New Product Update

Enabling Your Ultra-low Power Display and Security Applications with MSPM0Lx22x

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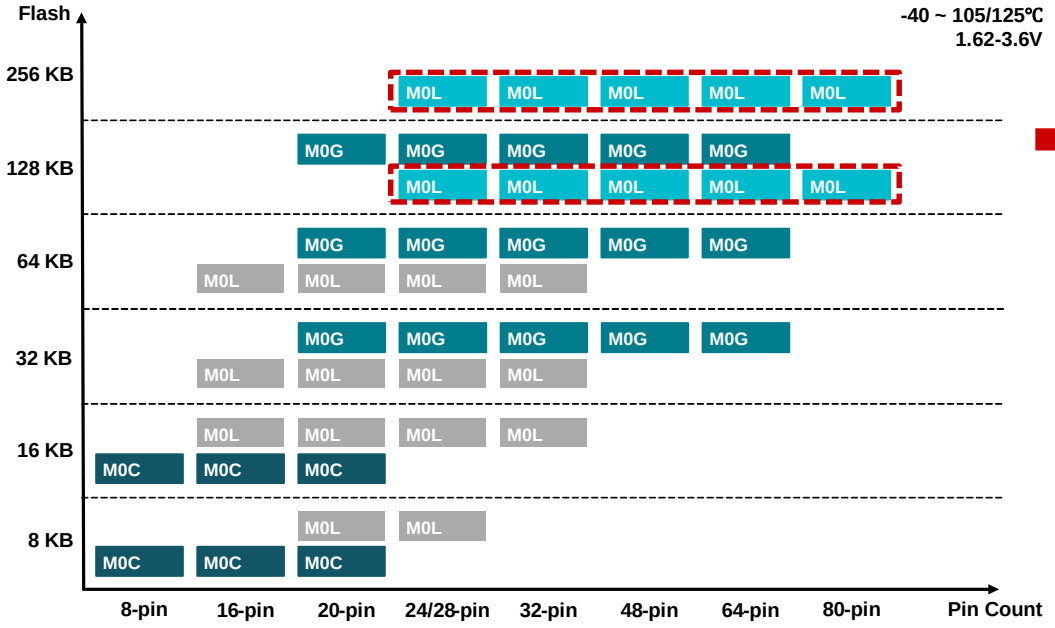
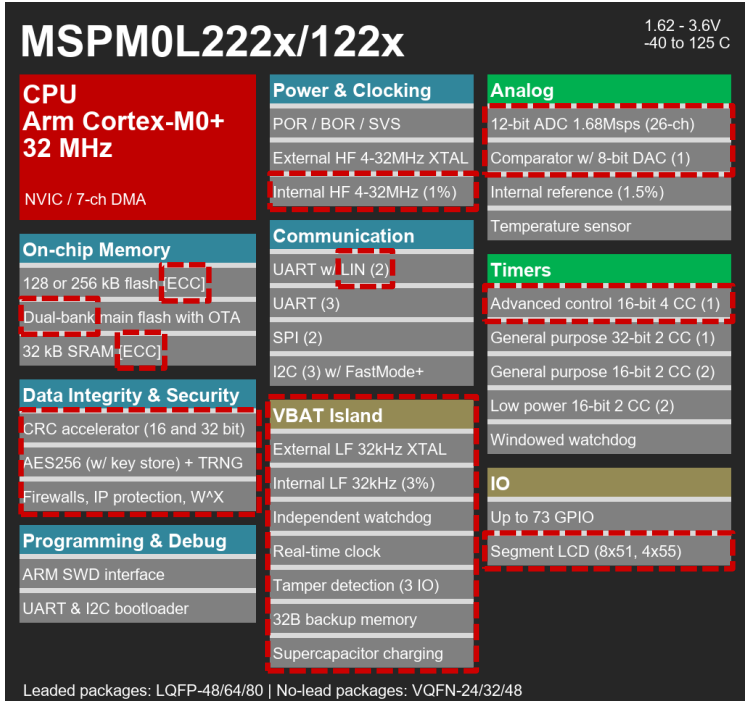
Agenda

- MSPM0Lx22x Product Overview
- MSPM0Lx22x Ecosystem Overview
- MSPM0Lx22x Key Applications and Benefits

Please feel free to “chat” ***Amruta, MSP HSM Systems Manager*** who is available to answer any questions you have throughout this presentation.

MSPM0Lx22x Product Overview





M0C *Low cost 24MHz CPU*

M0L *Low power 32MHz CPU*

M0G *High performance 80MHz CPU*

- ✓ Pin-to-pin compatible
- ✓ Unified software development kit & tools
- ✓ TI multi-sourced manufacturing

MSPM0Lx22x Ecosystem Overview

You can start evaluating this device leveraging the following:

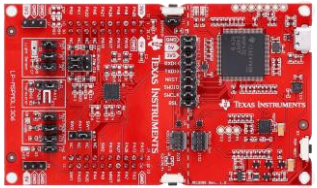
Content type	Content title	Link to content or more details
Product folder	MSPM0L2228 / MSPM0L1228 Product Folders	MSPM0L1228 data sheet, product information and support | TI.com MSPM0L2228 data sheet, product information and support | TI.com
Development tool or evaluation kit	LP-MSPM0L2228 Evaluation Module MSPM0-SDK Software Development Kit	LP-MSPM0L2228 Evaluation board | TI.com MSPM0-SDK Software development kit (SDK) | TI.com
Customer training series or webinar session	MSPM0 Academy Tutorials	MSPM0 Academy (ti.com)
Technical blog content or white paper	MSPM0Lx22x Microcontrollers Enabling Low-Power Display and Security Designs	MSPM0Lx22x Microcontrollers Enabling Low-Power Display and Security Designs (ti.com)
Selection and design tools and models	MSPM0 Landing Page – online selection tool, design & development tools, educational resources, applications	MSPM0 Landing Page

MSPM0Lx22x Ecosystem Overview

Get started at the TI Developer Zone dev.ti.com

Hardware & Partners

Low-cost Launchpad with on-board debug



Ecosystem of third-party tool partners

IAR SYSTEMS · KEIL Tools by ARM · SEGGER www.segger.com · freeRTOS · Elprotronic Inc.

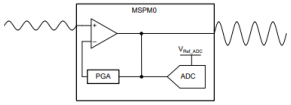
Software & Applications

Hundreds of code examples

```
37
38 int main(void)
39 {
40     SYSCFG_DL_init();
41
42     NVIC_EnableIRQ(ADC12_0_INST_INT_IRQN);
43     gCheckADC = false;
44
45     while (1) {
46         DL_ADC12_startConversion(ADC12_0_INST);
```

Subsystem examples for common use-cases

- UART ↔ I2C
- ADC with UART/I2C/SPI Interface
- …



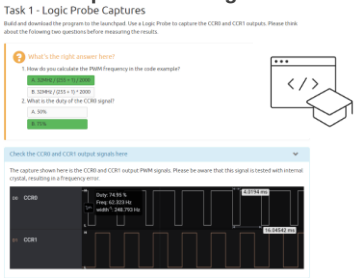
Broad selection of middleware

Motor control	Automotive	Grid	Math Libraries
Security	Building Automation	Medical	Factory Automation

Educational Resources

Learn MCU concepts with Precision Labs

Hands-on self-paced training with Academies

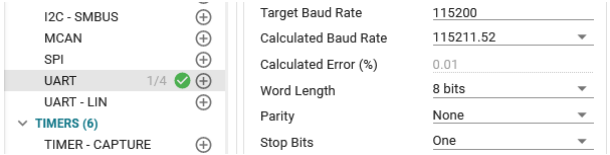


MSPM0Lx22x Ecosystem Overview

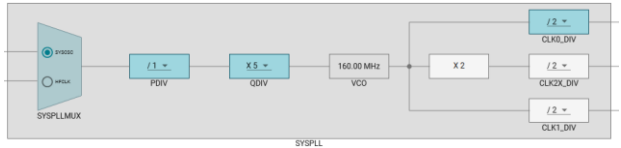
System configuration

ti.com/tool/sysconfig

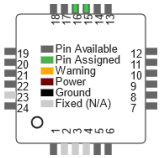
Select and set up peripherals

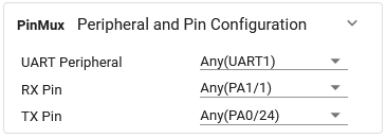


Configure & optimize clock system

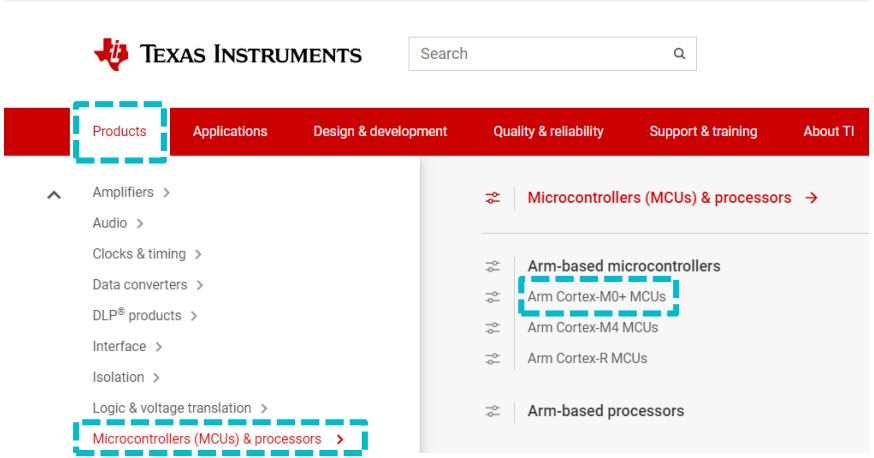


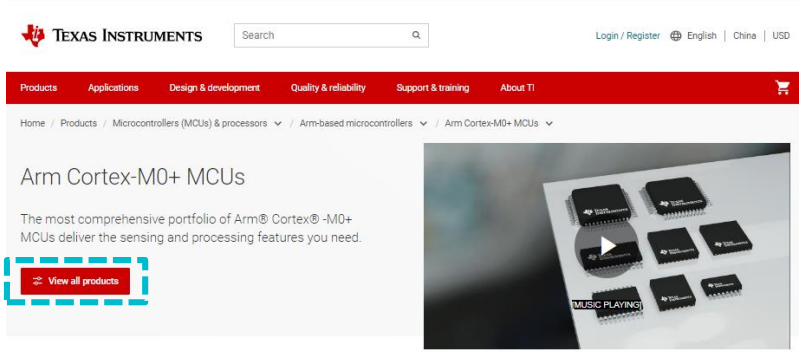
Solve pin multiplexing challenges

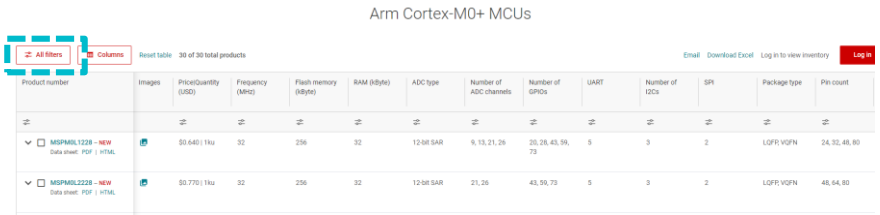




MSPM0Lx22x Ecosystem Overview







MSPM0Lx22x Key Applications and Benefits

Flow Meter

Thermostat

Blood Pressure Monitor

Weigh Scale

- Energy infrastructure
- Building automation
- Medical & healthcare
- Test & measurement
- ***Unlimited possibilities!***

Up to 8×51 and 4×55 LCD displays

Suitable for multiple display applications

VBAT auxiliary supply domain

1.1µA standby current with RTC retained
Supercapacitor supply option with charging mode support

Dual-bank Flash

Supporting field firmware updates

Security

AES with KeyStore
Flexible firewalls
PSA-L1 certification…

Reliability

-40 ~ 125℃
Flash/SRAM with ECC
Independent watchdog…

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