Quick Start Guide MCB1800 – NXP LPC1800





Install Keil MDK Version 5

• Download and install the MDK Core from

www.keil.com/mdk5/install

Add Software Pack using the Pack Installer

• Keil::LPC1800_DFP – NXP LPC1800 Series Device Support

Power up the board

- Connect a USB power supply to the **Power** receptacle
- Connect the board to the PC using the **Trace Connector** and a debug adapter, for example ULINK*pro*

Verify Installation

- Copy a ready-to-run example with the Pack Installer. Compile, flash, and debug the application.
- Or download examples that apply to this board

More Information

- Evaluation Board Description
- MCB1800/4300 User's Guide

Related Information

- MDK Version 5
- Getting Started User's Guide
- MDK-Professional Middleware
- Learning Platform

www.keil.com/boards2/keil/mcb1800 www.keil.com/support/man/docs/mcb1800

www.keil.com/dd2/nxp/lpc1850

www.keil.com/mdk5 www.keil.com/gsg www.keil.com/middleware www.keil.com/learn

Debug and Trace Configuration MCB1800 - NXP LPC1800



ULINKpro Debugger and Trace Adapter

Connect ULINK <i>pro</i> to the Trace connector of the board and choose ULINK Pro Cortex Debugger . Click Settings .	Device Target Output Listing User C/C++ Asm Linker Debug Utilit C Use Simulator with restrictions Settings © Use: ULINK Pro Image: Limit Speed to Real-Time Image: Load Application at Startup Image: Run to main() Image: Load Application at Startup Image: Limit Speed to Real-Time	ies Cortex Debugger 💽 Settings at Startup 🔽 Run to main()
On the Pack tab, enable debug description.	Debug Trace Rash Download Pack Debug Description Pack: Keil.LPC1800_DFP.2.6.0	ebug Trace Flash Download Pack ULINK USB - JTAG/SW Adapter Serial No: Serial Number
On the Debug tab, select Port SW .	Log Sequences: C:\MDK5_Projects\5.* Configuration: .\DebugConfig\Instruc	Device Family: Cortex-M Firmware Version: V1.57 I SWJ Port: SW Max Clock: 10MHz
Trace Settings (SWO trace)		
On the Trace tab, ensure Core Clock corresponds to the CPU Core Clock as specified in your project. Check Trace Enable .	bug Trace Rash Download Pack Core Clock: 120.000000 MHz Image: Trace Enable Image: ETM Trace Enable Trace Port Timestamps Trace Events Image: CPI: Cycles per Instruction Serial Wire Output - Manchester Image: CPI: Cycles per Instruction Image: CPI: Cycles per Instruction SWO Clock Prescaler: 2 PC Sampling SLEEP: Sleep Cycles	
For the Trace Port, select	SWO Clock: 60.000000 MHz	✓ LSU: Load Store Unit Cycles ✓ FOLD: Folded Instructions ✓ EVCTPC: Exception Tracing

Serial Wire Output-Manchester, disable **Autodetect** and set SWO Clock Prescaler to 2.

Debug Hash Download Pack	
Core Clock: 120.000000 MHz	Trace Enable
Trace Port Serial Wire Output - Manchester ▼ SWO Clock Prescaler: 2 Autodetect SWO Clock: 60.000000 MHz	Imestamps Trace Events Image: Prescaler: Image: Prescaler: PC Sampling Prescaler: Prescaler: 1024*16 mg Image: Prescaler: 1024*16 mg <t< td=""></t<>
ITM Stimulus Ports ITM Stimulus Ports 31 Port 24 23 Port 16 15 Port 8 7 Port 0 Privilege: [0x80000001 Image: [0x00000008] Port 3124 Port 2316 Port 158 Port 70	

More instructions for trace configuration can be found on <u>www.keil.com/mdk5/ulink/ulinkpro</u>. In Quick Links, select ULINKpro User's Guide; continue with Configure Cortex-M Devices for Tracing, then chapter NXP LPC18xx Devices.