

Superior video quality multiscreen HD Encoder

Caster-T310

Product Profile



Caster-T310 high-performance High 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-T310 can push /pull 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 protocols.



Highlights

- ✓ **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 Four HDMI or HD-SDI per chassis**
- ✓ **Multiple output streams per input service to support Broadcast,VOD,IPTV and OTT,mobile/web,Set top box applications**
- ✓ **HD MPEG2/H.264 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**
- ✓ **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 , 720p 800kbps,1080p 4Mbps for lowest bitrate**
- ✓ **Selectable any resolution from QSIF to 1080P**
- ✓ **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

| INPUTS | | | | |
|--|---|------------------|-----------------|--|
| Baseband input | 1,2,4 channels HDMI v1.3a | | | |
| | 1,2,4 channels HD-SDI | | | |
| OUTPUTS | | | | |
| IP Output type | Two Gig Ethernet Ports | | | |
| ASI output type | Mutlplexed (optional) | | | |
| Streaming format | Mpeg-2/H.264/H.263/MPEG4 SP/MPEG4 ASP; MPEG-1 Layer II,AAC,AC3,AMR,WM A ,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 | | | |
| | File output support timing and capacitive record | | | |
| Pre-processing | | | | |
| Image setting | Video adjustments (Brightness, contrast, Saturation, Hue) | | | |
| Frame rate | from 2fps to 60fps | | | |
| 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) • 240x176 • 320x240 352x288 • 400x300 • 480x360 • 720x576 • 854x480(16:9) 1280x720p • 1920x1080p | | | |
| Max channels per RU | Singal Input | H.264 Out | Channels | Notes |
| | HDMI /HD-SDI | SD in 1.5Mbps | Up to 8 streams | Take those information as reference,For details contact us |
| | | 720p in 2Mbps | Up to 4 streams | |
| | | 1080p in 4Mbps | Up to 4 streams | |
| Up to multiple concurrent outputs per one stream input | | | | |
| Video codec | H.263 Profile0, Levels 10,20,30 MPEG-4 SP, Levels 0,0b, 1,2,3 H.264 Baseline Levels 1,1b,2,3; H.264 Main Profile/High Profile 3.0- 5.1 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 | LCD display, key button, WEB  |
| Environment | |
| Power Supply | 110-240 VAC |
| Power consumption | 50W |
| Operation temperature | 0 -50°C (32 -122°F) |
| Storage temperature | -40-70°C (-40-158°F) |
| Dimensions | 483mm (W) x 534mm (L) x 45mm (H) |
| Weight | 11kg(24lbs) |
| Multiscreen SD Encoder | |
| Caster-T300 | Up to 6x CVBS inputs  |
| Caster-T305 | Up to 4x SDI inputs  |
| Multiscreen HD Encoder | |
| Caster-T310 | Up to 1,2,4x HDMI inputs |
| Caster-T315 | Up to 1,2,4x HD-SDI inputs |
| Multiscreen Transcoder | |
| Caster-T320D | Two ports GigE IP in/ out: up to 8x SD ,10x SD, 12x SD streams out  |
| Caster-T320A | Up to 4x ASI inputs, Two ports GigE ip in/out: up to 8x SD ,10x SD, 12x SD streams out  |
| According to client's requirements. We can offer flexible configuration | |

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