Application Report
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OMAP-L137, TMS320C6747/6745/6743 Pin Multiplexing Utility

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ABSTRACT

The OMAP-L137, C6747/6745/6743 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 an OMAP-L137, C6747, C6745 or C6743 device.

The Pin Multiplexing Utility can be downloaded from http://www.ti.com/lit/zip/SPRAB06.

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 OMAP-L137, C6747, C6745 or C6743 device. 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 OMAP-L137, C6747, C6745 or C6743 device. 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

- *TMS320C6745/C6747 Floating-Point Digital Signal Processors Data Manual* (SPRS377)
- *TMS320C6743 Fixed/Floating-Point Digital Signal Processor Data Manual* (SPRS656)
- *OMAP-L137 Low-Power Applications Processor Data Manual* (SPRS563)

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