PDA TM7000 – SAMA5D3 Xplained Quick Start Apr 7, 2014





Hardware







- 1. Connect flex cable to the Touch Module (J6)
 - Contacts on flex face DOWN toward PCB
 - Take care when inserting the flex to avoid damage



Slide latch down evenly using catch features on each side.





Insert flex into connector. Flex contacts face DOWN. Flex inserts UNDER latch.

Slide latch up evenly using catch features on each side.





2. Connect the AC Adapter to the Touch Module (J2)





3. Connect USB cable to the SAMA5D3 Xplained USB-A Connector (J6) (Do not connect USB cable to computer yet)





- 4. Connect flex cable to SAMA5D3 Xplained LCD Connector (J22)
 - Contacts on flex face UP away from PCB
 - Take care when inserting the flex to avoid damage



Slide latch down evenly using catch features on each side. DO NOT FORCE LATCH





Insert flex into connector. Flex contacts face UP. Flex inserts OVER latch.

Slide latch up evenly using catch features on each side.





5. Re-position the setup with Touch Module oriented as shown below





6. Note the location of the NAND_CS jumper (J5) and RESET button (BP2)





Loading an Image to NAND Flash



1. If the Atmel SAM-BA software is not already installed, visit <u>http://www.atmel.com/tools/ATMELSAM-BAIN-SYSTEMPROGRAMMER.aspx</u>

download and install SAM-BA and any patches.

2. Remove shorting block from the NAND_CS jumper JP5 on the Xplained PCB





- 3. Connect USB cable to computer (or press RESET button is already connected).
- 4. If the "Found New Hardware Wizard" is displayed:
 - choose to install drivers automatically if the Xplained hardware has previously been flashed using SAM-BA on the computer.
 - otherwise (or if automatic install fails) choose to install from a specific location and point to the 'drv' sub-folder where SAM-BA was installed (for example, "C:\Program Files\Atmel\sam-ba_2.12\drv")

Found New Hardware Wizard	
	Welcome to the Found New Hardware Wizard
	This wizard helps you install software for:
	atm6124.Sys ATMEL AT91xxxxx Test Board
	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do?
	 Install the software automatically (Recommended) Install from a list or specific location (Advanced)
	Click Next to continue.
	< <u>B</u> ack <u>N</u> ext > Cancel





5. Replace the shorting block on NAND_CS jumper JP5





- 6. Locate the folder containing SAMA5D3 Xplained image files (visit <u>http://www.at91.com/linux4sam/bin/view/Linux4SAM/GettingStarted#DemoArchiveBinaries</u>)
- 7. Run the batch file appropriate for this touch module (for the TM7000 touch module, use "demo_linux_nandflash_pda7.bat")
- 8. After a minute Notepad should launch with log output from SAM-BA
 - scroll to the end of the file and verify SAM-BA reported: -I- === DONE. ===
 - if Notepad launches within only a few second an error likely occurred.
 - if the flash process resulted in any errors they will be identified by lines which begin with:

-E-



9. Press the RESET button BP2 to reset the Xplained hardware and launch the installed image.





Running an Image from NAND Flash



Run Image

1. Verify shorting block is installed on NAND_CS jumper JP5 on the Xplained PCB



- 2. Connect USB cable to computer (or press RESET button if already connected).
- 3. After several seconds, the computer may indicate the connection of a USB device. This is a virtual COM port which can be used to access the Linux shell console (if applicable).



Run Image

- 4. If the "Found New Hardware Wizard" is displayed:
 - choose to install drivers automatically if the Xplained hardware has previously been used on the computer.
 - otherwise (or if automatic install fails) choose to install from a specific location and point to the folder containing the Gadget Linux USB-CDC driver information file.

(download from https://www.kernel.org/doc/Documentation/usb/linux-cdc-acm.inf)

Found New Hardware Wizard	Found New Hardware Wizard
Welcome to the Found New Hardware Wizard	Please choose your search and installation options.
This wizard helps you install software for: Gadget Serial	Search for the best driver in these locations. Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
If your hardware came with an installation CD or floppy disk, insert it now.	Search removable <u>m</u> edia (floppy, CD-ROM) Include this Igcation in the search: C:\Drivers\Linux CDC Browse Browse
What do you want the wizard to do? Install the software automatically (Recommended) Install from a list or specific location (Advanced) Click Next to continue.	Don't search. I will choose the driver to install. Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next> Cancel	< <u>₿ack</u> Next> Cancel

5. After an additional delay (depending on the image loaded into NAND flash) the image will be running