ≤100 Output: ≤100, support SPTS/MPTS

Video processing

video processing	decoding and encoding
Transcoding format	H.264/H.265->H.264/H.265
video codec	H.264 BP/CBP/MP/HP10 L6.2; H.265 Main/Main10 L6.2 Main-Tier
code rate	64kbps ~ 700Mbps (Single module)
HDR	HDR10 and HDR10+
Subtitle	H.264 and H.265 encoding and decoding EIA CEA-708 Closed Captioning

Audio processing

audio processing	decoding, encoding, and pass-through
audio encoding	MPEG-1 Audio Layer II, MPEG-2 Audio, AAC-LC, HE-AAC v1/2, MP3
audio decoding	MPEG-1 Audio Layer II, MPEG-2 Audio, AAC-LC, HE-AAC v1/2, MP3
Sample rate	8kHz – 192 kHz
Audio level control	support
Audio Delay Control	support
sample rate conversion	support
AC3 Bypass	support

OEM

OEM function	Support standard OEM functionality for company equipment support
Import OEM	

Network

Management	Standard WEB network management
Administrative rights	Super administrator, administrator, operator with several levels of authority users

Panel

Functional	Customer view device name/model/rial number default parameters Factory settings View/Clear Alarms Set device management IP address
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Mechanical

Dimensions	450*430*44 (L*W*H) mm
Weight	7.2kg

Environment

Operation temperature	5 to 45°C
Storage temperature	-30~70°C
Operating Humidity	10~90% non - condensing
Power Consumption	≤170W
Input voltage	AC 100 - 240V / 50-60 Hz
Backup	Single/dual hot backup power supply optional

Resolution Conversion Matrix

		Video Output													
		4Kp60	4Kp30	1080p60	1080p59.94	1080p50	1080p30	1080p29.97	1080p25	1080p24	720p60	720p59.94	720p50	576p50	480p60
Video input	4Kp60	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	4Kp30		Y				Y	Y	Y	Y					
	1080p60	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	1080p59.94	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	1080p50		Y			Y	Y	Y	Y	Y			Y	Y	
	1080p30		Y				Y	Y	Y	Y					
	1080p29.97		Y				Y	Y	Y	Y					
	1080p25								Y	Y					
	1080p24									Y					
	720p60	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	720p59.94	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	720p50		Y			Y	Y	Y	Y	Y			Y	Y	
	576p50		Y			Y	Y	Y	Y	Y			Y	Y	
	480p60	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Input and output capability

- Support single channel to single channel or one channel to multiple channels of the same or different resolutions.
- Maximum input (based on 4:2:0, 8 bits):
 - HEVC:** 4x4KP60, or 8x4KP30, or 16x1080P60, or 32x1080P30, or 24x720P60, or 48x720P30, or 64x576/480P60, or 100x 576/480P25;
 - AVC:** 4x4KP30, or 12x1080P60, or 24x1080P30, or 18x720P60, or 36x720P30, or 48x 76/480P60, or 96x576/480P25;
- Different input will have different Max output;
- For multiple inputs, all of their outputs will share the output capacity;
- Maximum output (based on 4:2:0, 8 bits)
 - Input: HEVC**
 - ◇ **output: HEVC**
4x4KP30, or 12x1080P60, or 24x1080P30, or 18x720P60, or x720P30, or 48x576/480P60, or 96x576/480P25;
 - ◇ **Output: AVC**
4x4KP60, or 8x4KP30, or 12x1080P60, or 28x1080P30, or 18x720P60, or 42x720P30, or 48x576/480P60, or 100x576/480P25;
 - Input: AVC**
 - ◇ **output: HEVC**
4x4KP30, or 12x1080P60, or 24x1080P30, or 18x720P60, or 36x720P30, or 48x576/480P60, or 96x576/480P25;
 - ◇ **Output: AVC**
4x4KP30, or 12x1080P60, or 28x1080P30, or 18x720P60, or 42x720P30, or 48x576/480P60, or 100x576/480P25;