

Allegro DVT compliance test streams

- Video elementary streams:
 - H.264/MPEG-4 AVC/MVC/SVC compliance streams
- Audio/video system streams:
 - General purpose
 - DVB-T for European DTT (Digital Terrestrial TV)
 - ISDB-Tb for South American DTT
 - IPTV
 - US Cable



Allegro DVT compliance test streams

AUDIO/VIDEO DECODER VALIDATION

H.264/MPEG-4 AVC/MVC/SVC ELEMENTARY STREAMS

Test H.264 video decoders compliance

Unique Selling Points	<ul style="list-style-type: none"> Avoid costly re-design phases. Due to their high complexity, H.264 video decoders need to be thoroughly validated ahead of production. Future-proof your products to prepare mass production. Increase target product perenity by ensuring it'll comply with today and tomorrow's broadcast.
Customers	<ul style="list-style-type: none"> IP and IC vendors, system vendors (set-top boxes, digital TVs, smartphones, tablets, etc.).
Deliverables	<ul style="list-style-type: none"> H.264 elementary streams suite, each stream focusing on a specific video feature to allow fast and simple analysis of potential problems. Allegro DVT's reference video decoder software to generate the expected decoded pictures. Debug tools, including Quick Restart and Quick Debug, to speed up the validation process. PES and transport multiplexing software. Complete reference documentation.
Technical features	<ul style="list-style-type: none"> Allegro DVT provides sets of compliance test suites. Each test suite targets a specific profile/level combination.

Allegro DVT syntax streams ensures that decoders abide by all features of H.264 compression standards, including corner cases. (With test cases for : picture type, slice type, loop filter parameters, slice reordering, MMCO, macroblock type, quantization parameter, motion vector,

prediction direction, intra prediction direction, constrained intra prediction, direct mode type, etc. at a macroblock granularity.)

Allegro DVT stress streams test if a decoder is able to decode worst case streams in real-time.

H.264/AVC syntax streams Baseline/Main/High Profile Level 1.3 to Level 4.2	H.264/AVC stress streams Baseline/Main/High Profile Level 1.3 to Level 4.2
Type	Resolution
H.264/AVC Baseline profile – Level 1.3 T-DMB(*)	176x144@30fps
H.264/AVC Baseline profile – Level 2	352x288@30fps
H.264/AVC Baseline profile – Level 3	720x576@25fps 720x480@30fps
H.264/AVC Baseline profile – Level 3.1	1280x720@30fps 1280x720@25fps
H.264/AVC Main profile – Level 3	720x576@25fps 720x480@30fps
H.264/AVC Main profile – Level 4	1920x1080@30fps 1280x720@60fps 1920x1080@25fps 1280x720@50fps
H.264/AVC Main profile – Level 4.1	1920x1080@30fps 1280x720@60fps 1920x1080@25fps 1280x720@50fps
H.264/AVC Main profile – Level 4.2	1920x1080@30/60fps 1280x720@60fps 1920x1080@25/50fps 1280x720@50fps
H.264/AVC High profile – Level 3	720x576@25fps 720x480@30fps
H.264/AVC High profile – Level 4	1920x1080@30fps 1280x720@60fps 1920x1080@25fps 1280x720@50fps
H.264/AVC High profile – Level 4.1	1920x1080@30fps 1280x720@60fps 1920x1080@25fps 1280x720@50fps
H.264/AVC High profile – Level 4.2	1920x1080@30/60fps 1280x720@60fps 1920x1080@25/50fps 1280x720@50fps

(*) Syntax streams only.

H.264/MVC syntax streams Stereo High Profile Level 4.1	H.264/MVC stress streams Stereo High Profile Level 4.1
Type	Resolution
H.264/MVC Stereo High Profile – Level 4.1	1920x1080@30fps 1280x720@60fps

H.264/SVC syntax streams Scalable High Profile Level 4.2	H.264/SVC stress streams Scalable High Profile Level 4.2
Type	Resolution
H.264/SVC Scalable High Profile – Level 4.2	1920x1080@30/60fps 1280x720@60fps

MPEG-TS AUDIO/VIDEO SYSTEM STREAMS DVB-T, IPTV, ISDB-Tb, US Cable AUDIO/VIDEO SYSTEM STREAMS

Test compliance of DVB-T, IPTV, ISDB-Tb, US Cable and MPEG-TS systems.

Unique Selling Points	<ul style="list-style-type: none"> Verify system compliance and robustness before mass-deployment to end users. Thanks to Allegro DVT system test streams, IC vendors, OEMs and broadcasters can be confident that their products will comply with today's and tomorrow's broadcasts.
Customers	<ul style="list-style-type: none"> IC vendors, system vendors (set-top boxes, digital TVs, smartphones, tablets, etc.) and broadcasters.
Description	<ul style="list-style-type: none"> Allegro DVT provides audio/video system streams, encapsulated and multiplexed in a variety of formats. They are the perfect tool to validate: <ul style="list-style-type: none"> - Audio/video synchronization - Dynamic picture resolution change - Aspect ratio - Dynamic video codec change - Active Format Description - DVB subtitles - Closed captions - Teletext Allegro DVT system streams are specifically designed to ease system testing. They provide two levels of verification: quick visual check or in-depth and accurate analysis with measuring tools. They support all popular audio and video compression formats, including:

Video	Audio	Systems
H.264/AVC CIF Baseline Profile	MPEG-1 Layer I and II	<i>Application specific:</i>
H.264/AVC SD High Profile	AC-3	DVB-T
H.264/AVC HD High Profile	E-AC-3 (DD+)	ISDB-Tb
MPEG-2 CIF MP@ML	AAC-LC	IPTV
MPEG-2 SD MP@ML	HE-AAC v1 (aacPlus)	US Cable
MPEG-2 HD MP@HL	HE-AAC v2 (aacPlus v2)	<i>General purpose:</i>
		MPEG-2 Transport (13818-1)

DVB-T system streams (Europe)	ISDB-Tb system streams (South America)	IPTV	US Cable
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AUDIO/VIDEO DECODER VALIDATION

Allegro DVT has been chosen by the leading companies of the digital video industry.
Our satisfied customers include:



Allegro DVT is a leading provider of H.264/MPEG-4 AVC | SVC | MVC solutions, including industry standard compliance test suites and real-time audio/video encoders and transcoders. Allegro DVT products have been chosen by more than 100 major IC providers, OEMs and broadcasters.

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