

MCUXWQS

MCUXpresso 配置工具的快速入门指南（网络版）

Rev. 4 — 20 December 2022

用户指南

Document information

Information	Content
Keywords	MCUXpresso 配置工具
Abstract	MCUXpresso 配置工具集是一套评估和配置工具，可帮助您从初始评估到生产软件开发。



1 简介

MCUXpresso 配置工具是一组用于配置 NXP Cortex-M 处理器的工具。为了展示其部分功能，您可以在 <http://mcuxpresso.nxp.com> 上在线查看“引脚”和“时钟”工具的简化版本。

- “引脚”工具可用于配置引脚路由和电气化属性。
- “时钟”工具可用于配置系统时钟。

这些工具可用于评估芯片特性和功能，也可用于生成初始化代码。

1.1 最低系统要求

下面列出了运行软件的最低系统要求：

- 接入互联网，用于从处理器数据库动态下载
- 启用 JavaScript 的网页浏览器
- 网页浏览器版本：Chrome 38
- 分辨率为 1024 x 768 的显示屏

2 启动 MCUXpresso 配置工具

一旦选定了器件，电路板，或套件，您可以使用“引脚”和“时钟”工具的在线版本检查相关配置。

- 打开 mcuxpresso.nxp.com。
- 选择“指定开发板”并登录。
- 从“选择一个器件，电路板，或套件”的下拉框中选择或在“按名称搜索”区域输入关键词来找到您选择的设备。
- 选择设备后，依次选择“板配置”和“使用引脚浏览工具”，以在“引脚”工具中打开设备配置，或选择“使用时钟浏览工具”，以在“时钟”中打开设备配置。
注：您始终可以在工具之间进行切换。

注：所有的工具设置会被保存于配置中。

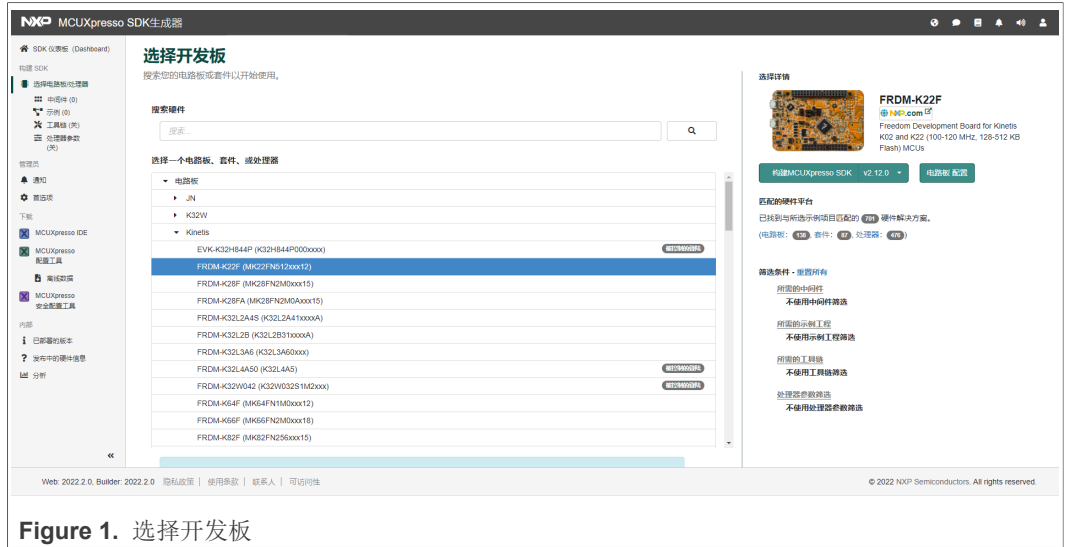


Figure 1. 选择开发板

3 引脚工具

“引脚”工具允许显示和配置处理器的引脚。基本设置可在“引脚、外设信号”或“封装”视图中完成。

更高级的设置（引脚电气功能），可在“路由引脚”视图中调整。

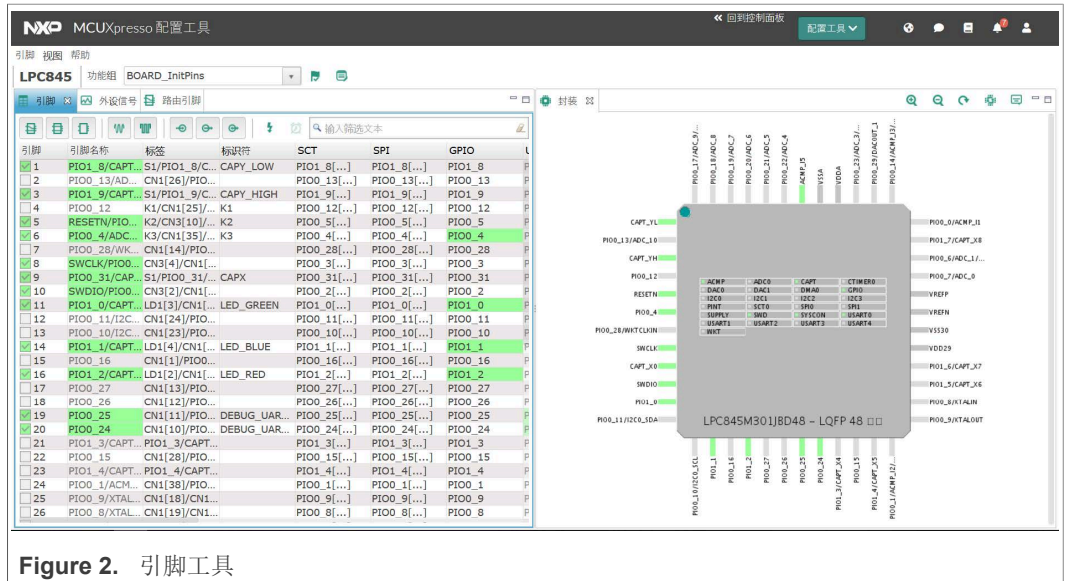


Figure 2. 引脚工具

4 时钟工具

“时钟”工具允许在“时钟表”视图中显示和更改时钟源以及输出设置。可以在“时钟表”和“时钟显示图”中调整高级设置。时钟环境的全局设置（如运行模式、MCG模式和SCG模式）可以在“时钟表”，“时钟显示图”，和“详细信息”视图中修改。

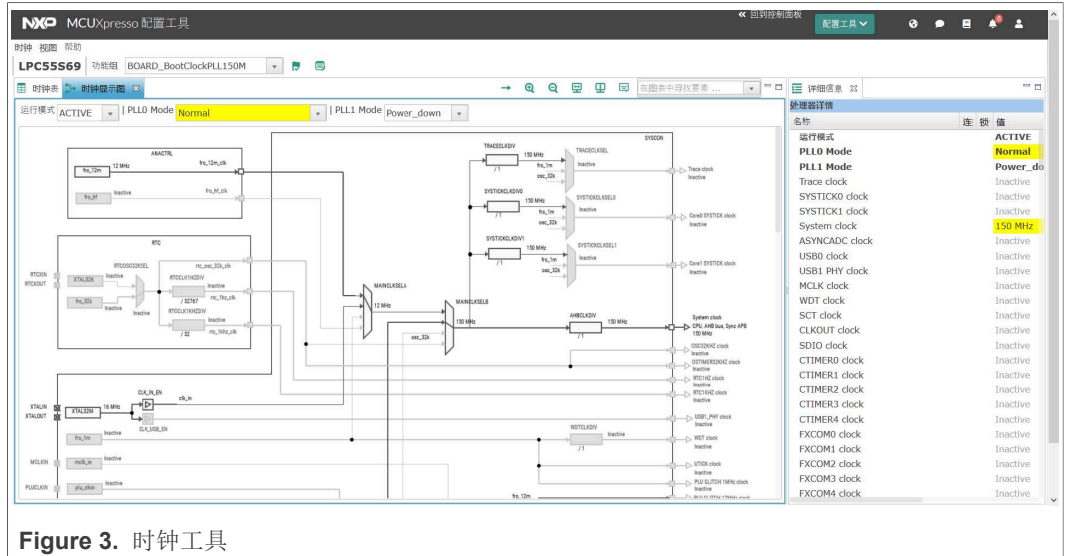


Figure 3. 时钟工具

5 生成源代码

要查看生成的代码，请从“主菜单”中选择“视图” > “代码预览”来打开“代码预览”视图。每次更改之后，源代码都会自动更新。您可复制-黏贴生成的源代码或在“主菜单”中选择“引脚” > “导出”来下载一个 ZIP 文件。

```

pin_mux.c@Cortex-M33... pin_mux.c@Cortex-M33... pin_mux.h@Cortex-M33... pin_mux.h@Cortex-M33...
/*****
 * This file was generated by the MCUXpresso Config Tools. Any manual edits made to this file
 * will be overwritten if the respective MCUXpresso Config Tools is used to update this file.
 *****/

/* clang-format off */
/*
 * TEXT BELOW IS USED AS SETTING FOR TOOLS *****
 !!GlobalInfo
 product: Pins v7.0
 processor: LPC55S69
 package_id: LPC55S69JBD100
 mcu_data: kSDK2_0
 processor_version: 0.7.4
 board: LPCXpresso55S69
 kit: LPCXPRESSO55S69-AGM01
 * BE CAREFUL MODIFYING THIS COMMENT - IT IS YAML SETTINGS FOR TOOLS *****
 */
/* clang-format on */

#include "fsl_common.h"
#include "fsl_gpio.h"
#include "fsl_iocon.h"
#include "pin_mux.h"

/* FUNCTION *****
 *
 * Function Name : BOARD_InitBootPins
 * Description : Calls initialization functions.
 *
 * END *****
void BOARD_InitBootPins(void)
{
    BOARD_InitDEBUG_UARTPins();
    BOARD_InitPins_Core0();
}

/* clang-format off */
    
```

Figure 4. 代码预览

生成的代码使用 MCUXpresso SDK 进行外围设备初始化，因此必须下载特定于设备的 SDK 包来构建它。支持的工具有：

- MCUXpresso IDE
- IAR Embedded Workbench
- Keil μVision
- Arm GCC
- Kinetis Design Studio

6 修订记录

Table 1. 修订记录

版本号	日期	重大更新
0	2021年6月23日	初始版本
1	2021年12月22日	较小更新
2	2022年6月30日	为 v.12 更新
3	2022年9月20日	添加了 图1
4	2022年12月20日	为 v. 13 发布，无内容更新

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