Using the Samsung Series 7 Slate (700T) with Windows 8 Customer Preview

Introduction

Attendees from Microsoft's //BUILD/ conference were provided with a Windows 8 hardware reference platform that was co-developed by Microsoft and Samsung. This unique Samsung //BUILD/ PC was designed to provide developers with a hardware platform optimized for Windows 8's new Metro applications which includes features such as a 16x9 display, multi-touch, and various sensors. After Microsoft's announcements at //BUILD/ there has been a high demand from the developer community for a method to purchase the Samsung //BUILD/ PC. The system was designed as a unique tool for //BUILD/ attendees and there are no plans for manufacturing additional units.

Microsoft recognizes the demand for a Windows 8 development tool and therefore we wanted to provide some details on how to use a Samsung Series 7 Slate (Model: XE700T1A) for this purpose and what limitations exist on this system vs. the PC provided at //BUILD/.

Hardware and developer scenario differences

The Samsung //BUILD/ PC is based on the Samsung Series 7 Slate ("Series 7") but the platform was optimized for Windows 8 development with the addition of new sensors, new UEFI BIOS, and general platform configuration optimizations.

The Series 7 Slate is available in different model configurations/SKUs and it is important to use the XE700T1A-A04US (or XE700T1A-H01US w/ 3G WWAN) models to enable Windows 8's scenarios. These models are available at the Microsoft Store (http://www.microsoftstore.com/store/), CDW and other online retailers.

Hardware Configuration Differences:

Model	Windows 8 //BUILD/ PC	Series 7 Slate (XE700T1A-A04US)	Series 7 Slate w/3G XE700T1A-H01US
CPU	Intel i5 2467M 1.6GHz	Intel i5 2467M 1.6GHz	Intel i5 2467M 1.6GHz
Chipset	Intel HM65	Intel HM65	Intel HM65
Memory	4GB DDR3	4GB DDR3	4GB DDR3
TPM	Yes	Yes	YES
Compass Sensor	Yes	Yes	YES
Gyro Sensor	Yes	-	-
Accelerom	Yes	Yes	Yes

eter Sensor			
NFC Sensor	Yes	-	-
ALS Sensor	Yes	Yes	Yes
LCD	11.6" HD, PLS	11.6" HD, PLS	11.6" HD, PLS
SSD	64GB SSD	128GB SSD	128 GB SSD
WLAN	Yes	Yes (different chipset)	Yes (different chipset)
GPS	Yes	-	-
HSPA	Yes (ATT)	-	Yes (ATT)
Front Camera	Yes	Yes	Yes
Rear Camera	Yes	Yes	Yes
Digitizer	WACOM	WACOM	WACOM
Battery	SDI 5,520mAh, 4Cell	SDI 5,520mAh, 4Cell	SDI 5,520mAh, 4Cell
Speaker	Yes	Yes	Yes
Bluetooth	B/T 3.0	B/T 3.0	B/T 3.0
Dock	Yes	Optional	Optional
B/T KB	Yes	Optional	Optional

Configuring System and Installing Windows 8 Customer Preview

The below instructions will step you through the process of configuring and installing Windows 8 Consumer Preview on a Series 7 Slate for use as a development platform.

DISCLAIMER:

Installing Windows 8 pre released software and non-Samsung software is not officially supported by Samsung Electronics Corporation and doing so is at your own risk. Do not contact Samsung Support for questions or assistance with Windows 8 or problems caused by installing pre-released software on the Series 7. Samsung Support can only respond to support issue with the version of Windows that was shipped with your device (Windows 7.) If you have a support issue please reinstall Windows 7 and verify the issue still exist before contacting Samsung for technical assistance. Samsung limited warranty does not apply to non-Samsung software even if pre-installed, packed or sold with Samsung PC product. Please see the warranty card for details. Linked Samsung web page of Samsung website.(http://www.samsung.com/us/support/service/warranty/XE700T1A)

The Windows 8 Customer Preview is a prerelease version of Windows 8. The software is provided as is, and you bear the risk of using it. It may not be stable, operate correctly or work the way the final version of the software will. It should not be used in a production environment. The features

and functionality in the prerelease software may not appear in the final version. Some product features and functionality may require advanced or additional hardware, or installation of other software.

Note: You can't uninstall the Windows 8 Customer Preview. To go back to your previous operating system, you must reinstall it from restore or installation media.

Tips: Only perform the following steps with the system on AC power. The use of a USB keyboard is required.

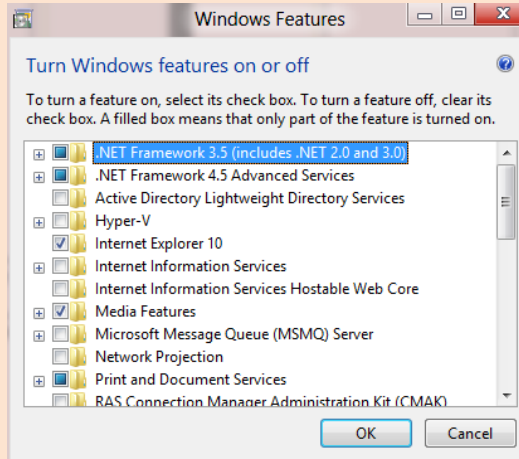| OVERVIEW	Overview of the steps for installing Windows 8 Customer Preview on the Series 7 Slate: • Update system firmware • Configure system firmware for UEFI Boot • Install Windows 8 Customer Preview • Install updates/drivers from Windows Update • Install intel Chipset Drivers from Samsung.com • Install intel HECI(ME) Driver from Samsung.com • Install updated STMicro rotation sensor driver from Samsung.com • Download and run Touch firmware configuration update tool
STEP #1 Backup your data	Backup and personal data on your Series 7. The following steps will delete all user data. Refer to attached file to backup personal date on your Series 7. (Please refer to the Attached file #2 : Backup_Restore_Method_Series_7_Slate_eng.pdf)
STEP #2 Update System Firmware/BIOS	Download and flash to the latest firmware version (08FW or higher) available at Samsung's support page for the Series 7 Slate PC: http://www.samsung.com/us/support/owners/product/XE700T1A-A04US • Select MANUALS AND DOWNLOADS then select FIRMWARE. If running Windows 7 download and run the utility. See below if you have a previous build of Windows 8 installed.. Follow these steps for updating your Firmware/BIOS from a previous pre-release build of Windows 8

	1. Install .NET3.5 Framework from the Control Panel
	    a. WindowsKey+X -> Control Panel -> Programs -> Turn Windows features on or off -> select .NET Framework 3.5, click OK
	
	2. Install Samsung Easy Settings
	    a. Download from Samsung.com support page
	       http://www.samsung.com/us/support/owners/product/XE700T1A-A04US
	    b. Save file to your PC. You will need to run the installer in "Windows 7 application compatibility mode and run as Admin. Configure this by right clicking on the program icon and selecting "properties". Select the "Compatibility" tab and check the box "Run this program in compatibility more for" and select "Windows 7", then click "run program as Administrator." Once you have completed these settings run the application to install Easy Settings
	3. Update the system Firmware
	    a. Save the downloaded firmware updater tool to your PC
	    b. Run this updater tool (with Win7 compat and admin) which will allow you to select "download" the new firmware package. Select "download" and save this file to your desktop.
	    c. Run the new firmware installer (with Win7 compat and admin), this will update your firmware to the latest version.
	
	NOTE: Samsung Easy Setting Software must be installed on your system prior to running the firmware update utility. Easy Setting Software can be installed from the same Samsung Series 7 support site above under SOFTWARE.

STEP #3 Configure	Enter BIOS setup: Power off the PC Press the computer's Power button while holding down "Home Button", which is the "HOME/WINDOWS" hardware key

Firmware for UEFI boot	on the bezel. Select "ENTER SETUP" (note: if you do not have a USB keyboard attached you can use the VOL+/VOL- keys to select, Rotation Lock button as "enter", and both vol buttons at the same time to go back.) • Select ADVANCED • Change "UEFI Boot Support" to "Enabled" Save settings and exit.
STEP #4 Download Windows 8 Customer Preview Build	Options for Installing: • Download Windows 8 Customer Preview from Microsoft @ http://preview.windows.com and follow the prompts to install. • Use a DVD or USB key to install (if needed, download the build from preview.windows.com and copy the files from c:/Windows ESD/ to a bootable USB key.)
STEP #5 Install Windows 8 Customer Preview	Follow the below steps if you are installing for installing from your newly created USB key or DVD. • Shut down/power off the PC. Press the computer's Power button while holding down "Home Button", which is the "HOME/WINDOWS" hardware key on the bezel (Enter BIOS Setup). Go to Exit menu with the combination Rotation Key and VOL+/-. Select your USB key or attached USB DVD drive listed on Boot Override by using VOL+/VOL-Key(The initial string is "UEFI:", for instance in the case of DVD, You should select "UEFI: USB CD/DVD Drive"). Press Rotation key as Enter Key. • Follow the prompts to install Windows 8 Technical Preview on your system. (note: installation will complete with three unknown devices in Device Manager, the below steps will resolve these driver issues.)
STEP #6	Once the Windows 8 install has successfully completed the next step is to

Windows Update	check for updates to Windows and drivers. Connect your system to the internet via your wireless network or a wired LAN using the option Series 7 dock. Navigate to Windows Update: Start -> Search Charm -> Select "SETTINGS" -> Type "Windows Update". Select "Check for Updates" Download and install all critical and recommended updates. *(note: Windows Update will resolve 1 of 3 missing drivers)*
STEP #7 Additional Drivers	INTEL CHIPSET DRIVERS: Download and install the Intel Chipset Drivers from Samsung website (Please refer to step 2n for URL) which will resolve 1 of the 3 remaining missing drivers in device manager. INTEL HECI (ME) DRIVERS Download and install the Intel HECI Drivers from Samsung website which will resolve 1 of the 2 remaining missing drivers in device manager. ROTATION SENSOR DRIVER (accelerometer) A new driver is required for the STMicro accelerometer sensor which will be listed as an "unknown driver" in device manager. Download and install the updated rotation driver from Samsung at http://www.samsung.com/windowspreview or download from Windows Update. Device Manager should show all drivers installed.
STEP #8	UPDATE TOUCH FIRMWARE CONFIGURATION A touch configuration update is available to ensure the Series 7 Slate delivers a touch experience that is compatible with Windows 8. To update the touch firmware configuration complete the following: • Download the Atmel Windows 8 Touch configuration update utility

	from Samsung at http://www.samsung.com/windowspreview (Update Tool : TouchCfgUpdater_ForSeries7.exe) • Run the utility to update your touch firmware
STEP #9 Start developing great applications and solutions for Windows 8.	• http://msdn.microsoft.com/en-us/windows/apps/default • http://blogs.msdn.com/b/b8/

Solutions for missing scenarios/sensors	
If your application requires one of the missing sensors you can purchase the following external USB reference devices for use with your Series 7 hardware.	
NFC sensor and test cards – NXP PN512	www.nxp.com
ST Microelectronics eMotion Development Board for Windows 8" (model # STEVAL-MKI119V1)	http://www.st.com/internet/evalboard/product/252689.jsp
GPS Sensor	We recommend the Ublox external USB GPS which is available by purchasing a copy of Microsoft Streets and Trips 2011 w/GPS (Available in MS Store). A Windows 7 Sensor driver available on their website which has been verified to work on Windows 8 builds. To improve the time to acquire a GPS fix, install the Ublox GPS Tray App to provide AGPS data to the device. Direct link to driver http://www.u-blox.com/images/downloads/Product_Docs/ublox_A4_U5_USB_drv3264win7_install_UI.zip