



CELLULAR SYSTEMS SOFTWARE TOOLS

CSST_SDP2430_v1.2 – Binary Release Notes

Document Revision: 1.3

Issue Date: 18 May 2006

Making **Wireless**

Making**Wireless**

OMAP™ is a Trademark of Texas Instruments Incorporated

Innovator™ is a Trademark of Texas Instruments Incorporated

Code Composer Studio™ is a Trademark of Texas Instruments Incorporated

DSP/BIOS™ is a Trademark of Texas Instruments Incorporated

eXpressDSP™ is a Trademark of Texas Instruments Incorporated

TMS320™ is a Trademark of Texas Instruments Incorporated

TMS320C28x™ is a Trademark of Texas Instruments Incorporated

TMS320C6000™ is a Trademark of Texas Instruments Incorporated

TMS320C5000™ is a Trademark of Texas Instruments Incorporated

TMS320C2000™ is a Trademark of Texas Instruments Incorporated

All other trademarks are the property of the respective owner.

Copyright © 2004 Texas Instruments Incorporated. All rights reserved.

Information in this document is subject to change without notice. Texas Instruments may have pending patent applications, trademarks, copyrights, or other intellectual property rights covering matter in this document. The furnishing of this document is given for usage with Texas Instruments products only and does not give you any license to the intellectual property that might be contained within this document. Texas Instruments makes no implied or expressed warranties in this document and is not responsible for the products based from this document.

Table of Contents

Table of Contents	i
List of Figures	ii
List of Tables	ii
Revision History	iii
1. Introduction	1
2. Acronyms	1
3. Requirements	1
3.1. Host Requirements	1
3.2. Target Requirements	2
4. CSST New Features and Supported Platforms	2
4.1. CSST Feature List	2
4.1.1. <i>New features list:</i>	2
4.1.2. <i>Enhancements:</i>	2
4.1.3. <i>Issues Fixed:</i>	2
4.2. Supported Platforms	3
5. Release Content	4
5.1. Host executables:	4
5.2. Target executables:	4
5.3. Documents:	4
5.4. Other Files:	5
6. Test Results	5
6.1. Host software	5
6.2. Tested OMAP2430 SDPs	5
6.3. Known Issues	5
7. Previous Releases	6

List of Figures

List of Tables

Table 1	Supported Platforms	3
----------------	---------------------------	---

Revision History

REV	DATE	AUTHOR	NOTES
0.3	17 Oct 2005	CSST Team	Update for CSST Engineering Release 0.1
1.0	29 Dec 2005	CSST Team	Update for CSST_SDP2430 v1.0 Release
1.1	06 Jan 2006	Shyamala	Update for CSST_SDP2430 v1.0.1 Release
1.2	13 Mar 2006	Jis	Update for CSST_SDP2430 v1.1 Release
1.3	18 May 2006	Sireesha	Update for CSST_SDP2430_v1.2

Please read the “Important Notice” on the next page.

IMPORTANT NOTICE

Texas Instruments Incorporated and its subsidiaries (TI) reserve the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are used to the extent TI deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

TI does not warrant or represent that any license, either express or implied, is granted under any TI patent right, copyright, mask work right, or other TI intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information published by TI regarding third-party products or services does not constitute a license from TI to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

Reproduction of information in TI data books or data sheets is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. Reproduction of this information with alteration is an unfair and deceptive business practice. TI is not responsible or liable for such altered documentation.

Resale of TI products or services with statements different from or beyond the parameters stated by TI for that product or service voids all express and any implied warranties for the associated TI product or service and is an unfair and deceptive business practice. TI is not responsible or liable for any such statements.

Following are URLs where you can obtain information on other Texas Instruments products and application solutions:

1 Products		2 Applications	
Amplifiers	Amplifier.ti.com	Audio	www.ti.com/audio
Data Converters	dataconverter.ti.com	Automotive	www.ti.com/automotive
DSP	dsp.ti.com	Broadband	www.ti.com/broadband
Interface	Interface.ti.com	Digital Control	www.ti.com/digitalcontrol
Logic	logic.ti.com	Military	www.ti.com/military
Power Mgmt	power.ti.com	Optical Networking	www.ti.com/opticalnetwork
Microcontrollers	microcontroller.ti.com	Security	www.ti.com/security
		Telephony	www.ti.com/telephony
		Video & Imaging	www.ti.com/video
		Wireless	www.ti.com/wireless

Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265

Copyright © 2005, Texas Instruments Incorporated

1. Introduction

Please read this Release Note carefully prior to installation and use of the software.

This document, CSST Release Notes, contains important information about Cellular Systems Software Tools (CSST) CSST_SDP2430_v1.2 release for 2430 SDP platform. Included in this document is information about features and hardware platforms supported in this revision of CSST. Additionally, it contains known issues and issues resolved from previous releases.

Please contact your Texas Instruments (TI) technical representative for additional information and instructions for obtaining the latest release of CSST.

NOTE: Uninstall the old version of CSST before installing the CSST_2430_1.2 because of Installer change.

2. Acronyms

Term	Description
CSST	Cellular Systems Software Tools
OST	OMAP Software Tools
CCS	Code Composer Studio
CLI	Command Line Interface
GUI	Graphical User Interface
IRDA	Infra Red
LAN	Local Area Network
LCD	Liquid Crystal Display
MMC	Multimedia Card
USB	Universal Serial Bus

3. Requirements

Following are the pre-requisites for installing and using the CSST:

3.1. Host Requirements

The PC host hardware development requirements are:

PC minimum requirements

- 233 MHz or higher Pentium – compatible CPU.
- 40MB of free hard disk space.
- SVGA (800 X 600) display.
- 256 MB RAM
- JTAG Emulator
 - XDS560 PCI card Or Blackhawk XDS560 Emulator.

Operating Systems

- Windows 2000 with Service Pack 1 or higher.
- Windows XP Pro or Home.

Encryption Library:

CSST signing feature requires the following encryption routines: SHA1 and RSA. These are not included in this release. For testing purposes, TI has used encryption libraries from the Open SSL project (<http://www.openssl.org/>). Open SSL version "0.9.7g" was used to test this release of CSST signing feature. (Open SSL library package can be obtained from the URL: <http://www.slproweb.com/products/Win32OpenSSL.html>. Once Open SSL is installed, Open SSL DLLs will be available under "WINNT\System32" standard path and user need not copy it to CSST directory. If the mentioned version of Open SSL is not present in the website, use the recommended latest version given in the site).

3.2. Target Requirements

This CSST release is for SDP2430v2.x, SDP2430 v1.1, SDP2430 v1.0, and SDP2430 v0.3. Most of the testing is done on SDP2430 v2.0 platform.

4. CSST New Features and Supported Platforms

4.1. CSST Feature List

CSST_SDP2430_v1.2 supports the following additional features:

4.1.1. New features list:

Diagnostics module:

1. DDR tests running at 166 MHz and ARM 11 at 330 MHz
2. FS USB enumeration
3. HS MMC tests running at 48 MHz
4. HS I2C
5. OneNAND, Sibley NOR, NAND and Strata NOR memory tests at 166 MHz

Download Module:

1. OMAP2430 ES2.0 EMU device downloads
2. Updated PPA for EMU devices

4.1.2. Enhancements

Diagnostics module:

1. Dynamic Configuration to have backward compatibility
2. Optimized OneNAND drivers at 166 MHz

Host Module:

1. GUI Stability increases
2. Improved user experience for Boot Rom mode downloads

Download Module:

1. HS USB Downloads/ Image flashing - SW work around

4.1.3. Issues Fixed:

Diagnostics module:

1. Audio noise issue is fixed with board and SW fix
2. In IRDA FIR mode, during read test, some data seems to be lost – Fixed
3. Headset detect function added

Host Module:

1. OMAP500071782 - CSST: Memory leak in ListCtrlEx.cpp
2. OMAP500071760 - CSST: Memory leak in tracer.cpp
3. OMAP500071758 - CSST: Memory leak in CDownload::GetItemText()
4. OMAP500071743 - CSST: Memory leak in guiView.cpp
5. OMAP500071578 - CSST: Several GUI functions call "new CXMLParser()", but never free it
6. OMAP500071908 - CSST: Cservices::mConfigFileName variable is obsolete, and causes memory leak
7. OMAP500072049 - CSST: Many memory leaks in XMLParser.cpp (several 100KB are leaking)
8. OMAP500070121 - The lower bottom of the CSST GUI is shown as transparent.
9. OMAP500072484 - Do not retrieve the complete debug window contents for every new debug message, append lines instead
10. OMAP500073374 - CSST: Operator 'delete' used wrongly in panel.cpp
11. OMAP500073373 - CSST: Wrong deallocation in cli_fw.cpp
12. OMAP500073376 - CSST: Memory leaks in panelarray.cpp
13. OMAP500070586 - CSST I+G-Sample Release 1.7.0 integration

Download Module:

1. OMAP500069770 - Erase entire flash on the "erase tab" does not work
2. OMAP500070138 - The file dnld_host_common.h needs to be removed as it contains duplicates of data in the sap file
3. OMAP500070272 - Remove "Driver Configuration" on the "Settings" tab in CSST

Signing Module:

1. OMAP500073690 - Signing module is not generating correct image

Documentation:

1. OMAP500077591 - CCS config files missing from CSST 1.1 installation

4.2. Supported Platforms

This release of CSST has been validated with the target components on the OMAP 2430 SDP platform and the host components on PC with Windows 2000/XP.

CSST Revision	HW Revisions	Device Type	Silicon Revisions
CSST_SDP2430_v1.2	SDP2430v0.3	GP	OMAP 2430 ES 1.0+M1
CSST_SDP2430_v1.2	SDP2430v1.0	GP	OMAP 2430 ES 1.0+M1
CSST_SDP2430_v1.2	SDP2430v1.0	EMU/HS	OMAP 2430 ES 1.0+M1
CSST_SDP2430_v1.2	SDP2430v1.1	GP	OMAP 2430 ES 1.0+T2 ES1.0
CSST_SDP2430_v1.2	SDP2430v1.2	EMU	OMAP2430 ES2.0+T2 ES1.0
CSST_SDP2430_v1.2	SDP2430v2.x	GP	OMAP 2430 ES 2.0+T2 ES1.0

Table 1 Supported Platforms

5. Release Content

5.1. Host executables:

Host executables are available in the directory "<installed directory>\csst\"

- Csst.exe – The CSST GUI executable file
- csstcli.exe – The CSST CLI executable file

5.2. Target executables:

CSST monitor

- csst_2430sdp_monitor.out - Target executable for RAM download for 2430 SDP. File will be available under csst\ targets directory. This will work with both 133MHz and 165MHz .
- csst_2430sdp_monitor_NOR_MemoryBoot_EMU.ift - Target executable which can run from NOR flash on EMU and HS devices in memory boot mode. File will be available under csst\ targets directory.
- csst_2430sdp_monitor_NOR_MemoryBoot_GP.ift - Target executable which can run from NOR flash on GP devices in memory boot mode. File will be available under csst\ targets directory. This will work at 133MHz.
- csst_usb_download.out – Strip down version of the csst_2430sdp_monitor.out. This binary can be downloaded to ISRAM and later can be used to download any Image on to Flash (NOR\NAND) or RAM via USB. File will be available under csst\ targets directory. This cannot be used on SDP2430v1.1 SDP boards due to the Triton2 silicon limitation.

2nd downloader

- dnld_startup_2430_sdp_ddr_emu.2nd - 2nd file for EMU/HS devices. File will be available under csst\ targets directory.
- dnld_startup_2430_sdp_ddr_gp.2nd – 2nd file for GP devices. File will be available under csst\ targets directory.

Flash Drivers

- nor_intel_drv.out – NOR Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- nand_samsung_drv.out – 16-bit NAND Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- onenand_samsung_drv.out– OneNand Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- sibley_intel_drv.out– Sibley NOR Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- ram_drv.out – RAM memory driver for 2430 boards. File is available under csst\drivers directory.

5.3. Documents:

The release consists of the following documents:

- CSST_SDP2430_ReleaseNotes_v1_2.doc – This Document.
- CSST_UserManual.doc – CSST User Manual.
- CSST_QuickStartGuide_SDP2430.doc – Platform specific document that has information on Dip switches, memory locations to download images, diagnostics tests supported etc.

5.4. Other Files:

OMAP2430sdp_infineon_CCS_3_2.gel - GEL file for OMAP 2430 SDP. File will be available under <installed directory>\csst directory.

6. Test Results

6.1. Host software

CSST SDP2430 v1.2 GUI is tested on PC with Windows 2000/XP Operating System. CSST CLI is not fully tested. Basic testing is done from CSST CLI. Download and flashing support from Non Interactive CLI is tested fully.

6.2. Tested OMAP2430 SDPs

CSST SDP2430 v1.2 is tested on following platforms:

No.	OMAP2430 SDP	Revisions
1	OMAP 2430 SDP 2.0	Main Board 750 -2031-002 Daughter Board 750 -2017-001 Companion Board 750-2013-001 PISMO Board 750-2009-001 Enhanced UI Board 750-2038-001
2	OMAP 2430 SDP 1.1	Main Board 750 -2031-002 Daughter Board 750 -2017-007 Companion Board 750-2012-001 PISMO Board 750-2009-001 Enhanced UI Board 750-2038-001
3	OMAP 2430 SDP 1.0	Main Board 750 -2031-001 Daughter Board 750 -2017-002 Companion Board 750-2001-002 PISMO Board 750-2009-001 UI board 700-0486-002

6.3. Known Issues

Issue #1: CLI is not tested completely and is not completely in sync with the CSST GUI.

Workaround: None

Issue #2: Downloading through USB interface does not work on SDP 1.1. Triton2 silicon limitation.

Workaround: None.

Issue #3: Triton2 BCI test case does not work. Triton2 silicon limitation.

Workaround : None.

Issue #4: FS USB test case cannot be aborted once started.

Workaround : Close the CSST GUI, change back the dip switch to UART and reconnect the UART.

Issue #5: CSST monitor.out does not connected over USB when downloaded using usb_download.out.

Workaround : None.

Issue #6: Dynamic delay update in DLLA and DLLB not implemented.

Issue #7: MMC is failing with 48MHz on the slot 2 of ES2.0 boards.

NOTE: MMC is working 24MHz on slot 2 and 48MHz on slot 1.

For other known bugs, please refer to bug tracking system.

7. Previous Releases

CSST_SDP2430_v1.1 supports the following features:

1. Support for 2430 SDP v1.1
2. Serial LCD test case.
3. FS USB enumeration test case.
4. Triton2 RTC test case.
5. Keypad test case using the T2 keypad controller.
6. T2 power rail configuration for various modules on the SDP 1.1.
7. Audio test for T2 CODEC.
8. Non interactive CLI support for downloading files to various flashes and SDRAM.
9. Dynamic configuration of target based on the SDP Config EEPROM content. This version of CSST supports SDP 1.1, SDP 1.0 and SDP 0.3.
10. Faster downloads to NOR flash.
11. Camera and TV test cases displays bigger image.
12. NAND and NOR test cases accept the chip Select parameters, so that all the combinations can be tested.
13. Validated the 2430 ES 1.0 HS devices. Tested the RMR support.
14. Load address and execute address for CSST Monitor out is changed to SDRAM start address (0x80000000). User need not change the default address shown by the GUI while downloading monitor.out to SDRAM.

CSST_SDP2430_v1.0.1 supports the following features:

1. Support for Download in Monitor mode via HS USB interface.
2. New NAND Download Architecture

CSST_SDP2430_v1.0 supports the following features:

1. Diagnostics test cases for OMAP2430 SDP 1.0.
2. Support for Download in Monitor mode and ROM assisted mode in UART mode.
3. Support for Download in Monitor mode in "HS USB Mode of HS USB".
4. Debug and Trace functionality.
5. Support for NOR and NAND Flashing in ROM assisted mode and Monitor mode through UART and "HS USB mode of HS USB" interfaces.
6. Support for GP and EMU/HS device image signing.

Bug fixes:

- OMAP500065245 – Menelaus RTC timer issue

-
- OMAP500064725 - CSST Tool has numerous typographical errors(spelling, capitalization, grammar) on the diagnostic UI screen descriptions.
 - OMAP500068339 - Diagnostics and downloading use different assumptions
 - OMAP500064032 - Spelling Error in EEPROM test
 - OMAP500065275 - NOR flash erase test case
 - OMAP500065274 - Flash address parameter for NOR dataline and address line test case
 - OMAP500055128 - Audio test case not working
 - OMAP500067633 - NAND writing issue with CSST 1.0.1 on 2430 v0.3
 - OMAP500062835 - Dock problem
 - OMAP500064791 - CLI Crash
 - OMAP500064822 - Information displayed is not clear.
 - OMAP500068337 - Problem with .bin files & signing.
 - OMAP500064369 - Bug in GUI while adding target
 - OMAP500064371 - Deleting the file in download UI does not work properly
 - OMAP500064375 - Erase entire flash option is not working in the erase tab of UI download
 - OMAP500064378 - The COM selected does not reflect in the combo box
 - OMAP500064790 - Monitor mode not working in CLI
 - OMAP500064813 - Prints not coming
 - OMAP500064821 - Taking Com ports from the windows
 - OMAP500065271 - CSST Host crash while changing the BOOT ROM mode settings
 - OMAP500064376 - Trace prints are not getting logged in the cssttrace file
 - OMAP500064377 - A message box should pop up, when the repositories are getting loaded, so that user cannot do any operations.
 - OMAP500064379 - Saving a setting in GUI, does not reflect back, once the application is closed and opened
 - OMAP500064385 - Proper message indication to the user in the debug UI
 - OMAP500065264 - Issue with CSST file handling
 - OMAP500068333 - Problem with 'save configuration'
 - OMAP500069770 - Erase entire flash on the "erase tab" does not work
 - OMAP500068335 - No error recovery after failing on download
 - OMAP500068331 - After aborting download, CSST cannot download again
 - OMAP500065279 - Security lib version given in release notes is not latest