Quick Start Guide

MCB54110 - NXP LPC54114

Microcontroller Tools



Install Keil MDK Version 5

Download and install the MDK Core from <u>www.keil.com/mdk5/install</u>

Add Software Pack using the Pack Installer

• Keil::LPC54000_DFP - NXP LPC54000 Series Device Support

Power up the board

- Connect the board to the PC using the USB connector marked USB Link.
- Driver installation should start automatically. A successful installation will show a "USB Input Device".

Verify Installation using example projects provided in the Software Pack or download examples that apply to this board www.keil.com/dd2/nxp/lpc54114j256bd64

• Copy an example using the Pack Installer. Compile, download to Flash, and debug the application. The provided examples are ready to run. Trace settings might have to be adapted.

More Information

- Evaluation Board Description
- MCB54110 User's Guide

Related Information

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

www.keil.com/boards2/keil/mcb54000 www.keil.com/support/man/docs/mcb54110

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



CMSIS-DAP

In the dialog **Options for Target – Debug** enable **Use** and select **CMSIS-DAP Debugger**. Click on **Settings**.

Device Target Output Listing User	C/C++ Asm	Linker Debug Utilities	
O Use Simulator with restrictions	Settings	Use: CMSIS-DAP Debugger	Settings
Limit Speed to Real-Time			

Switch to the **Pack** tab and check **Enable** to activate the Debug Description.

Debug Trace Flash	Download Pack	
Debug Description		
Pack: Keil.LPC54000	_DFP.2.2.0	
F Enable		
Log Sequences:	$\label{eq:c:03_workspace} C:\label{eq:c:03_workspace} MDKv5\NXP\Boards\Keil\MCB54110\Blinky\Blinky\Sequences_links$	
Configuration:	.\DebugConfig\LPC54114_Flash_LPC54114J256BD64_M4.dbgconf	Edit

Switch to the **Debug** tab and ensure that **Port** is set to SW for Serial Wire Debug. You may adjust the **Max Clock** to the desired debug speed.



Trace Settings

For serial wire trace capability, switch to the **Trace** tab, enter the correct CPU **Core Clock** speed as specified in your project and check **Trace Enable**.

The **Trace Port** is set to Serial Wire Output – UART/NRZ.

Make sure that **Autodetect** is enabled for the SWO Clock.

Trace Port		Timestamos	Trace Events
Serial Wire Output - UART/I	NRZ 👻	Enable Prescaler: 1	CPI: Cycles per Instruction
SWO Clock Prescaler: 29 V Autodetect SWO Clock: 3.448275 MHz		PC Sampling	EXC: Exception overhead
		Prescaler: 1024*16	LSU: Load Store Unit Cycle
		on Data R/W Sample	EXCTRC: Exception Tracin
ITM Stimulus Ports			