

OM40006: IoT Module Base Board

Overview

The IoT module base board has been designed to provide easy access to the peripherals available on NXP's MCU IoT modules, such as the <u>LPC54018 IoT module</u> (<u>OM40007</u>). This base board provides several on-board peripherals for rapid prototyping and evaluation, including SDRAM, USB interface, LCD with touchscreen, stereo audio codec, digital microphone, Ethernet PHY, micro SD and Arduino UNO expansion connectors.

In addition, the base board enables use with a wide range of development tools, including NXP's MCUXpresso Integrated Development Environment (IDE) and other popular toolchains including IAR and Keil.



Features

- On-board, high-speed USB based, Link2 debug probe with CMSIS-DAP and SEGGER J-Link protocol options for debug of installed module
- UART and SPI port bridging from module target to USB via the on-board debug probe
- $_{\odot}$ $\,$ Can be used with external debug probe connected to target module
- $_{\odot}$ $\,$ On-board Link2 can be used to debug and off-board target
- 2 x user LEDs
- Target reset, ISP/user (3) and user buttons
- Arduino UNO compatible expansion site
- On-board 3.3V regulator with external power supply options
- 128Mb Winbond SDRAM
- Knowles SPH0641LM4H digital microphone
- Micro SD card slot
- NXP MMA8652FCR1 accelerometer
- Stereo audio codec with line in/out
- Full speed USB port with micro A/B connector for host or device functionality
- High speed USB device port
- 10/100Mbps Ethernet (RJ45 connector)
- 272x480 color LCD with capacitive touch screen

Kit Contains

• 1-loT module base board

Supported Devices

 <u>LPC540XX</u>: Power-Efficient Microcontrollers (MCUs) with Advanced Peripherals Based on Arm[®] Cortex[®]-M4 Core