



life.augmented

STM32L0 Series

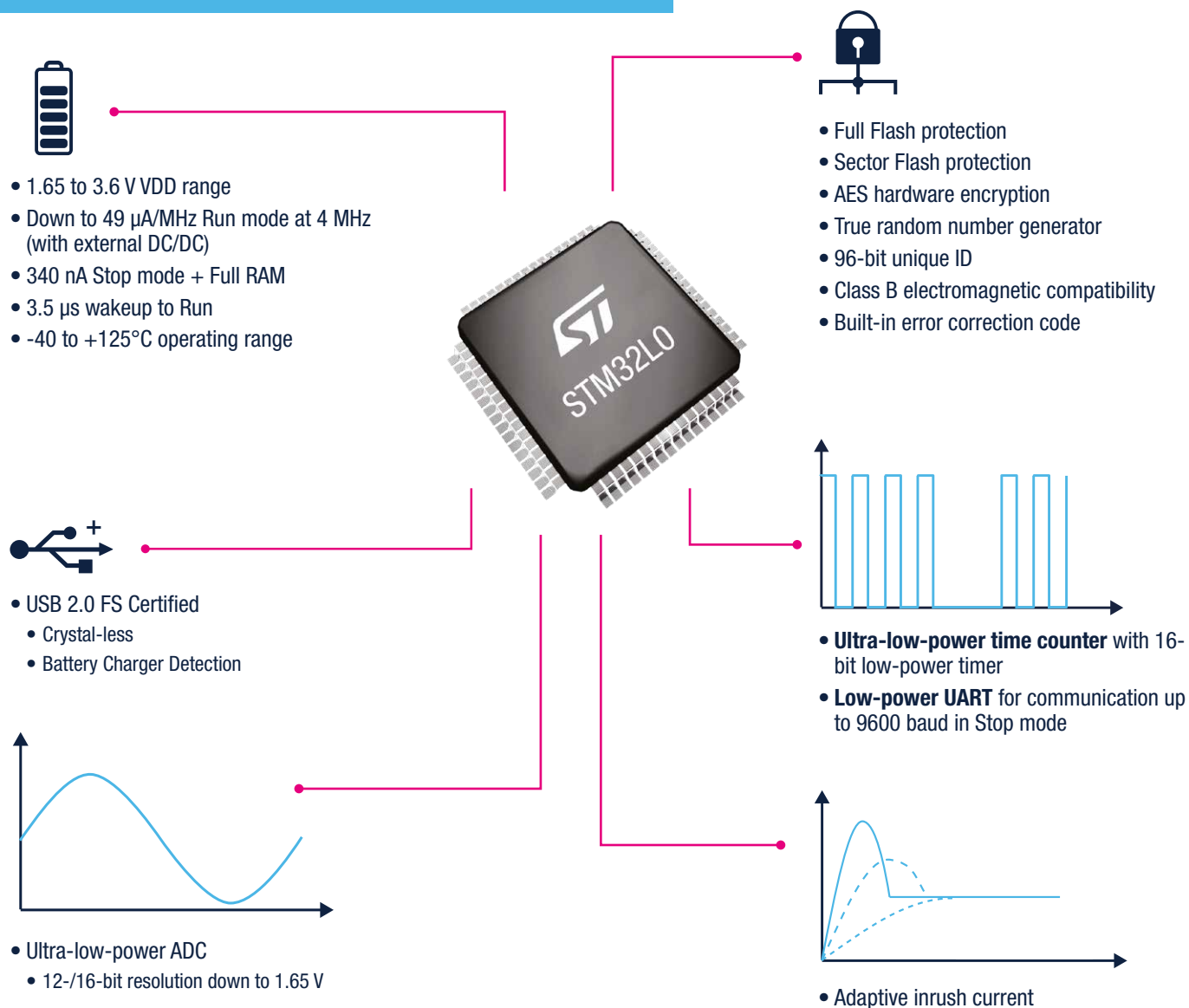
Ultra-low-power MCUs

Tailored to your needs



STM32

Ultra-low-power



STM32 ULTRA-LOW-POWER DNA ARM® CORTEX®-M0+

The STM32L0 is the best match for energy harvesting, coin-cell battery or energy sensitive applications.

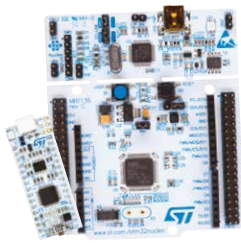
Combining a genuine ultra-low-power architecture with low-current analog peripherals and four lowpower modes, the STM32L0 is ideal for applications such as mice, keyboards, gas/water meters, building automation, alarm detectors and health care or fitness applications.

For applications that require a 15- to 20-year life duration or need to run in extremely high temperature conditions, the STM32L0 is the best choice thanks to ST's CMOS process technology.

STM32L0 ECOSYSTEM

Hardware tools

STM32 Nucleo boards



Flexibility prototype
NUCLEO-L010RB - NUCLEO-L011K4
NUCLEO-L031K6 - NUCLEO-L053R8
NUCLEO-L073RZ

Discovery kits



Creative demos
STM32L0538-DISCO



P/N: B-L072Z-LRWAN1
(ST and Murata)

Evaluation board



Full-feature evaluation
STM32L073Z-EVAL



Expansion board
P/N: I-NUCLEO-LRWAN1
(ST and USI®)



ST COMMUNITY



Ask, learn, share, discuss, become famous and engage with the community of STM32 enthusiasts on community.st.com/stm32

SOFTWARE TOOLS

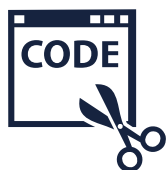


Configure
& Generate Code

Compile and Debug
IDEs

Monitor, Program
& Utilities

EMBEDDED SOFTWARE



STM32 Snippets L0

Optimize
your code



STM32Cube LL
(low-layer APIs)

High optimization
low portability

STM32Cube HAL
and middleware

Average optimization
STM32 portability



CMSIS and mbed SDK

Low optimization
Arm portability

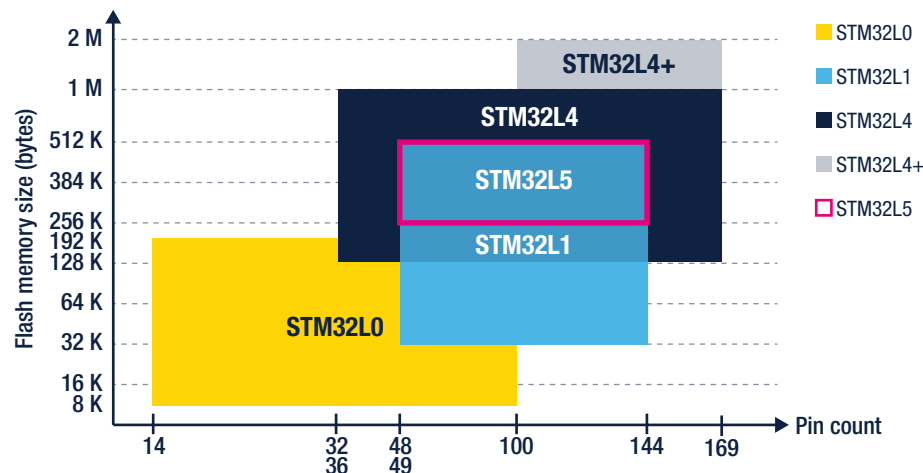
STM32L0 MCU SERIES 32-BIT ARM® CORTEX®-M0+ – 32 MHZ WITH MPU

- Ultra low leakage process - Dynamic voltage scaling 14 to 100-pin 5 clock sources - Advanced RTC w/ calibration 12-bit ADC 1.14 Msps - Multiple USART, SPI, I²C - Multiple 16-bit timers - LP UART1 - LP Timers1 2 watchdogs - Reset circuitry POR/PDR - Brown-out Reset - DMA - AES-128	Product line	Flash (KB)	RAM (KB)	EEPROM (Bytes)	Power supply	PVD ²	TEMP sensor	2x ULP COMP	2x 12-bit DAC	Touch sense	TRNG	USB 2.0 FS Crystal-less	Segment LCD Driver
	STM32L0x0 Value line	Up to 128	Up to 20	Up to 512	Down to 1.8V								
	STM32L0x1 Access	Up to 192	Up to 20	Up to 6K	Down to 1.65V	•	•	•					
	STM32L0x2 USB	Up to 192	Up to 20	Up to 6K	Down to 1.65V	•	•	•	•	•	•	•	
	STM32L0x3 USB & LCD	Up to 192	Up to 20	Up to 6K	Down to 1.65V	•	•	•	•	•	•	•	Up to 4x52 or 8x48

Note 1: Low-power peripherals available in ultra-low-power modes

Note 2: PVD = Programmable voltage detector

WIDE PORTFOLIO DESIGNED TO SAVE YOUR ENERGY



ST MCU FINDER

Free Android application to find the right STM32 MCU



www.st.com/stmcufinder

VARIOUS PACKAGES OPTIONS TO FIT ANY APPLICATION CHALLENGE



WLCSP

WLCSP25 (~2x2 mm)
WLCSP36 (~2x3 mm)
WLCSP49 (~3x3 mm)



QFN

QFN28 (4x4 mm)
QFN32 (5x5 mm)
QFN48 (7x7 mm)



BGA

BGA64 (5x5 mm)
BGA100 (7x7 mm)



TSSOP

TSSOP14 (4.4x4.1 mm)
TSSOP20 (4.4x6.6 mm)



LQFP

LQFP32 (7x7 mm)
LQFP48 (7x7 mm)
LQFP64 (10x10 mm)
LQFP100 (14x14 mm)



Order code: BRSTM32L00520

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