



AUSTRALIA

(Attachment C) Shared multiplex performance testing of TV receivers in Australia.

Prepared by Free TV Australia Ltd for the Australian
Communications and Media Authority 23ACMA044 Receiver
Performance Testing project

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1. Introduction

This attachment C to the main report relates to testing performance of the agreed selection of TV receivers when decoding multiplexes designed to model various modulation, bitrate, video and audio codec, video resolution and statistical multiplexing scenarios. These scenarios address requested test combinations within the project and reflect some of the more likely possible combinations should broadcasters move to multiplex sharing sometime in the future.

2. Receiver Selection

Justification of the receiver sample is explained in section 2.2 of the main report. The final selection of receivers is shown in Table 2 of that section and is reproduced below as Table 3 of this attachment for convenience.

Column 1 (FreeTV RX #) is used to identify individual receivers throughout the remainder of this attachment.

Table 1 Receiver, Freeview Catalogue Number, Make, Model, Chipset etc.

FreeTV RX #	Freeview Label #	Brand	Year	Model	Chipset Manufacturer	Chipset Model	T2 Ready	Notes
1			2022				Y	
2			2021				Y	
3			2020				Y	
4			2019				Y	
5			2018				?	
6			2017				?	
7			2022				Y	
8			2021				Y	
9			2020				?	
10			2019				Y	
11			2018				Y	
12			2022				Y	
13			2021				Y	
14			2020				Y	
15			2017				Y	
16			2022				?	
17			2022				?	
18			2020				?	
19			2018				?	
20			2022				?	
21			2023				Y	
22			2021				Y	
23			2018				Y	
24			2018				?	
25			2020				Y	
26			2022				?	
27			2022				?	
28			2022				Y	
29			2022				Y	
30			2022				?	
31			2022				?	
32			2015				?	
33			2014				Y	

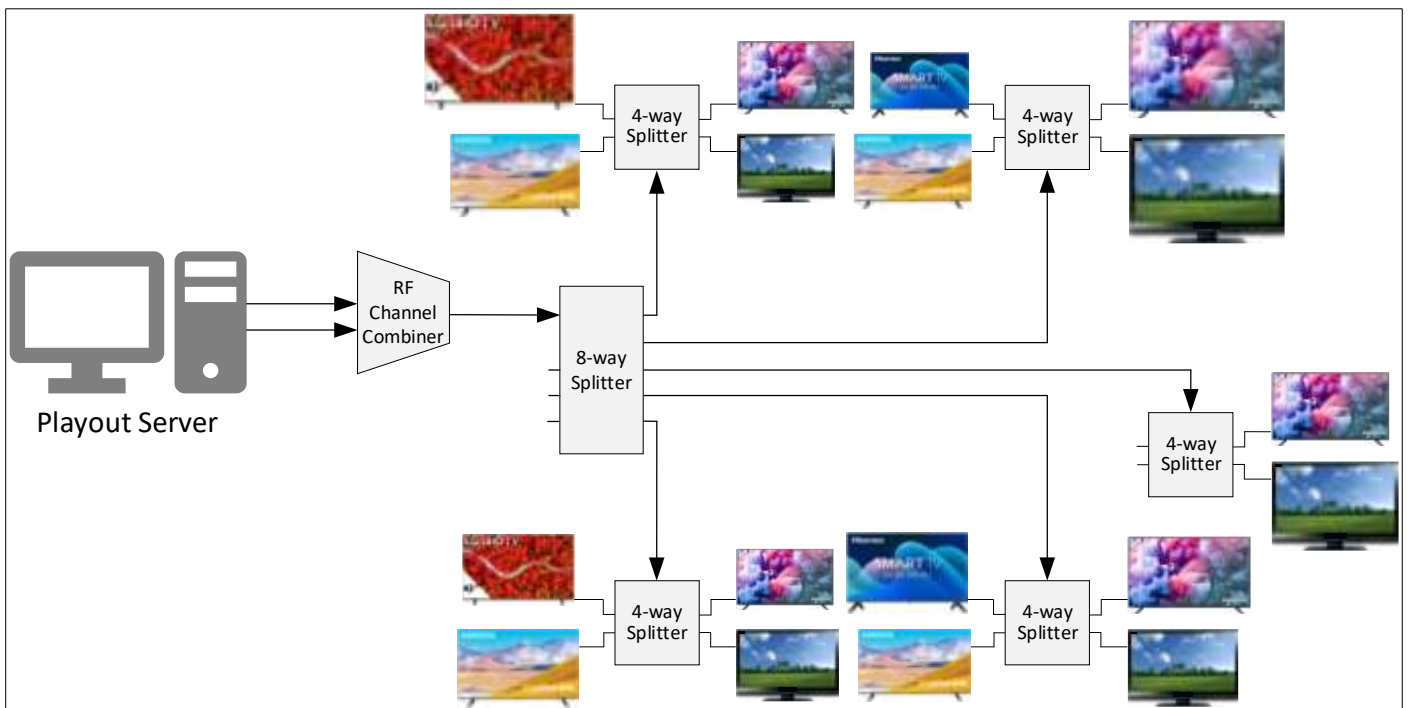
3. Testing

3.1 System Configuration used for Receiver Testing

As discussed in Section 2.7.1 of the main report, to fully test receiver navigation if broadcasters’ services were split across more than one multiplex, several tests required a pair of transport streams. For additional comparison, and to test the assertions made in section 2.6.4 of the main report about cross-carriage of EIT and SDT information, some transport streams were deliberately built containing EIT ‘other’ and SDT ‘other’, while other transport streams did not cross-carry this information. The test system was designed to allow paired transport streams to be played simultaneously to test these aspects of receiver performance. Not all conceivable combinations of paired transport streams were tested. However, the combinations assessed were deemed sufficient to test receiver behavior.

Details of the Freeview lab test system, equipment and configuration are explained in section 2.9 of the main report. A configuration diagram of the test facility is reproduced below as Figure 1 of this attachment for convenience.

Figure 1 Test Transport Stream Payout and RF Distribution System



3.2 RF Modulation Modes used for Receiver Testing

Shared multiplex test transport streams were distributed to the receivers in either DVB-T or DVB-T2 mode. DVB-T mode was configured to carry a transport stream of up to 23.052768 Mbit/s (equivalent to broadcast services operating in most areas of Australia). DVB-T2 mode was configured to carry a transport stream of up to 35.706789 Mbit/s.

Table 2 Modulation modes used during shared multiplex testing.

Mode	FFT (e)=extended mode	Guard Interval (uS)	Pilot Pattern	Modulation	FEC	Payload (Mbit/s)	C/N Ricean Channel (dB)
DVB-T	8K	1/16 (64)		64 QAM	3/4	23.052768	20
DVB-T2	32K(e)	19/256 (304)	PP4	256 QAM	3/4	35.706789	23

3.3 Transport Stream Configurations used for Receiver Testing

To test each proposed sharing scenario, a number of new and unique transport streams were produced for the project. Table 3 below describes each sharing scenario and the contents of each shared multiplex transport stream used to test receiver performance against each of those scenarios.

Scenarios 1 to 3 transport streams were not tested in this section of the project. These transport streams were used in testing RF and SFN performance of the receivers. Details about that section of the project are described elsewhere in the report with detailed results in Attachment-B. Scenarios 1 to 3 have been retained in Table 3 for comparison purposes.

Table 3 Transport stream configurations used for receiver testing

No	Sharing Scenario		RF Modulation / Bitrate	Codec/s Scenario	Video Resolution/s	Statmux design	Stream ID for Receiver Testing	Stream Description	EIT & SDT 'other' Present
1	SFN testing	No sharing	DVB-T @23Mbit/s	MPEG2/ MPEG4	HD/SD	Holistic	01SFT1MMH-2	Current on air example as benchmark. 8 services for Broadcaster B (2XHD, 5xMC, 1xDC). All 8 services in one statmux	No
2			DVB-T2 @32Mbit/s Mode (B)	MPEG4/ HEVC	HD/SD	Holistic	02SFB2MHH-1	7 services for Broadcaster A (3xHD, 4xMC, 1xDC). Current on air example with 1xHD (interlaced) service changed to HEVC, all other services use MPEG-4. All 7 services in one statmux	No
							02SFB2MHH-2	8 services for Broadcaster B (2xHD, 5xMC, 1xDC). Current on air example with 1xHD (interlaced) service changed to HEVC, all other services use MPEG-4. All 8 services in one statmux	No
3			DVB-T2 @36Mbit/s Mode (D)	MPEG4/ HEVC	HD/SD	Holistic	03SFD2MHH-1	7 services for Broadcaster A (3xHD, 4xMC, 1xDC). Current on air example with 1xHD (interlaced) service changed to HEVC, all other services use MPEG-4. All 7 services in one statmux	No
							03SFD2MHH-2	8 services for Broadcaster B (2xHD, 5xMC, 1xDC). Current on air example with 1xHD (interlaced) service changed to HEVC, all other services use MPEG-4. All 8 services in one statmux	No
4			Sharing scenario (S0)	No sharing	DVB-T @23Mbit/s	MPEG2/ MPEG4	HD/SD	Holistic	04S0T1MMH-1
5	DVB-T2 @36Mbit/s	MPEG4/ HEVC			UHD/HD/SD	Holistic	05S0D2MHH-2	7 Services for Broadcaster B (1xUHD, 2xHD, 2xMC, 2xDC). 1xUHD and 1xHD service use HEVC, all other services MPEG-4. All 7 services in one statmux	No
6 - 1	Sharing scenario (S1)	Three broadcasters sharing each mux 1/3, 1/3, 1/3	DVB-T @23Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Sequestered	06S1T1MMS-1	3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~ 7Mbps for each Broadcaster.	No
6 - 2							06S1T1MMS-2	3 services for Broadcaster A (1x HD, 1x MC, 1x DC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~7Mbps for each Broadcaster.	No

7 - 1			DVB-T @23Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Holistic	07S1T1E1H-1	3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux.	No		
8 - 1			DVB-T2 @36Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Sequestered	08S1D2E1S-1	3 services for Broadcaster A (1x HD, 2x MC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~11.5Mbps for each Broadcaster.	No		
8 - 2							08S1D2E1S-2	3 services for Broadcaster A (1xHD, 1xMC, 1xDC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~11.5Mbps for each Broadcaster.	No		
9 - 1			DVB-T2 @36Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Holistic	09S1D2E1H-1	3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux	No		
9 - 2							09S1D2E1H-2	3 services for Broadcaster A (1xHD, 1xMC, 1x DC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux	No		
10 - 1			DVB-T2 @36Mbit/s	Codec scenario (E2) MPEG4	HD only	Holistic	10S1D2E2H-1	2 services for Broadcaster A (2xHD). Same 2 for Broadcaster B and Broadcaster C. All 6 services in one statmux	No		
10 - 2				SD remnants	SD only	Holistic	10S1D2E2H-2	Remaining 12 SD services in second mux	No		
11			DVB-T2 @36Mbit/s	Codec scenario (E3) HEVC/ MPEG4	UHD/HD	Holistic	11S1D2E3H	1 service for Broadcaster A (1xUHD). Same for Broadcaster B and Broadcaster C. All 3 services in one statmux	No		
12 - 1	Sharing scenario (S2)	Two broadcasters sharing 2/3, 1/3	DVB-T @23Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Sequestered	12S2T1E1S-1	6 services for Broadcaster A (2xHD, 4xMC) stat-muxed @ ~14Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1xDC) stat-muxed @ ~7Mbps	Yes		
12 - 2								Sequestered	12S2T1E1S-2	6 services for Broadcaster C (2xHD, 2xMC, 2xDC) stat-muxed @ ~14Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1xDC) stat-muxed @ ~7Mbps	Yes
13 - 1					DVB-T @23Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Holistic	13S2T1E1H-1	6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux	Yes
13 - 2								Holistic	13S2T1E1H-2	6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux.	Yes
14 - 1					DVB-T2 @36Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Sequestered	14S2D2E1S-1	6 services for Broadcaster A (2xHD, 2xMC, 2x DC) statmuxed @ ~24Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1x DC) statmuxed @ ~12Mbps	No
14 - 2								Sequestered	14S2D2E1S-2	6 services for Broadcaster C (2xHD, 2xSD, 2xDC) statmuxed@ ~24Mbps. 3 services for Broadcaster B (1xHD, 1xSD, 1xDC) statmuxed @ ~12Mbps	No
15 - 1					DVB-T2 @36Mbit/s	Codec scenario	HD/SD	Holistic	15S2D2E1H-1	6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux	Yes

15 - 2				(E1) MPEG4		Holistic	15S2D2E1H-2	6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux.	Yes
16 - 1			DVB-T2 @36Mbit/s	Codec scenario (E2) MPEG4	HD only	Holistic	16S2D2E2H-1	6 services for Broadcaster A (6xHD). 3 services for Broadcaster B (3xHD). All 9 services in one statmux	Yes
16 - 2					SD only	Holistic	16S2D2E2H-2	6 services for Broadcaster C (6xMC). 3 services for Broadcaster B (3xMC). All 9 services in one statmux	Yes
17 - 1			DVB-T2 @36Mbit/s	Codec scenario (E3) HEVC/ MPEG4	UHD/HD	Holistic	17S2D2E3H-1	3 services for Broadcaster A (1xUHD, 2xHD). 1 service for Broadcaster B (1xUHD). All 4 services in one statmux	Yes
17 - 2						Holistic	17S2D2E3H-2	3 services for Broadcaster C (1xUHD, 2xHD). 2 services for Broadcaster B (2xHD). All 5 services in one statmux	Yes
18	Sharing scenario (S3)	Two broadcasters sharing 1/2, 1/2	DVB-T @23Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Holistic	18S3T1E1H	6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 6 services for Broadcaster B (2xHD, 2xMC, 2xDC). All 12 services in one statmux	No
19			DVB-T2 @36Mbit/s	Codec scenario (E1) MPEG4	HD/SD	Sequestered	19S3D2E1S	6 services for Broadcaster A (2xHD, 2xMC, 2xDC) statmuxed @ ~18Mbps. 6 services for Broadcaster B (2xHD, 2xMC, 2xDC) statmuxed @ ~18Mbps	No
20						Holistic	20S3D2E1H	6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 6 services for Broadcaster B (2xHD, 2xMC, 2xDC). All 12 services in one statmux	No
21			DVB-T2 @36Mbit/s	Codec scenario (E2) MPEG4	HD only	Holistic	21S3D2E2H	6 services for Broadcaster A (6xHD). 6 services for Broadcaster B (6xHD). All 12 services in one statmux	No
22			DVB-T2 @36Mbit/s	Codec scenario (E3) HEVC/ MPEG4	UHD/HD	Holistic	22S3D2E3H	2 services for Broadcaster A (1xUHD, 1xHD). 2 services for Broadcaster B (1xUHD, 1xHD). All 4 services in one statmux	No
23 - 1	Sharing scenario (S4)	2 muxes 50/50, 1 mux 50/10/10/10/ 10/10	DVB-T @23Mbit/s	Codec scenario (B) MPEG4	HD/SD	Sequestered	23S4T1E1S-1	5 services for Broadcaster A (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps. 5 services for Broadcaster B (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps.	No
23 - 2							23S4T1E1S-2	5 services for Broadcaster C (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps. 5xDC services (one each for Broadcaster A, B, C, D & E) statmuxed @ ~11.5Mbps	No
24 - 1			DVB-T2 @36Mbit/s		HD/SD	Sequestered	24S4D2E1S-1	5 services for Broadcaster A (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps. 5 services for Broadcaster B (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps.	No

24 - 2				Codec scenario (B) MPEG4			24S4D2E1S-2	5 services for Broadcaster C (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps. 5xDC services (one each for Broadcaster A, B, C, D & E) statmuxed @ ~18Mbps	No
25 - 1	Sharing scenario (S5)	Five broadcasters share each mux 1/5, 1/5, 1/5, 1/5, 1/5	DVB-T @23Mbit/s	Codec scenario (B) MPEG4	HD/SD	Holistic	25S5T1E1H-1	5xHD services (one for each Broadcaster A, B, C, D & E). 5x DC services (one for each Broadcaster A, B, C, D & E). All 10 services in one statmux	No
25 - 2							25S5T1E1H-2	10xMC services (two for each Broadcaster A, B, C, D & E). All 10 services in one statmux	No
26 - 1			DVB-T2 @36Mbit/s	Codec scenario (B) MPEG4	HD/SD	Holistic	26S5D2E1H-1	5xHD services (one for each Broadcaster A, B, C, D & E). 5x DC services (one for each Broadcaster A, B, C, D & E). All 10 services in one statmux	No
26 - 2							26S5D2E1H-2	10xMC services (two for each Broadcaster A, B, C, D & E). All 10 services in one statmux	No
27 - 1	Sharing scenario (S6)	Two broadcasters share on mux 50/50 + 10% in a 60/30/10 mux	DVB-T @23Mbit/s	Codec scenario (B) MPEG4	HD/SD	Holistic	27S6T1E1H-1	6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster D (1xDC). All 10 services in one statmux.	No
27 - 2							27S6T1E1H-2	6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster E (1xDC). All 10 services in one statmux	No
28 - 1			DVB-T2 @36Mbit/s	Codec scenario (B) MPEG4	HD/SD	Holistic	28S6D2E1H-1	6 services for Broadcaster A (2xHD, 2x MC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster D (1xDC). All 10 services in one statmux.	No
28 - 2							28S6D2E1H-2	6 services for Broadcaster C (2xHD, 2x MC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster E (1xDC). All 10 services in one statmux	No

4. Results

4.1 Summary and observations

Receiver performance results were generally as anticipated. As the test transport streams were structurally very similar to on-air transport streams broadcast across Australia, television receivers were expected to behave in a similar manner with respect to service discovery, basic navigation, and service decoding. Cross-carriage of EIT and SDT data did not adversely affect receiver performance, with most receivers compiling an accurate EPG consisting of services contained in the paired multiplexes.

TV receivers occasionally exhibited odd behaviors. While each situation was unique, in almost all cases, these were resolved with either a factory default reset of the receiver, a power cycle of the receiver, or both. Very occasionally, multiple reset cycles were required. This process would take place under supervision if testers raised unusual TV behavior issues with broadcasting supervisors. If the unusual behavior reoccurred, the TV was power cycled again, and a repeat restoration to factory default settings carried out and testing recommenced again. If the unusual behavior was still present, the behavior was recorded on the testing record sheets. Odd behavior of some TV's was not entirely unexpected given the variety of transport streams presented to the receivers on a typical day of testing. Receivers were power cycled between scenario tests, with variations in the duration of the power off period. Receivers were powered off at night. As the incidence of odd receiver behavior increased towards the end of each day, evidence would suggest that some receivers required very long power off durations (in the order of tens of minutes) to fully clear some stored information.

Several of the following observations are repeated in section 3.2 of the main report. They have been retained here for convenience when referring to individual scenario results in sections 4.2 to 4.26 of this attachment.

Some unexpected EPG data retention or loss was observed from time to time, with some receivers more prone to this phenomenon than others. Most often, EPG data was retained by receivers for services that had been removed by shutting down the RF channel carrying one multiplex. In a very small number of cases, TVs retained only remnants of EPG data from services no longer present. This did not otherwise disrupt the functioning of the receivers. If testers selected one of the removed services via an EPG navigation function, the TVs would usually display a message advising the service was not available. As anticipated, most receivers in the sample retained LCN and channel name information but did not retain EPG program data for removed services.

In the final week of testing, a small number of televisions failed to successfully discover services carried on VHF Ch-6 from the playout server. The affected receivers successfully discovered services operating on VHF Ch-6 using an off-air antenna. They also successfully discovered services on any other RF channel produced by the playout server. All receiver tests from that point forward requiring a second RF channel were performed using the same modulator card but operating on a different RF channel from the playout server. Evidence suggests a limitation with the modulator card.

UHD resolution video content present in the test transport streams was not displayed by receivers containing HD resolution LCD panels, indicating down-scaling by receivers is not offered.

Some breakup was noted on UHD content during testing. This was investigated thoroughly and was traced to a problem with the source material prior to encoding. The picture breakup was not an encoding artifact during the transport stream creation process. Where possible, this content was replaced, and the transport streams re-made prior to PQ assessments.

Audio description (AD) was included in a selection of UHD, HD and MC services using the HE-AAC codec. AD was included as a precursor to likely requirements soon for broadcasters to carry such services. The AD track carried program audio at a lower volume than the main program audio track. Testers often noted hearing an 'echo' when AD was present. Some receivers allowed the AD track to be isolated, others entered 'receiver-mix' mode (where the AD track is mixed with the main program audio by the TV, creating a perceivable echo). AD functionality testing was not included in the scope of the project; however, these functionality issues were captured by testers on several receiver testing record sheets. Further investigation of the test transport streams revealed the SI descriptor used signaled AD as present and intended to be a receiver-mix, confirming the perceived echo issue was related to transport stream design rather than receiver functionality and the affected receivers had behaved appropriately. Should AD be implemented in the future, this issue would be caught through more thorough transport stream design and fine-tuning than was possible during the current project.

At the start of each scenario test, receivers were reset to their 'Factory Default' or 'Shipping' mode. Factory reset functionality was often difficult to locate in the menu structure. Differing terminology, such as 'factory reset', 'reset', 'set-up' and 'shipping', were all used to describe the basic function of returning the receiver to factory settings. Some models included an easier to find 'restart' function, which did not clear any settings, but rather served as a pseudo power cycle. Testers became familiar with these subtleties, although it is worthy of mention as advice to viewers experiencing receiver behavior problems is usually to first perform a reset to factory settings and rescan. This advice needs to consider that terminology and menu navigation to achieve a factory default reset is often not intuitive.

A few subtle receiver capability differences were noted with some combinations of codec, video resolution and scanning format not supported by some receivers. These are described in Table 10 in section 3.2.1 of the main report and reproduced below as Table 4 of this attachment for convenience. One of these subtleties led to some misreporting of functionality of receiver #32. This receiver was capable of decoding HEVC material and performed normally with interlaced scanned content. However, the picture suffered from a very low display frame rate, of approximately 3-4 frames per second, when presented with progressively scanned content. Testers recorded HEVC progressive content services as 'working', whereas this should have been recorded as 'failed'. Where appropriate, these details are noted in the results for the relevant scenarios.

Table 4 Demodulation and decoding capabilities of the receiver sample

No	DVB-T	DVB-T2				
	MPEG4	MPEG4	HEVC			AC4 Audio
	HD (i)	HD (i)	HD (i)	HD (p)	UHD (p)	
1	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✗	✗
5	✓	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✗	✗
7	✓	✓	✓	✓	✓	✓
8	✓	✓	✓	✓	✓	✓
9	✓	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓	✓
11	✓	✓	✓	✓	✓	✗
12	✓	✓	✓	✓	✓	✓
13	✓	✓	✓	✓	✗	✗
14	✓	✓	✓	✓	✗	✗
15	✓	✓	✓	✓	✓	✓
16	✓	✓	✓	✓	✗	✗
17	✓	✓	✓	✓	✓	✓
18	✓	✓	✓	✓	✓	✓
19	✓	✓	✓	✓	✗	✗
20	✓	✓	✓	✓	✗	✓
21	✓	✓	✓	✓	✓	✓
22	✓	✓	✓	✓	✓	✓
23	✓	✓	✓	✓	✓	✓
24	✓	✗	✗	✗	✗	✗
25	✓	✓	✓	✓	✓	✓
26	✓	✓	✓	✓	✓	✗
27	✓	✓	✓	✓	✗	✓
28	✓	✓	✓	✓	✗	✗
29	✓	✓	✓	✓	✓	✓
30	✓	✓	✓	✓	✗	✗
31	✓	✓	✓	✓	✗	✓
32	✓	✓	✓	✗	✗	✓
33	✓	✓	✗	✗	✗	✓

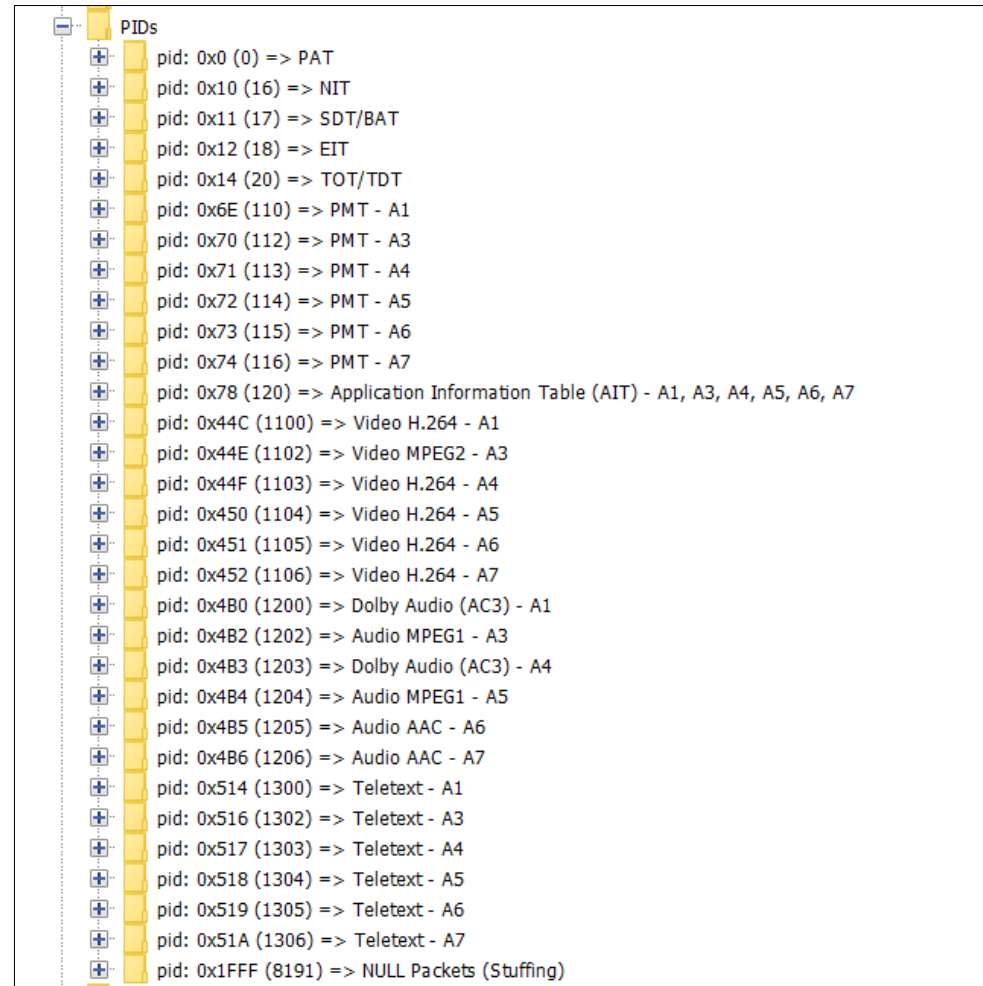
Sections 4.2 to 4.26 below record the details of receiver performance with each shared multiplex scenario. The programs carried in each scenario transport stream are provided, along with a photograph of the DekTec StreamXpress server in use for each test. The results of each TV receiver's behavior for each scenario are tabulated and any instances where receivers did not perform as expected are noted with an explanation of the observed behavior.

DVB-T, no sharing, MPEG2 & MPEG4, HD & SD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.2.1 Description of test stream 04SOT1MMH

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). All 6 services in one stat-mux. Similar to Scenario #1, with MC/MPEG-2 simulcast of main HD service.

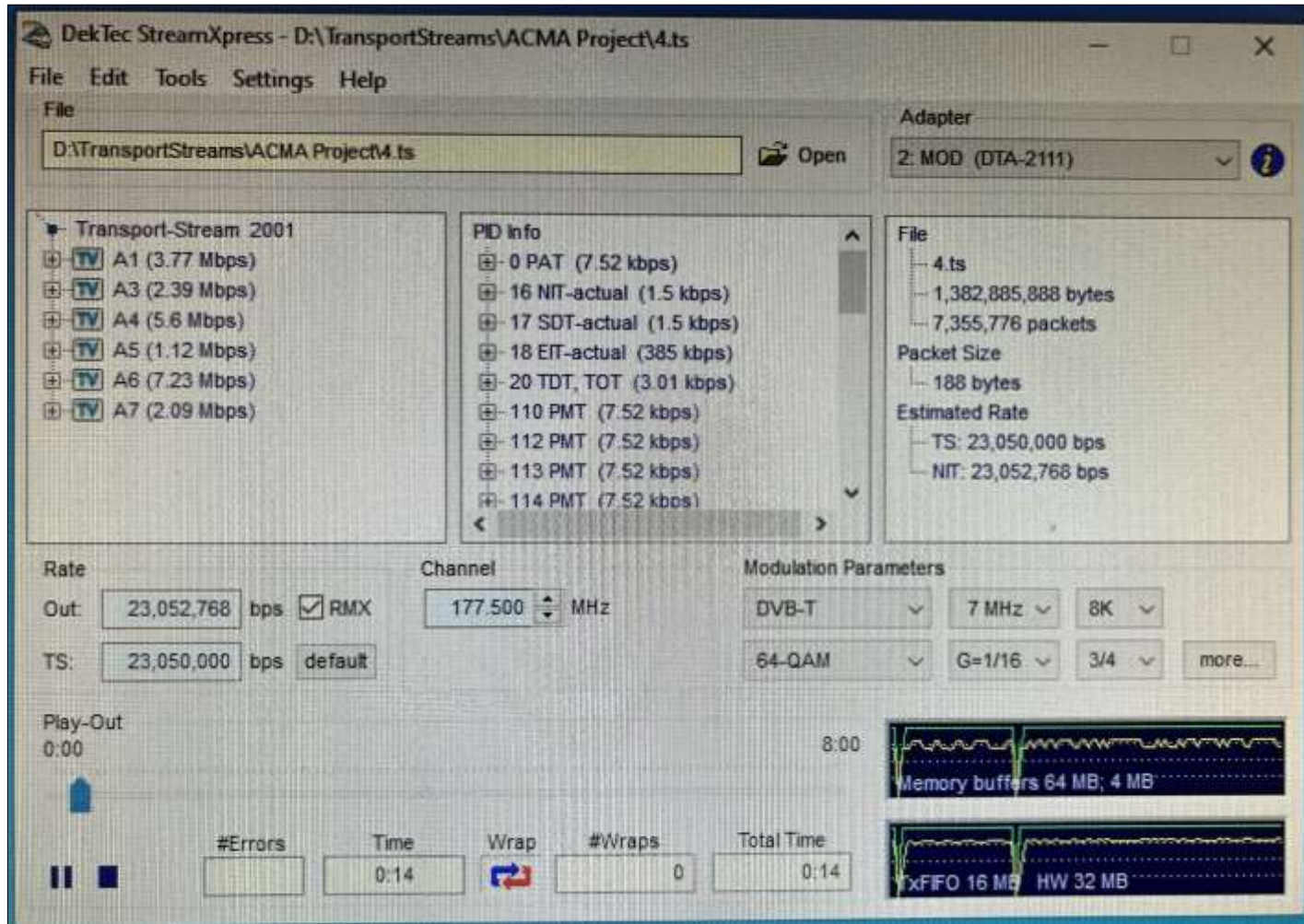
Figure 2 PID listing for 04SOT1MMH-1



pid	Service Name
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - A1
0x70 (112)	PMT - A3
0x71 (113)	PMT - A4
0x72 (114)	PMT - A5
0x73 (115)	PMT - A6
0x74 (116)	PMT - A7
0x78 (120)	Application Information Table (AIT) - A1, A3, A4, A5, A6, A7
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video MPEG2 - A3
0x44F (1103)	Video H.264 - A4
0x450 (1104)	Video H.264 - A5
0x451 (1105)	Video H.264 - A6
0x452 (1106)	Video H.264 - A7
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	Audio MPEG1 - A3
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x4B4 (1204)	Audio MPEG1 - A5
0x4B5 (1205)	Audio AAC - A6
0x4B6 (1206)	Audio AAC - A7
0x514 (1300)	Teletext - A1
0x516 (1302)	Teletext - A3
0x517 (1303)	Teletext - A4
0x518 (1304)	Teletext - A5
0x519 (1305)	Teletext - A6
0x51A (1306)	Teletext - A7
0x1FFF (8191)	NULL Packets (Stuffing)

4.2.2 *Playout of Scenario #4*

Photograph 1 Server playing stream 4 04SOT1MMH-1



4.2.3 Results for sharing scenario #4

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	*1	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

*1. Tester reported that EPG data loading was noticeably slower than other TV's.

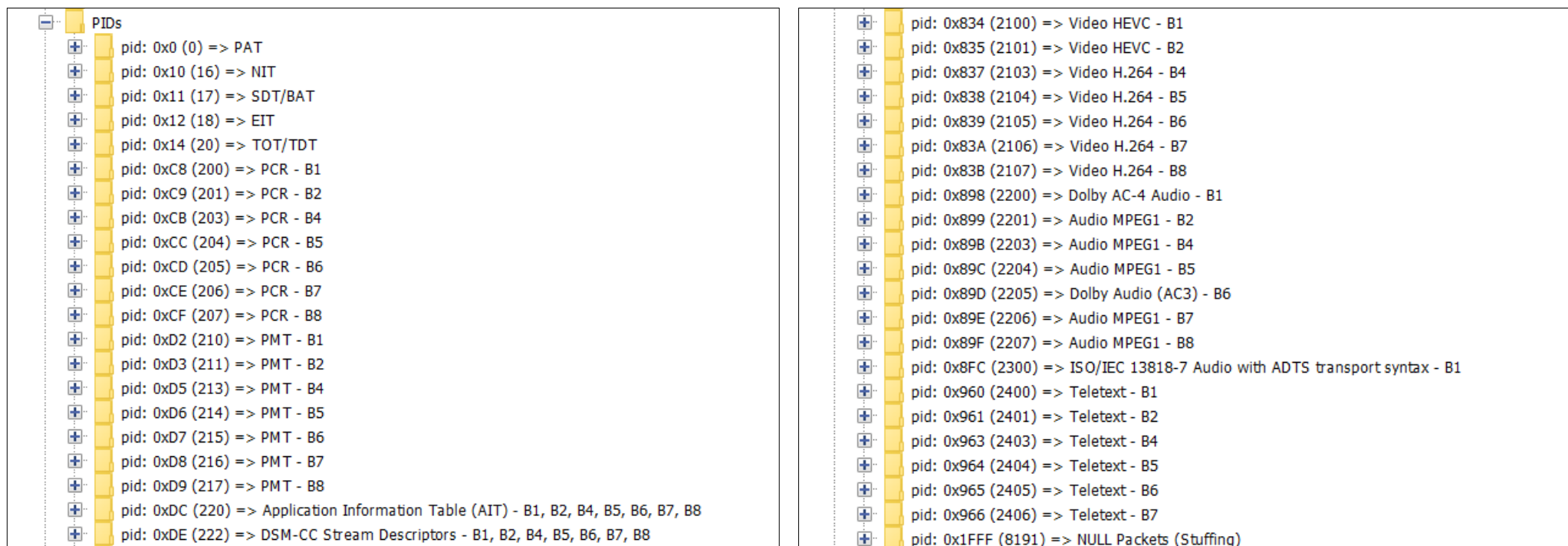
4.3 Sharing Scenario #5

DVB-T2, no sharing, MPEG4 & HEVC, SD, HD & UHD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.3.1 Description of test stream 05S0D2MHH-2

7 Services for Broadcaster B (1xUHD, 2xHD, 2xMC, 2xDC). 1xUHD and 1xHD service use HEVC, all other services MPEG-4. All 7 services in one statmux.

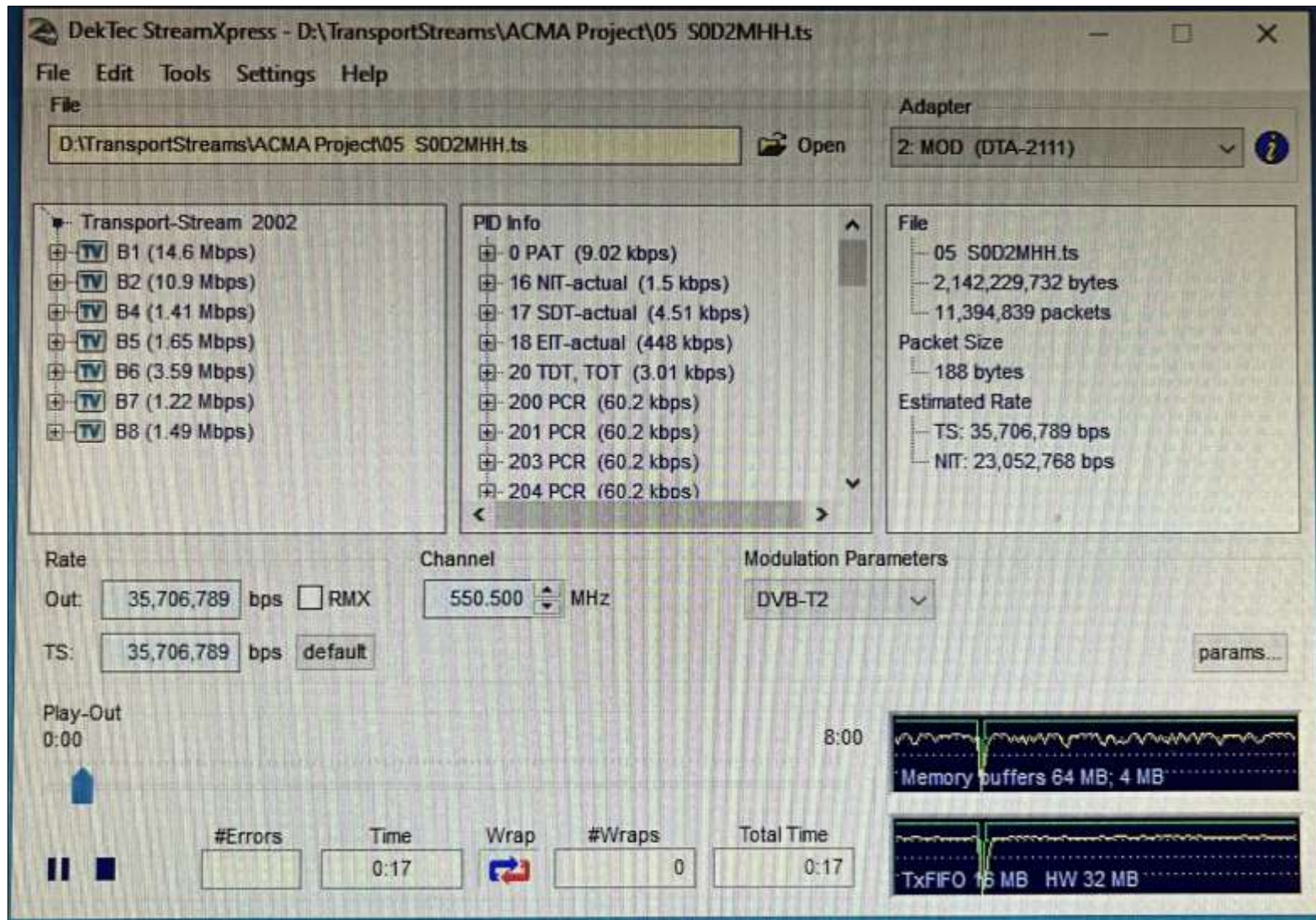
Figure 3 PID listing for 05S0D2MHH



PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0xC8 (200) =>	PCR - B1
pid: 0xC9 (201) =>	PCR - B2
pid: 0xCB (203) =>	PCR - B4
pid: 0xCC (204) =>	PCR - B5
pid: 0xCD (205) =>	PCR - B6
pid: 0xCE (206) =>	PCR - B7
pid: 0xCF (207) =>	PCR - B8
pid: 0xD2 (210) =>	PMT - B1
pid: 0xD3 (211) =>	PMT - B2
pid: 0xD5 (213) =>	PMT - B4
pid: 0xD6 (214) =>	PMT - B5
pid: 0xD7 (215) =>	PMT - B6
pid: 0xD8 (216) =>	PMT - B7
pid: 0xD9 (217) =>	PMT - B8
pid: 0xDC (220) =>	Application Information Table (AIT) - B1, B2, B4, B5, B6, B7, B8
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - B1, B2, B4, B5, B6, B7, B8
pid: 0x834 (2100) =>	Video HEVC - B1
pid: 0x835 (2101) =>	Video HEVC - B2
pid: 0x837 (2103) =>	Video H.264 - B4
pid: 0x838 (2104) =>	Video H.264 - B5
pid: 0x839 (2105) =>	Video H.264 - B6
pid: 0x83A (2106) =>	Video H.264 - B7
pid: 0x83B (2107) =>	Video H.264 - B8
pid: 0x898 (2200) =>	Dolby AC-4 Audio - B1
pid: 0x899 (2201) =>	Audio MPEG1 - B2
pid: 0x89B (2203) =>	Audio MPEG1 - B4
pid: 0x89C (2204) =>	Audio MPEG1 - B5
pid: 0x89D (2205) =>	Dolby Audio (AC3) - B6
pid: 0x89E (2206) =>	Audio MPEG1 - B7
pid: 0x89F (2207) =>	Audio MPEG1 - B8
pid: 0x8FC (2300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x960 (2400) =>	Teletext - B1
pid: 0x961 (2401) =>	Teletext - B2
pid: 0x963 (2403) =>	Teletext - B4
pid: 0x964 (2404) =>	Teletext - B5
pid: 0x965 (2405) =>	Teletext - B6
pid: 0x966 (2406) =>	Teletext - B7
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.3.2 Playout of Scenario #5

Photograph 2 Server playing stream 5 05S0D2MHH-2



4.3.3 Results for sharing scenario #5

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Fail
10	Notable anomalies	None	None	None	*4	None	*4	None	None	None	None	*2

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Pass
9	QEF audio decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	*4	*4	None	*4	None	None	*4	*6	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail	Fail
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	*5	None	None	*6	*4	None	*4	*6	*3	*6

*2. Receiver not AC4 capable.

*3. Receiver can correctly display HEVC interlace scanned content. Progressive scanned content displays, but with very low refresh rate.

*4. Receivers are not UHD or AC4 capable.

*5. Receiver not DVB-T2 capable.

*6. Receivers are not HEVC capable. Receivers are AC4 capable.

4.4 Sharing Scenario #6

DVB-T, sharing 1/3, 1/3, 1/3, MPEG4, HD & SD, Sequestered Statistical Multiplex. SDT-other and EIT-other NOT present

4.4.1 Description of test stream 06S1T1MMS-1

3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~ 7Mbps for each Broadcaster.

Figure 4 PID listing for 06S1T1MMS-1

PIDs	
pid: 0x0 (0) => PAT	pid: 0x834 (2100) => Video H.264 - B1
pid: 0x10 (16) => NIT	pid: 0x837 (2103) => Video H.264 - B4
pid: 0x11 (17) => SDT/BAT	pid: 0x838 (2104) => Video H.264 - B5
pid: 0x12 (18) => EIT	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x14 (20) => TOT/TDT	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x6A (106) => PMT - A7	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x6E (110) => PMT - A1	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x70 (112) => PMT - A3	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A7	pid: 0x960 (2400) => Teletext - B1
pid: 0xD2 (210) => PMT - B1	pid: 0x963 (2403) => Teletext - B4
pid: 0xD5 (213) => PMT - B4	pid: 0x964 (2404) => Teletext - B5
pid: 0xD6 (214) => PMT - B5	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0x136 (310) => PMT - C1	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0x138 (312) => PMT - C3	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x13B (315) => PMT - C6	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C6	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x44C (1100) => Video H.264 - A1	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x44E (1102) => Video H.264 - A3	pid: 0xD48 (3400) => Teletext - C1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0xD4A (3402) => Teletext - C3
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0xD4D (3405) => Teletext - C6
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7	
pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1	
pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	
pid: 0x578 (1400) => Teletext - A1	
pid: 0x57A (1402) => Teletext - A3	
pid: 0x57E (1406) => Teletext - A7	

4.4.2 Description of test stream 06S1T1MMS-2

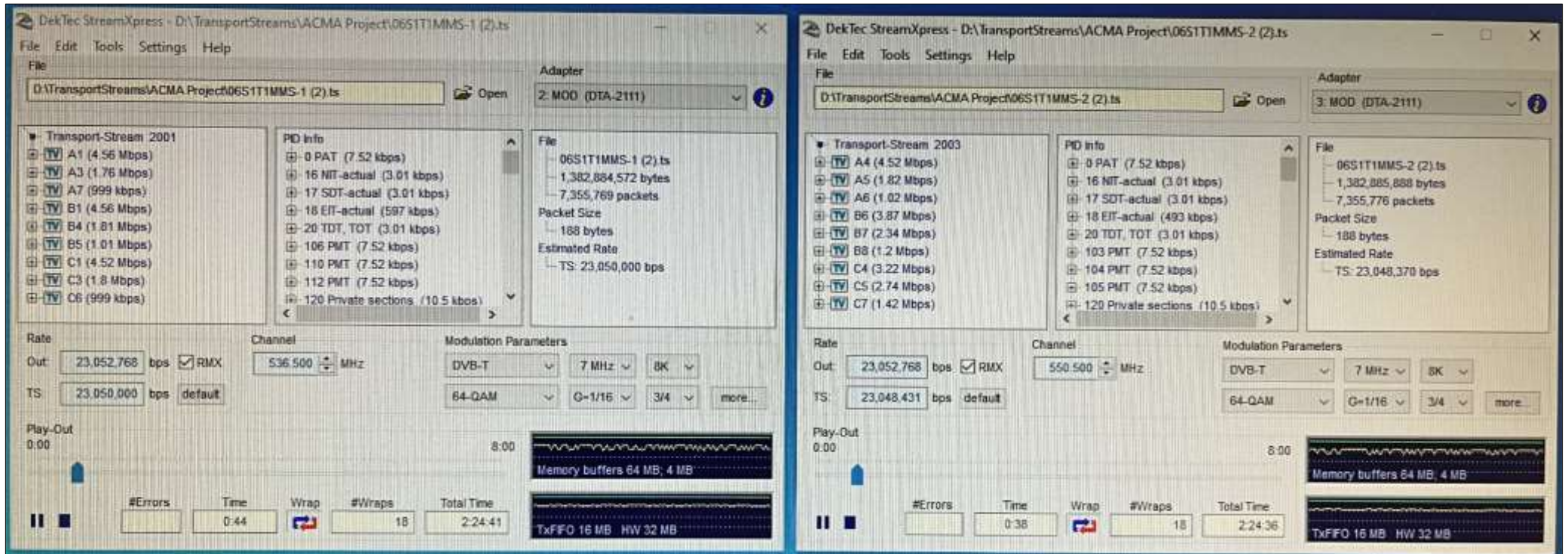
3 services for Broadcaster A (1x HD, 1x MC, 1x DC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~7Mbps for each Broadcaster.

Figure 5 PID listing for 06S1T1MMS-2

pid: 0x0 (0) => PAT	pid: 0x839 (2105) => Video H.264 - B6
pid: 0x10 (16) => NIT	pid: 0x83A (2106) => Video H.264 - B7
pid: 0x11 (17) => SDT/BAT	pid: 0x83B (2107) => Video H.264 - B8
pid: 0x12 (18) => EIT	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0x14 (20) => TOT/TDT	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x67 (103) => PMT - A4	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x68 (104) => PMT - A5	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x69 (105) => PMT - A6	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x78 (120) => Application Information Table (AIT) - A4, A5, A6	pid: 0x965 (2405) => Teletext - B6
pid: 0xD7 (215) => PMT - B6	pid: 0x966 (2406) => Teletext - B7
pid: 0xD8 (216) => PMT - B7	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0xD9 (217) => PMT - B8	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0x139 (313) => PMT - C4	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x13A (314) => PMT - C5	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x13C (316) => PMT - C7	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x140 (320) => Application Information Table (AIT) - C4, C5, C7	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x44F (1103) => Video H.264 - A4	pid: 0xD4B (3403) => Teletext - C4
pid: 0x450 (1104) => Video H.264 - A5	pid: 0xD4C (3404) => Teletext - C5
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	
pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4	
pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x57B (1403) => Teletext - A4	
pid: 0x57C (1404) => Teletext - A5	
pid: 0x57D (1405) => Teletext - A6	

4.4.3 *Playout of Scenario #6*

Photograph 3 Server playing stream 6 pair 06S1T1MMS - 1 & 2



4.4.4 Results for sharing scenario #6

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	*7	None	None	None	None	*9	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	*9

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*7	*8	None	None	None	None	None	None	None	None	None

*7. Receivers retained all EPG data after removing test stream 06S1T1MMS-2 and a power cycle.

*8. Receivers retained most, but not all, EPG data after removing test stream 06S1T1MMS-2 and a power cycle.

*9. Receivers did not display EPG data from removed test stream 06S1T1MMS-2 and a power cycle. Appear not to have read EIT 'other' data. All data restored on stream return.

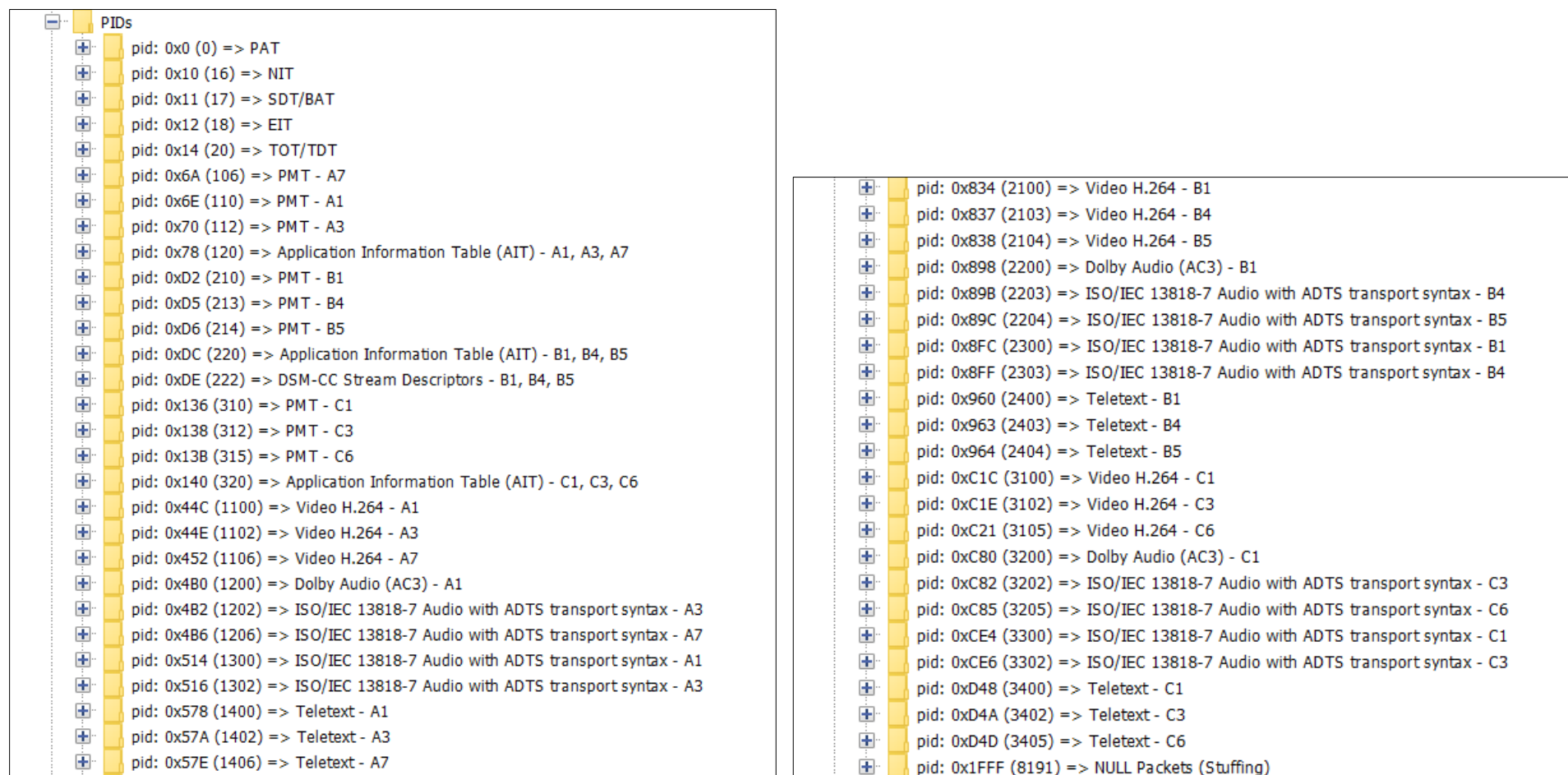
4.5 Sharing Scenario #7

DVB-T, sharing 1/3, 1/3, 1/3, MPEG4, HD & SD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.5.1 Description of test stream 07S1T1E1H-1

3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux.

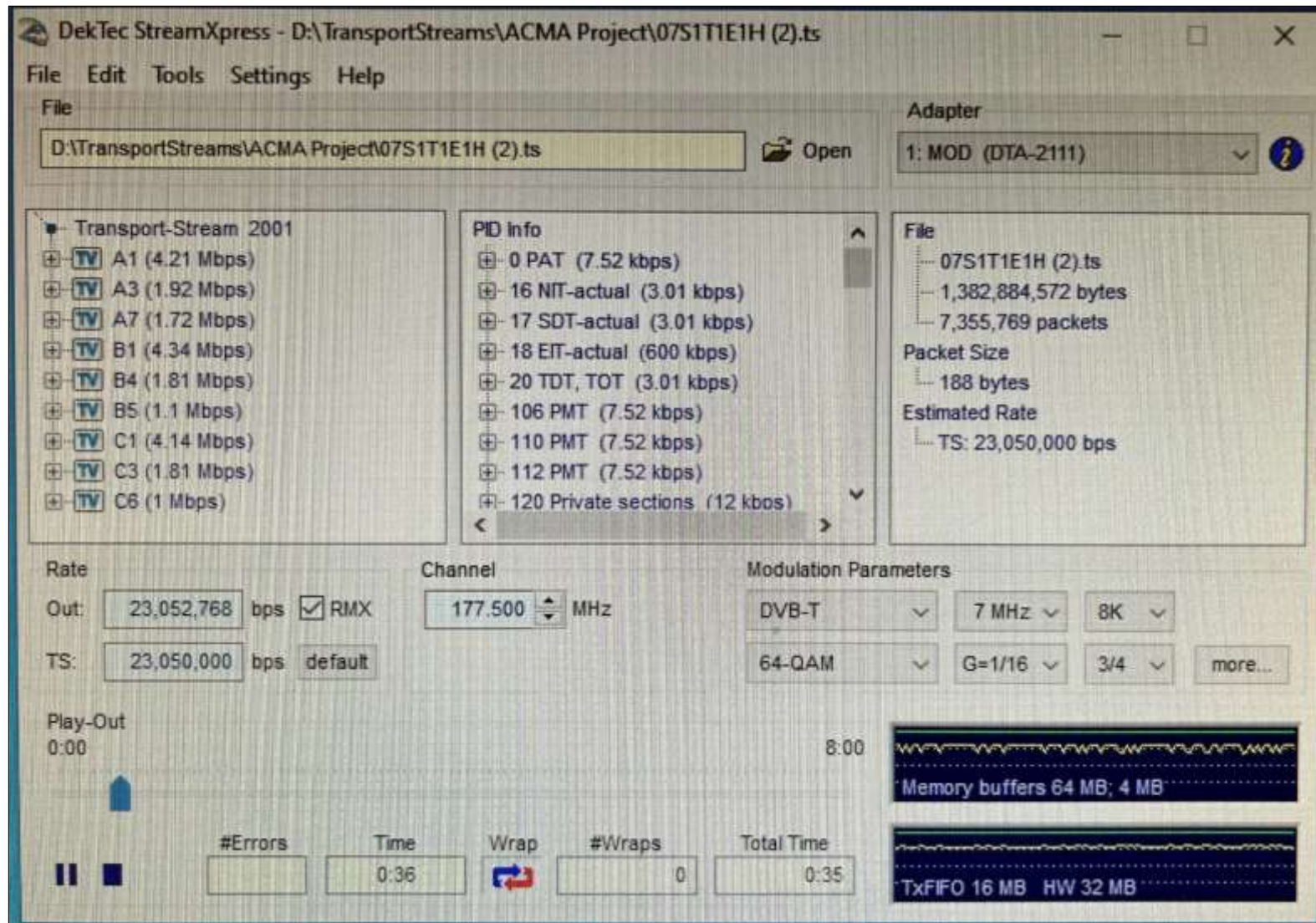
Figure 6 PID listing for 07S1T1E1H-1



pid	Service Type
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6A (106)	PMT - A7
0x6E (110)	PMT - A1
0x70 (112)	PMT - A3
0x78 (120)	Application Information Table (AIT) - A1, A3, A7
0xD2 (210)	PMT - B1
0xD5 (213)	PMT - B4
0xD6 (214)	PMT - B5
0xDC (220)	Application Information Table (AIT) - B1, B4, B5
0xDE (222)	DSM-CC Stream Descriptors - B1, B4, B5
0x136 (310)	PMT - C1
0x138 (312)	PMT - C3
0x13B (315)	PMT - C6
0x140 (320)	Application Information Table (AIT) - C1, C3, C6
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video H.264 - A3
0x452 (1106)	Video H.264 - A7
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x4B6 (1206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x578 (1400)	Teletext - A1
0x57A (1402)	Teletext - A3
0x57E (1406)	Teletext - A7
0x834 (2100)	Video H.264 - B1
0x837 (2103)	Video H.264 - B4
0x838 (2104)	Video H.264 - B5
0x898 (2200)	Dolby Audio (AC3) - B1
0x89B (2203)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x89C (2204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x960 (2400)	Teletext - B1
0x963 (2403)	Teletext - B4
0x964 (2404)	Teletext - B5
0xC1C (3100)	Video H.264 - C1
0xC1E (3102)	Video H.264 - C3
0xC21 (3105)	Video H.264 - C6
0xC80 (3200)	Dolby Audio (AC3) - C1
0xC82 (3202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
0xC85 (3205)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
0xCE4 (3300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
0xCE6 (3302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
0xD48 (3400)	Teletext - C1
0xD4A (3402)	Teletext - C3
0xD4D (3405)	Teletext - C6
0x1FFF (8191)	NULL Packets (Stuffing)

4.5.2 *Playout of Scenario #7*

Photograph 4 Server playing stream 7 07S1T1E1H



4.5.3 Results for sharing scenario #7

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	*10	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

*10. Receiver stopped decoding AC3 audio. Restored by factory reset of receiver and retune.

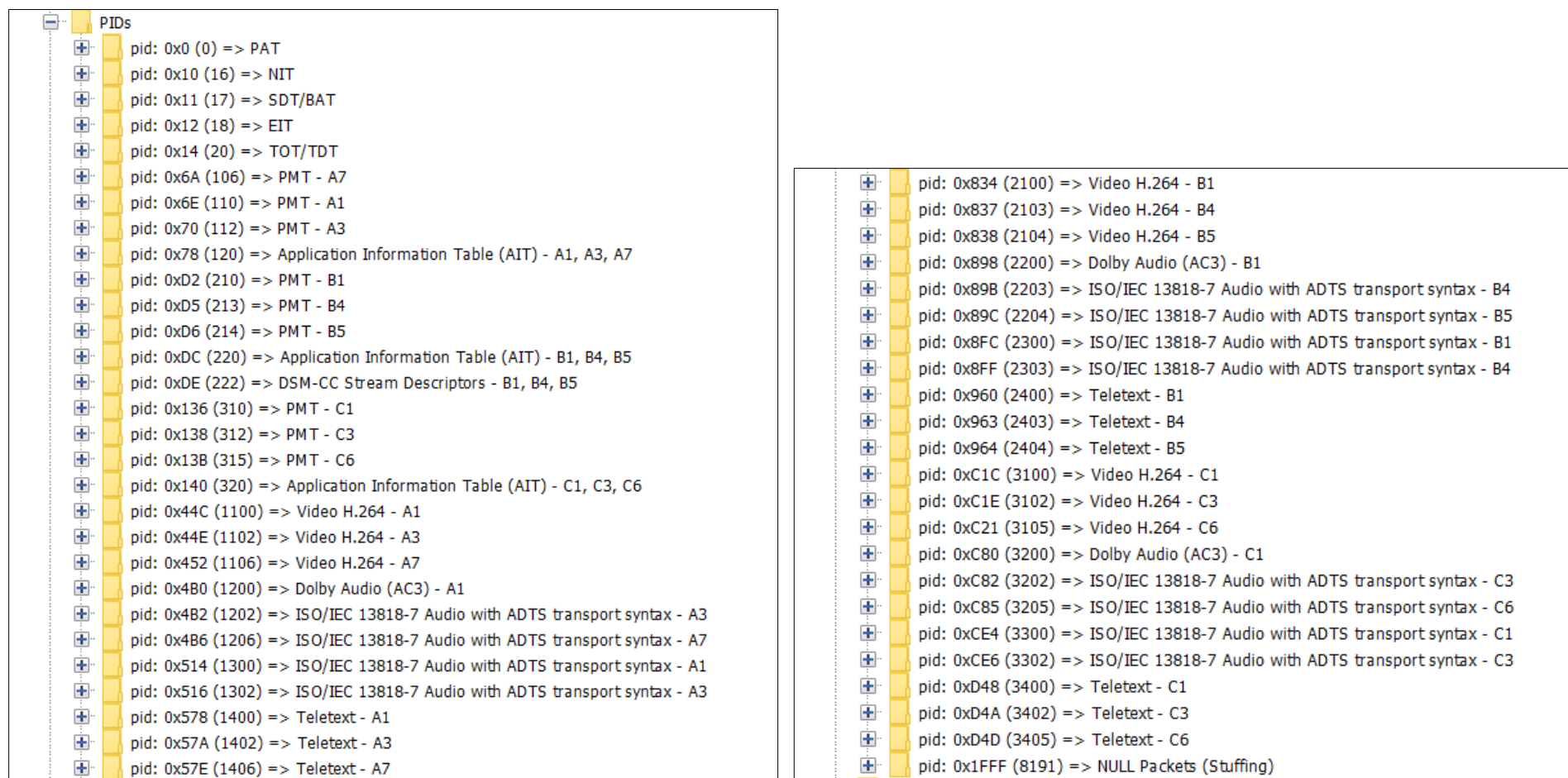
4.6 Sharing Scenario #8

DVB-T2, sharing 1/3, 1/3, 1/3, MPEG4, HD & SD, Sequestered Statistical Multiplex. SDT-other and EIT-other NOT present

4.6.1 Description of test stream 08S1D2E1S-1

3 services for Broadcaster A (1x HD, 2x MC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~11.5Mbps for each Broadcaster.

Figure 7 PID listing for 08S1D2E1S-1



PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0x6A (106) =>	PMT - A7
pid: 0x6E (110) =>	PMT - A1
pid: 0x70 (112) =>	PMT - A3
pid: 0x78 (120) =>	Application Information Table (AIT) - A1, A3, A7
pid: 0xD2 (210) =>	PMT - B1
pid: 0xD5 (213) =>	PMT - B4
pid: 0xD6 (214) =>	PMT - B5
pid: 0xDC (220) =>	Application Information Table (AIT) - B1, B4, B5
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - B1, B4, B5
pid: 0x136 (310) =>	PMT - C1
pid: 0x138 (312) =>	PMT - C3
pid: 0x13B (315) =>	PMT - C6
pid: 0x140 (320) =>	Application Information Table (AIT) - C1, C3, C6
pid: 0x44C (1100) =>	Video H.264 - A1
pid: 0x44E (1102) =>	Video H.264 - A3
pid: 0x452 (1106) =>	Video H.264 - A7
pid: 0x4B0 (1200) =>	Dolby Audio (AC3) - A1
pid: 0x4B2 (1202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x4B6 (1206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x514 (1300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x516 (1302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x578 (1400) =>	Teletext - A1
pid: 0x57A (1402) =>	Teletext - A3
pid: 0x57E (1406) =>	Teletext - A7
pid: 0x834 (2100) =>	Video H.264 - B1
pid: 0x837 (2103) =>	Video H.264 - B4
pid: 0x838 (2104) =>	Video H.264 - B5
pid: 0x898 (2200) =>	Dolby Audio (AC3) - B1
pid: 0x89B (2203) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x89C (2204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x8FC (2300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x8FF (2303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x960 (2400) =>	Teletext - B1
pid: 0x963 (2403) =>	Teletext - B4
pid: 0x964 (2404) =>	Teletext - B5
pid: 0xC1C (3100) =>	Video H.264 - C1
pid: 0xC1E (3102) =>	Video H.264 - C3
pid: 0xC21 (3105) =>	Video H.264 - C6
pid: 0xC80 (3200) =>	Dolby Audio (AC3) - C1
pid: 0xC82 (3202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC85 (3205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xCE4 (3300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xD48 (3400) =>	Teletext - C1
pid: 0xD4A (3402) =>	Teletext - C3
pid: 0xD4D (3405) =>	Teletext - C6
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.6.2 Description of test stream 08S1D2E1S-2

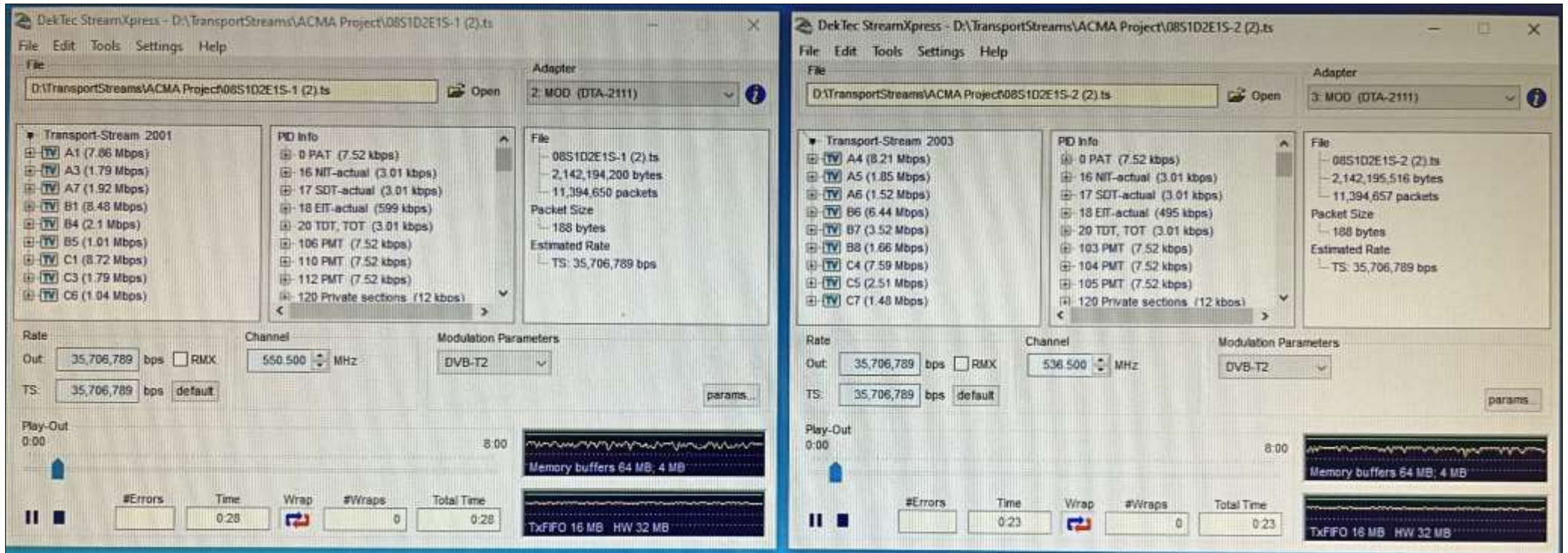
3 services for Broadcaster A (1xHD, 1xMC, 1xDC). Same 3 for Broadcaster B and Broadcaster C. Sequestered @ ~11.5Mbps for each Broadcaster.

Figure 8 PID listing for 08S1D2E1S-2

PIDs	
pid: 0x0 (0) => PAT	
pid: 0x10 (16) => NIT	
pid: 0x11 (17) => SDT/BAT	
pid: 0x12 (18) => EIT	
pid: 0x14 (20) => TOT/TDT	
pid: 0x67 (103) => PMT - A4	
pid: 0x68 (104) => PMT - A5	
pid: 0x69 (105) => PMT - A6	
pid: 0x78 (120) => Application Information Table (AIT) - A4, A5, A6	
pid: 0xD7 (215) => PMT - B6	
pid: 0xD8 (216) => PMT - B7	
pid: 0xD9 (217) => PMT - B8	
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	
pid: 0x139 (313) => PMT - C4	
pid: 0x13A (314) => PMT - C5	
pid: 0x13C (316) => PMT - C7	
pid: 0x140 (320) => Application Information Table (AIT) - C4, C5, C7	
pid: 0x44F (1103) => Video H.264 - A4	
pid: 0x450 (1104) => Video H.264 - A5	
pid: 0x451 (1105) => Video H.264 - A6	
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	
pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4	
pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x57B (1403) => Teletext - A4	
pid: 0x57C (1404) => Teletext - A5	
pid: 0x57D (1405) => Teletext - A6	
pid: 0x839 (2105) => Video H.264 - B6	
pid: 0x83A (2106) => Video H.264 - B7	
pid: 0x83B (2107) => Video H.264 - B8	
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	
pid: 0xC1F (3103) => Video H.264 - C4	
pid: 0xC20 (3104) => Video H.264 - C5	
pid: 0xC22 (3106) => Video H.264 - C7	
pid: 0xC83 (3203) => Dolby Audio (AC3) - C4	
pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5	
pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7	
pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4	
pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5	
pid: 0xD4B (3403) => Teletext - C4	
pid: 0xD4C (3404) => Teletext - C5	
pid: 0x1FFF (8191) => NULL Packets (Stuffing)	

4.6.3 Playout of Scenario #8

Photograph 5 Server playing stream 8 pair 08S1D2E1S - 1 & 2



4.6.4 Results for sharing scenario #8

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Fail	Pass	Pass	Pass	*12	Pass	*12	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	*11	None	None	None	None	None	None	None	None	None

*11. Receiver not DVB-T2 capable.

*12. The tester reported inability to navigate between channels using EPG. Further investigation found operator had not noticed the TV was changing channels correctly behind EPG display.

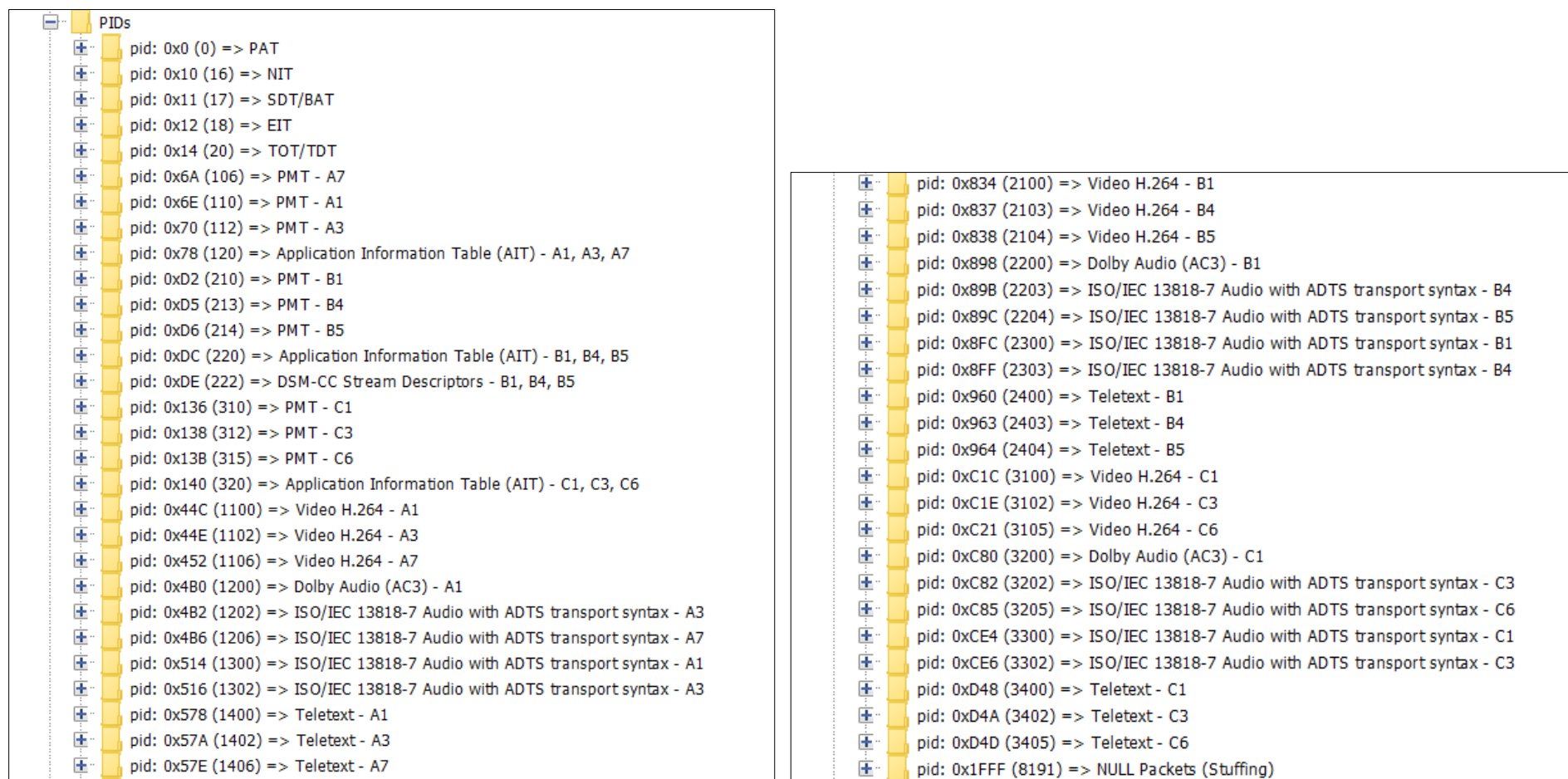
4.7 Sharing Scenario #9

DVB-T2, sharing 1/3, 1/3, 1/3, MPEG4, HD & SD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.7.1 Description of test stream 09S1D2E1H-1

3 services for Broadcaster A (1xHD, 2xMC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux

Figure 9 PID listing for 09S1D2E1H-1



PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0x6A (106) =>	PMT - A7
pid: 0x6E (110) =>	PMT - A1
pid: 0x70 (112) =>	PMT - A3
pid: 0x78 (120) =>	Application Information Table (AIT) - A1, A3, A7
pid: 0xD2 (210) =>	PMT - B1
pid: 0xD5 (213) =>	PMT - B4
pid: 0xD6 (214) =>	PMT - B5
pid: 0xDC (220) =>	Application Information Table (AIT) - B1, B4, B5
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - B1, B4, B5
pid: 0x136 (310) =>	PMT - C1
pid: 0x138 (312) =>	PMT - C3
pid: 0x13B (315) =>	PMT - C6
pid: 0x140 (320) =>	Application Information Table (AIT) - C1, C3, C6
pid: 0x44C (1100) =>	Video H.264 - A1
pid: 0x44E (1102) =>	Video H.264 - A3
pid: 0x452 (1106) =>	Video H.264 - A7
pid: 0x4B0 (1200) =>	Dolby Audio (AC3) - A1
pid: 0x4B2 (1202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x4B6 (1206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x514 (1300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x516 (1302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x578 (1400) =>	Teletext - A1
pid: 0x57A (1402) =>	Teletext - A3
pid: 0x57E (1406) =>	Teletext - A7
pid: 0x834 (2100) =>	Video H.264 - B1
pid: 0x837 (2103) =>	Video H.264 - B4
pid: 0x838 (2104) =>	Video H.264 - B5
pid: 0x898 (2200) =>	Dolby Audio (AC3) - B1
pid: 0x89B (2203) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x89C (2204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x8FC (2300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x8FF (2303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x960 (2400) =>	Teletext - B1
pid: 0x963 (2403) =>	Teletext - B4
pid: 0x964 (2404) =>	Teletext - B5
pid: 0xC1C (3100) =>	Video H.264 - C1
pid: 0xC1E (3102) =>	Video H.264 - C3
pid: 0xC21 (3105) =>	Video H.264 - C6
pid: 0xC80 (3200) =>	Dolby Audio (AC3) - C1
pid: 0xC82 (3202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC85 (3205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xCE4 (3300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xD48 (3400) =>	Teletext - C1
pid: 0xD4A (3402) =>	Teletext - C3
pid: 0xD4D (3405) =>	Teletext - C6
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.7.2 Description of test stream 09S1D2E1H-2

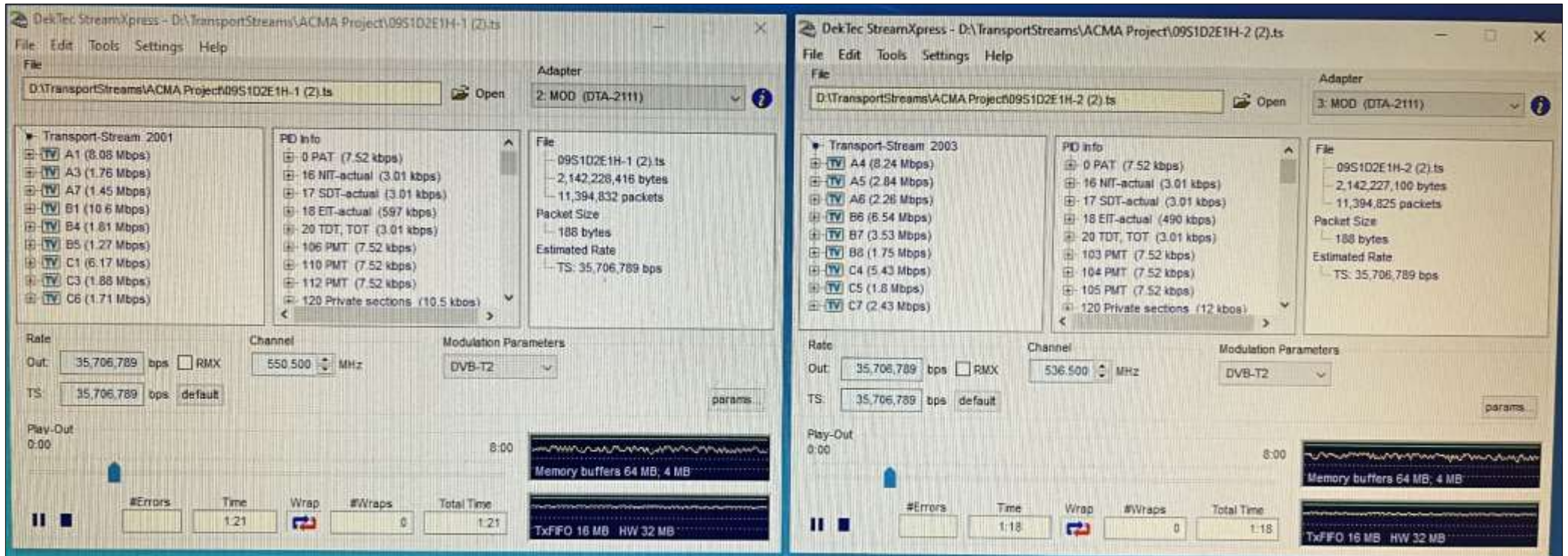
3 services for Broadcaster A (1xHD, 1xMC, 1x DC). Same 3 for Broadcaster B and Broadcaster C. All 9 services in one statmux

Figure 10 PID listing for 09S1D2E1H-2

PIDs	
pid: 0x0 (0) => PAT	
pid: 0x10 (16) => NIT	
pid: 0x11 (17) => SDT/BAT	
pid: 0x12 (18) => EIT	
pid: 0x14 (20) => TOT/TDT	
pid: 0x67 (103) => PMT - A4	
pid: 0x68 (104) => PMT - A5	
pid: 0x69 (105) => PMT - A6	
pid: 0x78 (120) => Application Information Table (AIT) - A4, A5, A6	
pid: 0xD7 (215) => PMT - B6	
pid: 0xD8 (216) => PMT - B7	
pid: 0xD9 (217) => PMT - B8	
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	
pid: 0x139 (313) => PMT - C4	
pid: 0x13A (314) => PMT - C5	
pid: 0x13C (316) => PMT - C7	
pid: 0x140 (320) => Application Information Table (AIT) - C4, C5, C7	
pid: 0x44F (1103) => Video H.264 - A4	
pid: 0x450 (1104) => Video H.264 - A5	
pid: 0x451 (1105) => Video H.264 - A6	
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	
pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4	
pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x57B (1403) => Teletext - A4	
pid: 0x57C (1404) => Teletext - A5	
pid: 0x57D (1405) => Teletext - A6	
pid: 0x839 (2105) => Video H.264 - B6	
pid: 0x83A (2106) => Video H.264 - B7	
pid: 0x83B (2107) => Video H.264 - B8	
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	
pid: 0xC1F (3103) => Video H.264 - C4	
pid: 0xC20 (3104) => Video H.264 - C5	
pid: 0xC22 (3106) => Video H.264 - C7	
pid: 0xC83 (3203) => Dolby Audio (AC3) - C4	
pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5	
pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7	
pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4	
pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5	
pid: 0xD4B (3403) => Teletext - C4	
pid: 0xD4C (3404) => Teletext - C5	
pid: 0x1FFF (8191) => NULL Packets (Stuffing)	

4.7.3 *Playout of Scenario #9*

Photograph 6 Server playing stream 9 pair 09S1D2E1H - 1 & 2



4.7.4 Results for sharing scenario #9

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	*13	None	*13	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Fail	Pass	Fail	Fail	Fail	Pass	Pass	Fail	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*13	*13	*13	None	*13	*13	*13	None	None	*13	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*14	None	*13	*13	*13	None	*13	*13	None	None

*13. Receivers retained all EPG data after removing test stream 09S1D2E1H -2 and a power cycle. Several TV's and multiple testers. Traced to an early methodology issue with power cycle period being too short.

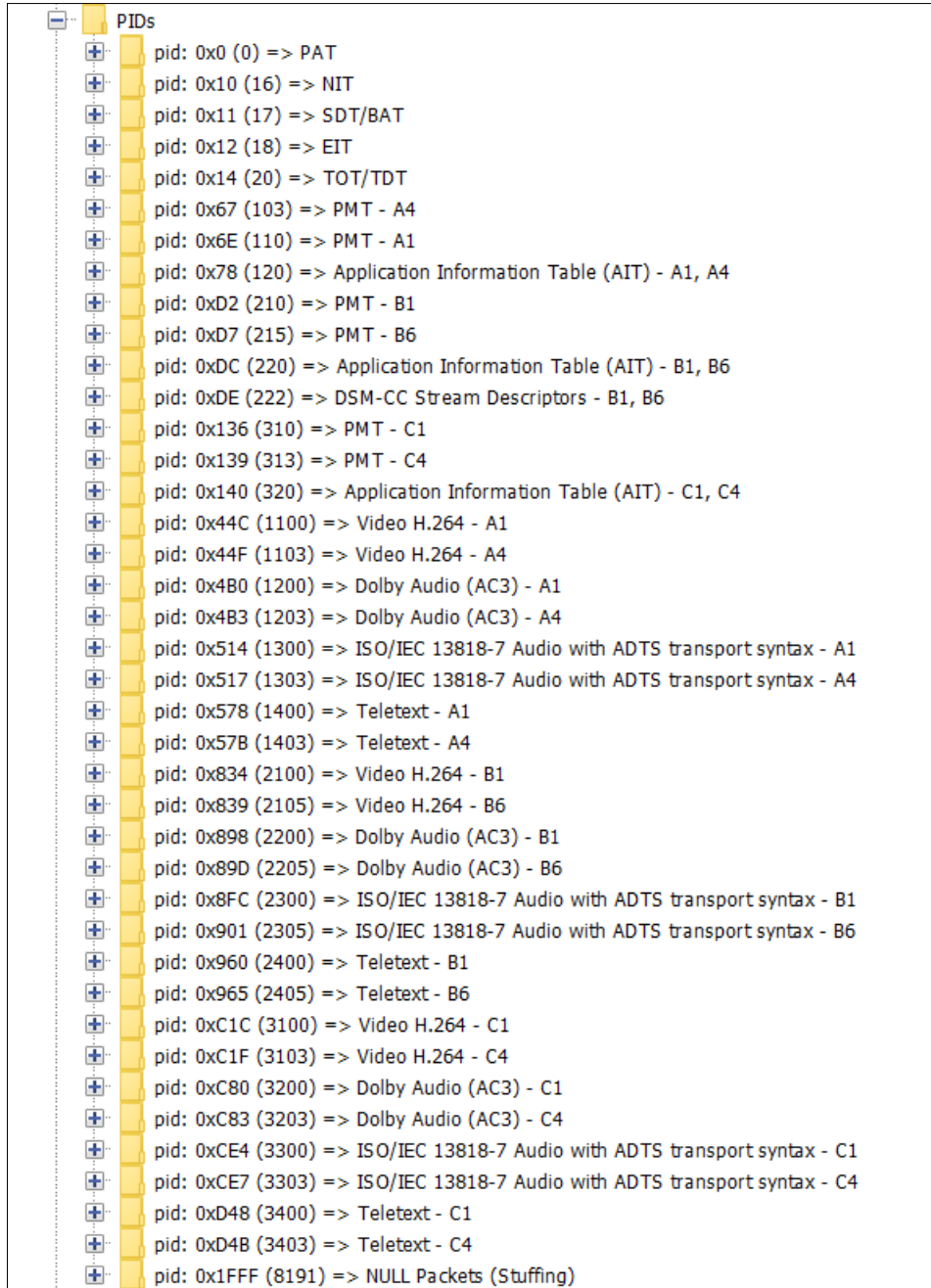
*14. Receiver not DVB-T2 capable.

DVB-T2, sharing 1/3, 1/3, 1/3, MPEG4, HD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.8.1 Description of test stream 10S1D2E2H-1

2 services for Broadcaster A (2xHD). Same 2 for Broadcaster B and Broadcaster C. All 6 services in one statmux

Figure 11 PID listing for 10S1D2E2H-1



pid	Service Name
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x67 (103)	PMT - A4
0x6E (110)	PMT - A1
0x78 (120)	Application Information Table (AIT) - A1, A4
0xD2 (210)	PMT - B1
0xD7 (215)	PMT - B6
0xDC (220)	Application Information Table (AIT) - B1, B6
0xDE (222)	DSM-CC Stream Descriptors - B1, B6
0x136 (310)	PMT - C1
0x139 (313)	PMT - C4
0x140 (320)	Application Information Table (AIT) - C1, C4
0x44C (1100)	Video H.264 - A1
0x44F (1103)	Video H.264 - A4
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
0x578 (1400)	Teletext - A1
0x57B (1403)	Teletext - A4
0x834 (2100)	Video H.264 - B1
0x839 (2105)	Video H.264 - B6
0x898 (2200)	Dolby Audio (AC3) - B1
0x89D (2205)	Dolby Audio (AC3) - B6
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
0x901 (2305)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
0x960 (2400)	Teletext - B1
0x965 (2405)	Teletext - B6
0xC1C (3100)	Video H.264 - C1
0xC1F (3103)	Video H.264 - C4
0xC80 (3200)	Dolby Audio (AC3) - C1
0xC83 (3203)	Dolby Audio (AC3) - C4
0xCE4 (3300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
0xCE7 (3303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
0xD48 (3400)	Teletext - C1
0xD4B (3403)	Teletext - C4
0x1FFF (8191)	NULL Packets (Stuffing)

4.8.2 Description of test stream 10S1D2E2H-2

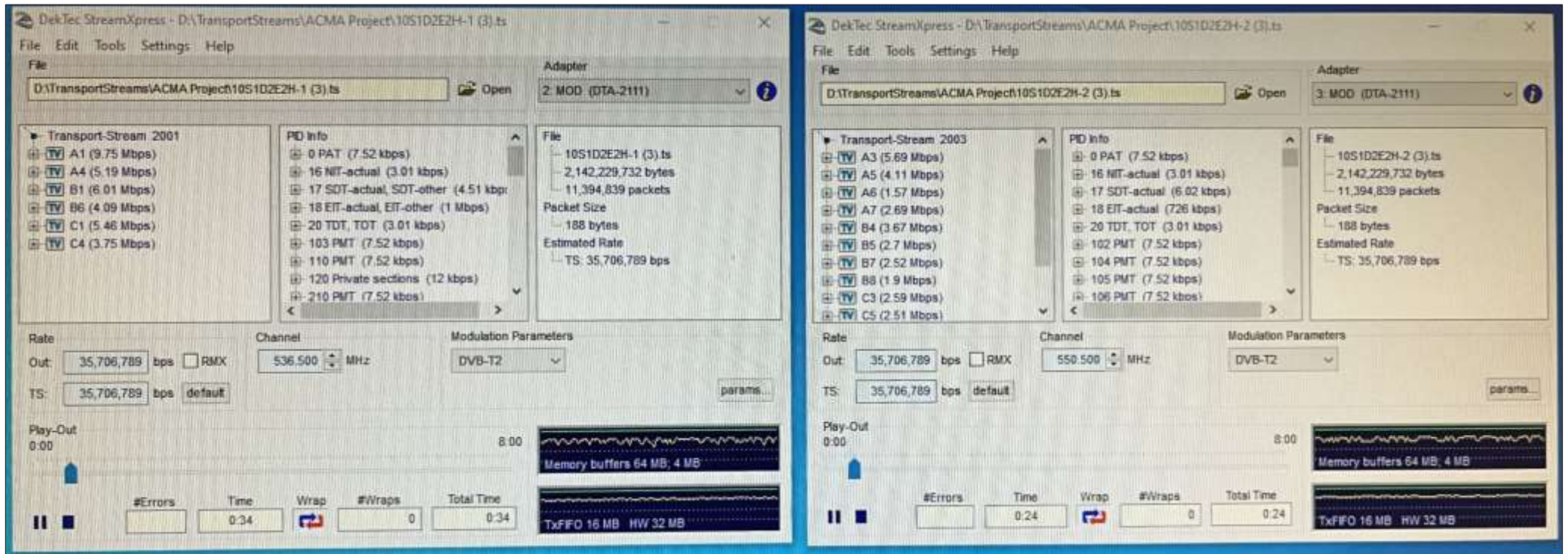
Remaining 12 SD services in second mux

Figure 12 PID listing for 10S1D2E2H-2

PIDs	
pid: 0x0 (0)	=> PAT
pid: 0x10 (16)	=> NIT
pid: 0x11 (17)	=> SDT/BAT
pid: 0x12 (18)	=> EIT
pid: 0x14 (20)	=> TOT/TDT
pid: 0x66 (102)	=> PMT - A3
pid: 0x68 (104)	=> PMT - A5
pid: 0x69 (105)	=> PMT - A6
pid: 0x6A (106)	=> PMT - A7
pid: 0x78 (120)	=> Application Information Table (AIT) - A3, A5, A6, A7
pid: 0xD5 (213)	=> PMT - B4
pid: 0xD6 (214)	=> PMT - B5
pid: 0xD8 (216)	=> PMT - B7
pid: 0xD9 (217)	=> PMT - B8
pid: 0xDC (220)	=> Application Information Table (AIT) - B4, B5, B7, B8
pid: 0xDE (222)	=> DSM-CC Stream Descriptors - B4, B5, B7, B8
pid: 0x138 (312)	=> PMT - C3
pid: 0x13A (314)	=> PMT - C5
pid: 0x13B (315)	=> PMT - C6
pid: 0x13C (316)	=> PMT - C7
pid: 0x140 (320)	=> Application Information Table (AIT) - C3, C5, C6, C7
pid: 0x44E (1102)	=> Video H.264 - A3
pid: 0x450 (1104)	=> Video H.264 - A5
pid: 0x451 (1105)	=> Video H.264 - A6
pid: 0x452 (1106)	=> Video H.264 - A7
pid: 0x4B2 (1202)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x4B4 (1204)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x4B5 (1205)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x4B6 (1206)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x516 (1302)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x518 (1304)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x57A (1402)	=> Teletext - A3
pid: 0x57C (1404)	=> Teletext - A5
pid: 0x57D (1405)	=> Teletext - A6
pid: 0x57E (1406)	=> Teletext - A7
pid: 0x837 (2103)	=> Video H.264 - B4
pid: 0x838 (2104)	=> Video H.264 - B5
pid: 0x83A (2106)	=> Video H.264 - B7
pid: 0x83B (2107)	=> Video H.264 - B8
pid: 0x89B (2203)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x89C (2204)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x89E (2206)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x89F (2207)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x8FF (2303)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x902 (2306)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x963 (2403)	=> Teletext - B4
pid: 0x964 (2404)	=> Teletext - B5
pid: 0x966 (2406)	=> Teletext - B7
pid: 0xC1E (3102)	=> Video H.264 - C3
pid: 0xC20 (3104)	=> Video H.264 - C5
pid: 0xC21 (3105)	=> Video H.264 - C6
pid: 0xC22 (3106)	=> Video H.264 - C7
pid: 0xC82 (3202)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC84 (3204)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xC85 (3205)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xC86 (3206)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0xCE6 (3302)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xCE8 (3304)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xD4A (3402)	=> Teletext - C3
pid: 0xD4C (3404)	=> Teletext - C5
pid: 0xD4D (3405)	=> Teletext - C6
pid: 0x1FFF (8191)	=> NULL Packets (Stuffing)

4.8.3 *Playout of Scenario #10*

Photograph 7 Server playing stream 10 pair 10S1D2E2H - 1 & 2



4.8.4 Results for sharing scenario #10

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*15	None	None	None	None	None	None	None	None	None

*15. Receiver not DVB-T2 capable.

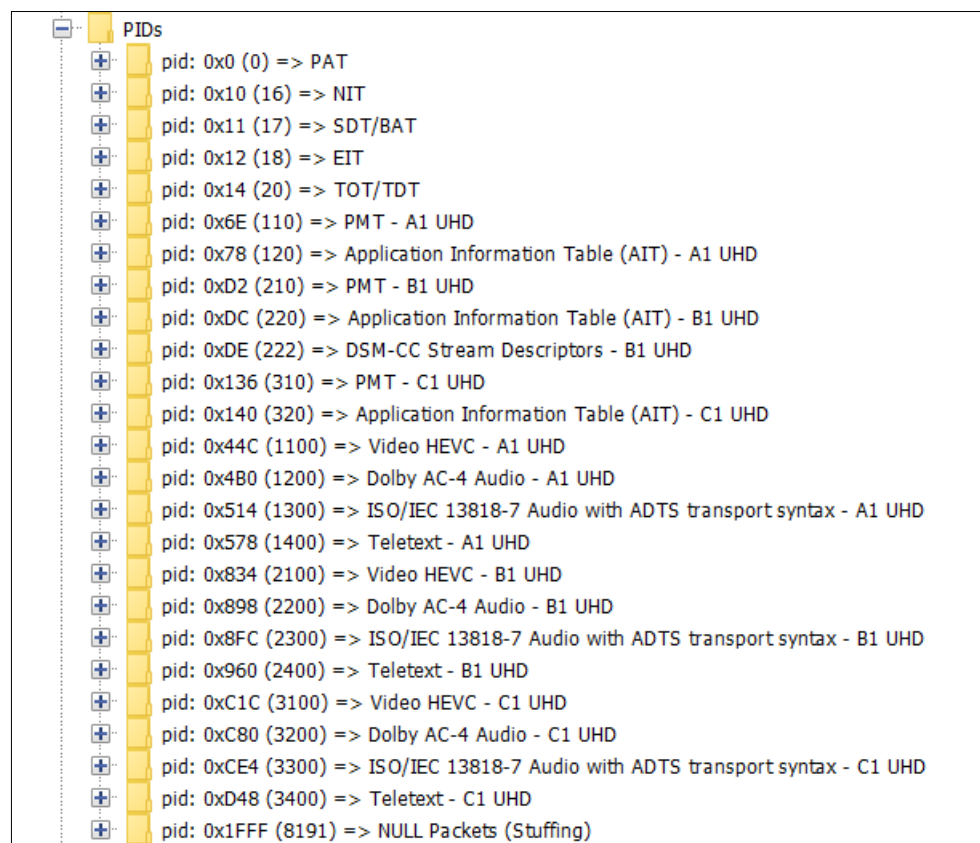
4.9 Sharing Scenario #11

DVB-T2, sharing 1/3, 1/3, 1/3, HEVC & MPEG4, UHD & HD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.9.1 Description of test stream 11S1D2E3H

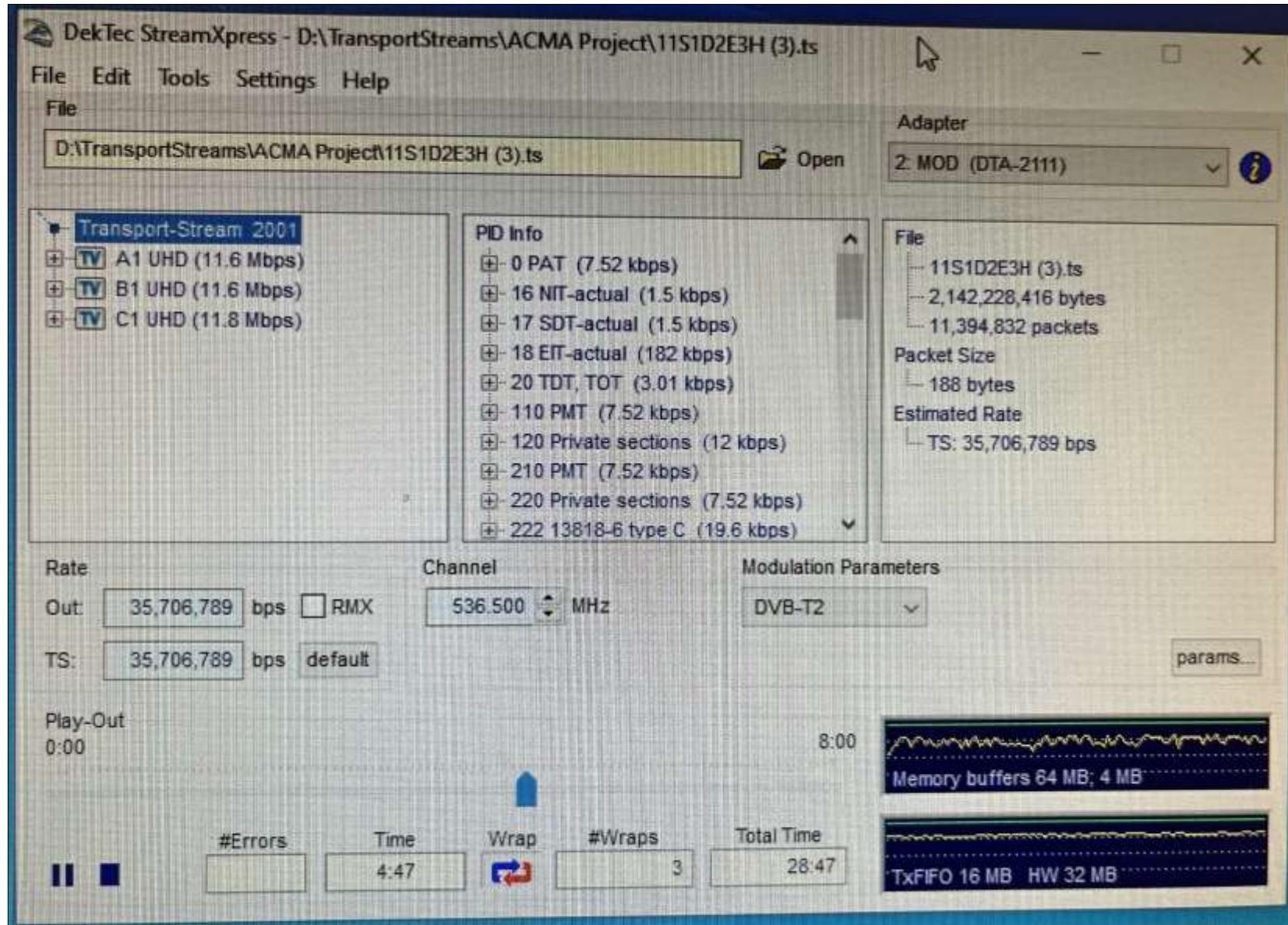
1 service for Broadcaster A (1xUHD). Same for Broadcaster B and Broadcaster C. All 3 services in one statmux

Figure 13 PID listing for 11S1D2E3H



pid	Description
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - A1 UHD
0x78 (120)	Application Information Table (AIT) - A1 UHD
0xD2 (210)	PMT - B1 UHD
0xDC (220)	Application Information Table (AIT) - B1 UHD
0xDE (222)	DSM-CC Stream Descriptors - B1 UHD
0x136 (310)	PMT - C1 UHD
0x140 (320)	Application Information Table (AIT) - C1 UHD
0x44C (1100)	Video HEVC - A1 UHD
0x4B0 (1200)	Dolby AC-4 Audio - A1 UHD
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1 UHD
0x578 (1400)	Teletext - A1 UHD
0x834 (2100)	Video HEVC - B1 UHD
0x898 (2200)	Dolby AC-4 Audio - B1 UHD
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1 UHD
0x960 (2400)	Teletext - B1 UHD
0xC1C (3100)	Video HEVC - C1 UHD
0xC80 (3200)	Dolby AC-4 Audio - C1 UHD
0xCE4 (3300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1 UHD
0xD48 (3400)	Teletext - C1 UHD
0x1FFF (8191)	NULL Packets (Stuffing)

Photograph 8 Server playing stream 11 11S1D2E3H



4.9.3 Results for sharing scenario #11

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Fail
10 Notable anomalies	None	None	None	*19	None	*18	None	None	None	None	*16

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Pass
9 QEF audio decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Pass	Pass	Pass
10 Notable anomalies	None	*19	*18	None	*19	None	None	*19	*21	None	None

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail	Fail
9 QEF audio decoding	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Pass	Pass
10 Notable anomalies	None	*20	None	*16	*21	*18	None	*18	*21	*22	*17

*16. Receivers are not AC4 capable. Produced audio from AD track - sometimes not identified as such by testers.

*17. Receiver not HEVC capable, however is AC4 capable.

*18. Receivers are not UHD or AC4 capable. Produced audio from AD track - sometimes not identified as such by testers.

*19. Receivers are not UHD or AC4 capable. AD track not confirmed.

*20. Receiver not DVB-T2 capable.

*21. Receivers are not UHD capable, however are AC4 capable.

*22. Receiver can correctly display HEVC interlace scanned content. Progressive scanned content displays, but with very low refresh rate.

*Testers and supervisors noted intermittent pixilation on all services. Later traced to the video source material, i.e., pixilation was present on source material prior to encoding.

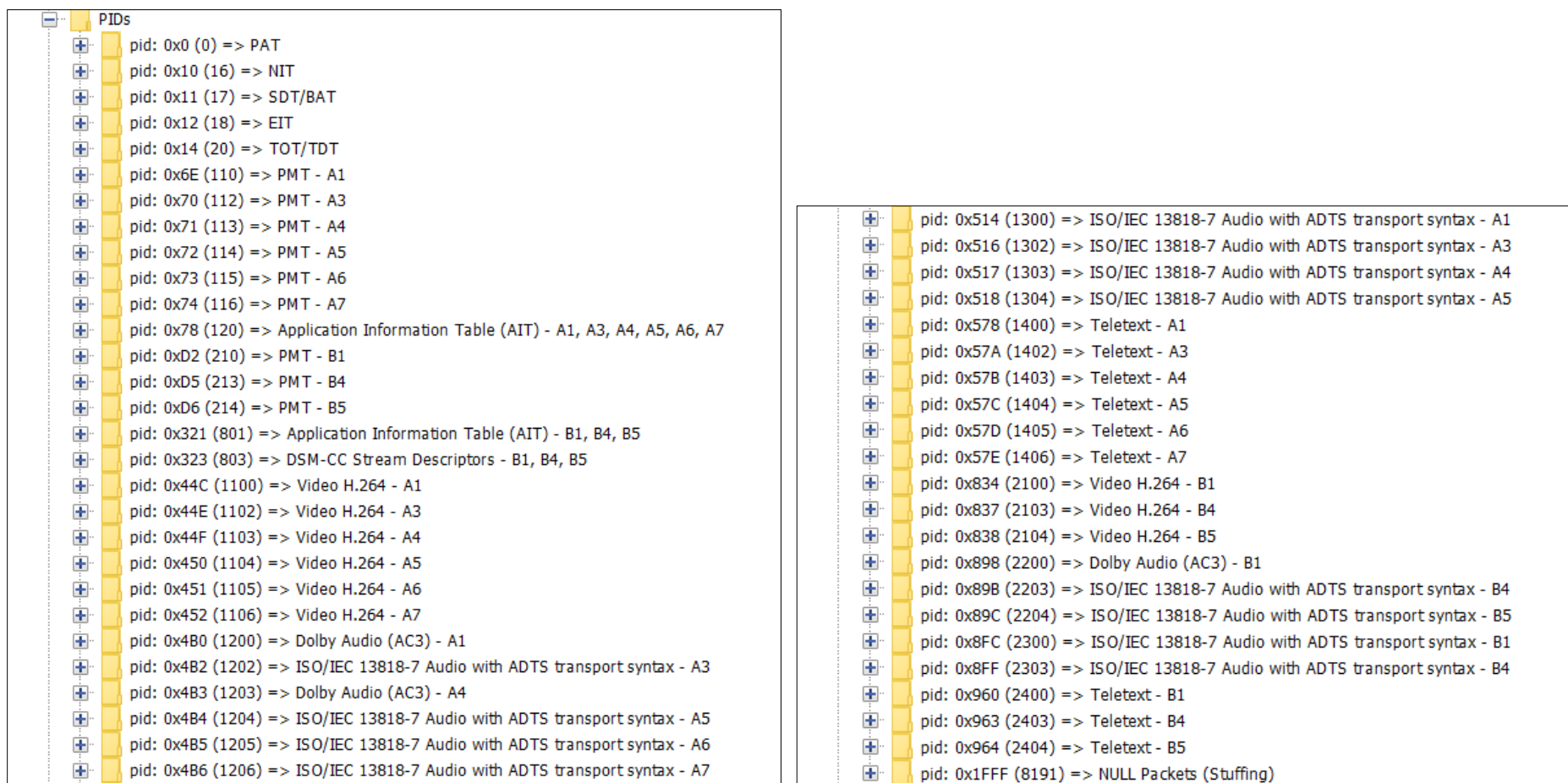
4.10 Sharing Scenario #12

DVB-T, sharing 2/3, 1/3, MPEG4, HD & SD Sequestered Statistical Multiplex. SDT-other and EIT-other present

4.10.1 Description of test stream 12S2T1E1S-1

6 services for Broadcaster A (2xHD, 4xMC) stat-muxed @ ~14Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1xDC) stat-muxed @ ~7Mbps

Figure 14 PID listing for 12S2T1E1S-1



PID	Description
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - A1
0x70 (112)	PMT - A3
0x71 (113)	PMT - A4
0x72 (114)	PMT - A5
0x73 (115)	PMT - A6
0x74 (116)	PMT - A7
0x78 (120)	Application Information Table (AIT) - A1, A3, A4, A5, A6, A7
0xD2 (210)	PMT - B1
0xD5 (213)	PMT - B4
0xD6 (214)	PMT - B5
0x321 (801)	Application Information Table (AIT) - B1, B4, B5
0x323 (803)	DSM-CC Stream Descriptors - B1, B4, B5
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video H.264 - A3
0x44F (1103)	Video H.264 - A4
0x450 (1104)	Video H.264 - A5
0x451 (1105)	Video H.264 - A6
0x452 (1106)	Video H.264 - A7
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x4B4 (1204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x4B5 (1205)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
0x4B6 (1206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
0x518 (1304)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x578 (1400)	Teletext - A1
0x57A (1402)	Teletext - A3
0x57B (1403)	Teletext - A4
0x57C (1404)	Teletext - A5
0x57D (1405)	Teletext - A6
0x57E (1406)	Teletext - A7
0x834 (2100)	Video H.264 - B1
0x837 (2103)	Video H.264 - B4
0x838 (2104)	Video H.264 - B5
0x898 (2200)	Dolby Audio (AC3) - B1
0x89B (2203)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x89C (2204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x960 (2400)	Teletext - B1
0x963 (2403)	Teletext - B4
0x964 (2404)	Teletext - B5
0x1FFF (8191)	NULL Packets (Stuffing)

4.10.2 Description of test stream 12S2T1E1S-2

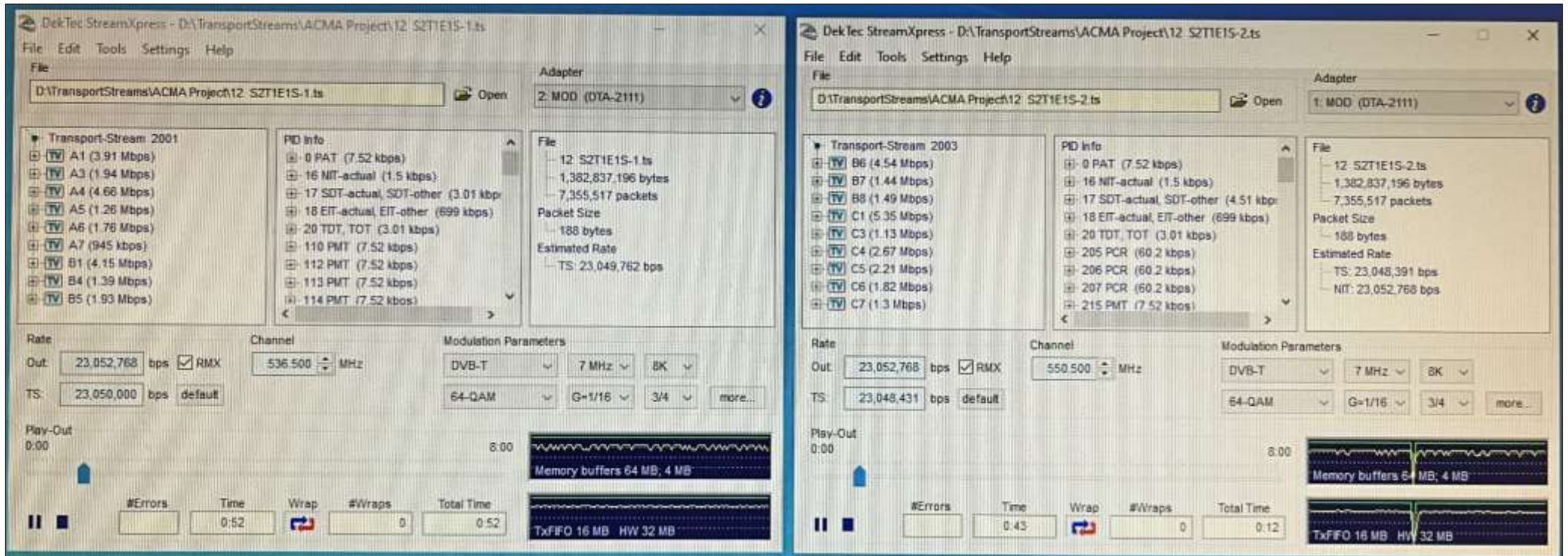
6 services for Broadcaster C (2xHD, 2xMC, 2xDC) stat-muxed @ ~14Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1xDC) stat-muxed @ ~7Mbps

Figure 15 PID listing for 12S2T1E1S-2

PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0xD7 (215) =>	PMT - B6
pid: 0xD8 (216) =>	PMT - B7
pid: 0xD9 (217) =>	PMT - B8
pid: 0x136 (310) =>	PMT - C1
pid: 0x138 (312) =>	PMT - C3
pid: 0x139 (313) =>	PMT - C4
pid: 0x13A (314) =>	PMT - C5
pid: 0x13B (315) =>	PMT - C6
pid: 0x13C (316) =>	PMT - C7
pid: 0x140 (320) =>	Application Information Table (AIT) - C1, C3, C4, C5, C6, C7
pid: 0x839 (2105) =>	Video H.264 - B6
pid: 0x83A (2106) =>	Video H.264 - B7
pid: 0x83B (2107) =>	Video H.264 - B8
pid: 0x89D (2205) =>	Dolby Audio (AC3) - B6
pid: 0x89E (2206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x89F (2207) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x901 (2305) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x902 (2306) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x965 (2405) =>	Teletext - B6
pid: 0x966 (2406) =>	Teletext - B7
pid: 0xC1C (3100) =>	Video H.264 - C1
pid: 0xC1E (3102) =>	Video H.264 - C3
pid: 0xC1F (3103) =>	Video H.264 - C4
pid: 0xC20 (3104) =>	Video H.264 - C5
pid: 0xC21 (3105) =>	Video H.264 - C6
pid: 0xC22 (3106) =>	Video H.264 - C7
pid: 0xC80 (3200) =>	Dolby Audio (AC3) - C1
pid: 0xC82 (3202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC83 (3203) =>	Dolby Audio (AC3) - C4
pid: 0xC84 (3204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xC85 (3205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xC86 (3206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0xCE4 (3300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xCE7 (3303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0xCE8 (3304) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xD48 (3400) =>	Teletext - C1
pid: 0xD4A (3402) =>	Teletext - C3
pid: 0xD4B (3403) =>	Teletext - C4
pid: 0xD4C (3404) =>	Teletext - C5
pid: 0xD4D (3405) =>	Teletext - C6
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.10.3 Playout of Scenario #12

Photograph 9 Server playing stream 12 pair 12S2T1E1S - 1 & 2



4.10.4 Results for sharing scenario #12

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*24	*24	None	None	None	None	None	None	None	*25	*24

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	*23

*23. Tester noted loss of video decoding on one HD channel (C1)

*24. Receivers retained all EPG data after removing test stream 12S2T2E1S – 2 and a power cycle.

*25. Receiver restored most, but not all, EPG data after restoring test stream 12S2T2E1S – 2. Channel retune restored all EPG data.

4.11 Sharing Scenario #13

DVB-T, sharing 2/3, 1/3, MPEG4, HD & SD Holistic Statistical Multiplex. SDT-other and EIT-other present

4.11.1 Description of test stream 13S2T1E1H-1

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux

Figure 16 PID listing for 13S2T1E1H-1

PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6E (110) => PMT - A1	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x70 (112) => PMT - A3	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x71 (113) => PMT - A4	pid: 0x578 (1400) => Teletext - A1
pid: 0x72 (114) => PMT - A5	pid: 0x57A (1402) => Teletext - A3
pid: 0x73 (115) => PMT - A6	pid: 0x57B (1403) => Teletext - A4
pid: 0x74 (116) => PMT - A7	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD5 (213) => PMT - B4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD6 (214) => PMT - B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x960 (2400) => Teletext - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	

4.11.2 Description of test stream 13S2T1E1H-2

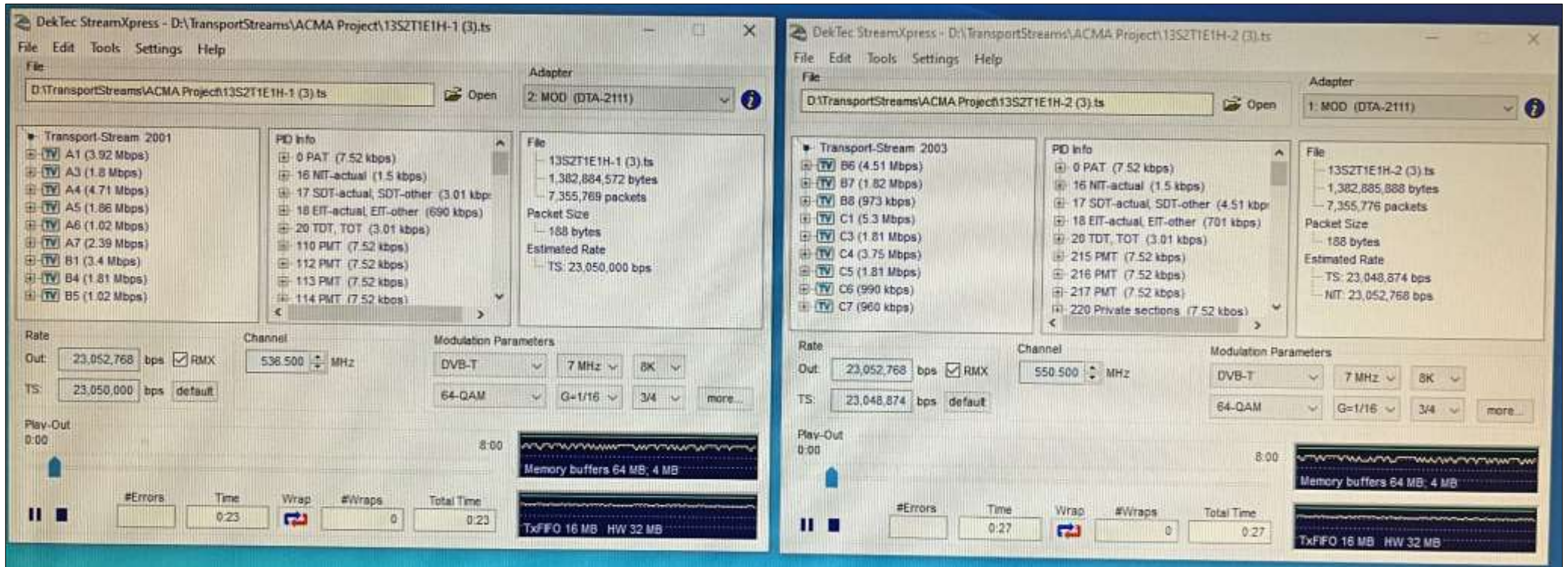
6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux.

Figure 17 PID listing for 13S2T1E1H-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0x10 (16) => NIT	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0x11 (17) => SDT/BAT	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0x12 (18) => EIT	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0x14 (20) => TOT/TDT	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0xD7 (215) => PMT - B6	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xD8 (216) => PMT - B7	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0xD9 (217) => PMT - B8	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x136 (310) => PMT - C1	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x138 (312) => PMT - C3	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x139 (313) => PMT - C4	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x13A (314) => PMT - C5	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x13B (315) => PMT - C6	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x13C (316) => PMT - C7	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xD48 (3400) => Teletext - C1
pid: 0x839 (2105) => Video H.264 - B6	pid: 0xD4A (3402) => Teletext - C3
pid: 0x83A (2106) => Video H.264 - B7	pid: 0xD4B (3403) => Teletext - C4
pid: 0x83B (2107) => Video H.264 - B8	pid: 0xD4C (3404) => Teletext - C5
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	pid: 0xD4D (3405) => Teletext - C6
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	

4.11.3 Playout of Scenario #13

Photograph 10 Server playing stream 13 pair 13S2T1E1H - 1 & 2



4.11.4 Results for sharing scenario #13

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*26	*26	None	None	None	None	None	None	None	*27	*26

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	*26	None	None	None	None	None	None	None	None	None

*26. Receivers retained all EPG data after removing test stream 13S2T2E1H – 2 and a power cycle.

*27. Receiver cleared all EPG data from all services after removing test stream 13S2T2E1H – 2 and power cycle. Required selecting a service to re-populate EPG for 'A' and 'B' services.

4.12 Sharing Scenario #14

DVB-T2, sharing 2/3, 1/3, MPEG4, HD & SD Sequestered Statistical Multiplex. SDT-other and EIT-other NOT present

4.12.1 Description of test stream 14S2D2E1S-1

6 services for Broadcaster A (2xHD, 2xMC, 2x DC) statmuxed @ ~24Mbps. 3 services for Broadcaster B (1xHD, 1xMC, 1x DC) statmuxed @ ~12Mbps

Figure 18 PID listing for 14S2D2E1S-1

PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6E (110) => PMT - A1	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x70 (112) => PMT - A3	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x71 (113) => PMT - A4	pid: 0x578 (1400) => Teletext - A1
pid: 0x72 (114) => PMT - A5	pid: 0x57A (1402) => Teletext - A3
pid: 0x73 (115) => PMT - A6	pid: 0x57B (1403) => Teletext - A4
pid: 0x74 (116) => PMT - A7	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD5 (213) => PMT - B4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD6 (214) => PMT - B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x960 (2400) => Teletext - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	

4.12.2 Description of test stream 14S2D2E1S-2

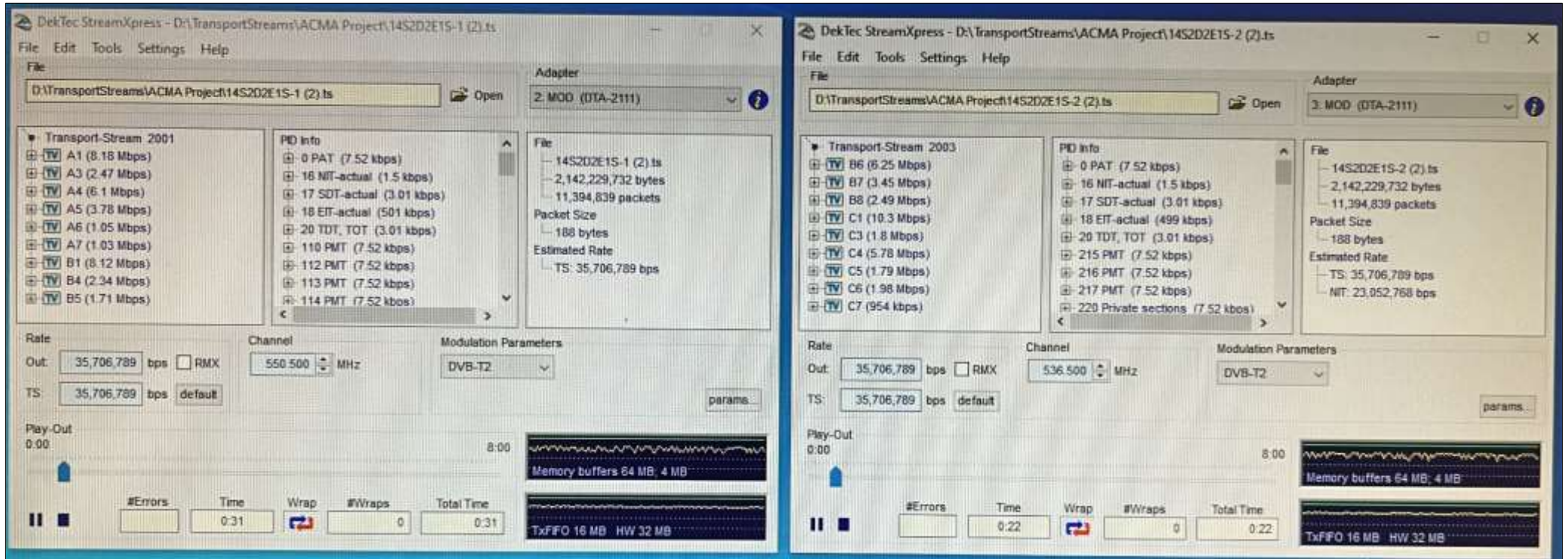
6 services for Broadcaster C (2xHD, 2xSD, 2xDC) statmuxed@ ~24Mbps. 3 services for Broadcaster B (1xHD, 1xSD, 1xDC) statmuxed @ ~12Mbps

Figure 19 PID listing for 14S2D2E1S-2

PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0xD7 (215) =>	PMT - B6
pid: 0xD8 (216) =>	PMT - B7
pid: 0xD9 (217) =>	PMT - B8
pid: 0xDC (220) =>	Application Information Table (AIT) - B6, B7, B8
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - B6, B7, B8
pid: 0x136 (310) =>	PMT - C1
pid: 0x138 (312) =>	PMT - C3
pid: 0x139 (313) =>	PMT - C4
pid: 0x13A (314) =>	PMT - C5
pid: 0x13B (315) =>	PMT - C6
pid: 0x13C (316) =>	PMT - C7
pid: 0x140 (320) =>	Application Information Table (AIT) - C1, C3, C4, C5, C6, C7
pid: 0x839 (2105) =>	Video H.264 - B6
pid: 0x83A (2106) =>	Video H.264 - B7
pid: 0x83B (2107) =>	Video H.264 - B8
pid: 0x89D (2205) =>	Dolby Audio (AC3) - B6
pid: 0x89E (2206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x89F (2207) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x901 (2305) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x902 (2306) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x965 (2405) =>	Teletext - B6
pid: 0x966 (2406) =>	Teletext - B7
pid: 0xC1C (3100) =>	Video H.264 - C1
pid: 0xC1E (3102) =>	Video H.264 - C3
pid: 0xC1F (3103) =>	Video H.264 - C4
pid: 0xC20 (3104) =>	Video H.264 - C5
pid: 0xC21 (3105) =>	Video H.264 - C6
pid: 0xC22 (3106) =>	Video H.264 - C7
pid: 0xC80 (3200) =>	Dolby Audio (AC3) - C1
pid: 0xC82 (3202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC83 (3203) =>	Dolby Audio (AC3) - C4
pid: 0xC84 (3204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xC85 (3205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xC86 (3206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0xCE4 (3300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xCE7 (3303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0xCE8 (3304) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xD48 (3400) =>	Teletext - C1
pid: 0xD4A (3402) =>	Teletext - C3
pid: 0xD4B (3403) =>	Teletext - C4
pid: 0xD4C (3404) =>	Teletext - C5
pid: 0xD4D (3405) =>	Teletext - C6
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.12.3 Playout of Scenario #14

Photograph 11 Server playing stream 14 pair 14S2D2E1S - 1 & 2



4.12.4 Results for sharing scenario #14

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	*28	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*29	None	None	None	None	None	None	None	None	None

*28. Receiver stopped decoding audio on some services. Factory reset and rescan restored audio decoding.

*29. Receiver not DVB-T2 capable.

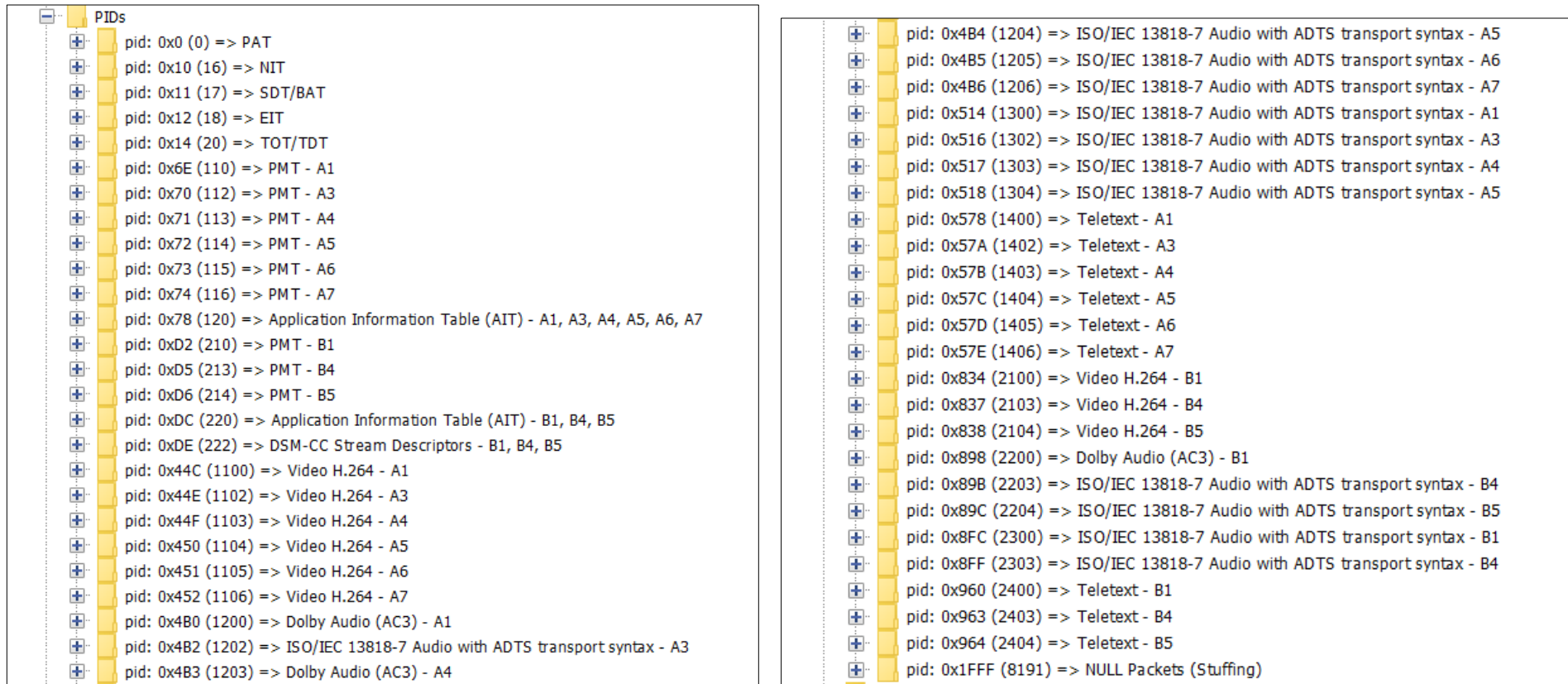
4.13 Sharing Scenario #15 – Original Version

DVB-T2, sharing 2/3, 1/3, MPEG4, HD & SD Holistic Statistical Multiplex. SDT-other and EIT-other present

4.13.1 Description of test stream 15S2D2E1H-1 Original Version

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux

Figure 20 PID listing for 15S2D2E1H-1 Original Version



PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6E (110) => PMT - A1	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x70 (112) => PMT - A3	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x71 (113) => PMT - A4	pid: 0x578 (1400) => Teletext - A1
pid: 0x72 (114) => PMT - A5	pid: 0x57A (1402) => Teletext - A3
pid: 0x73 (115) => PMT - A6	pid: 0x57B (1403) => Teletext - A4
pid: 0x74 (116) => PMT - A7	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD5 (213) => PMT - B4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD6 (214) => PMT - B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x960 (2400) => Teletext - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	

4.13.2 Description of test stream 15S2D2E1H-2 Original Version

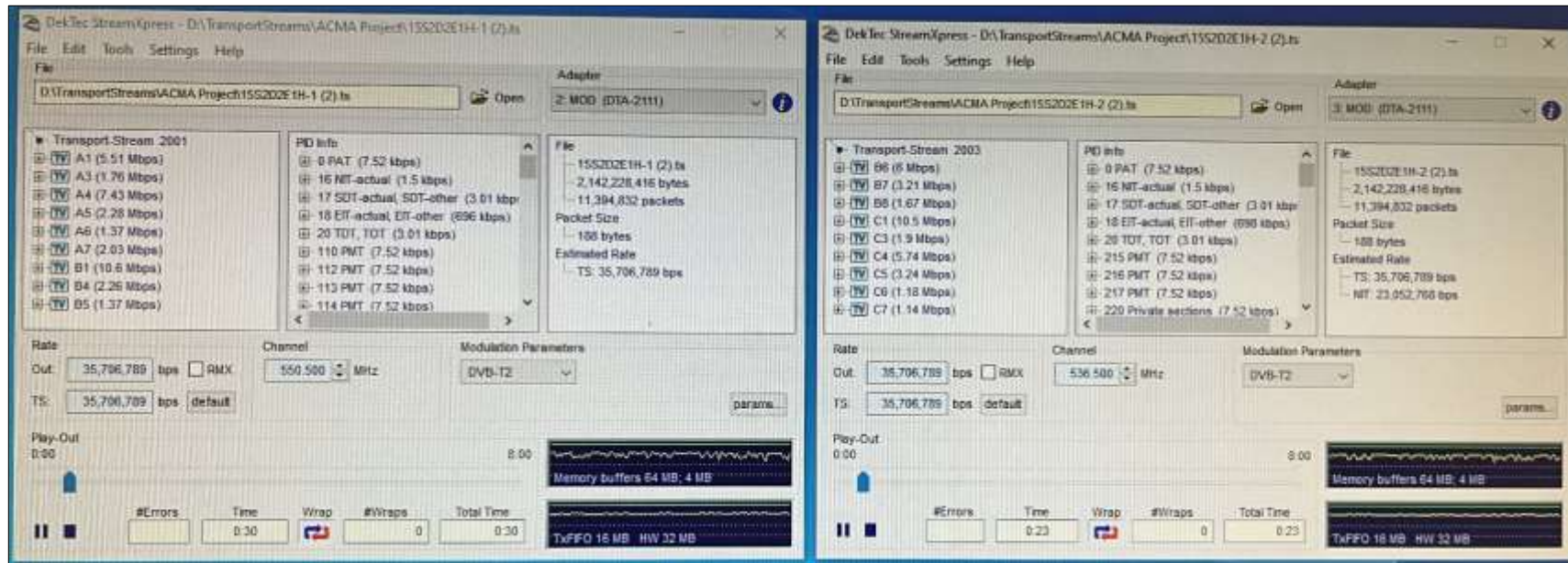
6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux.

Figure 21 PID listing for 15S2D2E1H-2 Original Version

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0x10 (16) => NIT	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0x11 (17) => SDT/BAT	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0x12 (18) => EIT	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0x14 (20) => TOT/TDT	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0xD7 (215) => PMT - B6	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xD8 (216) => PMT - B7	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0xD9 (217) => PMT - B8	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x136 (310) => PMT - C1	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x138 (312) => PMT - C3	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x139 (313) => PMT - C4	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x13A (314) => PMT - C5	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x13B (315) => PMT - C6	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x13C (316) => PMT - C7	pid: 0xC8E (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xD48 (3400) => Teletext - C1
pid: 0x839 (2105) => Video H.264 - B6	pid: 0xD4A (3402) => Teletext - C3
pid: 0x83A (2106) => Video H.264 - B7	pid: 0xD4B (3403) => Teletext - C4
pid: 0x83B (2107) => Video H.264 - B8	pid: 0xD4C (3404) => Teletext - C5
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	pid: 0xD4D (3405) => Teletext - C6
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	

4.13.3 Playout of Scenario #15 Original Version

Photograph 12 server playing stream 15 pair 15S2D2E1H - 1 & 2 Original versions



4.13.4 Results for sharing scenario #15. Original version.

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*32	*30	None	None	None	None	None	None	None	*30	*30

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*30	*31	None	*32	None	None	None	None	None	None	None

*30. Receivers retained all EPG data after removing test stream 15S2D2E1H – 1 and a power cycle.

*31. Receiver not DVB-T2 capable.

*32. Receiver reportedly lost all EPG data for services associated with stream 15S2D2E1H – 1 after removing stream. Did not read EIT 'other' from 15S2D2E1H – 2. Query reporting from common tester.

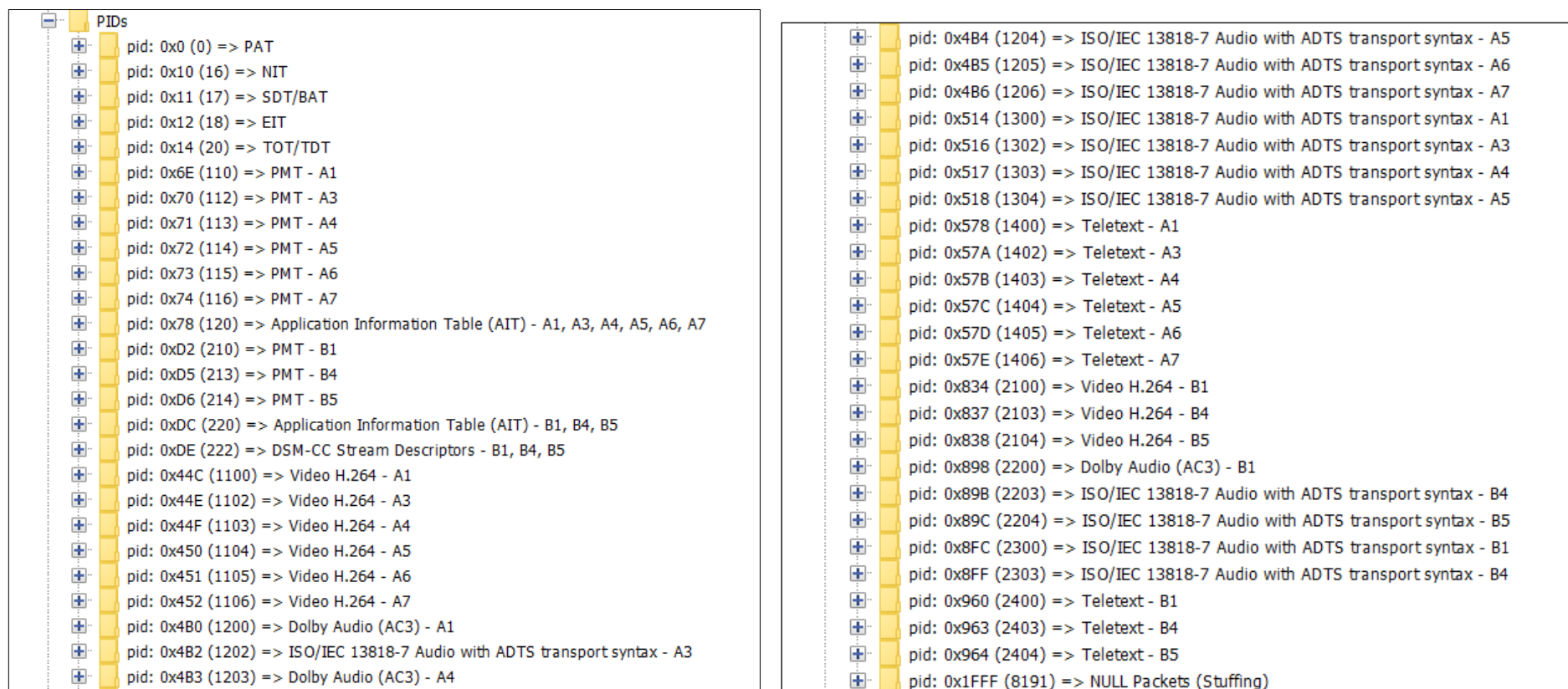
4.14 Sharing Scenario #15 – Re-made Version

DVB-T2, sharing 2/3, 1/3, MPEG4, HD & SD Holistic Statistical Multiplex. SDT-other and EIT-other present

4.14.1 Description of test stream 15S2D2E1H-1 Re-made Version

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux

Figure 22 PID listing for 15S2D2E1H-1 Re-made Version



PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6E (110) => PMT - A1	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x70 (112) => PMT - A3	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x71 (113) => PMT - A4	pid: 0x578 (1400) => Teletext - A1
pid: 0x72 (114) => PMT - A5	pid: 0x57A (1402) => Teletext - A3
pid: 0x73 (115) => PMT - A6	pid: 0x57B (1403) => Teletext - A4
pid: 0x74 (116) => PMT - A7	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD5 (213) => PMT - B4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD6 (214) => PMT - B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x960 (2400) => Teletext - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	

4.14.2 Description of test stream 15S2D2E1H-2 Re-made Version

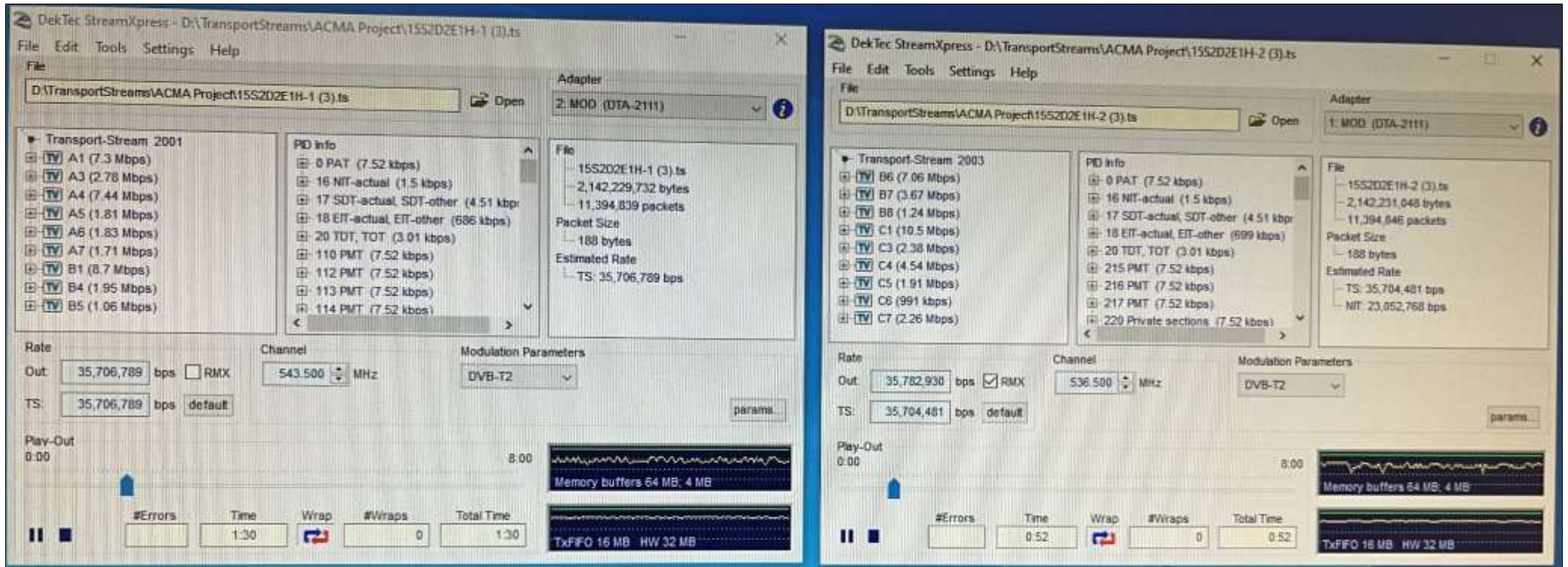
6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). All 9 services in one statmux.

Figure 23 PID listing for 15S2D2E1H-2 Re-made Version

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0x10 (16) => NIT	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0x11 (17) => SDT/BAT	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0x12 (18) => EIT	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0x14 (20) => TOT/TDT	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0xD7 (215) => PMT - B6	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xD8 (216) => PMT - B7	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0xD9 (217) => PMT - B8	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x136 (310) => PMT - C1	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x138 (312) => PMT - C3	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x139 (313) => PMT - C4	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x13A (314) => PMT - C5	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x13B (315) => PMT - C6	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x13C (316) => PMT - C7	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xD48 (3400) => Teletext - C1
pid: 0x839 (2105) => Video H.264 - B6	pid: 0xD4A (3402) => Teletext - C3
pid: 0x83A (2106) => Video H.264 - B7	pid: 0xD4B (3403) => Teletext - C4
pid: 0x83B (2107) => Video H.264 - B8	pid: 0xD4C (3404) => Teletext - C5
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	pid: 0xD4D (3405) => Teletext - C6
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	

4.14.3 *Playout of Scenario #15 Re-made Version*

Photograph 13 Server playing stream 15 pair 15S2D2E1H - 1 & 2 Re-made Versions



4.14.4 Results for sharing scenario #15. Re-made version.

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass
10 Notable anomalies	*33	*33	None	None	None	None	None	*34	None	*33	*33

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*33	*35	None	None	None	None	None	None	None	None	None

*33. Receivers retained all EPG data after removing test stream 15S2D2E1H – 2 and a power cycle.

*34. Receiver stopped decoding audio on some services. Factory reset and rescan restored audio decoding.

*35. Receiver not DVB-T2 capable.

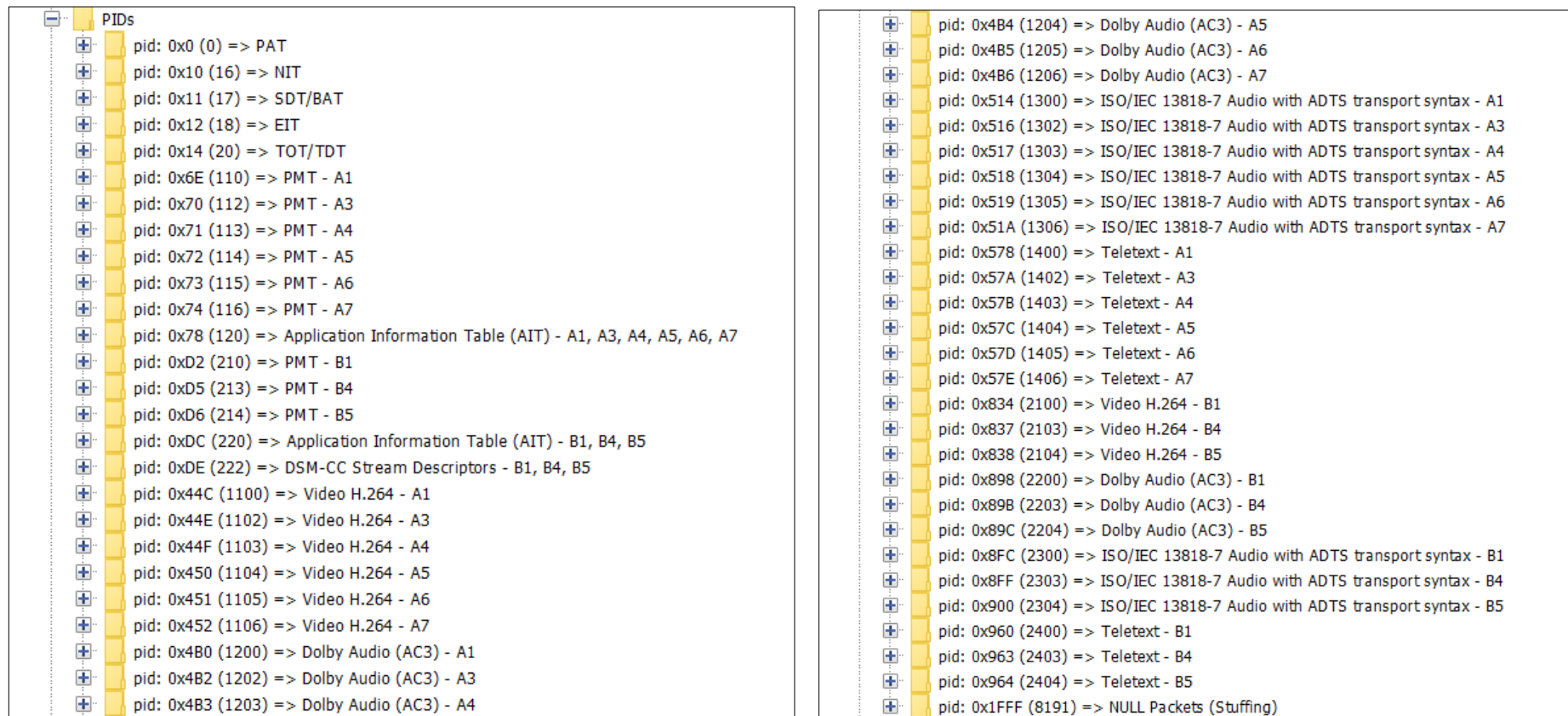
4.15 Sharing Scenario #16

DVB-T2, sharing 2/3, 1/3, MPEG4, HD Holistic Statistical Multiplex, with SD services in a companion stream. SDT-other and EIT-other present

4.15.1 Description of test stream 16S2D2E2H-1

6 services for Broadcaster A (6xHD). 3 services for Broadcaster B (3xHD). All 9 services in one statmux

Figure 24 PID listing for 16S2D2E2H-1



PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => Dolby Audio (AC3) - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => Dolby Audio (AC3) - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => Dolby Audio (AC3) - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6E (110) => PMT - A1	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x70 (112) => PMT - A3	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x71 (113) => PMT - A4	pid: 0x519 (1305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x72 (114) => PMT - A5	pid: 0x51A (1306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x73 (115) => PMT - A6	pid: 0x578 (1400) => Teletext - A1
pid: 0x74 (116) => PMT - A7	pid: 0x57A (1402) => Teletext - A3
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x57B (1403) => Teletext - A4
pid: 0xD2 (210) => PMT - B1	pid: 0x57C (1404) => Teletext - A5
pid: 0xD5 (213) => PMT - B4	pid: 0x57D (1405) => Teletext - A6
pid: 0xD6 (214) => PMT - B5	pid: 0x57E (1406) => Teletext - A7
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x838 (2104) => Video H.264 - B5
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x89B (2203) => Dolby Audio (AC3) - B4
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x89C (2204) => Dolby Audio (AC3) - B5
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x900 (2304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x4B2 (1202) => Dolby Audio (AC3) - A3	pid: 0x960 (2400) => Teletext - B1
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	pid: 0x963 (2403) => Teletext - B4
	pid: 0x964 (2404) => Teletext - B5
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.15.2 Description of test stream 16S2D2E2H-2

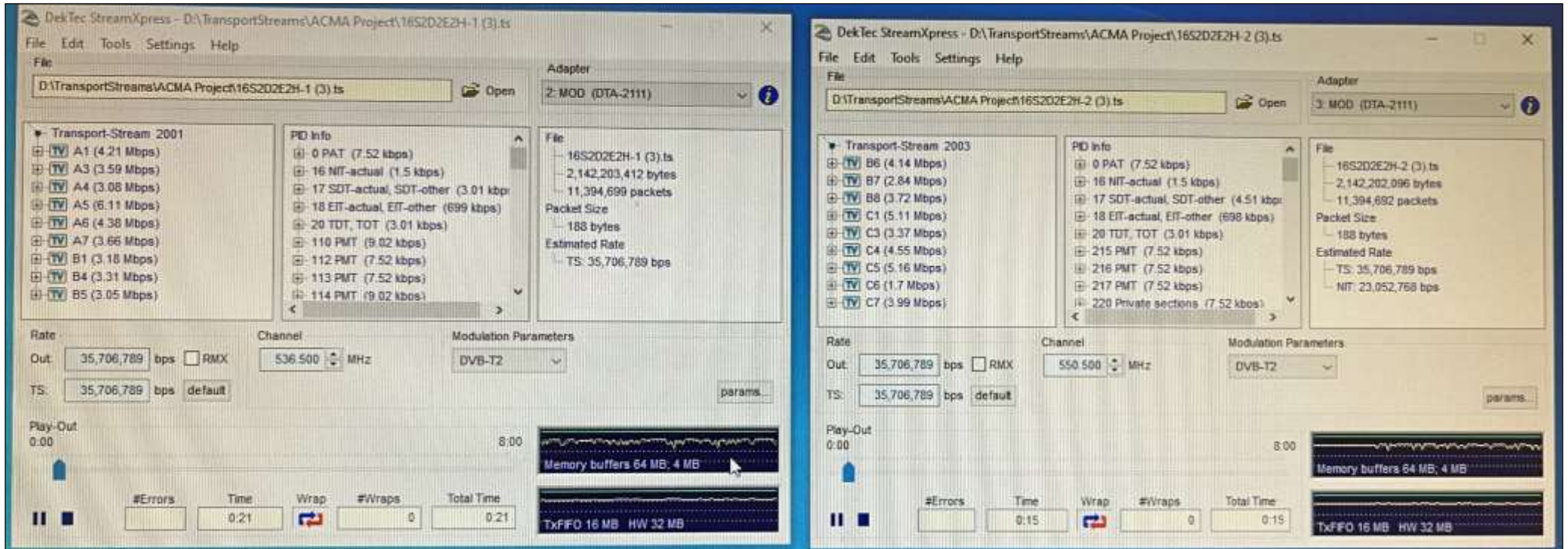
6 services for Broadcaster C (6xHD). 3 services for Broadcaster B (3xHD). All 9 services in one statmux

Figure 25 PID listing for 16S2D2E2H-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0x10 (16) => NIT	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0x11 (17) => SDT/BAT	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0x12 (18) => EIT	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0x14 (20) => TOT/TDT	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0xD7 (215) => PMT - B6	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xD8 (216) => PMT - B7	pid: 0xC80 (3200) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xD9 (217) => PMT - B8	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xDC (220) => Application Information Table (AIT) - B6, B7, B8	pid: 0xC83 (3203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0xDE (222) => DSM-CC Stream Descriptors - B6, B7, B8	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x136 (310) => PMT - C1	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x138 (312) => PMT - C3	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x139 (313) => PMT - C4	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x13A (314) => PMT - C5	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x13B (315) => PMT - C6	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x13C (316) => PMT - C7	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xD48 (3400) => Teletext - C1
pid: 0x839 (2105) => Video H.264 - B6	pid: 0xD4A (3402) => Teletext - C3
pid: 0x83A (2106) => Video H.264 - B7	pid: 0xD4B (3403) => Teletext - C4
pid: 0x83B (2107) => Video H.264 - B8	pid: 0xD4C (3404) => Teletext - C5
pid: 0x89D (2205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	pid: 0xD4D (3405) => Teletext - C6
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	
pid: 0x965 (2405) => Teletext - B6	
pid: 0x966 (2406) => Teletext - B7	

4.15.3 Playout of Scenario #16

Photograph 14 Server playing stream 16 pair 16S2D2E2H - 1 & 2



4.15.4 Results for sharing scenario #16

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*38	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*36	*36	*36	None	None	None	None	None	*39	None	*36

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*36	*37	None	None	None	None	None	None	None	None	None

*36. Receivers retained all EPG data after removing test stream 15S2D2E1H – 2 and a power cycle.

*37. Receiver not DVB-T2 capable.

*38. Receiver reportedly lost all EPG data for services associated with stream 16S2D2E2H–1 after removing stream. Did not read EIT 'other' from 16S2D2E2H–2.

*39. Brief pixilation noted once on Channel 210 (B1).

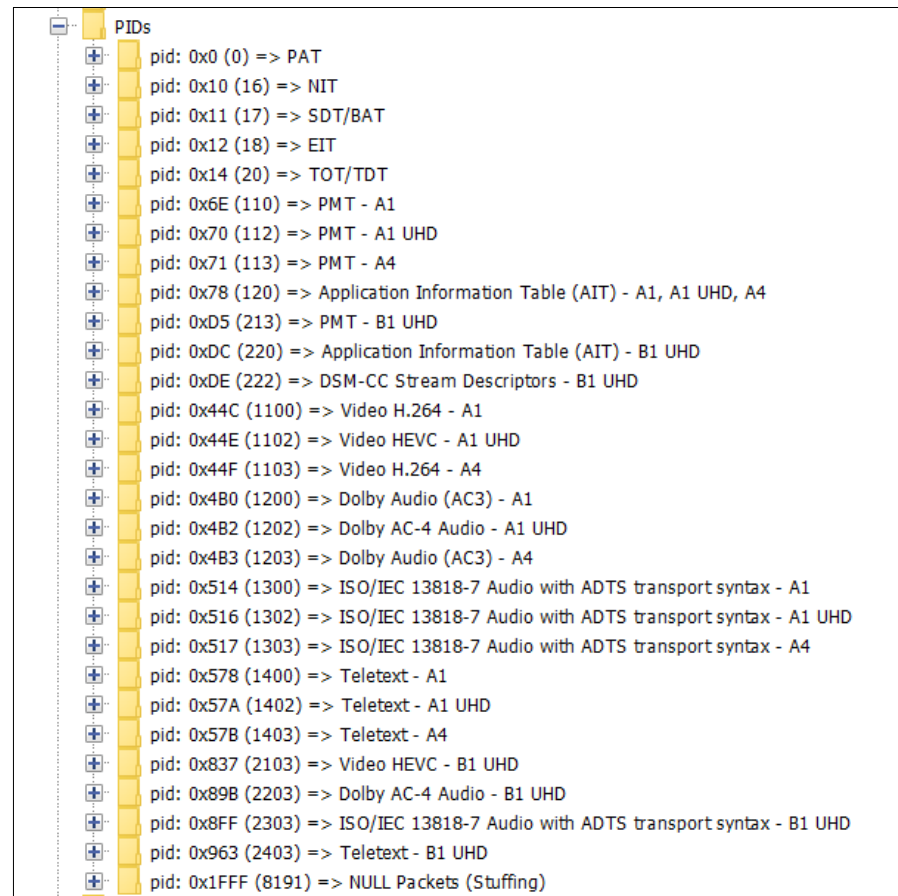
4.16 Sharing Scenario #17

DVB-T2, sharing 2/3, 1/3, MPEG4 & HEVC, HD & UHD Holistic statistical Multiplex. SDT-other and EIT-other present

4.16.1 Description of test stream 17S2D2E3H-1

3 services for Broadcaster A (1xUHD, 2xHD). 1 service for Broadcaster B (1xUHD). All 4 services in one statmux

Figure 26 PID listing for 17S2D2E3H-1

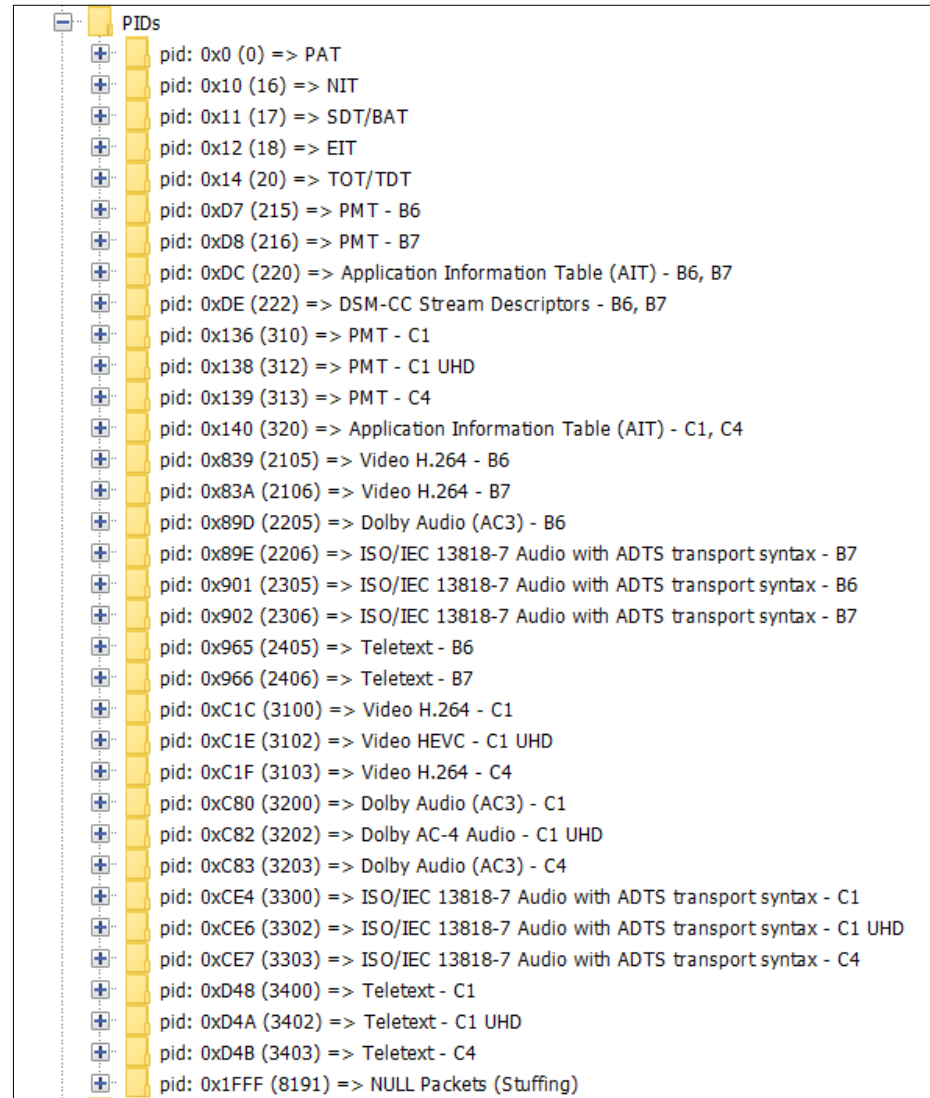


pid	Description
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - A1
0x70 (112)	PMT - A1 UHD
0x71 (113)	PMT - A4
0x78 (120)	Application Information Table (AIT) - A1, A1 UHD, A4
0xD5 (213)	PMT - B1 UHD
0xDC (220)	Application Information Table (AIT) - B1 UHD
0xDE (222)	DSM-CC Stream Descriptors - B1 UHD
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video HEVC - A1 UHD
0x44F (1103)	Video H.264 - A4
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	Dolby AC-4 Audio - A1 UHD
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1 UHD
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
0x578 (1400)	Teletext - A1
0x57A (1402)	Teletext - A1 UHD
0x57B (1403)	Teletext - A4
0x837 (2103)	Video HEVC - B1 UHD
0x89B (2203)	Dolby AC-4 Audio - B1 UHD
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1 UHD
0x963 (2403)	Teletext - B1 UHD
0x1FFF (8191)	NULL Packets (Stuffing)

4.16.2 Description of test stream 17S2D2E3H-2

3 services for Broadcaster C (1xUHD, 2xHD). 2 services for Broadcaster B (2xHD). All 5 services in one statmux

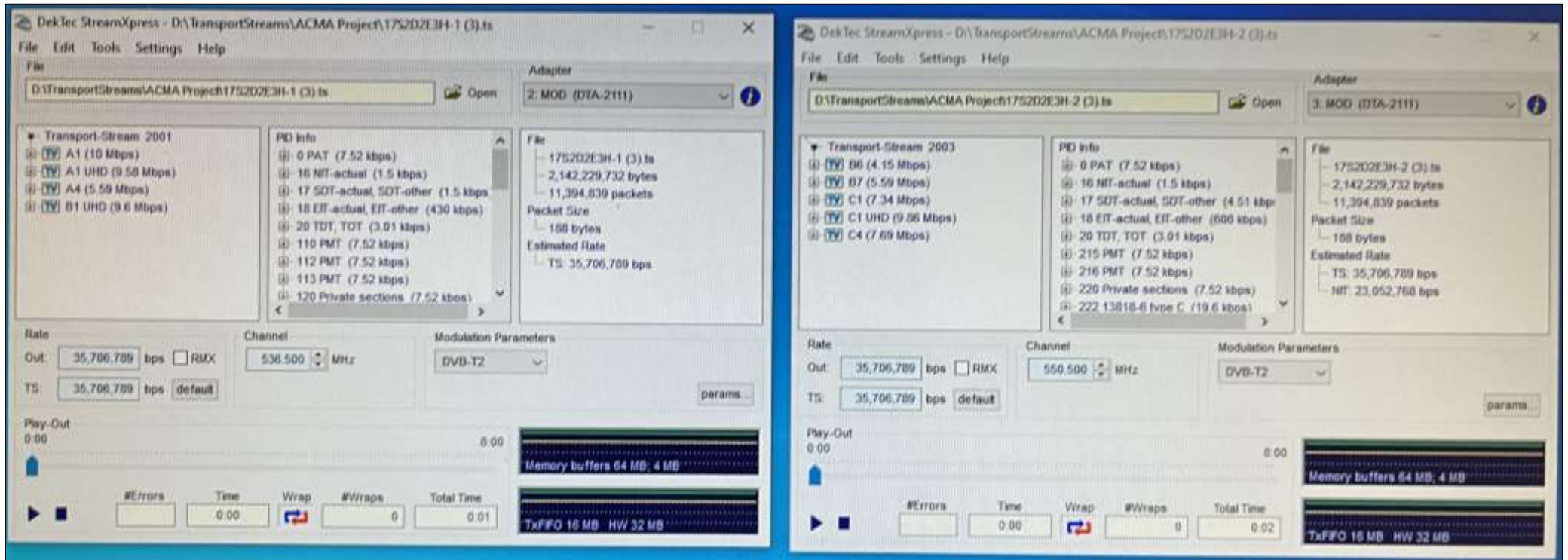
Figure 27 PID listing for 17S2D2E3H-2



PID	Service Name
pid: 0x0 (0)	=> PAT
pid: 0x10 (16)	=> NIT
pid: 0x11 (17)	=> SDT/BAT
pid: 0x12 (18)	=> EIT
pid: 0x14 (20)	=> TOT/TDT
pid: 0xD7 (215)	=> PMT - B6
pid: 0xD8 (216)	=> PMT - B7
pid: 0xDC (220)	=> Application Information Table (AIT) - B6, B7
pid: 0xDE (222)	=> DSM-CC Stream Descriptors - B6, B7
pid: 0x136 (310)	=> PMT - C1
pid: 0x138 (312)	=> PMT - C1 UHD
pid: 0x139 (313)	=> PMT - C4
pid: 0x140 (320)	=> Application Information Table (AIT) - C1, C4
pid: 0x839 (2105)	=> Video H.264 - B6
pid: 0x83A (2106)	=> Video H.264 - B7
pid: 0x89D (2205)	=> Dolby Audio (AC3) - B6
pid: 0x89E (2206)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x901 (2305)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x902 (2306)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x965 (2405)	=> Teletext - B6
pid: 0x966 (2406)	=> Teletext - B7
pid: 0xC1C (3100)	=> Video H.264 - C1
pid: 0xC1E (3102)	=> Video HEVC - C1 UHD
pid: 0xC1F (3103)	=> Video H.264 - C4
pid: 0xC80 (3200)	=> Dolby Audio (AC3) - C1
pid: 0xC82 (3202)	=> Dolby AC-4 Audio - C1 UHD
pid: 0xC83 (3203)	=> Dolby Audio (AC3) - C4
pid: 0xCE4 (3300)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C1 UHD
pid: 0xCE7 (3303)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0xD48 (3400)	=> Teletext - C1
pid: 0xD4A (3402)	=> Teletext - C1 UHD
pid: 0xD4B (3403)	=> Teletext - C4
pid: 0x1FFF (8191)	=> NULL Packets (Stuffing)

4.16.3 Playout of Scenario #17

Photograph 15 Server playing stream 17 pair 17S2D2E3H - 1 & 2



4.16.4 Results for sharing scenario #17

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Fail
10 Notable anomalies	None	None	None	*42	None	*42	None	None	None	None	*40

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Pass
9 QEF audio decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Pass	Pass	Pass
10 Notable anomalies	None	*42 & *44	*42	None	*42	None	None	*42	*45	*44	*44

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Fail	Fail
9 QEF audio decoding	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Pass	Pass
10 Notable anomalies	None	*43	None	*40	*45	*42	None	*42	*45	*46	*41

*40. Receivers are not AC4 capable. Produced audio from AD track - sometimes not identified as such by testers.

*41. Receiver is not HEVC capable. However are AC4 capable

*42. Receivers are not UHD capable, nor AC4 capable.

*43. Receiver not DVB-T2 capable.

*44. Receivers retained all EPG data after removing test stream 17S2D2E3H-2 and a power cycle.

*45. Receivers are not UHD capable. However are AC4 capable

*46. Receiver can correctly display HEVC interlace scanned content. Progressive scanned content displays, but with very low refresh rate.

*Testers and supervisors noted intermittent pixilation on all services. Later traced to the video source material, i.e., pixilation was present on source material prior to encoding.

4.17 Sharing Scenario #18

DVB-T, sharing 1/2, 1/2, MPEG4, SD & HD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.17.1 Description of test stream 18S3T1E1H

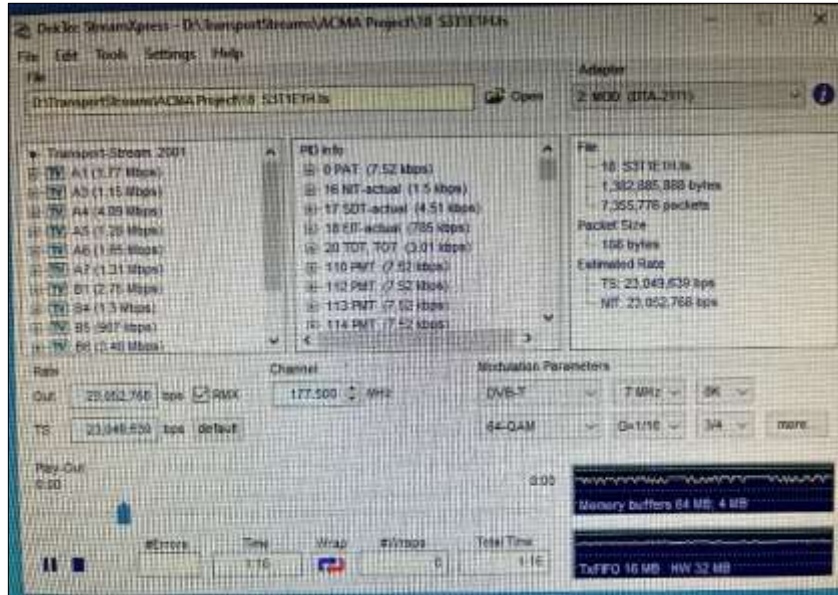
6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 6 services for Broadcaster B (2xHD, 2xMC, 2xDC). All 12 services in one statmux

Figure 28 PID listing for 18S3T1E1H

PIDs	
pid: 0x0 (0) => PAT	pid: 0x578 (1400) => Teletext - A1
pid: 0x10 (16) => NIT	pid: 0x57A (1402) => Teletext - A3
pid: 0x11 (17) => SDT/BAT	pid: 0x57B (1403) => Teletext - A4
pid: 0x12 (18) => EIT	pid: 0x57C (1404) => Teletext - A5
pid: 0x14 (20) => TOT/TDT	pid: 0x57D (1405) => Teletext - A6
pid: 0x66 (102) => PMT - A3	pid: 0x57E (1406) => Teletext - A7
pid: 0x67 (103) => PMT - A4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0x68 (104) => PMT - A5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0x69 (105) => PMT - A6	pid: 0x838 (2104) => Video H.264 - B5
pid: 0x6A (106) => PMT - A7	pid: 0x839 (2105) => Video H.264 - B6
pid: 0x6E (110) => PMT - A1	pid: 0x83A (2106) => Video H.264 - B7
pid: 0x02 (210) => PMT - B1	pid: 0x83B (2107) => Video H.264 - B8
pid: 0x05 (213) => PMT - B4	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x06 (214) => PMT - B5	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x07 (215) => PMT - B6	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x08 (216) => PMT - B7	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0x09 (217) => PMT - B8	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5, B6, B7, B8	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5, B6, B7, B8	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x206 (518) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x960 (2400) => Teletext - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x963 (2403) => Teletext - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x964 (2404) => Teletext - B5
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x965 (2405) => Teletext - B6
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x966 (2406) => Teletext - B7
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	
pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7	
pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1	
pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	
pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4	
pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	

4.17.2 Playout of Scenario #18

Photograph 16 Server playing stream 18 18S3T1E1H (A1 to B8)



4.17.3 Results for sharing scenario #18

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

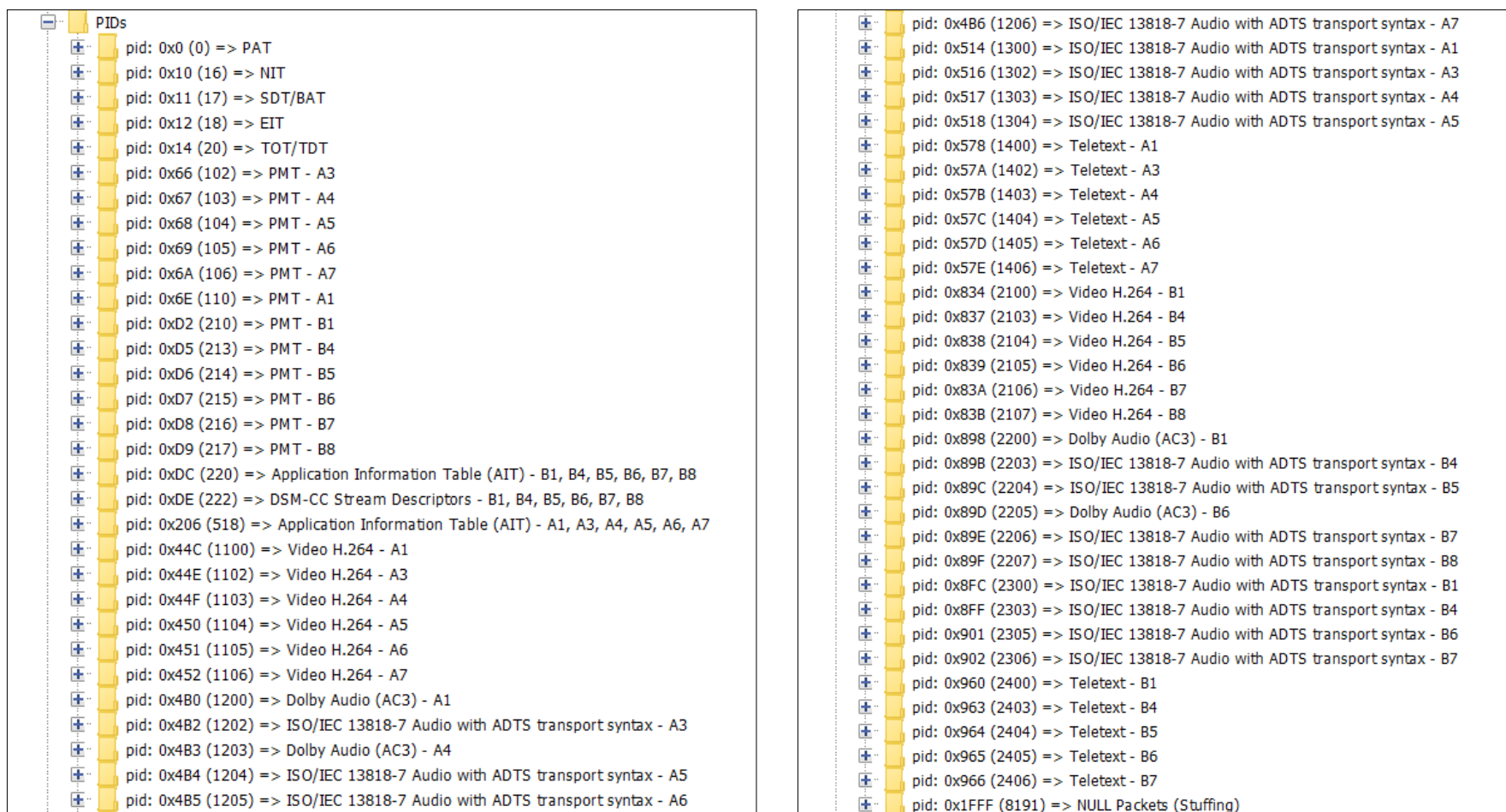
4.18 Sharing Scenario #19

DVB-T2, sharing 1/2, 1/2, MPEG4, SD & HD, Sequestered Statistical Multiplex. SDT-other and EIT-other NOT present

4.18.1 Description of test stream 19S3D2E1S

6 services for Broadcaster A (2xHD, 2xMC, 2xDC) statmuxed @ ~18Mbps. 6 services for Broadcaster B (2xHD, 2xMC, 2xDC) statmuxed @ ~18Mbps

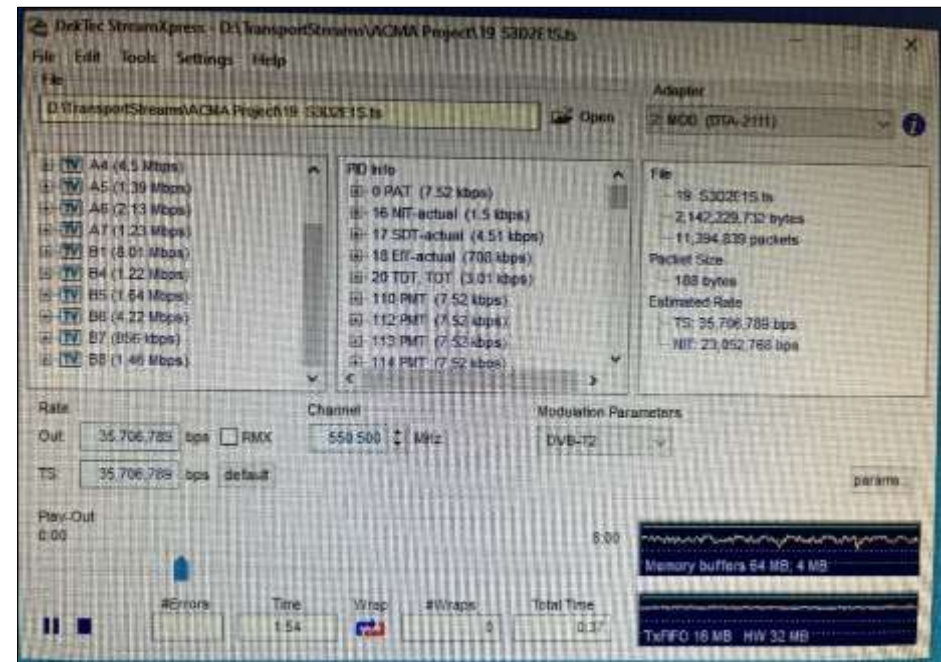
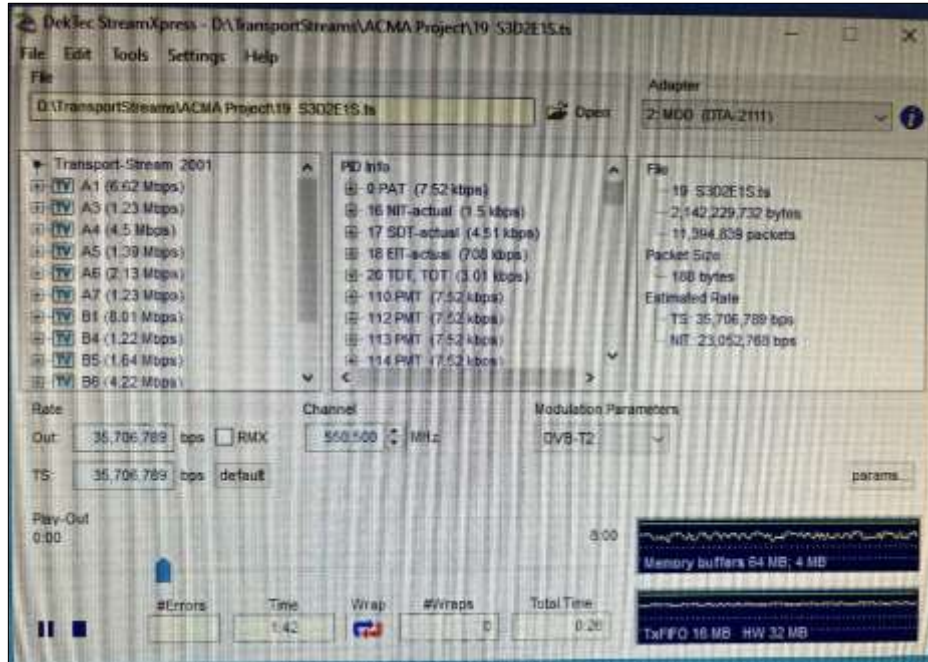
Figure 29 PID listing for 19S3D2E1S



PIDs	
pid: 0x0 (0) => PAT	pid: 0x486 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x10 (16) => NIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x11 (17) => SDT/BAT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x12 (18) => EIT	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x14 (20) => TOT/TDT	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x66 (102) => PMT - A3	pid: 0x578 (1400) => Teletext - A1
pid: 0x67 (103) => PMT - A4	pid: 0x57A (1402) => Teletext - A3
pid: 0x68 (104) => PMT - A5	pid: 0x57B (1403) => Teletext - A4
pid: 0x69 (105) => PMT - A6	pid: 0x57C (1404) => Teletext - A5
pid: 0x6A (106) => PMT - A7	pid: 0x57D (1405) => Teletext - A6
pid: 0x6E (110) => PMT - A1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD2 (210) => PMT - B1	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD5 (213) => PMT - B4	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xD6 (214) => PMT - B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xD7 (215) => PMT - B6	pid: 0x839 (2105) => Video H.264 - B6
pid: 0xD8 (216) => PMT - B7	pid: 0x83A (2106) => Video H.264 - B7
pid: 0xD9 (217) => PMT - B8	pid: 0x83B (2107) => Video H.264 - B8
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5, B6, B7, B8	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5, B6, B7, B8	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x206 (518) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x960 (2400) => Teletext - B1
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	pid: 0x965 (2405) => Teletext - B6
	pid: 0x966 (2406) => Teletext - B7
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.18.2 Playout of Scenario #19

Photograph 17 Server playing stream 19 19S3D2E1S (A1 to B8)



4.18.3 Results for sharing scenario #19

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*47	None	None	None	None	None	None	None	None	None

*47. Receiver not DVB-T2 capable.

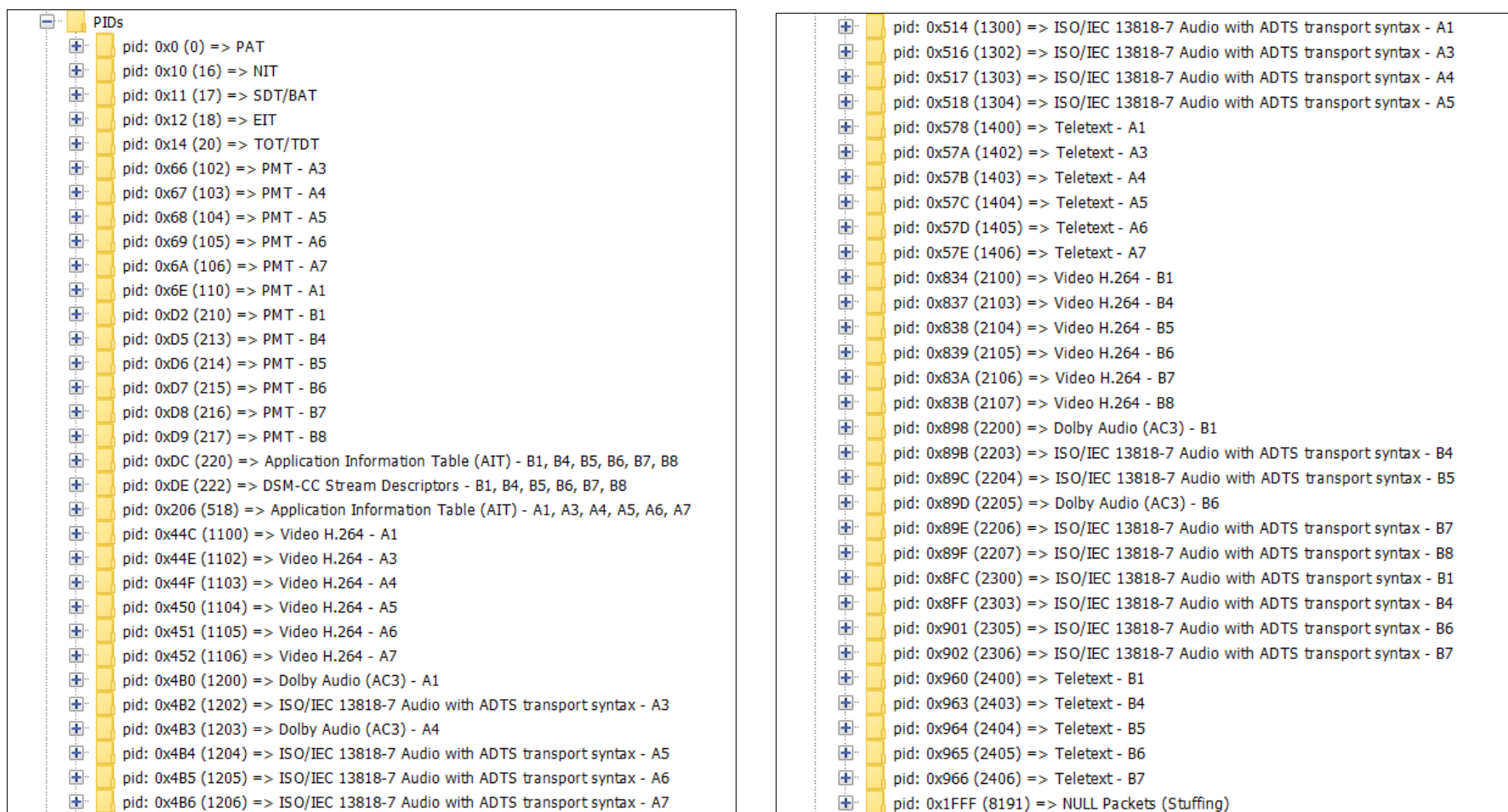
4.19 Sharing Scenario #20

DVB-T2, sharing 1/2, 1/2, MPEG4, SD & HD, Holistic Statistical Multiplex. SDT-other and EIT-other NOT present

4.19.1 Description of test stream 20S3D2E1H

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 6 services for Broadcaster B (2xHD, 2xMC, 2xDC). All 12 services in one statmux

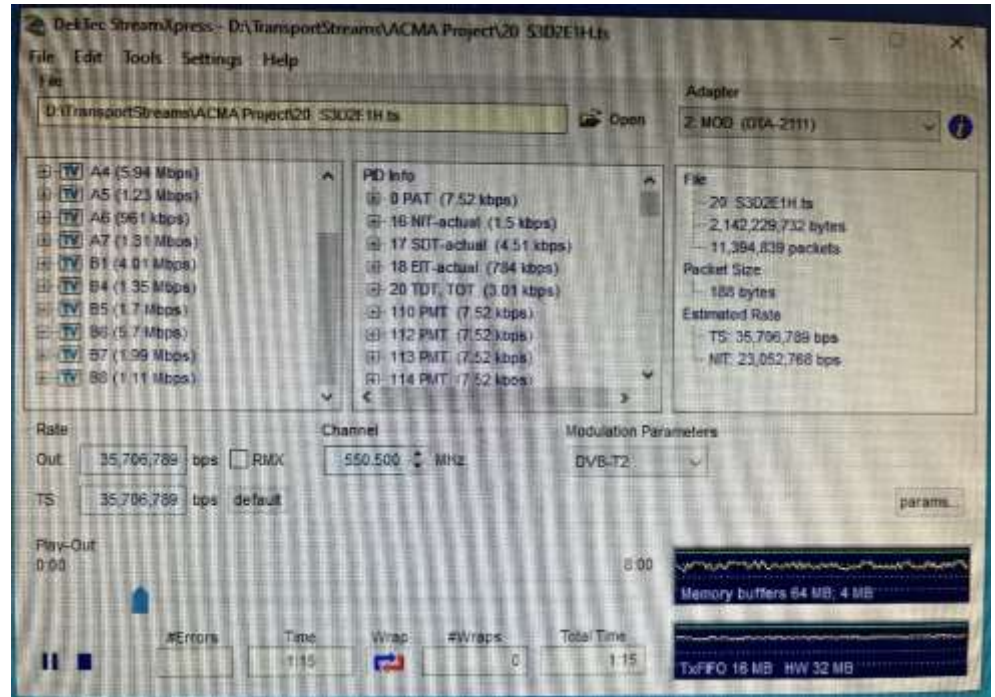
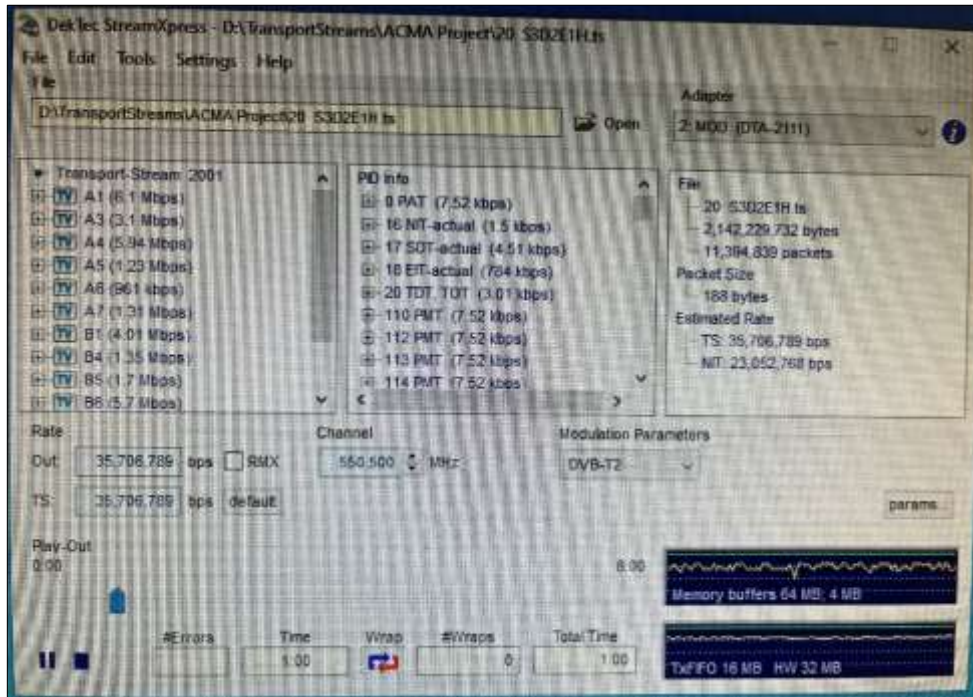
Figure 30 PID listing for 20S3D2E1H



PIDs	
pid: 0x0 (0) => PAT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x10 (16) => NIT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x11 (17) => SDT/BAT	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x12 (18) => EIT	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x14 (20) => TOT/TDT	pid: 0x578 (1400) => Teletext - A1
pid: 0x66 (102) => PMT - A3	pid: 0x57A (1402) => Teletext - A3
pid: 0x67 (103) => PMT - A4	pid: 0x57B (1403) => Teletext - A4
pid: 0x68 (104) => PMT - A5	pid: 0x57C (1404) => Teletext - A5
pid: 0x69 (105) => PMT - A6	pid: 0x57D (1405) => Teletext - A6
pid: 0x6A (106) => PMT - A7	pid: 0x57E (1406) => Teletext - A7
pid: 0x6E (110) => PMT - A1	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD2 (210) => PMT - B1	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xD5 (213) => PMT - B4	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xD6 (214) => PMT - B5	pid: 0x839 (2105) => Video H.264 - B6
pid: 0xD7 (215) => PMT - B6	pid: 0x83A (2106) => Video H.264 - B7
pid: 0xD8 (216) => PMT - B7	pid: 0x83B (2107) => Video H.264 - B8
pid: 0xD9 (217) => PMT - B8	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5, B6, B7, B8	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5, B6, B7, B8	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x206 (518) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x960 (2400) => Teletext - B1
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5	pid: 0x965 (2405) => Teletext - B6
pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6	pid: 0x966 (2406) => Teletext - B7
pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.19.2 Playout of Scenario #20

Photograph 18 Server playing stream 20 20S3D2E1H (A1 to B8)



4.19.3 Results for sharing scenario #20

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*48	None	None	None	None	None	None	None	None	None

*48. Receiver not DVB-T2 capable.

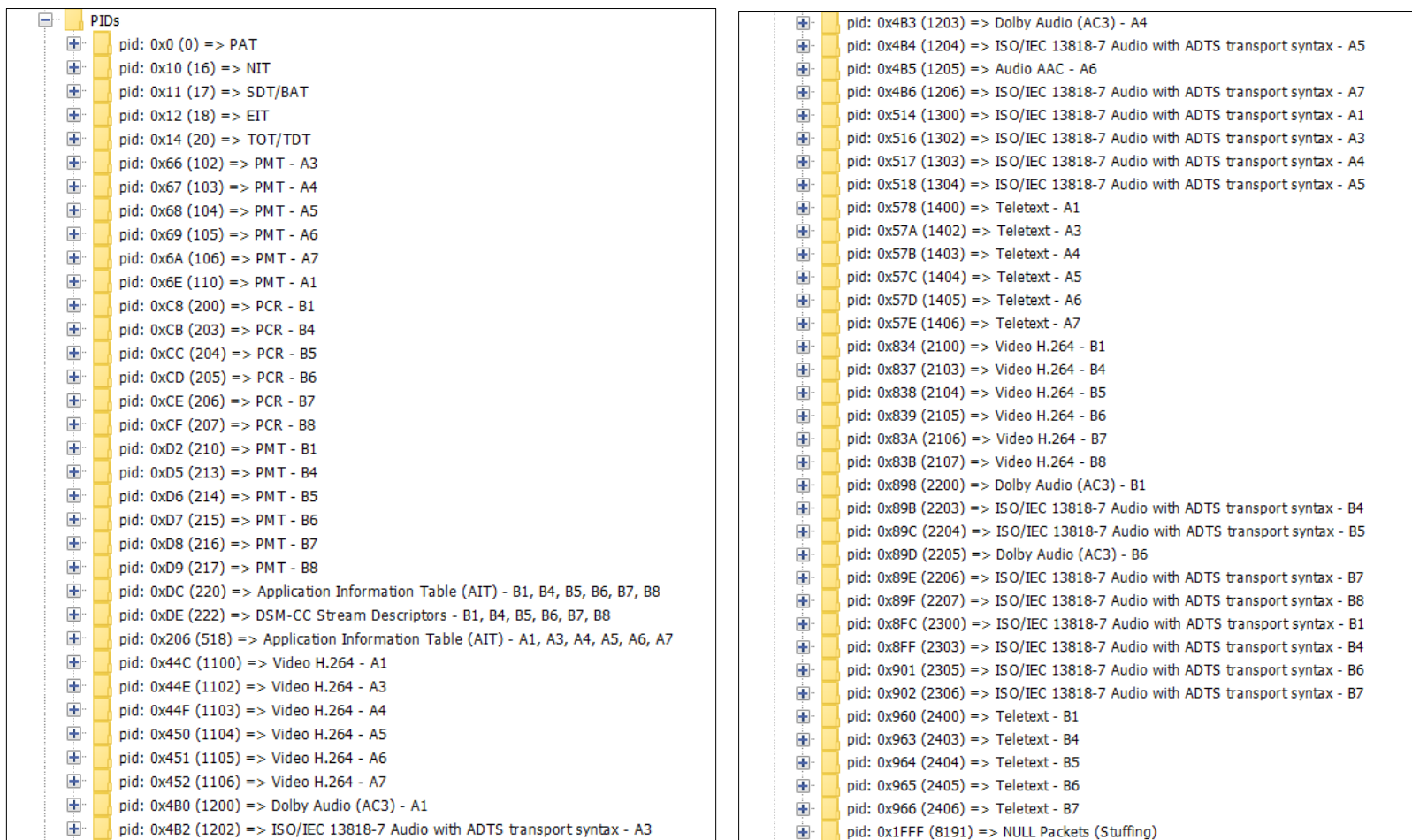
4.20 Sharing Scenario #21

DVB-T2, sharing 1/2, 1/2, MPEG4, HD, Holistic stat mux. SDT-other and EIT-other NOT present

4.20.1 Description of test stream 21S3D2E2H

6 services for Broadcaster A (6xHD). 6 services for Broadcaster B (6xHD). All 12 services in one statmux

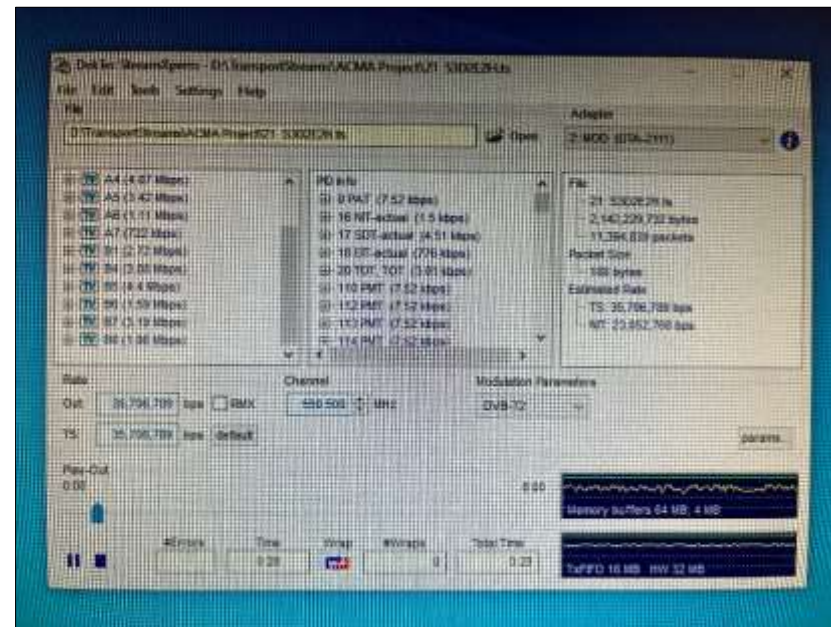
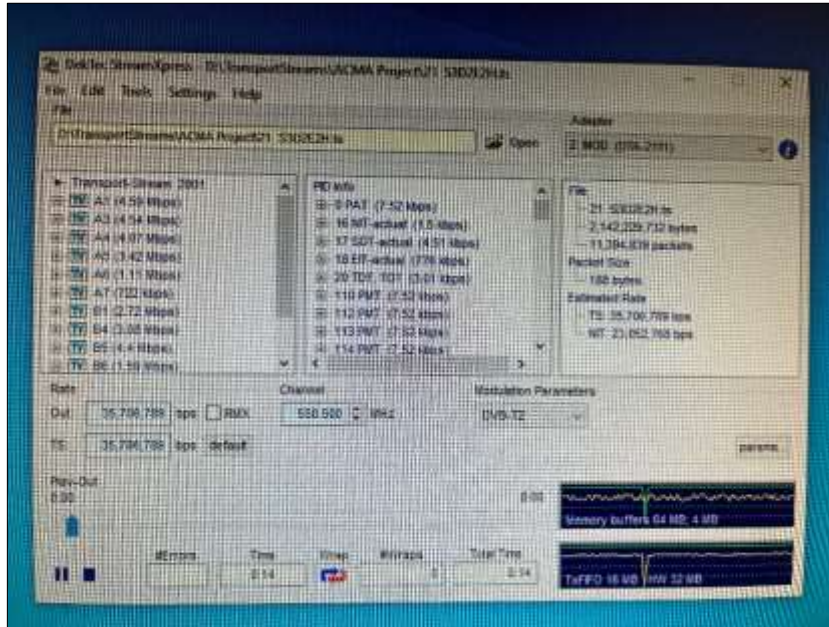
Figure 31 PID listing for 21S3D2E2H



PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4
pid: 0x10 (16) => NIT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x11 (17) => SDT/BAT	pid: 0x4B5 (1205) => Audio AAC - A6
pid: 0x12 (18) => EIT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x14 (20) => TOT/TDT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x66 (102) => PMT - A3	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x67 (103) => PMT - A4	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x68 (104) => PMT - A5	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x69 (105) => PMT - A6	pid: 0x578 (1400) => Teletext - A1
pid: 0x6A (106) => PMT - A7	pid: 0x57A (1402) => Teletext - A3
pid: 0x6E (110) => PMT - A1	pid: 0x57B (1403) => Teletext - A4
pid: 0xC8 (200) => PCR - B1	pid: 0x57C (1404) => Teletext - A5
pid: 0xCB (203) => PCR - B4	pid: 0x57D (1405) => Teletext - A6
pid: 0xCC (204) => PCR - B5	pid: 0x57E (1406) => Teletext - A7
pid: 0xCD (205) => PCR - B6	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xCE (206) => PCR - B7	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xCF (207) => PCR - B8	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xD2 (210) => PMT - B1	pid: 0x839 (2105) => Video H.264 - B6
pid: 0xD5 (213) => PMT - B4	pid: 0x83A (2106) => Video H.264 - B7
pid: 0xD6 (214) => PMT - B5	pid: 0x83B (2107) => Video H.264 - B8
pid: 0xD7 (215) => PMT - B6	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0xD8 (216) => PMT - B7	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0xD9 (217) => PMT - B8	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5, B6, B7, B8	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5, B6, B7, B8	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x206 (518) => Application Information Table (AIT) - A1, A3, A4, A5, A6, A7	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x960 (2400) => Teletext - B1
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x963 (2403) => Teletext - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x965 (2405) => Teletext - B6
	pid: 0x966 (2406) => Teletext - B7
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.20.2 *Playout of Scenario #21*

Photograph 19 Server playing stream 21 21S3D2E2H (A1 to B8)



4.20.3 Results for sharing scenario #21

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	*50	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	*49	None	None	None	None	None	None	None	None	None

*49. Receiver not DVB-T2 capable.

*50. The tester reported inability to navigate between channels using EPG. Further investigation found operator had not noticed the TV was changing channels correctly behind EPG display.

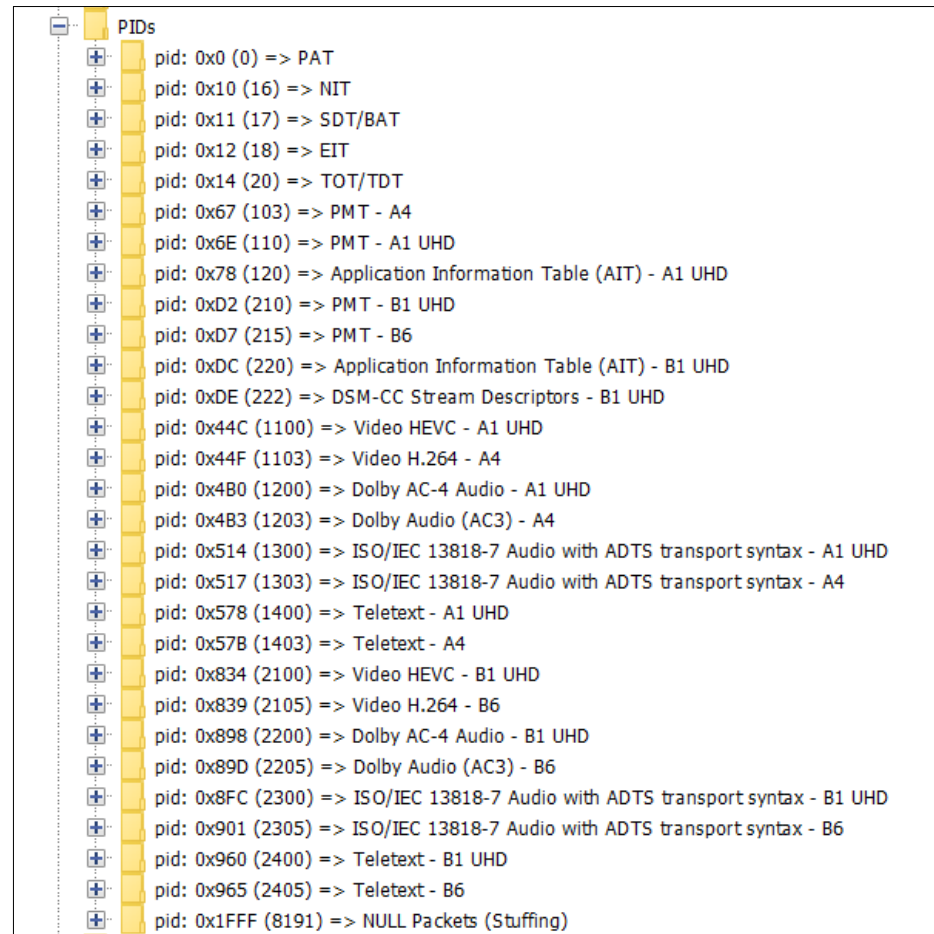
4.21 Sharing Scenario #22

DVB-T2, sharing 1/2, 1/2, MPEG4 & HEVC, HD & UHD, Holistic stat mux. SDT-other and EIT-other NOT present

4.21.1 Description of test stream 22S3D2E3H

2 services for Broadcaster A (1xUHD, 1xHD). 2 services for Broadcaster B (1xUHD, 1xHD). All 4 services in one statmux

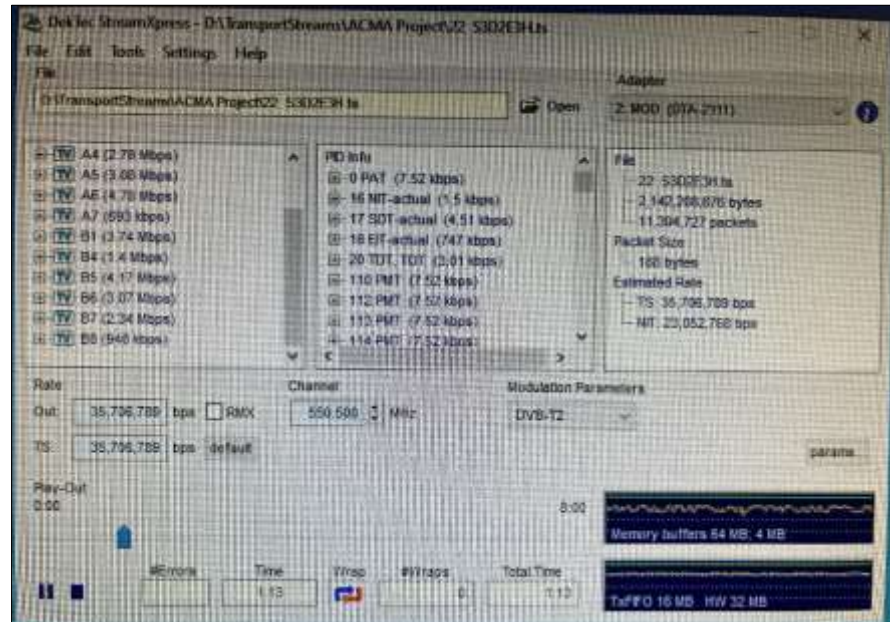
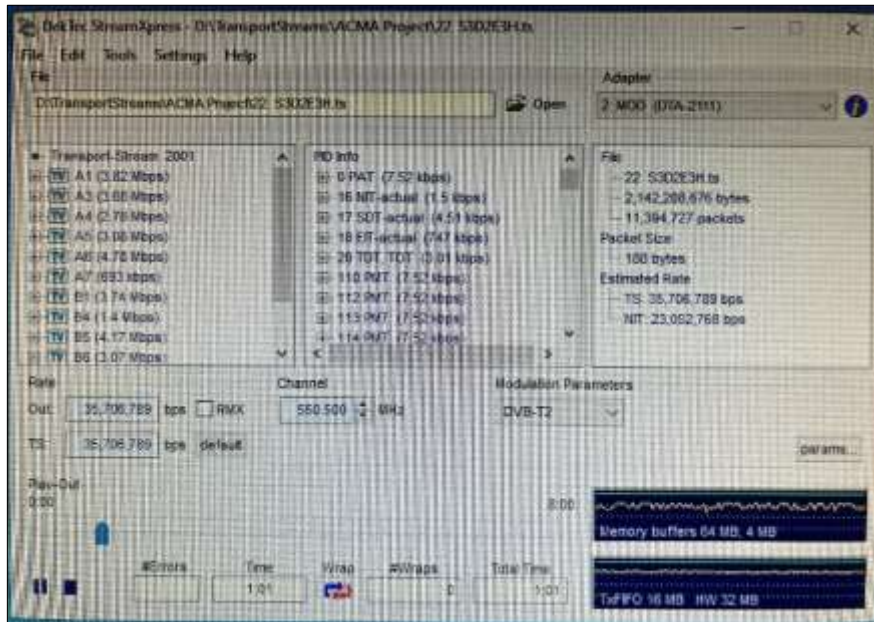
Figure 32 PID listing for 22S3D2E3H



PID	Service Type
pid: 0x0 (0)	=> PAT
pid: 0x10 (16)	=> NIT
pid: 0x11 (17)	=> SDT/BAT
pid: 0x12 (18)	=> EIT
pid: 0x14 (20)	=> TOT/TDT
pid: 0x67 (103)	=> PMT - A4
pid: 0x6E (110)	=> PMT - A1 UHD
pid: 0x78 (120)	=> Application Information Table (AIT) - A1 UHD
pid: 0xD2 (210)	=> PMT - B1 UHD
pid: 0xD7 (215)	=> PMT - B6
pid: 0xDC (220)	=> Application Information Table (AIT) - B1 UHD
pid: 0xDE (222)	=> DSM-CC Stream Descriptors - B1 UHD
pid: 0x44C (1100)	=> Video HEVC - A1 UHD
pid: 0x44F (1103)	=> Video H.264 - A4
pid: 0x4B0 (1200)	=> Dolby AC-4 Audio - A1 UHD
pid: 0x4B3 (1203)	=> Dolby Audio (AC3) - A4
pid: 0x514 (1300)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A1 UHD
pid: 0x517 (1303)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x578 (1400)	=> Teletext - A1 UHD
pid: 0x57B (1403)	=> Teletext - A4
pid: 0x834 (2100)	=> Video HEVC - B1 UHD
pid: 0x839 (2105)	=> Video H.264 - B6
pid: 0x898 (2200)	=> Dolby AC-4 Audio - B1 UHD
pid: 0x89D (2205)	=> Dolby Audio (AC3) - B6
pid: 0x8FC (2300)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B1 UHD
pid: 0x901 (2305)	=> ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x960 (2400)	=> Teletext - B1 UHD
pid: 0x965 (2405)	=> Teletext - B6
pid: 0x1FFF (8191)	=> NULL Packets (Stuffing)

4.21.2 Playout of Scenario #22

Photograph 20 Server playing stream 22 22S3D2E3H (A1 to B8)



4.21.3 Results for sharing scenario #22

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Fail
10	Notable anomalies	None	None	None	*53	None	*53	None	None	None	None	*51

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Pass
9	QEF audio decoding	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	*53	*53	None	*53	None	None	*53	*55	None	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Pass	Fail
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass
10	Notable anomalies	None	*54	None	None	*55	*53	None	*53	*55	None	*52

*51. Receivers are not AC4 capable. Sometimes produced audio from AD track - sometimes not identified as such by testers.

*52. Receivers are not HEVC capable. However are AC4 capable

*53. Receivers are not UHD capable, nor AC4 capable. Sometimes produced audio from AD track - sometimes not identified as such by testers.

*54. Receiver not DVB-T2 capable.

*55. Receivers are not UHD capable. However are AC4 capable

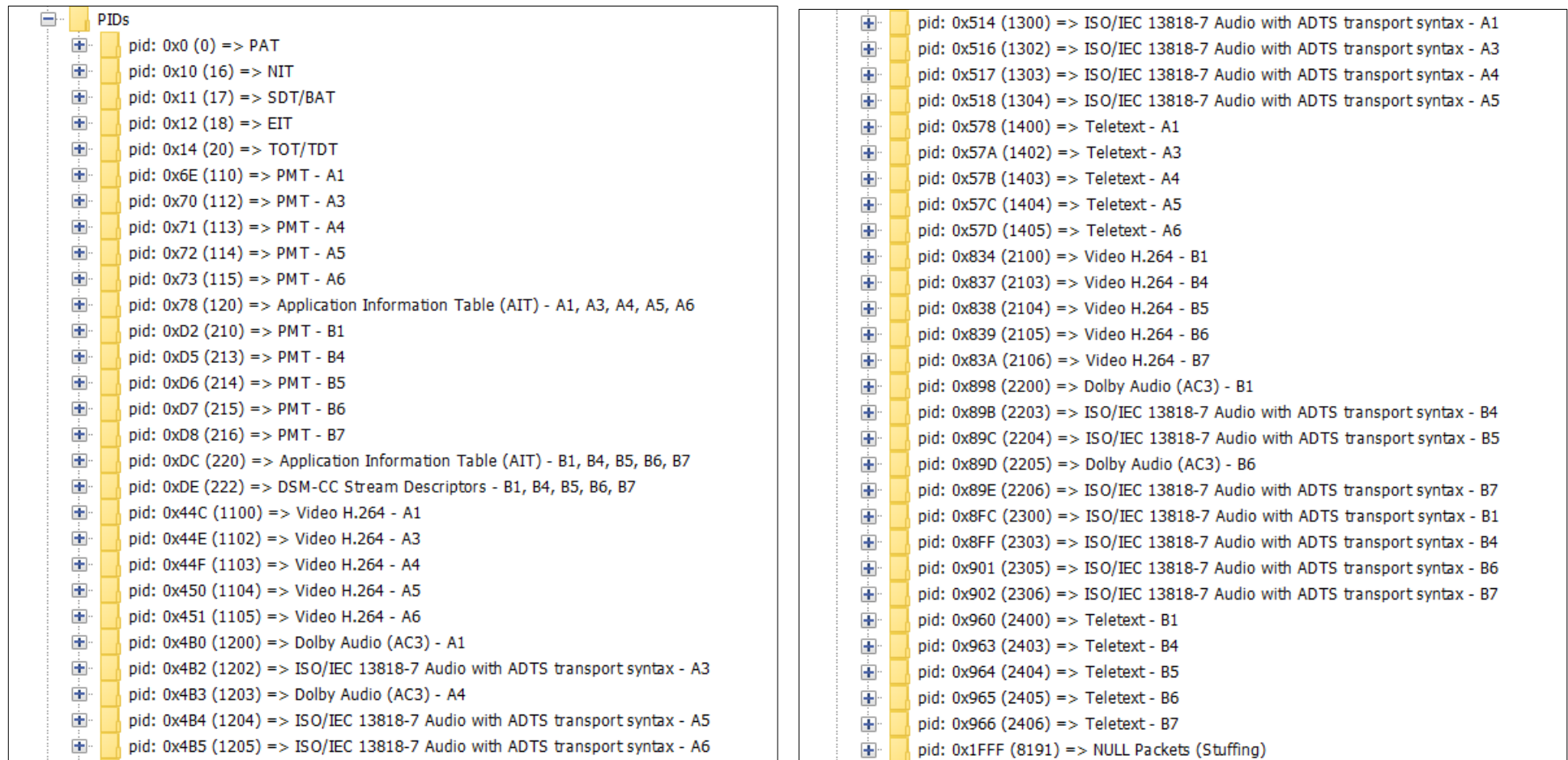
4.22 Sharing Scenario #23

DVB-T, sharing 50%/50% in one mux, 50%/10%/10%/10%/10%/10% in a second mux, MPEG4, SD & HD, Sequestered stat mux. SDT-other and EIT-other NOT present

4.22.1 Description of test stream 23S4T1E1S-1

5 services for Broadcaster A (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps. 5 services for Broadcaster B (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps.

Figure 33 PID listing for 23S4T1E1S-1



pid	Description
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - A1
0x70 (112)	PMT - A3
0x71 (113)	PMT - A4
0x72 (114)	PMT - A5
0x73 (115)	PMT - A6
0x78 (120)	Application Information Table (AIT) - A1, A3, A4, A5, A6
0xD2 (210)	PMT - B1
0xD5 (213)	PMT - B4
0xD6 (214)	PMT - B5
0xD7 (215)	PMT - B6
0xD8 (216)	PMT - B7
0xDC (220)	Application Information Table (AIT) - B1, B4, B5, B6, B7
0xDE (222)	DSM-CC Stream Descriptors - B1, B4, B5, B6, B7
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video H.264 - A3
0x44F (1103)	Video H.264 - A4
0x450 (1104)	Video H.264 - A5
0x451 (1105)	Video H.264 - A6
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x4B4 (1204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x4B5 (1205)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
0x518 (1304)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x578 (1400)	Teletext - A1
0x57A (1402)	Teletext - A3
0x57B (1403)	Teletext - A4
0x57C (1404)	Teletext - A5
0x57D (1405)	Teletext - A6
0x834 (2100)	Video H.264 - B1
0x837 (2103)	Video H.264 - B4
0x838 (2104)	Video H.264 - B5
0x839 (2105)	Video H.264 - B6
0x83A (2106)	Video H.264 - B7
0x898 (2200)	Dolby Audio (AC3) - B1
0x89B (2203)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x89C (2204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
0x89D (2205)	Dolby Audio (AC3) - B6
0x89E (2206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x901 (2305)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
0x902 (2306)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
0x960 (2400)	Teletext - B1
0x963 (2403)	Teletext - B4
0x964 (2404)	Teletext - B5
0x965 (2405)	Teletext - B6
0x966 (2406)	Teletext - B7
0x1FFF (8191)	NULL Packets (Stuffing)

4.22.2 Description of test stream 23S4T1E1S-2

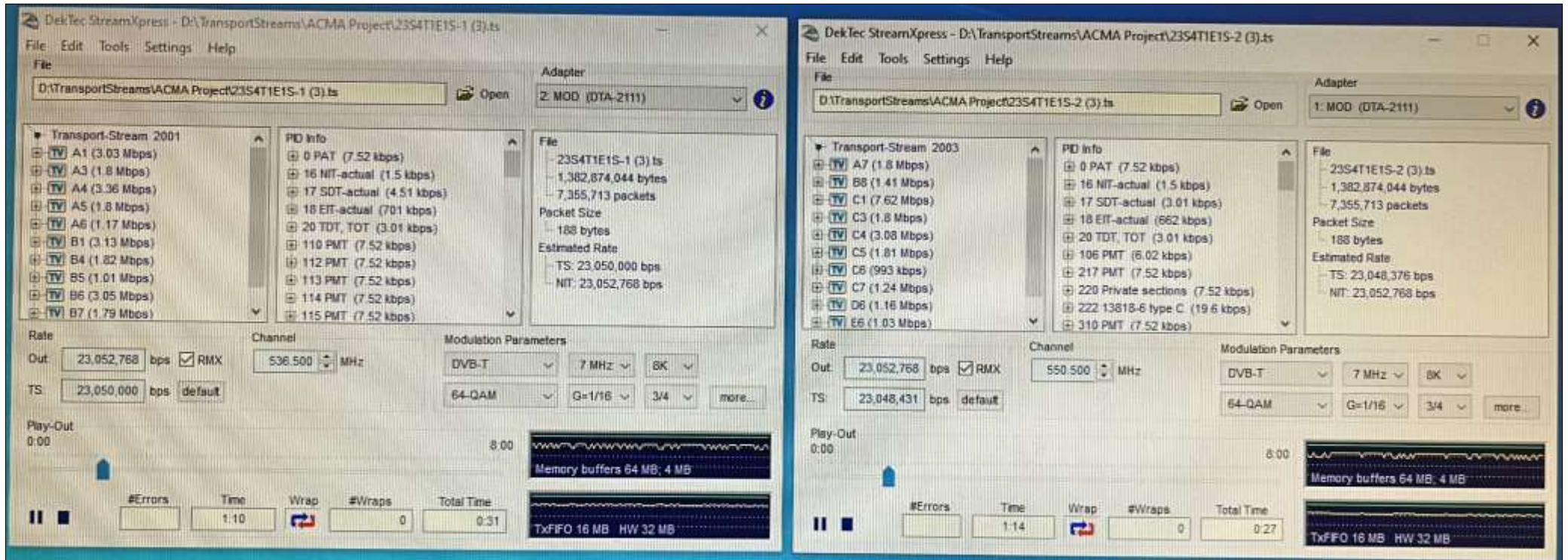
5 services for Broadcaster C (2xHD, 2xMC, 1xDC) statmuxed @ ~11.5Mbps. 5xDC services (one each for Broadcaster A, B, C, D & E) statmuxed @ ~11.5Mbps

Figure 34 PID listing for 23S4T1E1S-2

PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0x6A (106) =>	PMT - A7
pid: 0xD9 (217) =>	PMT - B8
pid: 0xDC (220) =>	Application Information Table (AIT) - B8, E6
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - B8, E6
pid: 0x136 (310) =>	PMT - C1
pid: 0x138 (312) =>	PMT - C3
pid: 0x139 (313) =>	PMT - C4
pid: 0x13A (314) =>	PMT - C5
pid: 0x13B (315) =>	PMT - C6
pid: 0x13C (316) =>	PMT - C7
pid: 0x140 (320) =>	Application Information Table (AIT) - C1, C3, C4, C5, C6, C7
pid: 0x1A0 (416) =>	PMT - D6
pid: 0x204 (516) =>	PMT - E6
pid: 0x452 (1106) =>	Video H.264 - A7
pid: 0x4B6 (1206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x57E (1406) =>	Teletext - A7
pid: 0x83B (2107) =>	Video H.264 - B8
pid: 0x89F (2207) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
pid: 0xC1C (3100) =>	Video H.264 - C1
pid: 0xC1E (3102) =>	Video H.264 - C3
pid: 0xC1F (3103) =>	Video H.264 - C4
pid: 0xC20 (3104) =>	Video H.264 - C5
pid: 0xC21 (3105) =>	Video H.264 - C6
pid: 0xC22 (3106) =>	Video H.264 - C7
pid: 0xC80 (3200) =>	Dolby Audio (AC3) - C1
pid: 0xC82 (3202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xC83 (3203) =>	Dolby Audio (AC3) - C4
pid: 0xC84 (3204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xC85 (3205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xC86 (3206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0xCE4 (3300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0xCE6 (3302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0xCE7 (3303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0xCE8 (3304) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xD48 (3400) =>	Teletext - C1
pid: 0xD4A (3402) =>	Teletext - C3
pid: 0xD4B (3403) =>	Teletext - C4
pid: 0xD4C (3404) =>	Teletext - C5
pid: 0xD4D (3405) =>	Teletext - C6
pid: 0x100A (4106) =>	Video H.264 - D6
pid: 0x106E (4206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - D6
pid: 0x1136 (4406) =>	Teletext - D6
pid: 0x13F2 (5106) =>	Video H.264 - E6
pid: 0x1456 (5206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - E6
pid: 0x151E (5406) =>	Teletext - E6
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.22.3 Playout of Scenario #23

Photograph 21 Server playing stream 23 pair 23S4T1E1S - 1 & 2



4.22.4 Results for sharing scenario #23

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*56	*56	None	None	None	None	None	None	None	None	*56

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*56	*56	None	None	None	None	None	None	None	None	None

*56. Receivers retained all EPG data after removing test stream 23S4T1E1S-2 and a power cycle.

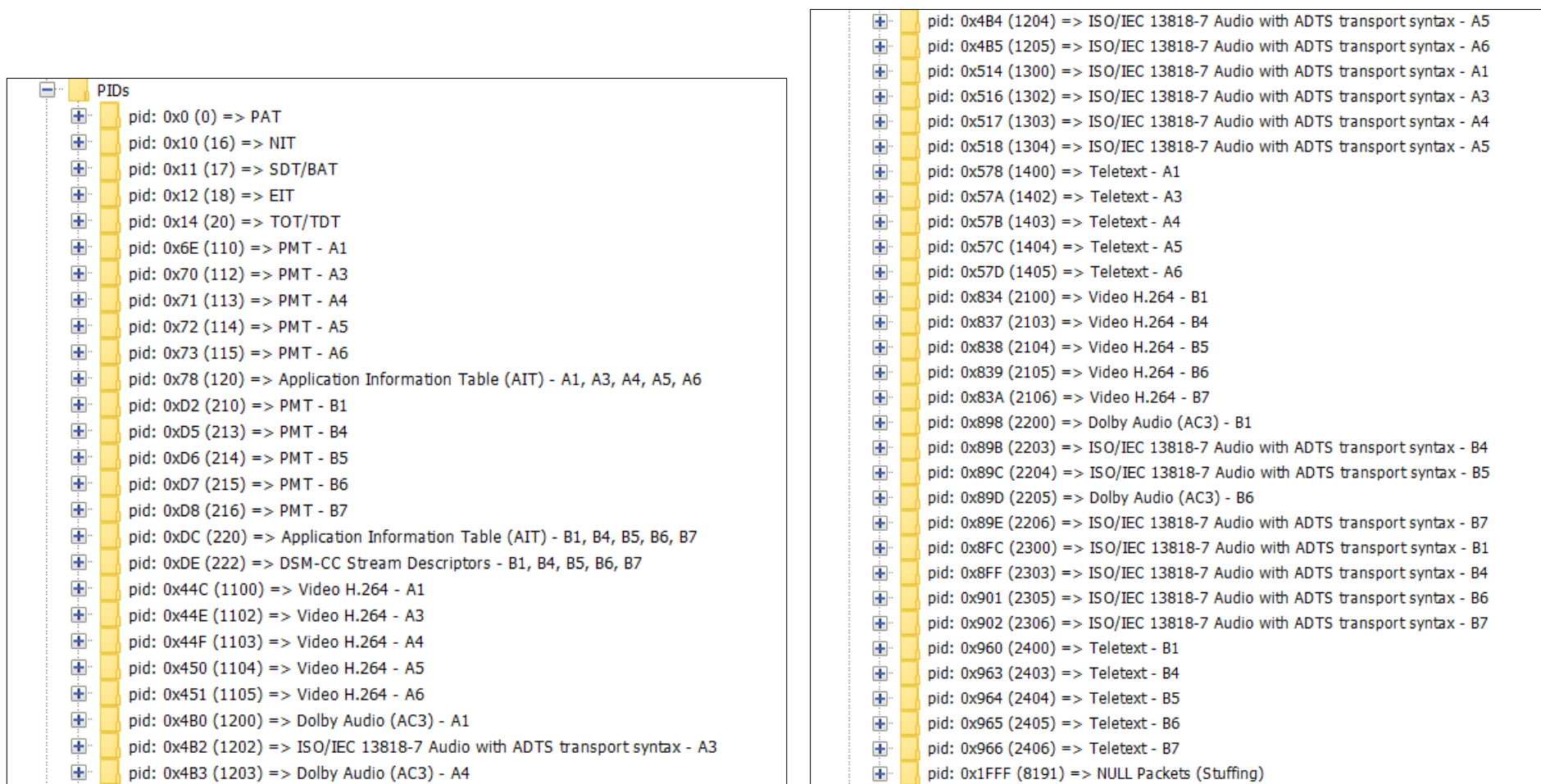
4.23 Sharing Scenario #24

DVB-T2, sharing 50%/50% in one mux, 50%/10%/10%/10%/10%/10% in a second mux, MPEG4, SD & HD, Sequestered stat mux. SDT-other and EIT-other NOT present

4.23.1 Description of test stream 24S4D2E1S-1

5 services for Broadcaster A (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps. 5 services for Broadcaster B (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps.

Figure 35 PID listing for 24S4D2E1S-1



pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x12 (18) => EIT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x14 (20) => TOT/TDT	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x6E (110) => PMT - A1	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x70 (112) => PMT - A3	pid: 0x578 (1400) => Teletext - A1
pid: 0x71 (113) => PMT - A4	pid: 0x57A (1402) => Teletext - A3
pid: 0x72 (114) => PMT - A5	pid: 0x57B (1403) => Teletext - A4
pid: 0x73 (115) => PMT - A6	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD5 (213) => PMT - B4	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xD6 (214) => PMT - B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xD7 (215) => PMT - B6	pid: 0x839 (2105) => Video H.264 - B6
pid: 0xD8 (216) => PMT - B7	pid: 0x83A (2106) => Video H.264 - B7
pid: 0xDC (220) => Application Information Table (AIT) - B1, B4, B5, B6, B7	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B4, B5, B6, B7	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	pid: 0x960 (2400) => Teletext - B1
	pid: 0x963 (2403) => Teletext - B4
	pid: 0x964 (2404) => Teletext - B5
	pid: 0x965 (2405) => Teletext - B6
	pid: 0x966 (2406) => Teletext - B7
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.23.2 Description of test stream 24S4D2E1S-2

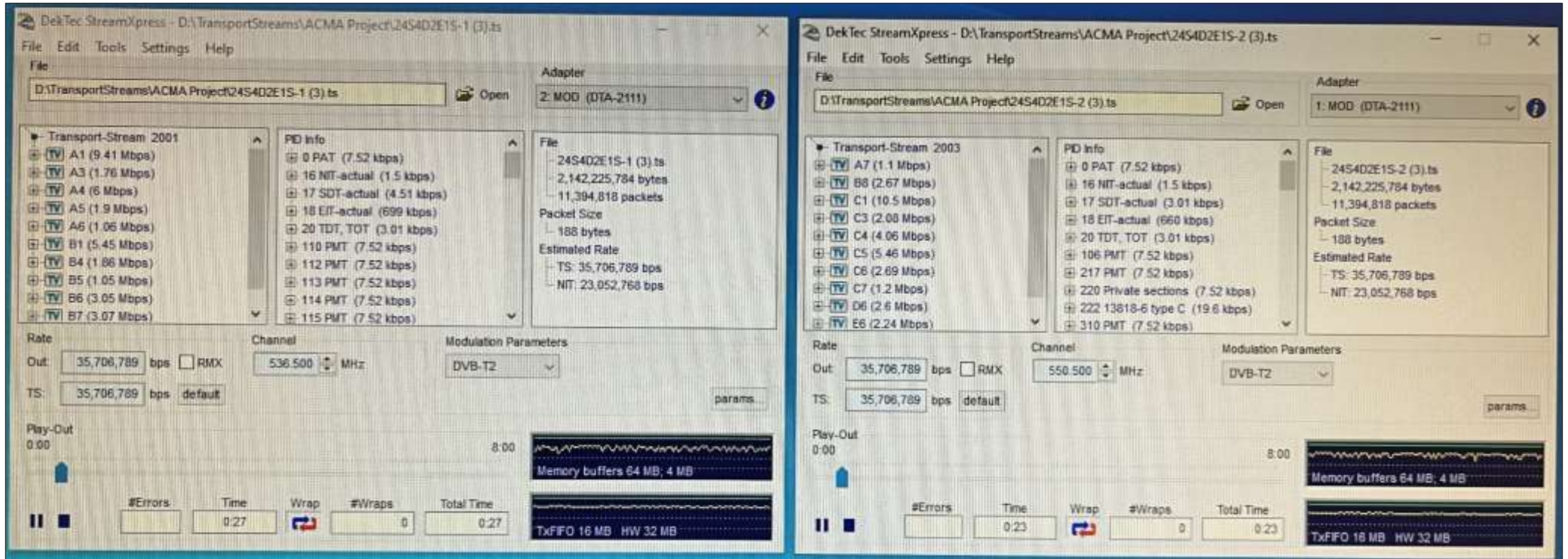
5 services for Broadcaster C (2xHD, 2xMC, 1xDC) statmuxed @ ~18Mbps. 5xDC services (one each for Broadcaster A, B, C, D & E) statmuxed @ ~18Mbps

Figure 36 PID listing for 24S4D2E1S-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0x10 (16) => NIT	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0x11 (17) => SDT/BAT	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0x12 (18) => EIT	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0x14 (20) => TOT/TDT	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x6A (106) => PMT - A7	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0xD9 (217) => PMT - B8	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0xDC (220) => Application Information Table (AIT) - B8, E6	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0xDE (222) => DSM-CC Stream Descriptors - B8, E6	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x136 (310) => PMT - C1	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x138 (312) => PMT - C3	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x139 (313) => PMT - C4	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x13A (314) => PMT - C5	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x13B (315) => PMT - C6	pid: 0xD48 (3400) => Teletext - C1
pid: 0x13C (316) => PMT - C7	pid: 0xD4A (3402) => Teletext - C3
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xD4B (3403) => Teletext - C4
pid: 0x1A0 (416) => PMT - D6	pid: 0xD4C (3404) => Teletext - C5
pid: 0x204 (516) => PMT - E6	pid: 0xD4D (3405) => Teletext - C6
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x100A (4106) => Video H.264 - D6
pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7	pid: 0x106E (4206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - D6
pid: 0x57E (1406) => Teletext - A7	pid: 0x1136 (4406) => Teletext - D6
pid: 0x83B (2107) => Video H.264 - B8	pid: 0x13F2 (5106) => Video H.264 - E6
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	pid: 0x1456 (5206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - E6
pid: 0xC1C (3100) => Video H.264 - C1	pid: 0x151E (5406) => Teletext - E6
pid: 0xC1E (3102) => Video H.264 - C3	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0xC1F (3103) => Video H.264 - C4	

4.23.3 Playout of Scenario #24

Photograph 22 Server playing stream 24 pair 24S4D2E1S - 1 & 2



4.23.4 Results for sharing scenario #24

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*57	*57	None	None	None	None	None	None	None	*57	None

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*57	*58	None	None	None	None	None	*59	None	None	None

*57. Receivers retained all EPG data after removing test stream 24S4D2E1S-2 and a power cycle.

*58. Receiver not DVB-T2 capable.

*59. Receiver lost two of the seven LCN's from channel listing when test stream 24S4D2E1S-2 removed. Restored to channel list without re-tuning when stream restored.

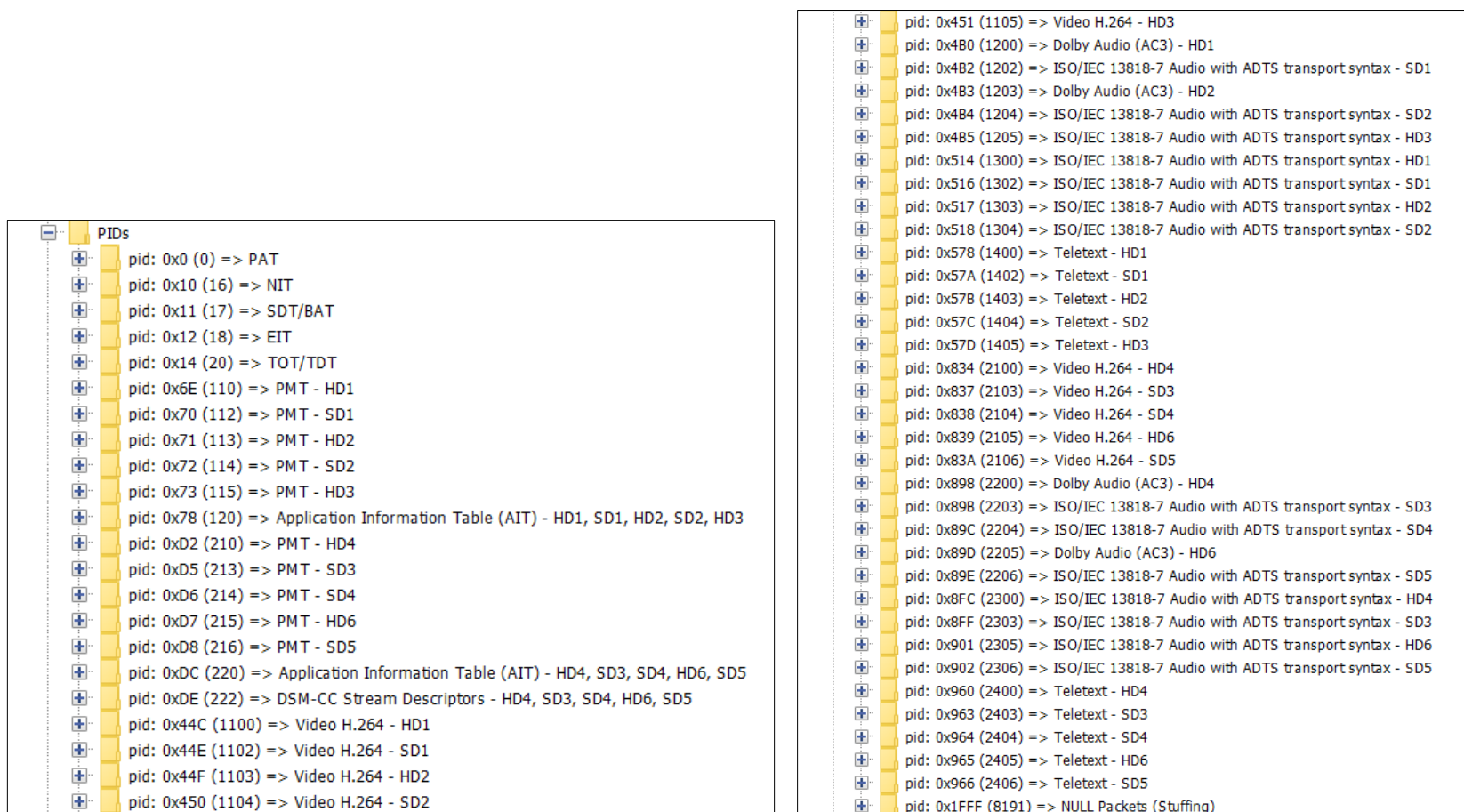
4.24 Sharing Scenario #25

DVB-T, sharing 20%/20%/20%/20%/20% in one mux, MPEG4, SD & HD, Holistic stat mux. SDT-other and EIT-other NOT present

4.24.1 Description of test stream 25S5T1E1H-1

5xHD services (one for each Broadcaster A, B, C, D & E). 5x DC services (one for each Broadcaster A, B, C, D & E). All 10 services in one statmux

Figure 37 PID listing for 25S5T1E1H-1



PID	Service
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6E (110)	PMT - HD1
0x70 (112)	PMT - SD1
0x71 (113)	PMT - HD2
0x72 (114)	PMT - SD2
0x73 (115)	PMT - HD3
0x78 (120)	Application Information Table (AIT) - HD1, SD1, HD2, SD2, HD3
0xD2 (210)	PMT - HD4
0xD5 (213)	PMT - SD3
0xD6 (214)	PMT - SD4
0xD7 (215)	PMT - HD6
0xD8 (216)	PMT - SD5
0xDC (220)	Application Information Table (AIT) - HD4, SD3, SD4, HD6, SD5
0xDE (222)	DSM-CC Stream Descriptors - HD4, SD3, SD4, HD6, SD5
0x44C (1100)	Video H.264 - HD1
0x44E (1102)	Video H.264 - SD1
0x44F (1103)	Video H.264 - HD2
0x450 (1104)	Video H.264 - SD2
0x451 (1105)	Video H.264 - HD3
0x4B0 (1200)	Dolby Audio (AC3) - HD1
0x4B2 (1202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD1
0x4B3 (1203)	Dolby Audio (AC3) - HD2
0x4B4 (1204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD2
0x4B5 (1205)	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD3
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD1
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD2
0x518 (1304)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD2
0x578 (1400)	Teletext - HD1
0x57A (1402)	Teletext - SD1
0x57B (1403)	Teletext - HD2
0x57C (1404)	Teletext - SD2
0x57D (1405)	Teletext - HD3
0x834 (2100)	Video H.264 - HD4
0x837 (2103)	Video H.264 - SD3
0x838 (2104)	Video H.264 - SD4
0x839 (2105)	Video H.264 - HD6
0x83A (2106)	Video H.264 - SD5
0x898 (2200)	Dolby Audio (AC3) - HD4
0x89B (2203)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD3
0x89C (2204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD4
0x89D (2205)	Dolby Audio (AC3) - HD6
0x89E (2206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD5
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD4
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD3
0x901 (2305)	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD6
0x902 (2306)	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD5
0x960 (2400)	Teletext - HD4
0x963 (2403)	Teletext - SD3
0x964 (2404)	Teletext - SD4
0x965 (2405)	Teletext - HD6
0x966 (2406)	Teletext - SD5
0x1FFF (8191)	NULL Packets (Stuffing)

4.24.2 Description of test stream 25S5T1E1H-2

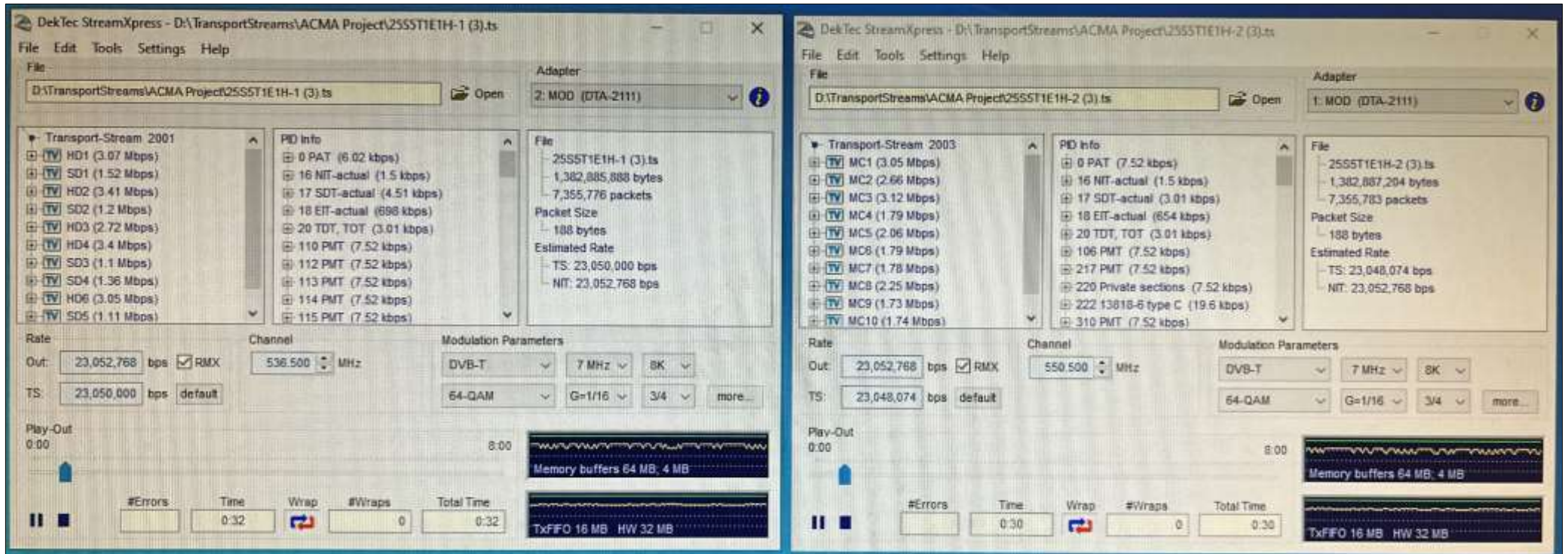
10xMC services (two for each Broadcaster A, B, C, D & E). All 10 services in one statmux

Figure 38 PID listing for 25S5T1E1H-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC21 (3105) => Video H.264 - MC7
pid: 0x10 (16) => NIT	pid: 0xC22 (3106) => Video H.264 - MC8
pid: 0x11 (17) => SDT/BAT	pid: 0xC80 (3200) => Dolby Audio (AC3) - MC3
pid: 0x12 (18) => EIT	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC4
pid: 0x14 (20) => TOT/TDT	pid: 0xC83 (3203) => Dolby Audio (AC3) - MC5
pid: 0x6A (106) => PMT - MC1	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC6
pid: 0xD9 (217) => PMT - MC2	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC7
pid: 0xDC (220) => Application Information Table (AIT) - MC2, MC10	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC8
pid: 0xDE (222) => DSM-CC Stream Descriptors - MC2, MC10	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC3
pid: 0x136 (310) => PMT - MC3	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC4
pid: 0x138 (312) => PMT - MC4	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC5
pid: 0x139 (313) => PMT - MC5	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC6
pid: 0x13A (314) => PMT - MC6	pid: 0xD48 (3400) => Teletext - MC3
pid: 0x13B (315) => PMT - MC7	pid: 0xD4A (3402) => Teletext - MC4
pid: 0x13C (316) => PMT - MC8	pid: 0xD4B (3403) => Teletext - MC5
pid: 0x140 (320) => Application Information Table (AIT) - MC3, MC4, MC5, MC6, MC7, MC8	pid: 0xD4C (3404) => Teletext - MC6
pid: 0x204 (516) => PMT - MC9, MC10	pid: 0xD4D (3405) => Teletext - MC7
pid: 0x452 (1106) => Video H.264 - MC1	pid: 0x100A (4106) => Video H.264 - MC9
pid: 0x486 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC1	pid: 0x106E (4206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC9
pid: 0x57E (1406) => Teletext - MC1	pid: 0x1136 (4406) => Teletext - MC9
pid: 0x83B (2107) => Video H.264 - MC2	pid: 0x13F2 (5106) => Video H.264 - MC10
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC2	pid: 0x1456 (5206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC10
pid: 0xC1C (3100) => Video H.264 - MC3	pid: 0x151E (5406) => Teletext - MC10
pid: 0xC1E (3102) => Video H.264 - MC4	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0xC1F (3103) => Video H.264 - MC5	
pid: 0xC20 (3104) => Video H.264 - MC6	

4.24.3 Playout of Scenario #25

Photograph 23 Server playing stream 25 pair 25S5T1E1H - 1 & 2



4.24.4 Results for sharing scenario #25

Receiver #	1	2	3	4	5	6	7	8	9	10	11
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	*60	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

Receiver #	12	13	14	15	16	17	18	19	20	21	22
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*61	*61	None	None	None	None	None	None	None	*61	*61

Receiver #	23	24	25	26	27	28	29	30	31	32	33
1 Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2 Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3 SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4 Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass
5 EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6 LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7 Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8 QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9 QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10 Notable anomalies	*61	*62	None	None	*63	None	None	None	None	None	None

*60. Tester noted some pixilation.

*61. Receivers retained all EPG data after removing test stream 25S5D2E1H-2 and a power cycle.

*62. Receiver displayed no EPG data after removing test stream 25S5D2E1H-2 and a power cycle. Without 25S5D2E1H-2 not running, all EPG data for all channels was displayed following selection of a service in 25S5D2E1H-1. Could not repeat this behavior when repeating tests 15-19

*63. Receiver did not restore EPG data after restoring test stream 25S5D2E1H-2. Channel retune restored all EPG data.

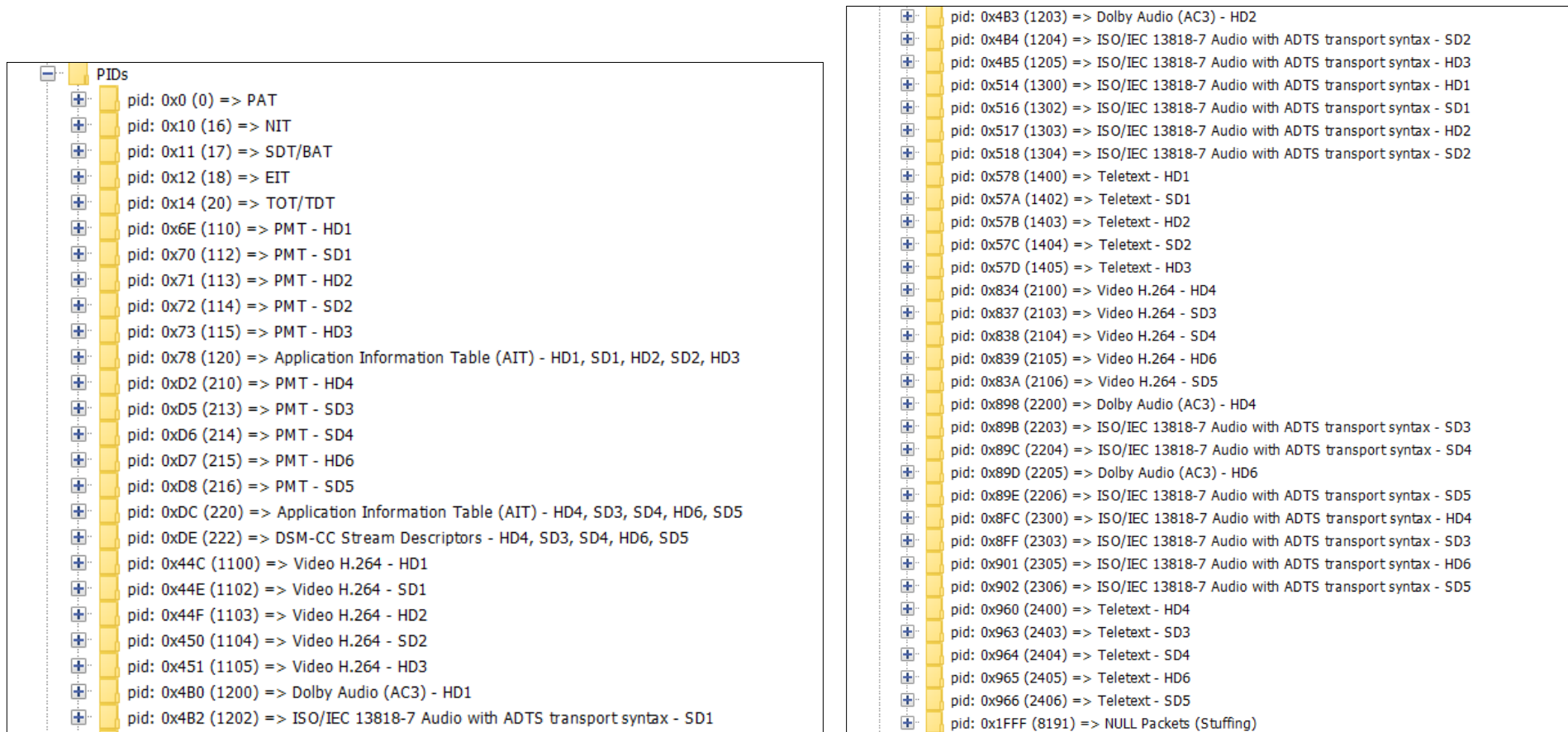
4.25 Sharing Scenario #26

DVB-T2, sharing 20%/20%/20%/20%/20% in one mux, MPEG4, SD & HD, Holistic stat mux. SDT-other and EIT-other NOT present

4.25.1 Description of test stream 26S5D2E1H-1

5xHD services (one for each Broadcaster A, B, C, D & E). 5x DC services (one for each Broadcaster A, B, C, D & E). All 10 services in one statmux

Figure 39 PID listing for 26S5D2E1H-1



PIDs	
pid: 0x0 (0) =>	PAT
pid: 0x10 (16) =>	NIT
pid: 0x11 (17) =>	SDT/BAT
pid: 0x12 (18) =>	EIT
pid: 0x14 (20) =>	TOT/TDT
pid: 0x6E (110) =>	PMT - HD1
pid: 0x70 (112) =>	PMT - SD1
pid: 0x71 (113) =>	PMT - HD2
pid: 0x72 (114) =>	PMT - SD2
pid: 0x73 (115) =>	PMT - HD3
pid: 0x78 (120) =>	Application Information Table (AIT) - HD1, SD1, HD2, SD2, HD3
pid: 0xD2 (210) =>	PMT - HD4
pid: 0xD5 (213) =>	PMT - SD3
pid: 0xD6 (214) =>	PMT - SD4
pid: 0xD7 (215) =>	PMT - HD6
pid: 0xD8 (216) =>	PMT - SD5
pid: 0xDC (220) =>	Application Information Table (AIT) - HD4, SD3, SD4, HD6, SD5
pid: 0xDE (222) =>	DSM-CC Stream Descriptors - HD4, SD3, SD4, HD6, SD5
pid: 0x44C (1100) =>	Video H.264 - HD1
pid: 0x44E (1102) =>	Video H.264 - SD1
pid: 0x44F (1103) =>	Video H.264 - HD2
pid: 0x450 (1104) =>	Video H.264 - SD2
pid: 0x451 (1105) =>	Video H.264 - HD3
pid: 0x4B0 (1200) =>	Dolby Audio (AC3) - HD1
pid: 0x4B2 (1202) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD1
pid: 0x4B3 (1203) =>	Dolby Audio (AC3) - HD2
pid: 0x4B4 (1204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD2
pid: 0x4B5 (1205) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD3
pid: 0x514 (1300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD1
pid: 0x516 (1302) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD1
pid: 0x517 (1303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD2
pid: 0x518 (1304) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD2
pid: 0x578 (1400) =>	Teletext - HD1
pid: 0x57A (1402) =>	Teletext - SD1
pid: 0x57B (1403) =>	Teletext - HD2
pid: 0x57C (1404) =>	Teletext - SD2
pid: 0x57D (1405) =>	Teletext - HD3
pid: 0x834 (2100) =>	Video H.264 - HD4
pid: 0x837 (2103) =>	Video H.264 - SD3
pid: 0x838 (2104) =>	Video H.264 - SD4
pid: 0x839 (2105) =>	Video H.264 - HD6
pid: 0x83A (2106) =>	Video H.264 - SD5
pid: 0x898 (2200) =>	Dolby Audio (AC3) - HD4
pid: 0x89B (2203) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD3
pid: 0x89C (2204) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD4
pid: 0x89D (2205) =>	Dolby Audio (AC3) - HD6
pid: 0x89E (2206) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD5
pid: 0x8FC (2300) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD4
pid: 0x8FF (2303) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD3
pid: 0x901 (2305) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - HD6
pid: 0x902 (2306) =>	ISO/IEC 13818-7 Audio with ADTS transport syntax - SD5
pid: 0x960 (2400) =>	Teletext - HD4
pid: 0x963 (2403) =>	Teletext - SD3
pid: 0x964 (2404) =>	Teletext - SD4
pid: 0x965 (2405) =>	Teletext - HD6
pid: 0x966 (2406) =>	Teletext - SD5
pid: 0x1FFF (8191) =>	NULL Packets (Stuffing)

4.25.2 Description of test stream 26S5D2E1H-2

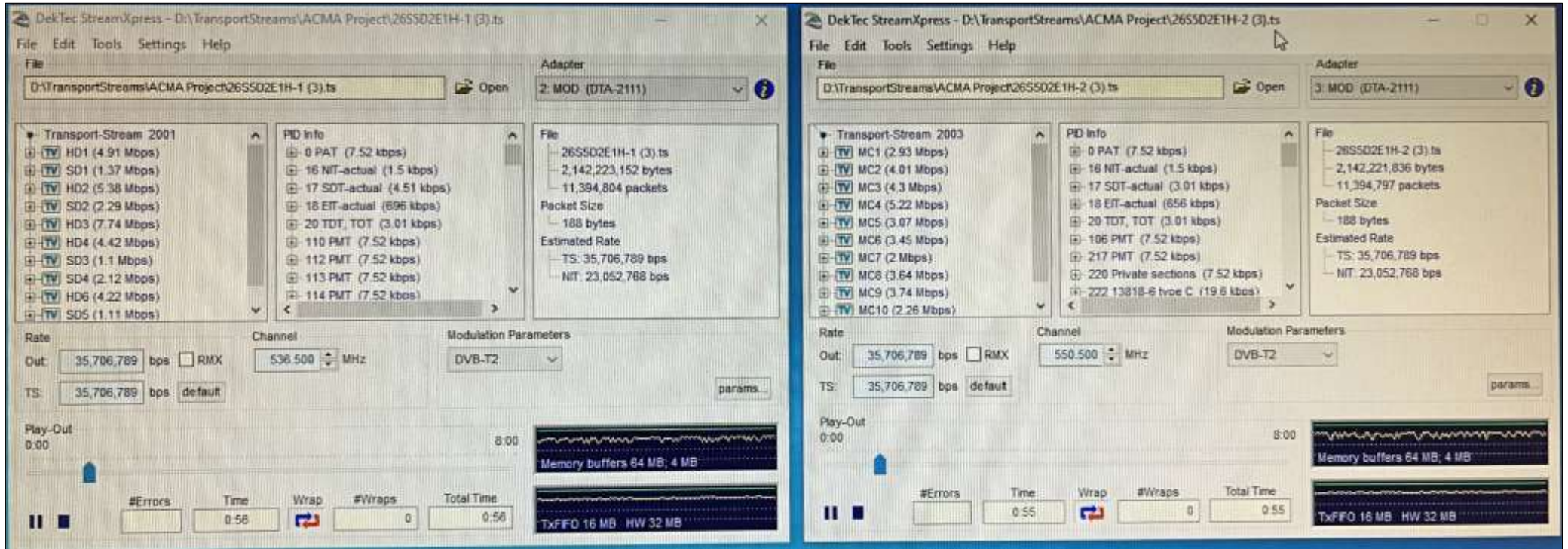
10xMC services (two for each Broadcaster A, B, C, D & E). All 10 services in one statmux

Figure 40 PID listing for 26S5D2E1H-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0xC21 (3105) => Video H.264 - MC7
pid: 0x10 (16) => NIT	pid: 0xC22 (3106) => Video H.264 - MC8
pid: 0x11 (17) => SDT/BAT	pid: 0xC80 (3200) => Dolby Audio (AC3) - MC3
pid: 0x12 (18) => EIT	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC4
pid: 0x14 (20) => TOT/TDT	pid: 0xC83 (3203) => Dolby Audio (AC3) - MC5
pid: 0x6A (106) => PMT - MC1	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC6
pid: 0xD9 (217) => PMT - MC2	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC7
pid: 0xDC (220) => Application Information Table (AIT) - MC2, MC10	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC8
pid: 0xDE (222) => DSM-CC Stream Descriptors - MC2, MC10	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC3
pid: 0x136 (310) => PMT - MC3	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC4
pid: 0x138 (312) => PMT - MC4	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC5
pid: 0x139 (313) => PMT - MC5	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC6
pid: 0x13A (314) => PMT - MC6	pid: 0xD48 (3400) => Teletext - MC3
pid: 0x13B (315) => PMT - MC7	pid: 0xD4A (3402) => Teletext - MC4
pid: 0x13C (316) => PMT - MC8	pid: 0xD4B (3403) => Teletext - MC5
pid: 0x140 (320) => Application Information Table (AIT) - MC3, MC4, MC5, MC6, MC7, MC8	pid: 0xD4C (3404) => Teletext - MC6
pid: 0x204 (516) => PMT - MC9, MC10	pid: 0xD4D (3405) => Teletext - MC7
pid: 0x452 (1106) => Video H.264 - MC1	pid: 0x100A (4106) => Video H.264 - MC9
pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC1	pid: 0x106E (4206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC9
pid: 0x57E (1406) => Teletext - MC1	pid: 0x1136 (4406) => Teletext - MC9
pid: 0x83B (2107) => Video H.264 - MC2	pid: 0x13F2 (5106) => Video H.264 - MC10
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC2	pid: 0x1456 (5206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - MC10
pid: 0xC1C (3100) => Video H.264 - MC3	pid: 0x151E (5406) => Teletext - MC10
pid: 0xC1E (3102) => Video H.264 - MC4	pid: 0x1FFF (8191) => NULL Packets (Stuffing)
pid: 0xC1F (3103) => Video H.264 - MC5	
pid: 0xC20 (3104) => Video H.264 - MC6	

4.25.3 Playout of Scenario #26

Photograph 24 Server playing stream 26 pair 26S5D2E1H -1 & 2



4.25.4 Results for sharing scenario #26

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	*64	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	*69	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	*68	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*65	*65	*67	None	None	None	None	None	None	*67	*65

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*65	*66	None	None	None	None	None	None	*67	None	None

*64. Tester did not record 17 of the 20 services as being discovered. Record of EPG display as expected though. Suspect data capture error by tester

*65. Receivers retained all EPG data after removing test stream 26S5D2E1H-2 and a power cycle.

*66. Receiver not DVB-T2 capable.

*67. Tester noted channel names did not match pre-prepared checklist names. This is correct as channel names in multiplexes was changed at production stage to aid identification.

*68. Receiver did not display any EPG data for any service after removing test stream 26S5D2E1H-2 and a power cycle. Repeating power cycle and selecting a service in the active multiplex did not restore any EPG data. TV required date and time to be set manually before restoring EPG data. Performed a factory reset, retune and retested. TV behaved normally as expected.

*69. Tester noted some obvious pixilation.

4.26 Sharing Scenario #27

DVB-T, two broadcasters sharing 50%/50% in one mux and 10% in a second 60%/30%/10% mux, MPEG4, SD & HD, Holistic stat mux. SDT-other and EIT-other NOT present

4.26.1 Description of test stream 27S6T1E1H-1

6 services for Broadcaster A (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster D (1xDC). All 10 services in one statmux.

Figure 41 PID listing for 27S6T1E1H-1

PIDs	
pid: 0x0 (0) => PAT	pid: 0x4B4 (1204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x10 (16) => NIT	pid: 0x4B5 (1205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
pid: 0x11 (17) => SDT/BAT	pid: 0x4B6 (1206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
pid: 0x12 (18) => EIT	pid: 0x514 (1300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
pid: 0x14 (20) => TOT/TDT	pid: 0x516 (1302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
pid: 0x6A (106) => PMT - A7	pid: 0x517 (1303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
pid: 0x6E (110) => PMT - A1	pid: 0x518 (1304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
pid: 0x70 (112) => PMT - A3	pid: 0x578 (1400) => Teletext - A1
pid: 0x71 (113) => PMT - A4	pid: 0x57A (1402) => Teletext - A3
pid: 0x72 (114) => PMT - A5	pid: 0x57B (1403) => Teletext - A4
pid: 0x73 (115) => PMT - A6	pid: 0x57C (1404) => Teletext - A5
pid: 0x78 (120) => Application Information Table (AIT) - A1, A3, A4, A5, A6	pid: 0x57D (1405) => Teletext - A6
pid: 0xD2 (210) => PMT - B1	pid: 0x57E (1406) => Teletext - A7
pid: 0xD5 (213) => PMT - B4	pid: 0x834 (2100) => Video H.264 - B1
pid: 0xD6 (214) => PMT - B5	pid: 0x837 (2103) => Video H.264 - B4
pid: 0xDC (220) => Application Information Table (AIT) - B1, B5	pid: 0x838 (2104) => Video H.264 - B5
pid: 0xDE (222) => DSM-CC Stream Descriptors - B1, B5	pid: 0x898 (2200) => Dolby Audio (AC3) - B1
pid: 0x1A0 (416) => PMT - D6	pid: 0x89B (2203) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x44C (1100) => Video H.264 - A1	pid: 0x89C (2204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
pid: 0x44E (1102) => Video H.264 - A3	pid: 0x8FC (2300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
pid: 0x44F (1103) => Video H.264 - A4	pid: 0x8FF (2303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
pid: 0x450 (1104) => Video H.264 - A5	pid: 0x960 (2400) => Teletext - B1
pid: 0x451 (1105) => Video H.264 - A6	pid: 0x963 (2403) => Teletext - B4
pid: 0x452 (1106) => Video H.264 - A7	pid: 0x964 (2404) => Teletext - B5
pid: 0x4B0 (1200) => Dolby Audio (AC3) - A1	pid: 0x100A (4106) => Video H.264 - D6
pid: 0x4B2 (1202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - A3	pid: 0x106E (4206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - D6
pid: 0x4B3 (1203) => Dolby Audio (AC3) - A4	pid: 0x1136 (4406) => Teletext - D6
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.26.2 Description of test stream 27S6T1E1H-2

6 services for Broadcaster C (2xHD, 2xMC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster E (1xDC). All 10 services in one statmux.

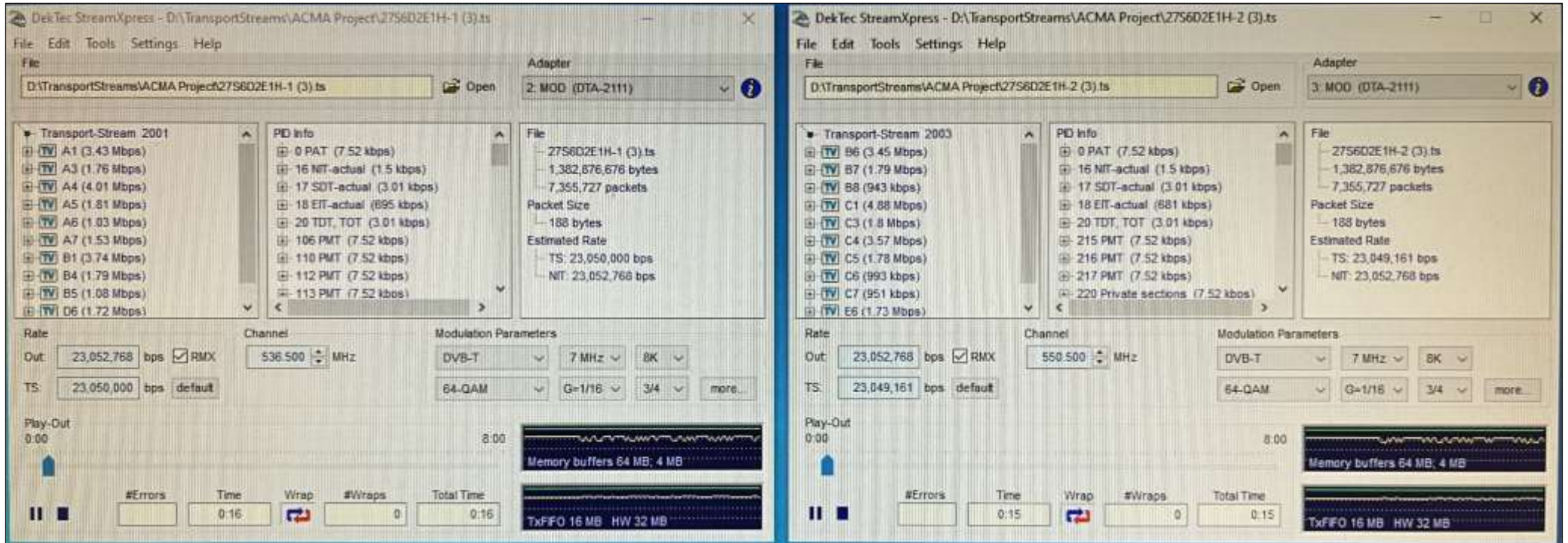
Figure 42 PID listing for 27S6T1E1H-2

PIDs	
+	pid: 0x0 (0) => PAT
+	pid: 0x10 (16) => NIT
+	pid: 0x11 (17) => SDT/BAT
+	pid: 0x12 (18) => EIT
+	pid: 0x14 (20) => TOT/TDT
+	pid: 0xD7 (215) => PMT - B6
+	pid: 0xD8 (216) => PMT - B7
+	pid: 0xD9 (217) => PMT - B8
+	pid: 0xDC (220) => Application Information Table (AIT) - E6
+	pid: 0xDE (222) => DSM-CC Stream Descriptors - E6
+	pid: 0x136 (310) => PMT - C1
+	pid: 0x138 (312) => PMT - C3
+	pid: 0x139 (313) => PMT - C4
+	pid: 0x13A (314) => PMT - C5
+	pid: 0x13B (315) => PMT - C6
+	pid: 0x13C (316) => PMT - C7
+	pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7
+	pid: 0x204 (516) => PMT - E6
+	pid: 0x839 (2105) => Video H.264 - B6
+	pid: 0x83A (2106) => Video H.264 - B7
+	pid: 0x83B (2107) => Video H.264 - B8
+	pid: 0x89D (2205) => Dolby Audio (AC3) - B6
+	pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7

+	pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8
+	pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6
+	pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7
+	pid: 0x965 (2405) => Teletext - B6
+	pid: 0x966 (2406) => Teletext - B7
+	pid: 0xC1C (3100) => Video H.264 - C1
+	pid: 0xC1E (3102) => Video H.264 - C3
+	pid: 0xC1F (3103) => Video H.264 - C4
+	pid: 0xC20 (3104) => Video H.264 - C5
+	pid: 0xC21 (3105) => Video H.264 - C6
+	pid: 0xC22 (3106) => Video H.264 - C7
+	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
+	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
+	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
+	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
+	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
+	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
+	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
+	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
+	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
+	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
+	pid: 0xD48 (3400) => Teletext - C1
+	pid: 0xD4A (3402) => Teletext - C3
+	pid: 0xD4B (3403) => Teletext - C4
+	pid: 0xD4C (3404) => Teletext - C5
+	pid: 0xD4D (3405) => Teletext - C6
+	pid: 0x13F2 (5106) => Video H.264 - E6
+	pid: 0x1456 (5206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - E6
+	pid: 0x151E (5406) => Teletext - E6
+	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.26.3 Playout of Scenario #27

Photograph 25 Server playing stream 27 pair 27S6D2E1H - 1 & 2



4.26.4 Results for sharing scenario #27

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	*71	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	*71	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*70	*70	None	None	None	None	None	None	None	None	*70

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*70	*70	None	None	None	None	None	None	None	None	None

*70. Receivers retained all EPG data after removing test stream 27S6D2E1H-2 and a power cycle.

*71. Tester noted some obvious pixilation.

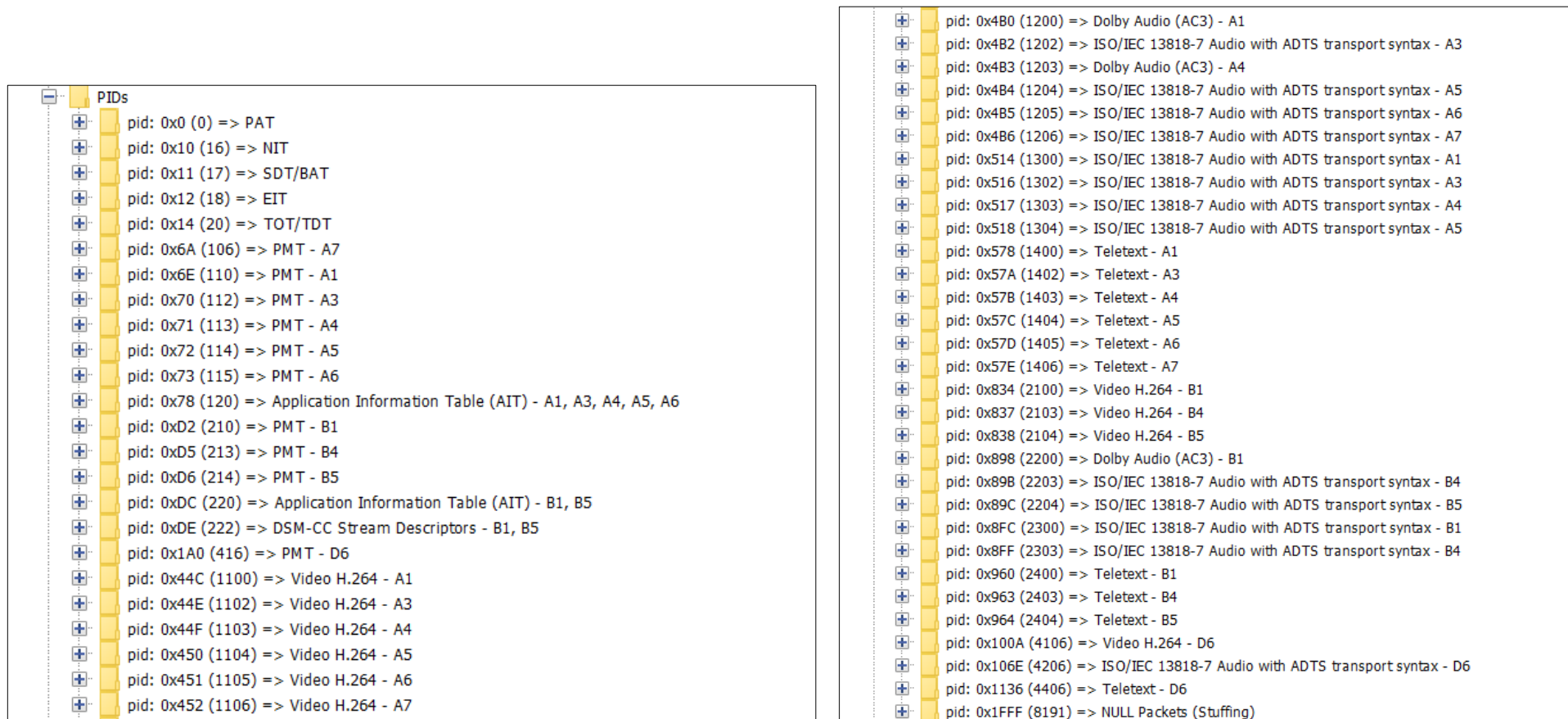
4.27 Sharing Scenario #28

DVB-T2, two broadcasters sharing 50%/50% in one mux and 10% in a second 60%/30%/10% mux, MPEG4, SD & HD, Holistic stat mux. SDT-other and EIT-other NOT present

4.27.1 Description of test stream 28S6D2E1H-1

6 services for Broadcaster A (2xHD, 2x MC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster D (1xDC). All 10 services in one statmux.

Figure 43 PID listing for 28S6D2E1H-1



pid	Service Type
0x0 (0)	PAT
0x10 (16)	NIT
0x11 (17)	SDT/BAT
0x12 (18)	EIT
0x14 (20)	TOT/TDT
0x6A (106)	PMT - A7
0x6E (110)	PMT - A1
0x70 (112)	PMT - A3
0x71 (113)	PMT - A4
0x72 (114)	PMT - A5
0x73 (115)	PMT - A6
0x78 (120)	Application Information Table (AIT) - A1, A3, A4, A5, A6
0xD2 (210)	PMT - B1
0xD5 (213)	PMT - B4
0xD6 (214)	PMT - B5
0xDC (220)	Application Information Table (AIT) - B1, B5
0xDE (222)	DSM-CC Stream Descriptors - B1, B5
0x1A0 (416)	PMT - D6
0x44C (1100)	Video H.264 - A1
0x44E (1102)	Video H.264 - A3
0x44F (1103)	Video H.264 - A4
0x450 (1104)	Video H.264 - A5
0x451 (1105)	Video H.264 - A6
0x452 (1106)	Video H.264 - A7
0x4B0 (1200)	Dolby Audio (AC3) - A1
0x4B2 (1202)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x4B3 (1203)	Dolby Audio (AC3) - A4
0x4B4 (1204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x4B5 (1205)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A6
0x4B6 (1206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A7
0x514 (1300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A1
0x516 (1302)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A3
0x517 (1303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A4
0x518 (1304)	ISO/IEC 13818-7 Audio with ADTS transport syntax - A5
0x578 (1400)	Teletext - A1
0x57A (1402)	Teletext - A3
0x57B (1403)	Teletext - A4
0x57C (1404)	Teletext - A5
0x57D (1405)	Teletext - A6
0x57E (1406)	Teletext - A7
0x834 (2100)	Video H.264 - B1
0x837 (2103)	Video H.264 - B4
0x838 (2104)	Video H.264 - B5
0x898 (2200)	Dolby Audio (AC3) - B1
0x89B (2203)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x89C (2204)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B5
0x8FC (2300)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B1
0x8FF (2303)	ISO/IEC 13818-7 Audio with ADTS transport syntax - B4
0x960 (2400)	Teletext - B1
0x963 (2403)	Teletext - B4
0x964 (2404)	Teletext - B5
0x100A (4106)	Video H.264 - D6
0x106E (4206)	ISO/IEC 13818-7 Audio with ADTS transport syntax - D6
0x1136 (4406)	Teletext - D6
0x1FFF (8191)	NULL Packets (Stuffing)

4.27.2 Description of test stream 28S6D2E1H-2

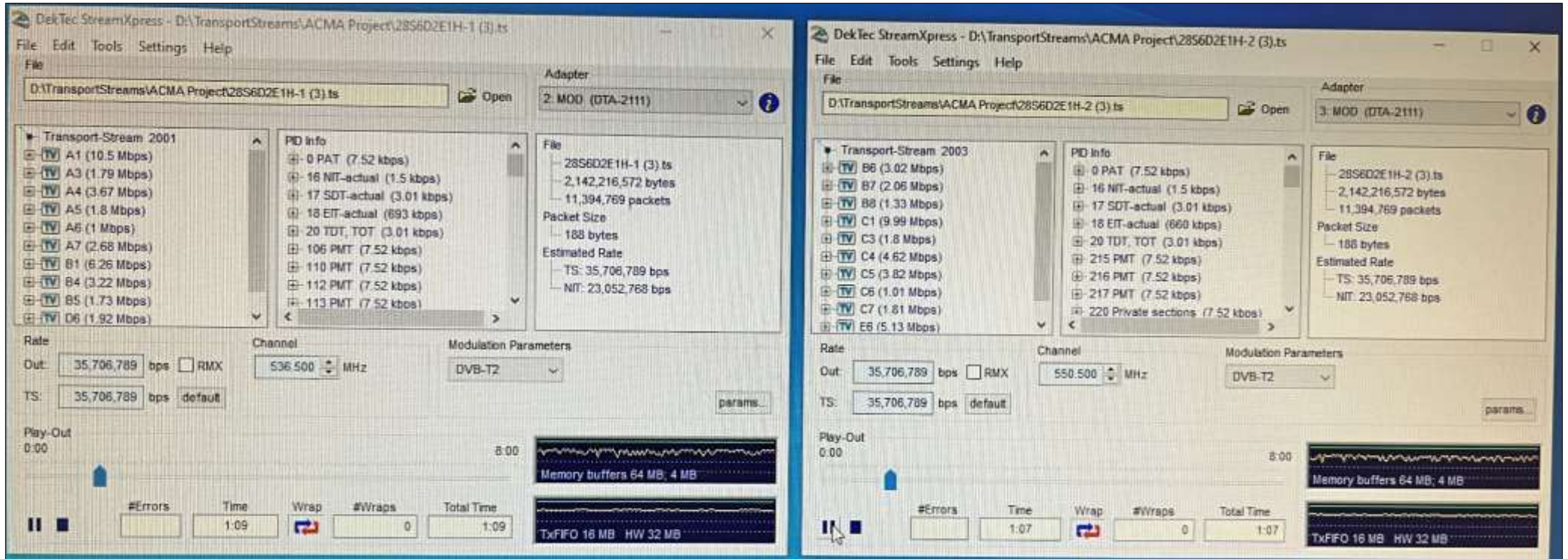
6 services for Broadcaster C (2xHD, 2x MC, 2xDC). 3 services for Broadcaster B (1xHD, 1xMC, 1xDC). 1 service for Broadcaster E (1xDC). All 10 services in one statmux.

Figure 44 PID listing for 28S6D2E1H-2

PIDs	
pid: 0x0 (0) => PAT	pid: 0x965 (2405) => Teletext - B6
pid: 0x10 (16) => NIT	pid: 0x966 (2406) => Teletext - B7
pid: 0x11 (17) => SDT/BAT	pid: 0xC1C (3100) => Video H.264 - C1
pid: 0x12 (18) => EIT	pid: 0xC1E (3102) => Video H.264 - C3
pid: 0x14 (20) => TOT/TDT	pid: 0xC1F (3103) => Video H.264 - C4
pid: 0xD7 (215) => PMT - B6	pid: 0xC20 (3104) => Video H.264 - C5
pid: 0xD8 (216) => PMT - B7	pid: 0xC21 (3105) => Video H.264 - C6
pid: 0xD9 (217) => PMT - B8	pid: 0xC22 (3106) => Video H.264 - C7
pid: 0xDC (220) => Application Information Table (AIT) - E6	pid: 0xC80 (3200) => Dolby Audio (AC3) - C1
pid: 0xDE (222) => DSM-CC Stream Descriptors - E6	pid: 0xC82 (3202) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x136 (310) => PMT - C1	pid: 0xC83 (3203) => Dolby Audio (AC3) - C4
pid: 0x138 (312) => PMT - C3	pid: 0xC84 (3204) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x139 (313) => PMT - C4	pid: 0xC85 (3205) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C6
pid: 0x13A (314) => PMT - C5	pid: 0xC86 (3206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C7
pid: 0x13B (315) => PMT - C6	pid: 0xCE4 (3300) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C1
pid: 0x13C (316) => PMT - C7	pid: 0xCE6 (3302) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C3
pid: 0x140 (320) => Application Information Table (AIT) - C1, C3, C4, C5, C6, C7	pid: 0xCE7 (3303) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C4
pid: 0x204 (516) => PMT - E6	pid: 0xCE8 (3304) => ISO/IEC 13818-7 Audio with ADTS transport syntax - C5
pid: 0x839 (2105) => Video H.264 - B6	pid: 0xD48 (3400) => Teletext - C1
pid: 0x83A (2106) => Video H.264 - B7	pid: 0xD4A (3402) => Teletext - C3
pid: 0x83B (2107) => Video H.264 - B8	pid: 0xD4B (3403) => Teletext - C4
pid: 0x89D (2205) => Dolby Audio (AC3) - B6	pid: 0xD4C (3404) => Teletext - C5
pid: 0x89E (2206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0xD4D (3405) => Teletext - C6
pid: 0x89F (2207) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B8	pid: 0x13F2 (5106) => Video H.264 - E6
pid: 0x901 (2305) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B6	pid: 0x1456 (5206) => ISO/IEC 13818-7 Audio with ADTS transport syntax - E6
pid: 0x902 (2306) => ISO/IEC 13818-7 Audio with ADTS transport syntax - B7	pid: 0x151E (5406) => Teletext - E6
	pid: 0x1FFF (8191) => NULL Packets (Stuffing)

4.27.3 Playout of Scenario #28

Photograph 26 Server playing stream 28 pair 28S6D2E1H - 1 & 2



4.27.4 Results for sharing scenario #28

	Receiver #	1	2	3	4	5	6	7	8	9	10	11
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	None	None	None	None	None	None	None	None	None	None	None

	Receiver #	12	13	14	15	16	17	18	19	20	21	22
1	Rescan service discoverability	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail
5	EIT display	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*72	*72	None	None	None	None	None	None	None	*72	*72

	Receiver #	23	24	25	26	27	28	29	30	31	32	33
1	Rescan service discoverability	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2	Service navigation	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3	SI response including codec and service identification accuracy	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4	Expected EIT behavior including EIT "other"	Fail	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	EIT display	Pass	Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass
6	LCN behavior	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7	Channel/mux change response	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
8	QEF video decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9	QEF audio decoding	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
10	Notable anomalies	*72	*73	None	*72 & 74	None	None	None	None	None	None	None

*72. Receivers retained all EPG data after removing test stream 26S5D2E1H-2 and a power cycle.

*73. Receiver not DVB-T2 capable.

*74. LCN 110 appeared twice in the LCN channel list. Performed full rescan. LCN duplication did not reoccur.

5. Conclusions

As defined for the project, all shared multiplexes worked with the selection of receivers tested with no adverse findings in relation to service discoverability, service identification or navigation between services within and between multiplexes using EPG or LCN navigation.

Service LCN's, service names and Program now/next information as well as 7-day EPG information was displayed correctly on all receivers. Receivers also correctly interpreted cross-carried EIT information across multiplexes when present, with no missing or doubled-up information show in the EPG's. All receivers compiled an accurate EPG for all services when first scanned. Cross-carriage of EIT proved beneficial to maintain accurate EPG information in the absence of either multiplex for a broadcaster split across multiplexes. Some receivers retained a populated EPG for services in a multiplex after that multiplex had been removed from the receiver's input, even following a several-minute long power cycle. Certain receivers in the sample exhibited this data retention more than others.

No pattern of lag was reported by testers in relation to channel change speed. Variations became evident between different receivers, but this was attributed to different operating systems and software etc. rather than a function of shared multiplex operation.

From time to time, some receivers exhibited odd behaviors. These unexpected behaviors were almost universally resolved by resetting the receivers back to their factory default settings and rescanning. Occasionally, power cycling was also required and in a small number of cases both were required several times. As these behaviors were more often experienced towards the end of testing days, and the receivers were intentionally powered down overnight, evidence would suggest some receivers needed very long power down periods to fully clear any spurious information causing the unexpected behavior.

Testing revealed several unexpected results including a few subtleties in relation to receiver capabilities. More receivers than expected were DVB-T2 capable. Similarly, more receivers than expected were HEVC capable. However, subtleties such as an ability to decode HEVC encoded progressive and/or interlaced scanned video content became differentiating factors in some receivers. Similarly, audio codec capabilities such as AC4 could not necessarily be correlated to video codec capabilities. In the absence of a current Australian Standard for DVB-T2 receivers, most of this functionality can be considered a bonus, so it is notable and reassuring how capable the receivers were particularly given the age range of units in the sample. Downscaling was not a feature available in any of the receivers tested. As such, if receivers were HEVC capable, UHD content was not displayed unless the receivers were fitted with a UHD LCD panel.

All receivers in the sample successfully discovered services and were able to display service names and LCN's etc. as well as navigate between services as expected in each of the test sharing scenarios. From this perspective, all exhibited acceptable performance. Any limitations can be attributed to individual receiver capabilities such as display resolution and demodulation and decoding capabilities, making these factors important should shared-multiplex operation be considered in the future.

6. Methodology

The following procedures were used to test all 33 TV receivers when fed with one, or a suitable combination, of the 25 shared multiplex scenarios. Some scenarios utilised a pair of transport streams to test cross-carriage of EIT and SDT information when one broadcaster's services were split across two multiplexes. Non-sharing and sharing scenarios where a broadcaster's services were carried in a single multiplex only required a single transport stream to be tested.

- Connect the TV receiver to power and antenna cable.
- Power on the TV receiver and navigate to the set-up menu.
- Perform a factory default reset to remove all settings and stored channel lists.
- Perform an auto-tune or rescan to discover available services.
- Record the resulting channel listing names and numbers. Note if any are doubled up or numbered between 350 and 400.
- Select the first channel and record its channel number.
- Select the EPG button and check that all channels are displayed correctly. Note if any are missing, named incorrectly, or doubled up.
- Using the channel listing, select the last channel and record its number.
- Select the EPG button and check that all channels are displayed correctly. Note if any are missing, named incorrectly, or doubled up.
- Use the EPG to navigate between each of the channels and ensure the correct service is displayed when selected.
- Using the channel up or down button or by entering channel numbers on the remote, navigate between all channels and ensure each displays the correct service.
- When navigating between channels, confirm each produces the correct picture and sound, and that the service name information is displayed. Note any anomalies.
- Estimate the time the receiver takes to display a locked picture after selecting a different channel number. Note where any lag is noticeable or objectionable.
- Select the first channel in the list and view for 30 seconds. If no picture or sound disturbance is noticed, move to the next channel. If any picture or sound disturbance is noticed, record this. Select the next channel and repeat until all channels have been checked.
- Power down the TV – remove the power cord for at least 30 seconds.
- Stop one of the streams from playing if a pair of streams are in use.
- Power up the TV.
- Tune to the first channel in the channel list that displays a picture. Expect that some channels will appear in the channel list, but the TV will not be able to display a picture because it is carried in the stream that has been stopped.
- Select the EPG. Note which channels appearing in the channel list, but which have no EPG program content information displayed.
- Restart the previously stopped stream.
- Select one of the channels from the stream just restarted.
- Select the EPG. Confirm that channels which previously had no EPG program content information displayed, are now populated with information.
- Make a note of any unusual or unexpected behaviour of the TV receiver while carrying out these tests.

7. Tabulated Results

Placeholder for typed up copies of tester record sheets if required.