

AM17xx Pin Multiplexing Utility

Christina Lam

ABSTRACT

The AM17xx devices use a great deal of internal pin multiplexing to allow the most functionality in the smallest and lowest cost package. This software allows the pin multiplexing registers of the device to be calculated with ease, as well as showing what peripherals can be used together and what devices support the peripherals that are selected. This software is useful to anyone creating a system with AM17xx devices.

The Pin Multiplexing Utility can be downloaded from <http://www.ti.com/lit/zip/SPRABA3>.

1 Using the Pin Multiplexing Utility

This utility is a stand-alone executable, there is no installation process required. After you have extracted the utility, run the executable (PinSetup.exe) located in the bin directory. Once the utility is opened, there is a user interface with various sections covering the multiplexed peripherals of the AM17xx devices. Select the device and peripherals necessary to your application. Note that as some peripherals share pins, when selecting one peripheral you may disable another. This way you can determine how many different combinations of peripherals are possible on the AM17xx devices. As the peripherals are selected, the utility dynamically updates the appropriate PINMUX register values.

Once the selections have been entered, the PINMUX register values are used in the application code to properly configure the device; all the peripherals that were selected are enabled. You can save a header file with the appropriate PINMUX register values by going to File → Save → Header File. To save your device and peripheral selection for future use, choose File → Save → Pin Selections.

2 References

- *AM1707 ARM Microprocessor Data Manual* ([SPRS637](#))
- *AM1705 ARM Microprocessor Data Manual* ([SPRS657](#))

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2019, Texas Instruments Incorporated