

# Caster-T305

2/4/8\*SD-SDI Video  
Multiscreen IPTV Encoder



**Caster-T305** high-performance standard definition solution allows content owners and service providers to significantly increase the content hours delivered while adhering to processing timetables and video quality targets in a cost-effective and scalable manner. A real-time multi-channel, codec, format IP-based encoder for multi-screen delivery (TV, Mobile, and Web). With the support for various encapsulation formats base on embedded Linux operating system appliances. It relies on an Intel 4 or more Core CPU as an accelerator.

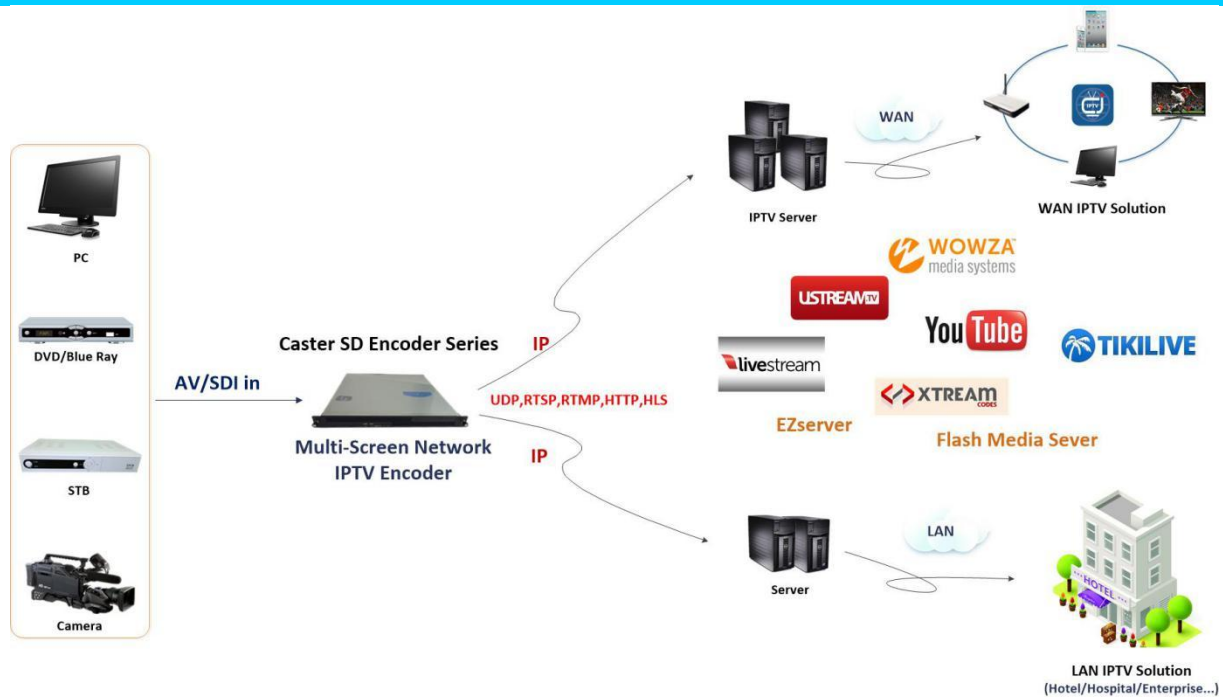
**Caster-T305** can push/pull an MPEG-2, H.264, MPEG-4 encoding video streams deliver to various servers, such as Adobe Flash Server, Wowza Server, Windows Media Server, Apples HTTP Live Streaming, and some other servers base on UDP/RTSP/RTMP/HTTP/RTP/HLS protocols.

## Features

- Optimized for 500 Kbps for 480i/576i, 1.5 Mbps for HD 720p, 2.5 Mbps for HD 1080i and 3.5 Mbps for HD 1080p.
- Up to Eight SDI per chassis, Configurable for 8 channel out by default
- Creates simultaneous High, Medium, and Low bitrate streams (profiles)
- Multiple output streams per input service to support Broadcast, VOD, IPTV and OTT, mobile/ web, Set top box applications
- SD MPEG4/H.264/MPEG-2 to any resolution encoding
- Multiple Codec, Protocol, Bitrate, Resolution, Profile per channel
- GbE IP outputs – UDP, RTSP, RTMP, HTTP, HTTP Live Smooth(HLS), FTP M3u8 playlist files
- **Picture-in-picture (PIP) operation supported**
- Audio support: AAC, MPEG, MP3 or Dolby Digital AC-3 passthrough
- High quality pre-processing including filtering, Deinterlacing, cross scaling, image insertion
- Based on embedded Ubuntu Linux
- Superior video quality at ultra-low bitrates, generally video advised SD about 500kbps for lowest bitrate
- Logo Insertion
- Selectable any resolution from QSIF to 576p
- Compatible with external MPEG-DASH packager for OTT delivery (option)
- Supports logo insertion and text overlay on outputs
- Designed for 24\*7\*365 uninterrupted working
- Easy-to-Use System Management
- Web Management

## Main Application

- Digital broadcast and Multi-screen headend
- IPTV, Over-the-air TV distance learning
- Mobile, Broadcast, Internet TV/Web TV
- VOD content encoding



## TECHNICAL SPECIFICATIONS

### Input

|                 |                            |
|-----------------|----------------------------|
| Baseband input: | 2/4/8x SD-SDI (SMPTE-259M) |
|-----------------|----------------------------|

### Output

|                  |  |
|------------------|--|
| IP Output type   | Two Gig Ethernet Ports   |
| Streaming format | Mpeg-2/H.264/H.263/MPEG4 SP/MPEG4 ASP; MPEG-1 Layer II, AAC, AC3, AMR, WMA , MP3 TS Over UDP/RTP/HTTP 3GP Over RTP FLV Over HTTP/RTMP HTTP Live streaming Apple HLS (m3u8) |

### File Output

|          |   |
|----------|---|
| Encoding | 3GPP/3GPP2/WMV/FLV/TS<br>File output support timing and capacitive record |
|----------|---|

### Pre-processing

|                   |   |
|-------------------|---|
| Image setting     | Video adjustments (Brightness, contrast, Saturation, Hue)   |
| Frame rate        | from 2fps to 30fps  |
| Aspect ratio      | 4:3 and 16:9, WSS control   |
| Image insertion   | LOGO insertion  |
| Subtitle Overlay  | Static or roll subtitle, up to 3 way (optional)   |
| PID Configuration | Depending on the configuration, it forwards selected programs via IP datacasting; PAT, PMT, video PID, audio PID(s) and PCR information are Transmitted |

### Video encoding

|              |  |
|--------------|--|
| Bitrate mode | VBR, CBR   |
| Resolutions  | 80x64, 176x120, 128x96 (4:3), 176x128, 144x80, 176x144, 144x140, 220x176, 160x90 (16:9), 40x176, 320x240, 352x288, 400x300, 480x360, 720x576, 720x480, 854x480(16:9) |

|                    |  |
|--------------------|--|
|                    | H.264 Out: SD in 1.5Mbps<br>Channels:Up to 8 streams<br>Notes:Take those information as reference only, For details contact us<br>Up to multiple concurrent outputs per one stream Input |
| Video codec        | H.263 Profile0, Levels 10, 20, 30<br>MPEG-4 SP, Levels 0, 0b, 1, 2, 3<br>H.264 Baseline Levels 1,1b, 2, 3<br>H.264 Main Profile/High Profile 3.0- 5.1<br>MPEG-2 MP@ML 4:2:0              |
| GOP Size           | I-Frame Time Interval; B-Frame Number; Reference Frame   |
| Video Bitrate      | 32kbps to 4Mbps  |
| Enhancement filter | Deinterlacing; MABFF CABAC; Noise reduction; Sharpening; Visual Optimizing   |

### Audio encoding

|                |  |
|----------------|--|
| Audio encoding | LC-AAC, HE-AAC and HE-AACv2 (including Parametric Stereo) MPEG-1 Layer, AC3, MP3 |
| Sample rate    | 8khz to 48khz  |
| Data rate      | 8kbps to 384kbps   |

### Management

|            |                             |
|------------|-----------------------------|
| Interfaces | LC display, key button, WEB |
|------------|-----------------------------|

### Environment

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