Caster-T322

25* IP/IP H.264 IPTV Transcoder



Caster-T322 answers all market requirements and is thus the suitable solution to Terrestrial, Satellite, Cable, IPTV networks. It is a real-time multi-channel/format transcoder can support 25*SD or 10*720p or 5*FullHD streams Simultaneously. It converts HD/SD streams to any H.264 or MPEG-2 format, bitrate and resolution. With the support for various encapsulation formats base on UDP, RTP/ RTSP, Pull/Push HTTP, RTMP, HLS protocols. The product can be configured to transcode up to 25 PIDs of H.264 video in a 1RU form factor, along with up to two audio PIDs per video PID. The hardware can be configured and licensed to upgrade H.264 to H.265/HEVC transcoding, easy for HEVC/H.265 video transcoding applications, reduce bandwidth usage, and save equipment costs.

Additional options for stream adaptation, such as deinterlacing, video scaling, frame rate conversion, and audio volume and sample rate conversion allow for serving set-top boxes, tablets, mobile phones and others.

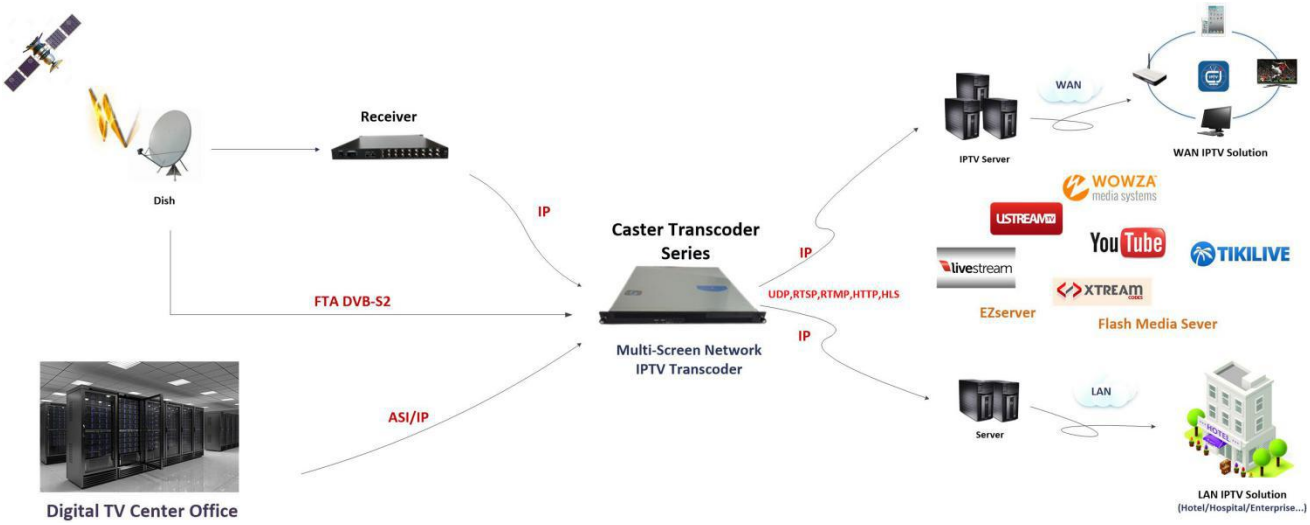
Features

- High density 1-RU platform can transcode up to 25*SD or 10*720p or 5*Full HD profiles
- Optimized for 1500 Kbps for SD, 4Mbps for HD 720p, 6Mbps for HD 1080p
- Creates simultaneous High,Medium, and Low bitrate streams (profiles) of MultiScreen IPTV application
- Optional H.265 transcodes by software licensed
- Baseline, main profile & high profile with variable GOP
- Mulltiple Codec, Protocol, Bitrate,Resolution, Profile per channel
- Picture-in-picture (PIP) operation supported
- HD-to-SD down, SD-to-HD up conversion
- GbE IP outputs –UDP, RTSP, RTMP,Pull/Push HTTP, HTTP Live Smooth(HLS), FTP M3u8 playlist files
- Flexible GOP structures with Reference-frame and B-frame edit
- Frame rate down- and up-conversion
- High quality pre-processing including filtering, Deinterlacing, cross scaling, image insertion
- Support for Variable Bit Rate (VBR) encoding maximizes adaptive streaming video quality and bandwidth efficiency
- Based on embedded Ubuntu Linux via flashdisk
- The preview interface adds color control adjustment (CCATM) function (video output brightness, contrast, saturation, aberration).
- TS parameter configuration: The output stream can be edited to change the program number, program name, supplier (for video output part), easy to identify end device.
- DVB Subtitle and Logo insertion
- High contrast LCD display
- Parameter template settings and imports
- Real time preview of input video stream in encoding and parameter configuration
- Easy configuration via Web GUI
- Designed for secure 24*365 operation

Main Application

- Distribute HD Video to Ethernet
- Transcoding low bitrate in limited bandwidth of Ethernet for Cable TV operator
- IPTV live stream transcoding
- Transcoding for multi-screens and devices
- Small/Middle-Scale Headends for Multiple System Operators

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TECHNICAL SPECIFICATIONS

Inputs and Outputs

	Two Gig Ethernet Ports,
Connector Type	RJ45 100/1000M - Auto Negot
	MPEG-TS(MPTS or SPTS) Over IP input
	MPEG-TS (SPTS) Over IP out
	TS Over UDP/RTP/HTTP
	RTP over HTTP
	FLV Over HTTP
	RTMP
	MP3 over HTTP
	FLV
	ASP
	HTTP Live streaming Apple HLS (m3u8)

Pre-processing

LOGO insertion	
Subtitle Overlay	Option Static or roll subtitle, up to 3 way
Deinterlace	default, Close, Linear, Blend, Bob, Yadif
PID Configuration	PMT/Video/Audio PID; PCR delay/disp interval
Advanced Processing	De-blocking filter, Scene detection, Automatic MBAFF,CABAC Entropy Encoding

Video Processing

Bitrate Control	VBR,CBR,ABR,NearCBR
Frame rate	2-30fps
Screen Ratio	4:3, 16:9
Option	Multiple concurrent outputs per each encoding input
Video codec	H.263 Profile Levels 10, 20, 30 MPEG-4 SP, Levels 0, 0b, 1, 2, 3 H.264 Baseline Levels 1, 2, 3 H.264 Main/High Profile 3.0- 5.1
Encoding delay	1000-2000ms
B-Frame	0-5
Reference Frame	1-6
Key frame rate	1-18
Video Bitrate	32kbps to 10Mbps
Enhancement filter	Deinterlacing; MABFF CABAC; Noise reduction; Sharpening; Visual Optimizing
Video Delay	0-1000ms
Scale	Ordinary, Auto Padding intelligent Scale
Fast Mode	Quality Priority, Balanced, Speed Priority

MPEG-2 Input	H.264 Output	Qty
SD/480i inputs @4 Mbps	SD @2Mbps, 480i	25
720p inputs @10 Mbps	720p @4Mbps	10
1080i/p inputs @18 Mbps	1080p @ 6Mbps	5

Resolution	1920x1080p,1280x720p, 720x576p,720x480p, 640x480p, 480x360p, Auto

Audio Processing

Numbers of encoding (Provides up to 8 audio channels for customization)	2 audio Channels per one video source
Audio encoding	AAC, AACv2, AMR Dolby Digital(AC-3)/Dolby Digital Plus(EAC-3) MP2A,MP3A,Transparent
Audio Channel	Single, Dual, 5.1 Channel
Audio Track	0, 1, 2, 3
AV Sync	0s, 0.5s, 1s, 3s, 4s, 5s, 6s
Sample rate	8khz to 48khz
Bitrate rate	8kbps to 384kbps
Volume	Ordinary,Intensity1,Intensity2,Intensity3
AGC	On, Off

Management

Local interface	LCD + control buttons
Configuration	Web Interface
Port	RJ45, 10/100/1000M Base-T
Language	English

Environment

Power Supply	110-240 VAC
Operation temperature	0~50℃ (32 -122°F)
Storage temperature	-40-70°C (-40-158°F)
Power Consumption	100W
Dimensions	483mm (W) x 534mm (L) x 45mm (H)
Weight	11kg (24lbs)

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ORDERING INFORMATION

Product category	Product Model	Detail Description	Application
Related Products	25Channel H.265 IPTV transcoder **Anystream400**	2*GbE IP input/output, 25*SD or 12*HD or 5*FullHD trascoder per Chassis 1RU, UDP/RTSP/HTTP/HLS/ RTMP, H.264/H.265	-Terrestrial TV system -IPTV -Upgrade H.264 to H.265
	200Channel H.264 IPTV Transcoder **Caster-t328**	2*GbE IP input/output, 25*SD or 10*HD or 5*FullHD trascoder per blade, Up to 8 hot plug blades, H.264(H.265 upgrade software license), UDP/RTSP/HTTP/HLS/RTMP	-Cable TV system -IPTV -Wowza Server RTMP
Companion Products	PREMIUM 8* DVB-S2 FTA IRD **IRD1218Plus**	8* DVB-C or FTA/BISS DVB-S2 inputs (QPSK/8PSK/ 16APSK/ 32APSK demoduation); 14MPTS/240+SPTS/2ASIout; MPEG-TS over UDP/RTP; Multiplexer/Scrambling; 5 years Warranty	-Large and Medium Cable TV operator -IPTV/OTT headend -Content providers -DTH -Carrier-grade
	PREMIUM 8* DVB-S2 CI IRD **IRD1380**	8*DVB-C/S2/T2/ATSC/ISDBT/8 CI input. 9 MPTS/128SPTS/9ASI out; MPEG-TS over UDP/RTP; Multiplexer; 5Year Warranty	

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