

# LX2160ARDB-如何通过 CodeWarrior 为 Layerscape 板配置新的闪存设备

原文链接: <https://community.nxp.com/docs/DOC-344564>

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本主题说明了为 LX2160ARDB 配置“MT25QU02GCBB8E12”闪存设备的步骤。这些步骤对于大多数闪存设备是通用的。如果该步骤不适用于特定的闪存设备，请联系 NXP 支持。

**先决条件:** CW 版本 2019.01

在使用 LX2160 的定制设计中，如果要使用 Flash 编程器不支持的 MT25QU02GCBB8E12 闪存设备，则可以按照以下步骤添加对新闪存设备的支持：

1. 浏览到目录<CW4NET-Installation-Directory>/CW4NET\_v2019.01/CW\_ARMv8/Config/flash/
2. 复制文件 devices / MT25QU01G BBB.xml，并将复制的文件重命名为 devices / MT25QU02G BBB.xml
3. 如下更新设备/MT25QU02G BBB.xml：

```
<device-file>
  <device>
    <content>
      <device_parameters>
        <device_type>spi</device_type>
        <manufacturerid>0x20</manufacturerid>
      </device_parameters>
      <name>MT25QU02G BBB</name>
      <sectors>
        <sector count="4096" size="0x10000"/>
      </sectors>
      <organizations>
        <organization depth="128M" width="8">
          <id>0xBB22</id>
          <algorithm>
            <fpinclude href="algorithms/MT25QU02G BBB.xml"/>
          </algorithm>
        </organization>
      </organizations>
    </content>
  </device>
</device-file>
```

4. 文件 algorithm / MT25QU01G BBB.xml，并将文件重命名为 algorithm / MT25QU02G BBB.xml

5. 如下更新算法/MT25QU02G BBB.xml:

```
<algorithm-file>
  <architectures>
    <architecture type="arm" address_size="64">
      <controller type="QSPI">
        <format>bin</format>
        <entry_point>0x100</entry_point>
        <file>QSPI_64b</file>
        <fpinclude
href="algorithms/params/MT25QU02G BBB_QSPI_64.xml"/>
        <supported_operations>
          <operation>id</operation>
          <operation>erase_sectors</operation>
          <operation>program</operation>
          <operation>dump</operation>
          <operation>protect_sectors</operation>
          <operation>unprotect_sectors</operation>
        </supported_operations>
      </controller>
      <controller type="FSPI">
        <format>bin</format>
        <entry_point>0x100</entry_point>
        <file>FSPI_64b</file>
        <fpinclude
href="algorithms/params/MT25QU02G BBB_QSPI_64.xml"/>
        <supported_operations>
          <operation>id</operation>
          <operation>erase_sectors</operation>
          <operation>program</operation>
          <operation>dump</operation>
          <operation>protect_sectors</operation>
          <operation>unprotect_sectors</operation>
        </supported_operations>
      </controller>
    </architecture>
  </architectures>
</algorithm-file>
```

6. 复制 algorithms/params/MT25QU01G BBB\_QSPI\_64.xml, 并将复制的文件重命名为 algorithms/params/MT25QU02G BBB\_QSPI\_64.xml

7. 如下更新 algorithms/params/MT25QU02G BBB\_QSPI\_64.xml:

```
<params_file>
  <parameters_block>
    <param name="function" size="0x4"/>
  </parameters_block>
</params_file>
```

```

<param name="padding1" size="0x4"/>
<param name="base_addr" size="0x8"/>
<param name="num_items" size="0x4" type="data_size"/>
<param name="result_status" size="0x4" type="result"/>
<param name="items" size="0x8" type="data_inout"/>
<param name="qspi_base_addr" size="0x8"/>
<param name="qspi_controller_offset" size="0x4"/>
<param name="bytes_per_sector" size="0x4" value="0x10000"/>
<param name="bytes_per_page" size="0x4" value="0x100"/>

<param name="number_of_sectors" size="0x4" value="0x1000"/>
<param name="swap_enable" size="0x1"/>
<param name="workaround" size="0x1" value="0"/>
<param name="is_nand" size="0x1" value="0"/>
<param name="block_protect_mask" size="0x1" value="0x5C"/>
<param name="top_bottom_reg_address" size="0x4" value="0"/>
<param name="top_bottom_mask" size="0x1" value="0x20"/>

```

8. 如下更新目标初始化文件:

```

def Config_Flash_Devices():
    fl = flash.create(TA)

    # Add FlexSPI device
    #fl.add_device({"alias": "xspi", "name": "MT35XU512ABA", "address": 0x0,
"ws_address": 0x18000000, "ws_size": 0x1FFFF, "geometry": "8x1", "controller":
"FSPI"})
    # Add MT25QU02GCBB8E12 flash device
    fl.add_device({"alias": "xspi", "name": "MT25QU02GBBB", "address": 0x0, "ws_address":
0x18000000, "ws_size": 0x1FFFF, "geometry": "4x1", "controller": "FSPI"})

```

9. 重新启动 ARMv8 的 CodeWarrior 并启动 Flash 编程器。从闪存设备列表中选择 MT25QU02GBBB 设备，然后配置所需的操作。