

cs2dm6467 Codec Server 1.00.00.10 Release Notes

June 24, 2010

Summary:

NAME	cs2dm6467
VERSION	1.00.00.10
PLATFORM(S) SUPPORTED	DM6467
USE CASE(S)	General purpose audio/video/speech/image encode/decode codec server
SERVER PACKAGE	cs2dm6467_1_00_00_10
SERVER START ADDRESS	0x8BA00000
SERVER END ADDRESS	0x8FFFFFFF
TOTAL SERVER SIZE	70 Mbytes

The following release notes are applicable to the cs2dm6467 codec server.

The release notes are divided into the following sections:

[License Information](#)

[Releases](#)

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[Building the Codec Server](#)

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[Codec, Test Environment, Use Case Test Result Details](#)

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LICENSE INFORMATION

- The codec server is bound to the [TSPA License Agreement](#)^(Note1)

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RELEASES

- The most recent release **1.00.00.10** provides the following.
 - New features
 - Included the new release of Advanced Simple Profile mpeg4 decoder, Main profile mpeg2 decoder.
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	Aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.14
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.09
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.02.03
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.05
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.09
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.01.00
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.01.01

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\ti\sd0\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - SDOCM00069635 : mpeg4dec: Fixed a bug in codec regarding HDVICP initialization.
 - SDOCM00069746: jpegdec: Color distortion observed during dtvb jpeg decode operation with resizing and a 411p or gray encoded source
- The most recent release **1.00.00.09** provides the following.
 - New features
 - Included the new release of Advanced Simple Profile mpeg4 decoder, Main profile mpeg2 decoder.
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	Aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.14
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.09
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.02.03
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.05
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.08
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.01.00
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.01.00

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\ti\sd0\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - SDOCM00069448: h264 1080p 30 encoder requests only HDVICP0 and uses HDVICP1's memories bypassing Framework Components
 - SDOCM00068373: mpeg2dec: 2D2D DMA linked transfer working incorrectly
 - SDOCM00068979: mpeg4enc: Fixed bug in codec for outputId initialization
 - SDOCM00068754: mpeg4dec: maxNumDisplayBufs return value in decStatus structure is "0" even

though codec requires non zero buffers

- The most recent release **1.00.00.08** provides the following.
 - New features
 - Included the new release of H264 1080p60 decoder, H264 1080p30 Base Profile Encoder, Advanced Simple Profile mpeg4 decoder, JPEG Baseline Profile Encoder and JPEG Progressive Support Decoder
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	Aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.14
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.07
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.02.02
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.04
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.07
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.01.00
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.01.00

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\fl\sd\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - SDOCM00065975: Dm6467t Demo 1080p h264 decode operations do not reach 60 fps
 - SDOCM00066686: h264fhdvenc: user guide update require for reconChromaFormat
 - SDOCM00066698: ih264fhdvenc.h of h264fhd encoder does not include header files from base package path
 - SDOCM00066560: Jpeg Encoder: generates only 2 bytes in Encode only header mode.
 - SDOCM00066559: "idmjpege.h" of jpeg encoder does not include heades from base package path
 - SDOCM00060677:Test vector supplied for image decode package needs to be changed
 - None: mpeg4dec: Fixed bugs in documentation for display_delay parameter
 - None: mpeg4dec: Fixed bugs in documentation for displayHeight parameter

- The most recent release **1.00.00.07** provides the following.

- New features
 - Included the new release of H264 1080p60 decoder
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.12
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.07
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.01.00
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.04

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Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.06
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.002
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.006

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\tsd\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - None

- The most recent release **1.00.00.06** provides the following.

- New features
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.08
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.07
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.01.00
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.04
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.06
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.002
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.006

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\tsd\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - SDOCM00065815 : Process call fails to Encode the video buffer when h264enc is created before H264 decoder
 - SDOCM00065265 : H264 Encoder Codec Modifies the input Dynparams struct

- The most recent release **1.00.00.05** provides the following.

- New features
 - The codec server does not include optimal Eight - Channel D1 h264 decoder.

The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.08
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.03
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.01
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.07
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.01.00
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.04
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.06
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.002
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.006

* Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs2dm6467_1_00_xx_xx\packages\tsd\codecs\jpegdec\docs)

- IRs Fixed in this Release
 - SDOCM65281: simultaneous operations of h264enc and h264dec fails
- The most recent release **1.00.00.03** provides the following.

This is the “Beta” release of the codec server

 - New features
 - The codec server does not include 1080p H264 Encoder, Eight - Channel D1 h264 decoder, JPEGENC, JPEGDEC, MPEG4ENC and MPEG4DEC codec algorithms in this release.
 - The following codec algorithms are included.

Feature	Codec name	Supported Features*	Version Integrated
Audio Decoding	aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.08
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.02
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.01
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.07

* Please refer to the individual codec data sheets for more details

- IRs Fixed in this Release
 - None
- The most recent release **1.00.00.02** provides the following.

This is the “Early Adaptor 2” release of the codec server

 - New features
 - Updated the codec server with new releases of 1080p60 H264DEC, 720p H264ENC
 - MPEG2-D is not yet integrated due to non availability at this time.
 - Other codecs that are not supported in this release that are targeted for the GA release are as below.
 1. 1080p30, 8 Ch D1 H264 Encoder
 2. MPEG4 Encode/Decode
 3. JPEG Encode/Decode
 4. 1080p MPEG2 Decode
 5. 720p H264DEC
 - IRs Fixed in this Release
 - None
- The most recent release **1.00.00.01** provides the following.

This is the “Early Adaptor 1” release of the codec server

 - New features
 - Updated the DVSDK 2.00.00.22 DM6467 codecs to have alpha release of 1080p60 H264DEC by removing the DVSDK 2.00.00.22 provided H264DEC codec package from the codec combos.
 - IRs Fixed in this Release
 - None

The detailed performance results for this release can be located in the [cs2dm6467_master_build_specification.xls](#)^(Note1) master build sheet. Please refer to “DSP Codec Server Performance Summary” section documented under the [“cs2dm6467_data_sheet.htm](#) ^(Note1)” data sheet for the codec server performance summary table.

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INSTALLATION

This codec server installation produces the following structure.

The directory structure is as follows:

```
cs2dm6467_1_00_00_xx
|----- packages
|----- cs2dm6467_release_notes.htm
|----- config.bld
|----- Makefile
|----- package.xdc
```

packages directory is a place holder for the codecs, servers.

config.bld file specifies the compiler tools path and target platform.

Makefile is the 'make' utility file to build the codecs and server.

packages contains the following directory structure

ti

```

|----- sdo
|----- codecs
|----- server

```

codecs directory is the place holder for all the codecs that the codec server supports.
server contains the following directory structure

```

|----- cs
|----- bin
|----- docs

```

The *bin* directory gets populated with the codec server binary cs.x64P, when building the codec server. The released version already contains the pre-built DSP binary under this directory.

The *docs* directory contains the following files.

- o TILAW-209991-v5 FORM_TSPA_Source_and_Object_Code_Software_License_Agreement.txt -TSPA
license document for the codec server
- o logocorp.gif - Texas Instruments
Logo
- o cs2dm6467_master_build_specification.xls - Codec Server
Master Build Sheet
- o cs2dm6467_software_manifest.pdf - Codec Server
Software manifest document
- o cs2dm6467_data_sheet.htm - Data Sheet
describing the link to the generated server data sheet and links to the codec documents.

The "cs" directory contains the following files.

- o codec.cfg - Codec Configuration files for the codec server
- o server.cfg - Codec Server Configuration files
- o server.tcf - Codec Server tconf script for the DSP binary
- o main.c - Codec Server source main file
- o link.cmd - Any additions to the linker command files should be placed here
- o memmap.tci - The codec server memory map
- o package.bld - RTSC package file
- o package.xdc - RTSC package file
- o package.xs - RTSC package file

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BUILDING THE CODEC SERVER

- Follow these steps to build the codec server.
 - o If the environment variables are defined using **..\Rules.make**
 1. goto cs2dm6467_1_00_xx directory
 2. type **make clean or gmake clean**, *to make sure any metadata and server executables are cleaned.*
 3. type **make or gmake** under the cs2dm6467_1_00_xx directory (make sure that the path includes the GNU make).
 - o If the environment variables are **not** defined using **..\Rules.make**
 1. Please make sure you set or export all the environment variables mentioned in the sample csRules.mak for Linux/Windows environment before executing step 2 mentioned as below.
 2. goto cs2dm6467_1_00_xx directory
 3. type **make clean or gmake clean**, *to make sure any metadata and server executables are cleaned*
 4. type **make or gmake** under the cs2dm6467_1_00_xx directory (make sure that the path includes the GNU make).

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UPGRADE AND COMPATIBILITY INFORMATION

This product's version follows a version format, M.m.p.b, where M is a single digit Major number, m is single digit minor number, p is a single digit patch number and b is the build number.

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DEVICE SUPPORT

This release supports the following device families:

- DM6467

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KNOWN ISSUES

SI.No.	SDOCM ID	Description	Issues/Workaround
1	SDOCM00059735	The g711enc and g711dec RTSC packages share a common symbol (mentioned below). When a codec server is built with both the libraries, the below warning is seen. Warning 1 >> package/cfg/bin/cs_x64P.xdl, line 313: warning: multiple definitions of SECTION named '.const: G711_TII_CODER_version'	This does not impact any functionality of G711. This can be safely ignored.
2	SDOCM00064706	Warnings while compiling Codecs (h264) fhd with hd due to duplicate section names or due to non-existent section in their lnk	This did not impact h264 encoder or decoder functionality. This is targeted to be fixed in next codec server releases.
4	SDOCM00071347	Dvtb jpeg decode, resolution=1280x720,scale_factor=4,output_chromaformat=rgb, generates degraded image.	No workaround identified. This same version of the codec has been deployed in older DVSDK releases (2.x) and there have not been any customer issues reported. This issue is tracked by the codec team and may be fixed in a future codec release.

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CODEC, TEST ENVIRONMENT AND USE CASE TEST RESULT DETAILS

Please refer to the excel sheet [cs2dm6467_master_build_specification.xls](#) ^(Note1) for versions of the list of multimedia codecs integrated in the codec server, test environment and the use cases for which the server is designed.

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TECHNICAL SUPPORT AND CONTACT INFORMATION

Send an e-mail to support@ti.com or contact local TI Field Application Engineer for any support on cs2dm6467.

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SPECIAL NOTES**Note1**

The following links referred in this document will not function properly, when this document is **not** opened from the cs2dm6467_1_00_00_xx installation directory.

- [cs2dm6467_master_build_specification.xls](#)
- [cs2dm6467_data_sheet.htm](#)
- [TSPA License Agreement](#)
- [Top level "Texas Instruments logo" picture will not appear](#)

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