OM13086 Product Brief

LPC43S67-A70CM Cloud Connectivity Kit

Rev 1.2 – November 18th 2015

The LPCXpresso43S67 – A70CM Cloud Connectivity Kit provides a complete hardware and software platform for developers to evaluate and prototype with the LPC43S6x processor family and A70CM in cloud connected applications based on IEEE802.11b/g/n wireless connectivity.

Feature summary

- LPCXpresso43S67 (OM13084) with LPC43S67 triple-core (M4F and dual M0) MCU running at up to 204MHz
- Zentri IEEE 802.11b/g/n SD card (featuring Murata SN8000 module)
- Fully supported by ZentriOS
- High Speed USB based debug probe with CMSIS-DAP and SEGGER J-Link OB protocol options
- NXP A7001CM Secure Microcontroller
- NTAG plug-in card featuring NXP NT3H1201W0FHK Forum Type 2 Tag with field detection pin and I²C
- LPC General Purpose Shield (OM13082) with Ethernet (RJ45), LCD screen and user LEDs, Bosch BMI160 accelerometer/gyroscope, temperature sensor, potentiometer, joystick and SD card slot
- High speed USB A/B connector for host or slave operation
- 8Mb Macronix quad SPI flash
- FTDI UART connector and built-in UART to USB bridge options
- USB cables included

Overview

The Kit combines an LPCXpresso43S67 board, which also includes an A7001CM Secure Microcontroller, with a Zentri-designed, IEEE802.11b/g/n radio board featuring the Murata SN8000 industrial-grade module, to provide a high performance MCU platform for application development.

The LPC General Purpose Shield also included in the Kit provides access to Ethernet connectivity along with several sensing devices/inputs and a convenient LCD display. In addition to on-board sensors, the Shield also provides easy access to terminal blocks for CAN bus analog inputs.

For more information, please visit: http://www.nxp.com
For sales office addresses, please send an email to: salesaddresses@nxp.com

Date of release: 19th January 2015

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The A7001CM Secure Microcontroller complements the LPC43S67 by offering tamper-resistant public and secret key encryption, certificate management and the ability to securely store other sensitive system information.

The plug-in NTAG I^2C board provides a convenient option for applications such as system commissioning/configuration and/or passing diagnostic information with an NFC-enabled device such as an Android phone.

ZentriOS

Zentri is radically changing the way product companies deliver secure mobile and cloud connected products that deliver rich connected experiences. Delivering the connected experience product buyers expect, Zentri enables secure product authentication, provides license management, seamless and secure OTA software update, remote product diagnosis and analytics, and more. The heart of Zentri's platform is ZentriOS, a complete connected product operating system available as a licensable software solution. Cloud device management software is available as a service or as a connector for existing cloud partners. Users of the OM13086 kit can evaluate ZentriOS for free. See http://www.zentri.com/nxp for more information.

Development Tools

The Kit is supported by LPCXpresso IDE, available for free download at http://www.lpcware.com/lpcxpresso/download. The Zentri SDK, can be easily combined with the rich editing and debugging capabilities of the LPCXpresso IDE by installation of a free plugin. The LPCXpresso43S67's on-board Link2 probe provides full source code debugging capability without the need for any additional hardware.

In addition to ZentriOS (as mentioned above), NXP provides a full set of example for the LPCXpress43S67 and LPC General Purpose shield, available for free download at http://www.lpcware.com/lpcopen.

Board specifications

Recommended operating conditions: 0 to 70°C ambient
Weight: 91gm (3.2 ounces) excluding cables
Size: 220mm (max length) x 63mm, fully assembled, including connectors

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