

ALMosaic

IP MOSAIC GENERATOR

Gen4 HARDWARE, WITH X2 INCREASED DENSITY

Live IP mosaic generator

Live inputs:

- up to 20 HD compressed audio/video feeds (IP)

Live output:

- output for IPTV and OTT-TV (HLS, Live Smooth Streaming, ...)
- channel browsing
- headend monitoring

SNMP monitoring alarms

Cascadable



ALLEGRO
Digital Video Technology

ALMosaic

IP MOSAIC GENERATOR FOR CHANNEL BROWSING AND MONITORING APPLICATIONS

The Allegro DVT ALMosaic live mosaic generator is an IP in/out audio/video device capable of building a user configurable mosaic. It can be used for channel browsing, or headend monitoring applications.

The device ingests up to x20 MPEG-2 or H.264 simultaneous video input feeds on IP, and displays them as many video thumbnails assembled into one single video output. The 20 thumbnails' sizes and positions can be set independently over a user-defined background picture, and the scene can be manually or automatically updated. The composited scene is delivered in SPTS/UDP/IP or OTT-TV transport formats, encoded in MPEG-2 or H.264, in HD or SD resolution, multiplexed with the thumbnails' associated audio feeds. ALMosaic displays 2.0 and 5.1 dynamic audio bargraphs, supports round-robin channels cycling among a large number of input streams and issues SNMP alarms for audio silence, video freeze, video black, etc.

The device is packaged in a single rack unit (19" x 1RU). It is easily administered by SNMP or HTTP RESTful API and supports redundancy with N+P flexible schemes and network teaming.

INPUT		
MPEG-2 Video Input	MPEG-2 MP@HL Input bitrate up to 15 Mbps	Supports any resolution up to HD Advanced error concealment
H.264 Video Input	H.264 HP@L4 Input bitrate up to 12.5 Mbps	Supports any resolution up to HD Advanced error concealment
Audio Input	MPEG-1 Layer II AAC LC, Main, LTP, HE v1, HE v2 (ADTS)	AC-3 E-AC-3
OUTPUT		
Video Preprocessing	Adaptive de-interlacing Video resize	Aspect-ratio conversion
Video Compositing	User configurable compositor Up to 20 video feeds (MPEG-2 or H.264 inputs) Different picture sizes in the same scene Configurable picture positions	Frame rate conversion Configurable background picture Dynamic 2.0 and 5.1 audio bargraphs Scene update (manual or automatic)
Video Encoding	H.264/MPEG-4 AVC, Baseline/Main/High, all levels, up to HD	MPEG-2 MP@ML/HL, up to HD
Audio Preprocessing	Automatic Gain Control Audio level	Stereo-to-mono downmix Audio resampling
Audio Encoding	Up to 20 audio streams MPEG-1 Layer II	AAC, LC, HE v1, HE v2, in ADTS or LOAS/LATM
Monitoring & Alarms	Audio silence, Video freeze, Video black, Missing audio PID, Missing video PID Automatic text labelling NEW	Closed Caption burn-in (CEA-608) NEW Remote Live preview of mosaic output NEW
Output Formats	SPTS/UDP/IP Apple HLS (Live or Archiving) NEW Microsoft Live Smooth Streaming (H.264 & VC-1) NEW	Microsoft Windows Media NEW Adobe Flash NEW MPEG-DASH ISO Base Media File Format NEW
Performance	20 SD/HD input feeds (MPEG-2 or H.264) up to x4 mosaic pages per unit NEW	Round-robin channels cycling (up to x128 sources per thumbnail)
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	Single rack unit (1 RU) Mono or Twin motherboard form-factor Software upgradeable Cascadable with other ALMosaic to expand the number of thumbnails Integration: Allegro can provide a scene description adapted to the set-top box selected middleware (XML, ...)



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.allegrodvt.com> or contact info@allegrodvt.com.



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