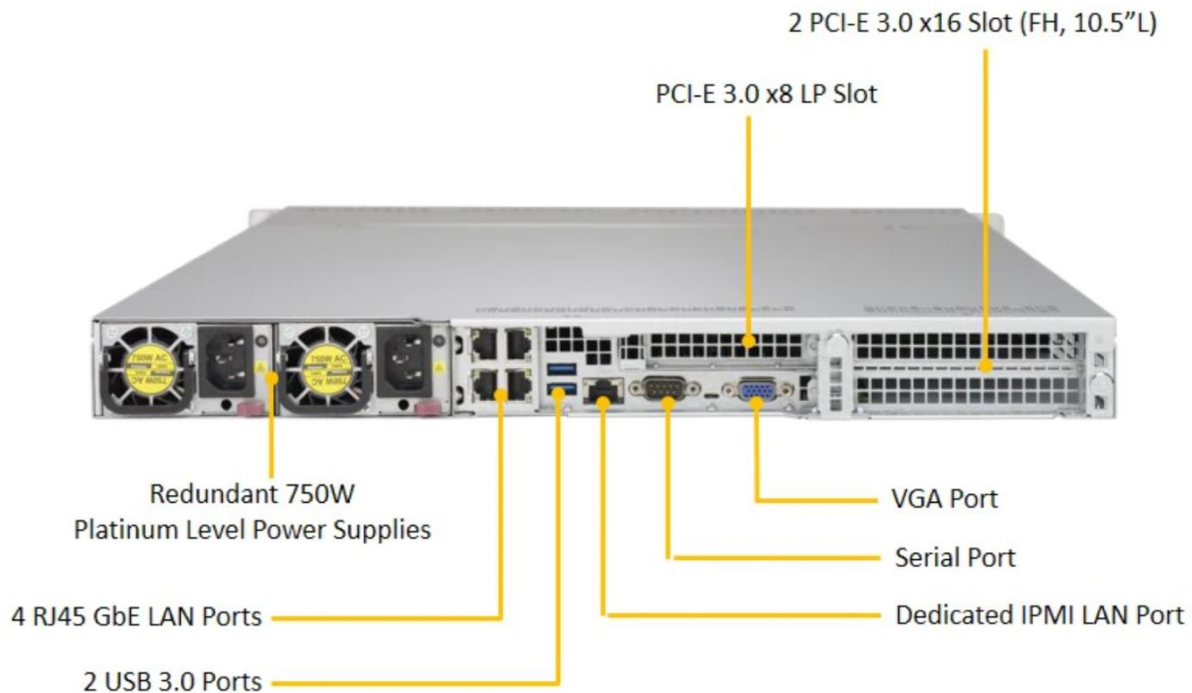# PRODUCT MODEL NUMBER: TL-A1000

LIVE STREAMING TRANSCODER

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PRODUCT OVERVIEW

TL-A1000 Live Streaming Transcoder: - TRANSLITE TL-A1000 is embedded with a powerful processing module that achieves real time transcoding of video and audio signals with low bit rate and high-quality transcoding. This solution being cost-effective meets demand for video on any screen. The system allows for viewing in a low-latency manner. De-interlace scanning is supported as well.

TL-A1000 supports standard video codecs standard supported by x86 architecture platform that include MPEG-2, H.264 as well as H.265 / HEVC encoding techniques. The audio codec supported standard include MP2, MP3, AMR, AAC, AC3 as well as E-AC3 (Enhanced AC3). The device can support multi-bitrate, multi-resolution and multi-protocol output (TS / RTMP / RTSP / HTTP / HLS / UDP / RTP)

KEY FEATURES

- **AES Encryption**
  Encryption is one of the most common ways to protect sensitive data. It is found at least six times faster than triple DES. AES uses a SPN block cipher algorithm.

- **Remote management**
  Web browser based system management, parameter configuration, user password setting, remote online upgrade, system log query, alarm information query, and time server synchronization settings.
  The system configuration of this device can be imported and exported as needs.

- **Flow Control Methods:**
  Supports a variety of flow control modes - according to different needs to adjust the range of code stream bandwidth: CBR, ABR, and VBR. In CBR mode, the change range of code stream can be controlled within 2%. For VBR, the fluctuation range of 5% to 100% can be set.

➢ **Fault Protection Mechanism: (Manual / Automatic switch-over):**
A backup source can be set for every main input source, in the case of the main input source being abnormal, the system will automatically switch to the backup flow code output to make sure the encoding/transcoding output is uninterrupted. Once the main input system flow looks normal again, the system will output the transcoded stream from the main stream instead of the backup.

➢ **Low Latency:**
This solution being cost-effective meets demand for video on any screen. The system allows for viewing in a low-latency manner.

➢ **Alarm:**
The transcoder system notifies the system user in the following events: source interruption, abnormal source encoding, abnormal source decoding, interruption on the output source, output storage failure, and abnormal backup source switching.

➢ **Delay Play:**
Live streams can be set to play with a delayed output of up to 60 seconds. These settings is available to the user in the Web GUI of the transcoder.

➢ **Multi-screen merging:**
The transcoder device can receive multiple video program sources and then synthesize a multi-screen video stream output into one stream to display as the output. The layouts supported are: picture-in-picture, and tile mode.

➢ **Support N+1, N+M redundant backup:**
N+1 or N+M network management system realizes automatic 1+1 and N+M redundancy protection switch for equipment failure. Redundancy switch scheme includes input backup switch, device redundancy switch and device output.

➢ **Key frame alignment:**
Supports key frame alignment and consistent DTS timestamp of any frame of multi-bit rate output streams from the same input source. GOP alignment between different bit rates is supported to support various dynamic bit rate switching protocols.

➢ **Background Music:**
Background music can change the tempo and vibe of a video. If a video has an uninteresting soundtrack (or none at all), a song adds energy and cohesion. For an ad or promotional video, background music engages your audience and emphasizes the mood of your brand. It makes viewers more likely to watch and engage with the video and understand its meaning. The file format supported is MP3.

➢ **Logo Insertion:**
Support adding subtitles and Logo. The font color, size and position can be set. The device supports BMP and PNG format LOGO overlay, as well as transparent color settings.

APPLICATION

Launch Live OTT channels and cut the cord, expanding your subscriber base beyond your existing distribution network. Feed cache or CDN or feed HLS clients directly.

TL-A1000 LIVE STREAMING TRANSCODER

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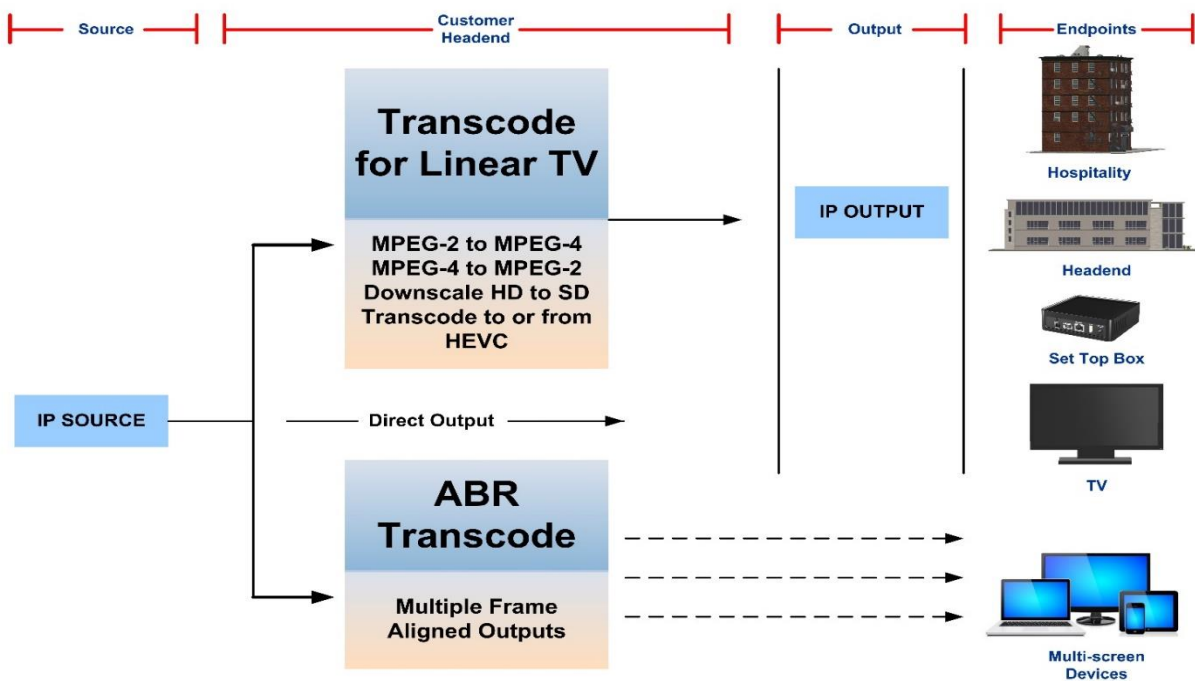
Pair with Translite's Large Screen Monitoring System: (TSA-M3600)

TSA-M3600

SPECIFICATIONS

Hardware	
CPU	**Supermicro** 6018U-TR4+-OTO-62 (Customized)
Video Specifications	
Video Compression and bitrate	**MPEG-2**: 300Kbps ~ 50Mbps **H.264**: 300Kbps ~ 50Mbps **H.265**: 300Kbps ~ 50Mbps
Resolutions	**576P** – 720 x 576 (CPU & GPU) **720P** – 1280 x 720 (CPU & GPU) **1080P** – 1920 x 1080 (CPU & GPU) **2K** – 2560 x 1440 (GPU) **4K** – 3840 x 2160 (GPU) **8K** – 7680 x 4320 (GPU)
Frame Rate	25 fps ~ 60 fps
Audio Specifications	
Encoding formats	MP2, MP3, AAC, AMR, AC3, E-AC3, WMA
Operation mode	Stereo, Mono, Dual
Audio bitrate	8kbps ~ 448kbps (Adjustable)
Sampling Rate	8kHz ~ 48kHz
Adjustable Volume	Yes

Automatic audio gain processing	Yes
Background Music	Yes
Certifications	FCC Part 15
Operating Temperature	0 to 40 C (32 to 104 F)
Operating Altitude	0 to 4000m
Operating Humidity	10 to 90 percent noncondensing
Input and Output Parameters	
Input Streaming Media Protocol	HTTP	HLS	RTMP	UDP	RTP	RTSP
Output Streaming Media Protocol	HTTP	HLS	RTMP	UDP	RTP	RTSP
Input Encapsulation Protocol	MP4, 3GP, FLV, ASF, RM, TS, MPTS, SPTS
Output Encapsulation Protocol	MP4, 3GP, FLV, ASF, TS

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