

AL2000

HIGH VIDEO QUALITY AUDIO/VIDEO TRANSCODER

Gen4 HARDWARE, WITH X2 INCREASED DENSITY

Carrier-grade multi-channel transcoder

Live inputs:

- MPEG-2
- MPEG-4 AVC (H.264)

Adaptive Streaming outputs:

- MPEG-DASH
- Apple HTTP Live Streaming (iOS5)
- Microsoft Live Smooth Streaming
- Adobe Flash
- Windows Media VC-1
- 3GPP / Edge Mobile TV
- IPTV & PiP

Ready for catch-up, start over TV and DRM.

Highly integrated, redundant,
future-proof design



ALLEGRO
Digital Video Technology

AL2000

AUDIO/VIDEO TRANSCODER

The Allegro DVT AL2000 Gen4 live transcoder ingests MPEG-2 and H.264 compressed inputs and delivers live audio/video outputs in all delivery formats simultaneously, adapted to broadcast, IPTV, PiP and Over-The-Top TV.

Supported formats can then be delivered to various targets such as mobile phones, set-top boxes, and PC players at the same time, for catching the broadest audience.

AL2000 includes support for MPEG-DASH, Apple HLS, MS Live Smooth Streaming, Adobe Flash, Windows Media VC-1, 3GPP / Edge Mobile TV, IPTV and Picture-in-Picture. Adaptive streaming encoding allows the viewers to experience the best video quality allowed by their local and instantaneous network conditions.

AL2000 offers proven interoperability with various streaming servers and redundancy with N+P flexible schemes and network teaming. Allegro DVT transcoders are easily administered by SNMP or RESTful HTTP API, and can be easily integrated in any existing Management System or DataMiner. A single 1 RU chassis delivers up to 32 outputs simultaneously for unrivalled integration.

INPUT

Video	MPEG-2 MP@HL, up to HD; H.264 HP@L4, up to HD
Audio	MPEG-1 Layer II, AAC, AC-3, E-AC-3
Transport	16 (AL2000-Mono) or 32 (AL2000-Twin) programs in TS/UDP/IP

OUTPUT

Video Preprocessing	Adaptive de-interlacing Video resize Aspect-ratio conversion or pass-through	Frame rate down-conversion / doubling: 1080i to 720p Color enhancement Logo / Slate insertion
Video Encoding	H.264 / MPEG-4 AVC, Baseline/Main/High, all levels, up to HD MPEG-2 MP@ML/HL, up to HD H.263 Profile 0 Level 45, QCIF or Sub-QCIF	MPEG-4 SP Level 0 to 3, up to CIF WM8, WM9, VC-1, up to HD Adaptive Streaming video encoding (up to x16 profiles/chan.)
Audio Preprocessing	Automatic Gain Control Audio level	5.1 and stereo downmix Audio resampling
Audio Encoding	x32 audio streams per video stream Pass-through with perfect A/V sync (SPTS) MPEG-1 Layer II (SPTS)	AMR-NB (RTP) WMA Voice 9, WMA 9.2, WMA 10 Professional (ASF/MMS) AAC, LC, HE v1, HE v2, in ADTS or LOAS/LATM
Transport	Apple HLS (<i>Live or Archiving</i>) Microsoft Live Smooth Streaming (<i>H.264 & VC-1</i>) Microsoft Windows Media Adobe Flash MPEG-DASH ISO Base Media File Format NEW	3GPP / Edge RTP + RTCP/UDP IPTV & PiP: SPTS/UDP Supported Protocols: FTP, HTTP, WebDAV, RTMP Embedded Origin Server NEW Archiving in TS files NEW
Ad-Insertion	Ad-insertion (SCTE-35 pass-through & conversion to Live Smooth Streaming)	
Subtitling	x2 DVB-Teletext streams per video stream (TS,HLS,Smooth) x2 DVB-Subtitle streams per video stream (TS,HLS)	SMPT E TTML NEW Closed Caption (CEA-608) (TS, HLS, RTP, Flash)
Encryption	Native interoperability with Verimatrix (HLS) DGI (<i>DRM Generic Interface</i>)	Microsoft Piff Protection for Live Smooth Streaming
Performance	<i>Example combinations: x4 HD adaptive streaming services with x9 profiles per service, or x12 SD adaptive streaming services with x7 profiles per service, or x18 SD adaptive streaming services with x4 profiles per service, etc...</i>	
OPERATION	SNMP/HTTP RESTful interface for remote control & monitoring Graphical remote user interface Up to x6 GbE interfaces per motherboard Network teaming on In/Out/Mgmt networks N+P device redundancy DataMiner supervision NEW Interoperable with major CDNs, including Akamai.	Single rack unit (1 RU) Mono or Twin motherboard form-factor Software upgradeable Several independent transcoding channels per unit <i>several programs can be transcoded simultaneously</i> <i>one same program can be transcoded to different audio/ video resolutions or codecs simultaneously</i>



Allegro DVT is a privately held company providing expertise in digital audio/video processing and state-of-the-art H.264 solutions. It delivers H.264/AVC compliance testing suites, audio/video encoders and transcoders for 3GPP, Edge, HLS, Adobe Flash, VC-1 and Smooth Streaming for WebTV, IPTV, PiP and H.264/AVC hardware encoding IPs. Allegro DVT customers include silicon vendors, set-top box, mobile phone, TV-set and DVD player manufacturers and satellite, cable and telco operators. For more information, visit <http://www.allegrodvdt.com> or contact info@allegrodvdt.com.



15, avenue du Granier
38240 Meylan – FRANCE

info@allegrodvdt.com
www.allegrodvdt.com

+33 4 76 42 66 85