

# MCUXpresso Software Development Kit (SDK)

## **MCUXpresso-SDK**

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The MCUXpresso SDK is a comprehensive software enablement package designed to simplify and accelerate application development with Arm® Cortex®-M based devices from NXP, including its general purpose, crossover and wireless-enabled MCUs. The MCUXpresso SDK includes production-grade software with integrated RTOS (optional), integrated enabling software technologies (stacks and middleware), reference software, and more. Partner middleware and software can be integrated via custom west manifests or Open-CMSIS-Packs.

The MCUXpresso SDK is inherently compatible with MCUXpresso IDE, MCUXpresso for VS Code but also supports and provides example projects for IAR Embedded Workbench, KEIL MDK, and GCC with Cmake.

Underscoring our commitment to high quality, the MCUXpresso SDK is checked with Coverity® static analysis tools. Custom SDK packages are available as custom archives or west manifests based on user selections of MCU, evaluation board, and/or optional software components.

Boot Connectivity Metering Multimed   Cadence elQ Motor Control Wireless   Cloud File System Multicore Safety   Middleware CMSIS Generic Drivers	reertos Touch
Cloud File System Multicore Safety Middleware	/ Others Zephyr*
Middleware	Outers
	RTOS
CMSIS Generic Drivers	
	Board Support
NXP Drivers (Base)	
Kinetis LPC MCX RT Microcontroller Hardware	T Wireless i.MX

## MCUXpresso SDK High-Level Block Diagram Block Diagram

## MCUXpresso SDK Detailed Block Diagram Block Diagram

		AWS_IOT	AI/ML		Motor Control		Multicore		Multimedia Audio-Voice	
Cadence	Tinycbo	pkcs	elQ T	ensorflow-Lite	RTCESL	FreeMASTER	MCMGR	ERPC	vglite Iv	/gl jpeg
AXF CODECS	NNLIB USB LIN		File System fatfs sdmmc dhara littlefs		Security se_hostlib EL2Go		RPMSGR Safety Touch		png h.264 openvg Wireless	
Nature DSP NNLI										
Middleware RTOS FreeRTOS Kernel						mbedtls	Others		GenFSK 802.15.4	Bluetooth® Wi-Fi®
		Drivers	rs		PSA_crypto	mmcau	ISSDK	CJSON	Zigbee	Coex
			_			_				
SPI I	°C U	ART E	NET	Flash	GPIO	SCI	dmic	enet	flash	gpio
CMSIS Generic Dri	vers (CMSIS-	6)					pwm	qspi	reset	spdif
adc	aes	cmp	crc	dac	dcdc	dma	spi	str	timer	trng
I <sup>2</sup> C	I²S	ŀЪС	irq	nfc	opamp	puf	uart	vref	wdog	wdt
NXP Drivers (base)				-						
	LPC			MCX		RT		Wireless		i.MX
I <sup>2</sup> C NXP Drivers (base)		PC	irq	nfc	opamp	puf	uart	vref	wdog	wdt

#### View additional information for MCUXpresso Software Development Kit (SDK).

Note: The information on this document is subject to change without notice.

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