

Audio Interoperability Results

	Encoder Vendor Transport Stream
	Decoder Vendor
	Not Supported or Not Submitted
(#)	See Note regarding Transport Stream at bottom of table.
#	See Note regarding decode issue at bottom of table.
TS#	Transport Stream File Tested i.e.: TS1 or TS11 etc.
OK	No issues noted during tests, fully interoperable.
OK #	Audio rated as OK with comments at bottom of table
FAIL(#) or OK(#)	Dolby-E result with note at bottom of table.

How to Interpret Results

Explanation of Results: TS7 refers to the Transport Stream 7. The parameters of TS7 may be found in the accompanying documents. TS7 was generated by the HD MPEG-4 encoders listed in the top row. The test results show the audio test result when the specified TS was received by the HD MPEG-4 decoders in the first column. Gray shaded boxes indicate that the encoder did not support the parameters of the TS to be tested and no TS was supplied or the decoder does not support the audio mode being tested.

MPEG2 Audio Testing

	Adtec (7)	Ateme (2)	Comtech	Evertz	Fujitsu (6)	Harmonic	NTT	Cisco (4)	Tandberg	Thomson
	TS7	TS11	TS7	TS11	TS11	TS7	TS11	TS11	TS7	TS7
Decoder Vendor										
ComtechTV	OK	OK	OK	3	OK	OK	OK	OK	OK	OK
Evertz	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Fujitsu	1	1	OK	1	OK	1	OK	1	1	1,5
IDC	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
NTT	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Cisco	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Sencore	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Tandberg	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Thomson	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

1 - pids seen, but no decode

2 - Ateme stream has two audio pids, mixed mono audio on 1st pid, no audio on 2nd pid

3 - decodes but has some consistent breakup

4 - Cisco stream has mixed up audios but ok to evaluate interoperability

5 - video decode issues

6 - Fujitsu stream has mono mix audios, pair 2 present but empty

7 - Adtec's 420 stream was used in testing to maximize results. 422 available.

Dolby-E Audio Testing

	Adtec	Ateme	Comtech	Evertz	Fujitsu	Harmonic	NTT	Cisco	Tandberg (5)	Thomson
Decoder Vendor	TS8 recorded on site	not submitted	not supported	TS8 recorded on site	TS8	not submitted	TS8 recorded on site	TS8 recorded on site	TS8 recorded on site	TS8 recorded on site
ComtechTV	FAIL (1)			OK	OK		FAIL (3)	FAIL (3)	FAIL (3)	FAIL (3,6)
Evertz	OK			FAIL (1,7)	OK		OK	OK	OK	OK
Fujitsu	FAIL (1)			OK	OK		OK	FAIL (4)	FAIL (5)	OK (6)
IDC										
NTT	OK			OK	OK		OK	FAIL (2)	OK (5)	OK (6)
Cisco										
Sencore	OK			OK	OK		OK	OK	OK	OK
Tandberg	OK			FAIL (2)	OK		OK	OK	OK	OK
Thomson	OK			OK	OK		OK	OK	OK	OK

1 - Dolby CRC errors at testing center

2 - no decode

3 - Dolby CRC errors at testing center but not at vendor benches, moved benches, same result.

4 - intermittent decode

5 - Tandberg encoding video @ 1280x1080i causing issues

6 - video blocking occurring

7 - Evertz advises firmware update issued in June 2009 to address this issue.

PCM Audio Testing

	Adtec	Ateme	Comtech	Evertz	Fujitsu (5)	Harmonic	NTT	Cisco (6)	Tandberg (7)	Thomson
Decoder Vendor	TS9	TS25	not supported	not submitted	TS9	TS9	TS25	TS9	TS9	TS9
ComtechTV	OK 2	1			OK	OK	OK	OK		OK
Evertz	OK 2	1			OK	3	OK	OK		OK
Fujitsu	OK 2	1			OK	OK	OK	OK		OK 4
IDC										
NTT	OK 2	1			OK	OK	OK	OK		OK 4
Cisco										
Sencore										
Tandberg	OK 2	1			OK	OK	OK	OK		OK
Thomson										

1 - Ateme stream, decoders show PCM but no audio decode (stream issue)

2 - Audio ok until breaks on video errors (stream encoding issues)

3 - no audio

4 - video issues at decoder , audio ok

5 - Fujitsu stream has mixed mono audio on stream

6 - Cisco TS25 has no PCM audio present, rerecorded live, same issue.

6 - Cisco June 17 found Cisco TS9 is 420 and PCM ok. Used TS9 file.

7 - Tandberg attempted on site live stream submission, unsuccessful.

AAC Audio Testing

	Adtec	Ateme 2	Comtech	Evertz	Fujitsu 2	Harmonic	NTT	Cisco	Tandberg	Thomson
Decoder Vendor	not supported	TS26	not supported	not supported	TS10	TS10	TS10 Live Encoding	TS10	TS10	TS10
ComtechTV										
Evertz		OK			OK	OK	OK	OK	OK	OK
Fujitsu		1			OK	5	5	5	5	5
IDC		OK			OK	OK	OK	OK	OK 4	OK 6
NTT		OK			OK	OK	OK	OK	OK	OK 3
Cisco		OK			OK	OK 4	OK 4	OK 4	OK 4	OK 4
Sencore		OK			OK	OK	OK	OK	OK	OK
Tandberg		OK			OK	OK	OK	OK	OK	OK
Thomson		OK			OK	OK	OK	OK	OK	OK

1 - Audio dropouts

2 - stream has 2 PIDs audio only present on 1

3 - audio ok, video issue visible.

4 - only two of the four audio channels present on embedded audio

5 - no decode

6 - audio ok, visible video issues