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StarterWare 02.00.01.01 Release Notes

StarterWare Version 02.00.01.01

Date: 12 July, 2013.

Introduction

StarterWare 02.00.01.01 provides no-OS platform support for TI AM335x GP EVM, TI AM335x EVM-SK and Beaglebone which are based on TI AM335x SOC. StarterWare provides Device Abstraction Layer, libraries, peripheral/board level sample/demo examples that demonstrate the capabilities of the peripherals of AM335x. StarterWare comes with pre-compiled binaries for bootloader and example applications which can be run from an SD card.

Features

- Device Abstraction Layer and Example Applications for the peripherals on AM335x are listed in the table below.

Features	TI AM335x EVM Examples	Beagle Bone (Base board) Examples	EVM-SK Examples
UART	• Echo Application in Interrupt Mode • Echo Application in DMA Mode	• Echo Application in Interrupt Mode • Echo Application in DMA Mode	• Echo Application in Interrupt Mode • Echo Application in DMA Mode
High Speed - I2C	• EEPROM Read in Interrupt Mode • EEPROM Read in DMA Mode • Temperature Sensor (Temperature Display) • Accelerometer (Board Tilt Angle Measurement)	• EEPROM Read in Interrupt Mode • EEPROM Read in DMA Mode • Temperature sensor and Accelerometer are not connected on BB (base board)	• EEPROM Read in Interrupt Mode • EEPROM Read in DMA Mode • Accelerometer (Board Tilt Angle Measurement) • Temperature sensor is not connected on EVM-SK
Multi-channel SPI	• SPI Flash R/W in Interrupt Mode • SPI Flash R/W in DMA Mode	• *No device is connected to McSPI on BB (base board)*	• *No device is connected to McSPI on EVM-SK*
DMTimer	• ISR Counting	• ISR Counting	• ISR Counting
Watchdog Timer	• WDT Demonstration	• WDT Demonstration	• WDT Demonstration
GPIO	• LCD Backlight On/Off • Audio Buzzer	• LED On/Off • Audio Buzzer is NOT available in BB (base board)	• MMC/SD Card Detection • Audio Buzzer is NOT available in EVM-SK
High Speed MMCSD	• SD Card Access with FAT File System	• SD Card Access with FAT File System	• SD Card Access with FAT File System

Real-Time Clock (RTC)	• Time Set and Get	• Time Set and Get	• Time Set and Get
USB	• CDC Serial Device Mode • Custom Bulk Device Mode • MSC Device Mode • Mouse Device Mode • MSC Host Mode • Mouse Host Mode • MSC Host + MSC Device Mode • MSC Host + Mouse Host • Composite CDC Serial (device) + CDC Serial (device) • Composite CDC Serial (device) + Mouse	• CDC Serial Device Mode • Custom Bulk Device Mode • MSC Device Mode • MSC Host • MSC Host + MSC Device • CDC Serial (device) + CDC Serial (device) Other examples are not supported due to limitations on beaglebone (baseboard) 1. USB0 port is used for debugger connection and serial port emulation 2. LCD cape daughter board is not supported in StarterWare	• CDC Serial Device Mode • Custom Bulk Device Mode • MSC Device Mode • Mouse Device Mode • MSC Host Mode • Mouse Host Mode • MSC Host + MSC Device Mode • CDC Serial (device) + CDC Serial (device) • Composite CDC Serial (device) + Mouse Other examples are not supported as USB0 port is used for debugger connection and serial port emulation.
Ethernet	• Embedded Web Page Access • Echo Application with socket-programming	• Embedded Web Page Access • Echo Application with socket-programming	• Embedded Web Page Access - Default in Dual MAC mode • Echo Application with socket-programming - Default in Dual MAC mode • Undefining CPSW_DUAL_MAC_MODE in lwipopts.h, both examples can be demonstrated in switch mode
McASP	• Audio Loop-Back	*Audio Jacks are not available in BB* (base board)	• Tone Play (Audio IN jack is not available in EVM-SK)
EDMA	• Memory to memory transfer	• Memory to memory transfer	• Memory to memory transfer
Raster	• Image Display	*LCD cape daughter board is not supported in StarterWare*	• Image Display
GPMC	• NAND Read Write	*No device is connected to GPMC on BB (base board)*	*No device is connected to GPMC on EVM-SK*
ELM	• NAND Read Write (Error Location Detection)	*No device is connected to ELM on BB (base board)*	*No device is connected to ELM on EVM-SK*
ECAP	*Available only as part of OOB Demo (LCD brightness control)*	*LCD cape daughter board is not supported in StarterWare*	*Available only as part of OOB Demo (LCD brightness control)*
DCAN	• Board-to-Board communciation	*The DB9 connectors are not available in BB (base board)*	*The DB9 connectors are not available in EVM-SK*
TSC-ADC	• Touch Screen Calibration	*LCD cape daughter board is not supported in StarterWare*	• Touch Screen Calibration
EHRPWM	• Rotation of Haptics Motor (available in EVM daughterboard rev. 1.0E and above only)	*No device is connected to EHRPWM in BB (base board)*	*No device is connected to EHRPWM in EVM-SK*
Bootloader	• MMCSD Boot • UART Boot • SPI Boot • NAND Boot	• MMCSD Boot • UART Boot SPI and NAND flash devices are not available in BB (base board)	• MMCSD Boot • UART Boot SPI and NAND flash devices are not available in EVM-SK
Graphics Library	• Graphics Library Demo • Maze Game	*LCD cape daughter board is not supported in StarterWare*	• Graphics Library Demo • Maze Game

Out Of Box Demo	• Driven via Touch and/or Ethernet (web browser)
	• Peripherals demonstrated - LCD, Ethernet, McASP, MMC/SD, Uart, Timer, RTC, eCAP, GPIO, I2C, ADC_TSC
	• Supports Power Management
	  • DS0, DS1, STANDBY, RTC Only*
	  • Wake Sources - UART, GPIO, Touch Screen, Timer and RTC Alarm*
	• Supports DVFS
	  • OPP50
	  • OPP100
	  • OPP120
	  • SR-TURBO
	  • Nitro*
	(*) - Supported from PG2.x SoC ver.
		• Driven via Ethernet (web browser)
		• Peripherals demonstrated - Ethernet, MMC/SD, Uart, Timer, RTC
		• Supports Power Management
		  • DS0, DS1, STANDBY
		  • Wake Sources - UART and Timer
		• Not Supports DVFS
		  • OPP50
		  • OPP100
		  • OPP120
		  • SR-TURBO
			• Driven via Touch and/or Ethernet (web browser)
			• Peripherals demonstrated - LCD, Ethernet, McASP, MMC/SD, Uart, Timer, RTC, eCAP, GPIO, I2C, ADC_TSC
			• Supports Power Management
			  • DS0, DS1, STANDBY
			  • Wake Sources - UART, GPIO, Touch Screen, Timer and RTC Alarm*
			• Supports DVFS
			  • OPP50
			  • OPP100
			  • OPP120
			  • SR-TURBO
			  • Nitro*
			(*) - Supported from PG2.x SoC ver.

RTC Only (Low power mode)	*Not supported in EVM* (PG.1.0) due to 1. Polarity of External wake is wrongly connected in EVM 2. Silicon issue (Refer errata [1] - Advisory 1.0.5 RTC: 32.768-kHZ Clock is Gating Off) ***Note: This issue is not applicable for AM335x PG2.1***	*Not supported in BB* due to 1. External wake is not accessible in BB 2. Silicon issue (Refer errata [1] - Advisory 1.0.5 RTC: 32.768-kHZ Clock is Gating Off)	*Not supported in EVM-SK* due to 1. External wake is not accessible in EVM-SK 2. Silicon issue (Refer errata [1] - Advisory 1.0.5 RTC: 32.768-kHZ Clock is Gating Off)
Neon/Vfp	Example includes perrformance measurement of 1. Vectorized float operations 2. Math lib (Sine and Cosine functions with and without intrinsics) - GCC alone	Example includes perrformance measurement of 1. Vectorized float operations 2. Math lib (Sine and Cosine functions with and without intrinsics) - GCC alone	Example includes perrformance measurement of 1. Vectorized float operations 2. Math lib (Sine and Cosine functions with and without intrinsics) - GCC alone
SGX GFX	*Not supported in StarterWare*	*Not supported in StarterWare*	*Not supported in StarterWare*
Crypto	*Not supported in StarterWare*	*Not supported in StarterWare*	*Not supported in StarterWare*
PRU-ICSS	*Not supported in StarterWare*	*Not supported in StarterWare*	*Not supported in StarterWare*
EMAC- IEEE 1588	*Not supported in StarterWare*	*Not supported in StarterWare*	*Not supported in StarterWare*
eQEP	*Not supported in StarterWare*	*No device is connected in BB*	*No device is connected in EVM-SK*
NOR	*Not supported in StarterWare*	*No device is connected in BB*	*No device is connected in EVM-SK*

- Ethernet lwIP (a light weight IP stack) Port for AM335X
- MMC/SD Library
- NAND Library
- USB library
- APIs to configure Cache and MMU.
- Support for IRQ Preemption. StarterWare IRQ handler is now prioritized IRQ handler. However, if preemption is not desired, all interrupts can be assigned the same priority level.
- Support for switching between Privileged and Non-Privileged modes.

New in this Release

- AM335x PG2.1 support
- Power Management features:

1. DS0, DS1, Standby supported on EVM, EVMSK and beaglebone
2. RTC-Only mode supported for GP EVM alone
3. RTC Alarm wake source supported from PG2.x SoC ver.

- J-Link Emulator: Using J-Link to download and debug executables with IAR IDE
- Neon/Vfp support and performance benchmarking
- Semihosting support with GCC and CCS
- GCC tool chain change from Code sourcery to Linaro
- Added generic console utils APIs
- Additional example to demonstrate EDMA memory to memory copy.
- Added ethernet phy configurations and ALE configurations in enet_lwip example

Compatibility with last release

- The DDR part for EVM 1.2 and 1.5 are different. The default IAR projects in this release are configured to point to DDR3 (EVM v1.5) mac file. This need to be changed for v1.2 boards.
- The binary path are updated to be uniform across boards and tool chains, such that each project can create debug and release binaries in the corresponding folder.

Fixed in this release

For the list of issues fixed in this release please refer issues fixed [2].

What is Not Supported

- Performance Benchmarking: Bench marking for Cortex A8 and peripherals
- Routing of interrupts to FIQ (Not supported in AM335x GP devices)
- Security Extention Features (Not supported in AM335x GP devices)
- Data Cache Enabling on TI AM335x EVM and BeagleBone Examples (not all examples cache)
- Deep Sleep2 is not supported

Known Issues / Limitations

Issue Identifier	Issue Description	Workaround
SDOCM00084263	McSPI: McSPI is not working at 48MHz, eventhough the flash and the McSPI controller supports operation at 48MHz	The frequency of operation can be kept at 24MHz for SPI Flash access
SDOCM00086275	Spurious interrupts generation can happen sometimes and generate an abort and halt the execution.	Dummy ISR is added to handle spurious interrupt during INTC initialization. This ISR just returns to the caller without performing anything.
SDOCM00094747	Uart examples will not work with baud rates - 460800 and 921600.	Use UART_13x_OPER_MODE operating mode for baudRates higher than 230400 for EVMSK and BB boards.
SDOCM00091027	OPP50 is not supported for Core voltage domain.	None

SDOCM00099631	The UartEcho example for EVMSK prints some non-english characters on the serial console when it is tested with BaudRate: 115200/230400; Word length: 7; Stop Bits : 1; Parity : No;	None
SDOCM00102444	Enabling Cache for NAND example with DMA mode of GPMC leads to uncorrectable ECC errors	None. Use PIO mode.
SDOCM00101777	Pen Up interrupts for touch screen [3]	None
SDOCM00101336	The DCAN example does not display an error message to the user if the board is in incorrect profile. Due to this the example hangs and user is not notified what is the root cause for the hang.	Ensure the board is in correct profile before executing the example.
SDOCM00101335	The Ehrpwm_haptics examples do not display an error message to the user if the board is in incorrect profile. Due to this the example hangs and user is not notified what is the root cause for the hang.	Ensure the board is in correct profile before executing the example.
SDOCM00097936	Default interrupt handler simply returns without doing anything. As per discussion in the attachment it should print an error message or wait in infinite loop.	Default handler can be updated to give proper indication.
SDOCM00097509	When a STALL handshake is returned by an MSC device , the endpoint needs to be cleared and depending on whether it is READ10 or WRITE10 the transafer needs to be retried or CSW fetched. This is not being done by the USB stack currently and it is resetting the target. This needs changes to all layers of the USB stack and has to be done in a generic fashion so that the class driver always handles class specific errors.	None
SDOCM00102489	In the SPI boot mode for EVM, the SPI bootloader binary generated using IAR toolChain fails to bootup the application when it is loaded on the SPI flash connected on the EVMAM335x board.	None
SDOCM00102490	The CCS generated binary of NeonVFPBenchmark application for EVMSK and BB for Debug and Release configuration differ in size. With the Debug binary size being lesser in size than the Release configuration.	None

- If the Linaro installation path contains white spaces, Cygwin may give errors while linking.
- In RTC Only mode distorted image is observed on LCD with EVM 1.5x.

Installation and Usage

- The StarterWare Quick Start Guide explains how the precompiled binary for the demo application can be run on the target
- For detailed user instructions refer to StarterWare User Guide

Dependencies

Refer to Host Platform Requirements of the User Guide

Device Support

SOCs Supported:

- AM335X

EVMs Supported:

- TI AM335x EVM Rev 1.1A and above

- TI AM335x EVM-SK Rev 1.2B and above
- Beagle Bone Rev A3 and above

Technical Support

For further information or to report any problems raise a query in StarterWare e2e forum [4].

References

[1] http://www.ti.com/litv/pdf/sprz360b
[2] http://processors.wiki.ti.com/index.php/StarterWare_02.00.01.01_issues_fixed
[3] http://e2e.ti.com/support/embedded/starterware/f/790/p/248332/876470.aspx#876470
[4] http://e2e.ti.com/support/embedded/starterware/f/790.aspx

StarterWare 02.00.01.01 issues fixed

This page lists the issues fixed in StarterWare 02.00.01.01 Am335x release.

Fixed in this release

Issue Identifier	Issue Description
SDOCM00102382	During NAND Page Write operation the FIFO status of the GPMC is not checked before writing to it, this potentially leads to corrupting the data already present in the FIFO.
SDOCM00102272	The functionality of "UARTGets" API is not compliant with the standard I/O function "fgets". So the functionality has to be updated to make it compliant with standard i/o function.
SDOCM00102219	Game application prints the score continuosly on the UART console. This process of continuosly printing of scores is creating issue when semihosting is enabled. When semihosting is enabled, applicaiton tries to print continuosly the score on the debug console. Because of this application is not working properly. Console prints are blocking the actual touch event isr handling. Continusoly printing the score is also not a valid use case. Since it is affecting actual application performance in some scenarios, the printing of score on the console has to be removed.
SDOCM00102143	In AM335x TRM, the EEVAL register was not documented. While debugging customer issue this is identified. So uart_edma examples have to be updated to configure EEVAL register after clearing the interrupts.
SDOCM00102049	The platform API "PWMSSTBClkEnable" is used to enable the time base module clock for the required PWM instance. This API will not function properly when multiple PWM instances are used. This API enables the clock for required PWM instance and it is also disabling the clocks for the other PWM instances which causes issue when more than one PWM instaces are used. This API has to be updated correctly to enable the clocks for the required PWM instance without disturbing the clocks corresponding to the other PWM instances.
SDOCM00101720	UARTCharGetTimeout API returns 0xFF on a timeout, which makes it difficult to distinguish between an actual timeout and reception of a valid character of 0xFF.
SDOCM00101640	DS2 is removed from TRM. Hence support for DS2 to be removed from StarterWare.
SDOCM00101337	DCANIntMuxConfig() API does not handle configuration of interrupt line for last message object. The API was designed by referring to the description given in AM335x TRM. However the description given in DCAN functional spec contradicts the information in TRM and hence the API needs to be updated with information given in DCAN functional spec.
SDOCM00101334	The McSPI examples do not display an error message to the user if the board is in incorrect profile. Due to this the example hangs and user is not notified what is the root cause for the hang.
SDOCM00101333	The McSPICSTimeControlSet() API expects user to shift the values and pass it as parameters and parameter shifting is not handled within the API. This is not a bug because in the API description it is mentioned which macros can be passed to this API and these macros are having the shifted values. However if the user passes the values which are not shifted then the API will not hold good.

SDOCM00101192	The DCANIntMuxConfig() API takes 3 parameters - baseAdd, IntLine,msgNum. However inside the API intLine is not being used and instead of this msgNum is being written to the field of IntLine.
SDOCM00101045	After execution of RTC Only wake through external pin, GPIO wake for DS0, DS1, DS2 and Standby fails.
SDOCM00100831	With memory configured as standard memory (in mmu page table), memory barrier instructions need to be added for enabling and disabling interrupts.
SDOCM00100330	USB phy to be turned off while entering Deep sleep state. This will aid in additional power saving.
SDOCM00100323	The ECAP Interrupt Status Clear API (ECAPIntStatusClear) should read the Interrupt Flag (ECFLG)register and write to the Interrupt clear (ECCLR)register to clear the Interrupts. But current implementation reads from the clear register and writes to the same. This register gives back zeros when read from it. Hence the Interrupt status is not cleared.
SDOCM00100212	MMCSDCardInit() has to return the status but in current implementation it is hard coded to return 1 always.
SDOCM00100026	In EDMA3RequestChannel() the transfer complete code is configured based on channel number (chNum) instead of transfer complete code number (tccNum).
SDOCM00100013	The API's in board.h returns pointer to char array. So the user has to use the strcmp() where ever they are used. Instead if it is mapped to numerical integer, the CPU cycles would be saved as string comparison will be avoided.
SDOCM00099839	bss section is linker command file is not compatible with all gcc versions.
SDOCM00099737	The memory footprint captured at [1] doesnt capture the size of middleware stack libraries like USB, Lwip, mmscd etc... this need to be captured in forthcoming releases.
SDOCM00099736	The function EMIFPinMuxSetup() is defined and not used in bootloader. this need to be removed to avoid confusion.
SDOCM00099655	Support for NEON/VFP Application in StarterWare.
SDOCM00099653	Ethernet application fails with 10 Mpbs
SDOCM00099651	All sources (UART, GPIO, Touchscreen, Timer-optional) are configured for resume from stanndby and the source selection provided on GUI is not valid for standby. Source selection to be implemented for resume from standby.
SDOCM00099650	Peripheral PLL are put to bypass in standby which effects the configurations of the module. Hence to be configured as GPIO for resume from standby. Incase of UART module resume from standby happens only with few keys like space, 'p', up-arrow. Resume from standby happens with all keys configuring RXD pin for GPIO inerrupt.
SDOCM00098947	The NAND Application does not use Instruction and Data Cache. Cache is used to increase programming bandwidth/to improve the performance of the CPU.
SDOCM00098556	In the IAR Project of Cache MMU example of Beaglebone, a macro 'CACHE_FLUSH' is defined for 'Debug' build configuration mode. This is not expected. The 'Debug' build mode should build the project without cleaning the Cache. However defining this macro would enable cleaning of the Cache. Due to this macro definition, this build mode generates executable which cleans the Cache before the data are output.
SDOCM00098536	In the Bootloader file 'bl_platform.c', in a function SelectI2CInstance(), the bit mask used to clear bit 4 of a variable is used incorrectly.
SDOCM00098464	The build configuration modes in the CCS Projects of Cache MMU application for the three platforms have errors.
SDOCM00098444	The HSI2C EEPROM Interrupt and EDMA applications read the contents of EEPROM onto a data buffer. Then a loop sequentially outputs every data byte in the buffer to the serial console. The displaying is done in an inverted manner. As in, the display happens in LS Nibble:MS Nibble format rather than in MS Nibble:LS Nibble format. Here LS means Least Significant and MS means Most Significant.
SDOCM00098250	UART EDMA example application not working when UART FIFO is enabled. Subsequent EDMA transmissions are not happening.
SDOCM00098132	1. StarterWare USB stack treats all devices connected on its ports as HS devices. Code needs to parse the device speed as well as the maxpacket size to provide dynamic fullspeed support. 2. In PIO mode buffer pointer is incremented by 64 bytes instead of incrementing by maxpacket size - function USBHCDPipeRead()
SDOCM00097961	I-Cache Flush in I-Cache Disable function is present in cache.c file instead of cp1.S. In case of D-Cache Disable, it is present in assembly file. So moving the I Cache flush to asembly file will avoid confusion.

SDOCM00097845	In function USBHCDPipeRead () in usbhostenum.c, After copying data that arrived with the first IN packet , code mistakenly moves the data pointer by a constant 64 bytes. In case the user asks for more than one maxpacket size of data , user buffer would get corrupted . This is applicable only in PIO mode.
SDOCM00097519	In a Bootloader function named UARTCharGetTimeout() present in the file 'bootloader/src/bl_uart.c', a loop is present which waits to receive characters from user. Though this loop and the subsequent condition checking is functionally correct, it is done in a complex manner. This can be replaced with a more gracious and simple implementation. Additionally the comments preceding the loop which explains its purpose is incorrect. It says, "Waits indefinitely until a byte arrives in the RX FIFO(or RHR).". The waiting happens for a limited number of iterations as decided by a count value and not for an indefinite period. This has to corrected.
SDOCM00097516	In a Bootloader function named UARTCharGetTimeout() present in file 'bootloader/src/bl_uart.c', the base address of UART instance to be used is taken as an input argument. However the base address variable is tampered within the function by assigning it with the base address of UART0 instance. This tampering is done before this variable is used. This is erroneous.
SDOCM00097393	During SCSI init , if a device reports unit Attention condition/ blank check condition , present code does not force the device to clear this condition. As a result the device starts NAKing/STALLing SCSI primary commands.
SDOCM00097342	In a call to the function UARTCharGetTimeout() in "third_party/xmodem/xmodem.c" file, the instance number of UART0 instance is passed as an argument instead of its base address. This is erroneous.
SDOCM00097256	In PM sleep/wake sequence the context of MPU is saved and restored for DS2. This is not needed and will increase the latency.
SDOCM00097137	On StarterWare USB webpage connector information table wrongly indicates that USB host mode examples use micro AB receptacle instead of the USB A type host port.
SDOCM00097064	In the IAR Project of Bootloader for Beaglebone, two build configuration modes namely 'Debug' and 'Release' are present. They are not required. The necessary modes are already present namely 'MMCSD_Debug', 'MMCSD_Release', 'UART_Debug' and 'UART_Release'.
SDOCM00096784	USBHCDPipeRead () wrongly checks the endpoint status for USB_HOST_OUT_ERROR instead of USB_HOST_IN_ERROR flag. Timer value needs to be cleared when it is stopped.
SDOCM00096696	TXMAXP register is being accessed using the wrong macro (HWREGB) and HWREGH should be used. This is because TXMAXP register is a 2 byte register.
SDOCM00096610	DMTimer POSTED mode support is not present in StarterWare 02.00.00.07 release. By default(hard-wired) POSTED mode is enabled in DMTimer and because of this ceratin registers need to be polled before writing to them.
SDOCM00096608	There is no call to file or directory close after opening file or directory in bootloder and application code of mmcsd
SDOCM00096607	HSMMCSDControllerSetup is called twice in main function. Need to cleanup the same.
SDOCM00096577	The issue is with the M2 divider. This register (CM_WKUP_CM_DIV_M2_DPLL_*) does not allow the writing of a 0 to the DPLL_CLKOUT_DIV field. Therefore, the clearing of the existing value actually results in a 1 being left in the field. Then the OR'd in value may be incorrect.
SDOCM00096361	The HSI2C Header file "hsi2c.h" is missing a conditional check for the case when the macro '__cplusplus' is defined. If this macro is defined, a closing curly brace is inserted which corresponds to an opened one earlier in the file.
SDOCM00096332	While initialising SCSI Inquiry data in the structure g_pucCommand (USBDSCSIInquiry ())is being initialised with 16 bytes of data from tUSBDMSCDevice pucVersion field . pucVersion field is only 4 bytes long.
SDOCM00096165	In the AM335x Bootloader file - "bootloader/src/armv7a/am335x/bl_platform.c", the macro values for DDR timing paramters are not correct.
SDOCM00096121	The UART can generate error interrupts in two forms: 1. A single Receiver Line Status Error interrupt that caters to Overrun Error, Framing Error, Parity Error and Break Indication. 2. A Character Timeout Interrupt. These two interrupts are enabled but the UART Interrupt Service Routine (ISR) does not handle them as expected.
SDOCM00096039	In AM335x UART, a write to the FIFO Control Register (FCR) should be preceded by the setting of the 4th bit of Enhanced Feature Register (EFR) i.e. EFR[4]. The specific reason is that FCR[5:4] can be written to only when EFR[4] = 1. The API UARTFIFORegisterWrite() wrote to the FCR without ensuring this pre-condition

SDOCM00096033	The DDR3 which is used in EVM-SK AM335x board runs at a minimum memory clock frequency of 303MHz. This frequency can be attained by configuring the PLL with appropriate multiplier and divider settings. To configure PLL for DDR3, the Bootloader used the multiplier and divider parameters applicable for DDR2.
SDOCM00095982	The Transmit FIFO size of UART is 64 bytes. If FIFO is enabled, multiple bytes can be written at once to the TX FIFO on the occurrence of an interrupt in the Interrupt Service Routine (ISR). However, the ISR uses a UART API named UARTCharPut() which waits for the TX FIFO to become empty before writing one byte only into the TX FIFO. Thus we are not utilizing the remaining 63-byte capacity of the TX FIFO.
SDOCM00095894	The access of the Trigger Level Register (TLR) in UART, the 4th bit in Enhanced Feature register (EFR) has to be set to 1. This was not done in the API UARTFIFOConfig() which accessed TLR.
SDOCM00095771	Jlink debugger is not supported in StarterWare02.00.00.07 release and is mentioned in StarterWare02.00.00.07_Release_Notes. However, this information is not updated in AM335X_StarterWare_Environment_Setup page of user guide.
SDOCM00095660	Almost all the subsequent directories containing “.CCSProject files” have some random “linker CommandFile value” in these files. These should have corresponding correct value as per the correct cmd script.
SDOCM00095562	A macro 'CM_PER_GPIO1_CLKCTRL_MODULEMODE_ENABLE' has been used within the GPIO Clock Configuration function for GPIO3. This is incorrect. A similar macro for GPIO3 should have been used.
SDOCM00095072	ECAPIntDisable() API enables interrupt instead of disabling. This API reads ECAP Interrupt Enable Register and does bitwise OR with the bitmask of interrupts required to be enabled. Then the result written back to ECAP Interrupt Enable Register. This operation will enable interrupts instead of disabling it.
SDOCM00094820	PM demo not stable in 02.00.00.07 release.
SDOCM00094144	In TI AM335x EVM, stability issues are observed with Power Management in Demo Application when D-Cache is enabled. The EVM sometimes fail to wakeup. Currently, after some sequence changes, the issue is not observed, but root cause is not identified.
SDOCM00102277	usb_device_host_msc.c has windows style line endings . Use dos2unix utility to convert to unix file.
SDOCM00101137	Create a small sized image of usb_host_msc. Customer builds usb_host_msc example in PIO mode . Build crashes due to data abort. The exception is encountered just before branching to a function .
SDOCM00099724	Teardown hang: Frequent teardowns cause controller to hang. Solution/workaround: 250 micro seconds delay to be added to RXDMA teardown path.
SDOCM00099723	Babble condition is seen randomly when usb device (mouse) is inserted into the USB ports Solution :Restarting or re-initialization of the MUSB controller in SW helps in re-enumeration.
SDOCM00099717	RX DMA delayed buffer updation issue - When the system load is high, CPPI DMA RX buffer writes take longer time to reach DDR and hence the CPU gets interrupted (indicating transfer completion) long before DDR update. Solution :Initialise “data length” field in PD to zero. Check the “data length” field in PD for amount of data obtained (non zero value).
SDOCM00098752	CppiDmaGetINTD0Status () function is wrongly defined. The RX_SOP starvation status and clearing mechanism is wrong and does not work for AM335x. IRQSTAT and IRQENABLER registers need to be used instead.
SDOCM00097808	In - USB0ModuleClkConfig( ) defined in usb.c CM_CLKDCOLDO_DPLL_PER register is being wrongly initialized. Read only bit ST_DPLL_CLKDCOLDO is being set.
SDOCM00096470	when USBEndpointStatus () returns USB_HOST_OUT_ERROR and the timer has not run out the code will keep looping in the while(ulRemainingBytes != 0) loop.
SDOCM00096355	In StarterWare USB documentation under heading "DMA support" it is claimed that StarterWare supports GRNDIS mode. Currently only transparent DMA mode is supported and this has to be updated in the webpage.
SDOCM00095670	StarterWare USB stack supports forcing the PHY to operate in FULL SPEED mode. This needs to be tried in all example demos currently supported on SA platform and then documentation needs to be updated.

References

[1] http://processors.wiki.ti.com/index.phpStarterWare_02.00.00.07_User_Guide#Memory_Usage_Statistics

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