OM13076

Product Brief

LPCXpresso18S37 Development Board
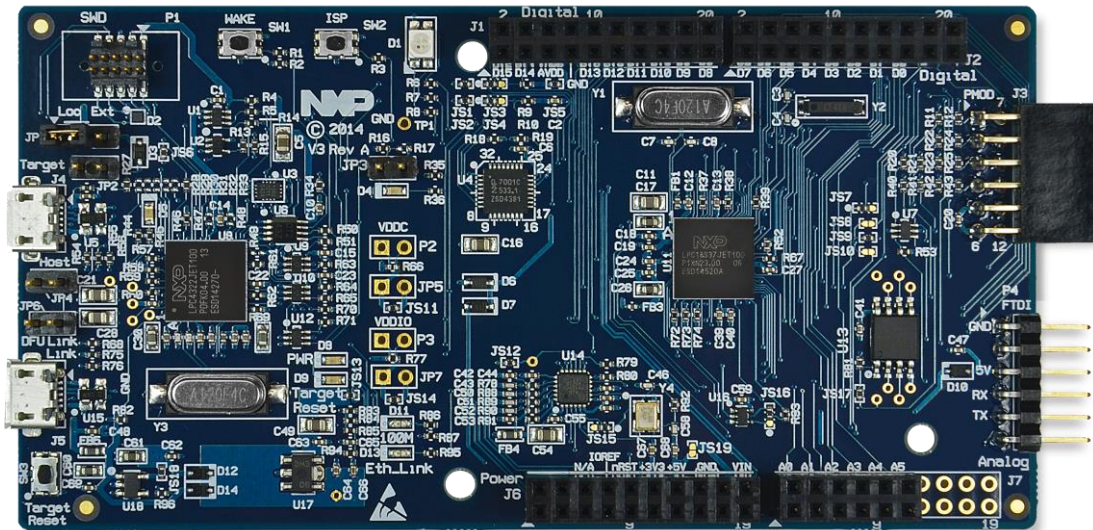
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The LPCXpresso family of boards provides a powerful and flexible development system for NXP's Cortex-M MCUs. The LPCXpresso18S37 board has been developed by NXP to enable evaluation of and prototyping with the LPC4300 family of MCUs, and features the LPC18S37 in its 100 PIN BGA package option.

Feature summary

The LPCXpresso18S37 board includes the following features:

- LPC18S37 MCU running at up to 180MHz
- On-board high-speed USB based debug probe with CMSIS-DAP and LPCXpresso IDE Redlink protocol options, can debug the on-board LPC18S37 or external target
- Support for external debug probes
- Tri-color LED
- Target Reset, ISP and WAKE buttons
- Expansion options based on Arduino UNO R3 and Pmod™, plus additional expansion port pins
- On-board Ethernet PHY (output available at expansion connectors)
- High speed USB A/B connector for host or slave operation
- 8Mb Macronix quad SPI flash
- UART, I²C and SPI port bridging from LPC18S37 target to USB via the on-board debug probe
- FTDI UART connector
- A7001CM Secure Element

LPCXpresso IDE

LPCXpresso IDE supports programming and debugging LPCXpresso boards using the on-board CMSIS-DAP debug interface, or with an external debug probe such as LPC-Link2. LPCXpresso18S37 is ready for use with the LPCXpresso IDE. An external debug probe can be used by simply connecting it to the board via the P1 connector and powering the board via the J3 USB connection.

Partner development tools

The LPCXpresso18S37 board can be used with development tools from NXP partners including Atollic, Keil, IAR, Rowley and SEGGER. The board is pre-programmed with CMSIS-DAP firmware, so can also be used with these tool-chains by setting the on-board debug probe to boot from flash (removing the JP3 jumper). Please refer to our partners for details on using their tools with the board.

LPCOpen drivers and examples

LPCOpen software packages allow users to quickly and easily utilize NXP's extensive array of microcontroller software libraries to create and develop multifunctional products. Drivers for the LPCXpresso18S37 board can be downloaded for free at http://www.lpcware.com/lpcopen.

Board specifications

Recommended operating conditions: 0 to 70oC ambient
Weight: 1.1 ounces
Size: 123 x 59mm (4.8 x 2.3 inches) including connectors
The LPCXpresso18S37 board is RoHS compliant.

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