

Get ready for the largest IoT development ecosystem



4000 possible combinations of STM32/STM8 MCUs and SX127x / SX126x radios

THE BRAIN

Choose from basic, ultra-low-power or high-performance with STM8 (8-bit) or STM32 (32-bit) MCUs. Pick from a portfolio that offers from 2 Kbytes up to 2 Mbytes of Flash memory with 8 up to 216 pins with tiny form factor packages, and a rich set of analog and connectivity peripherals.

COMMUNICATION

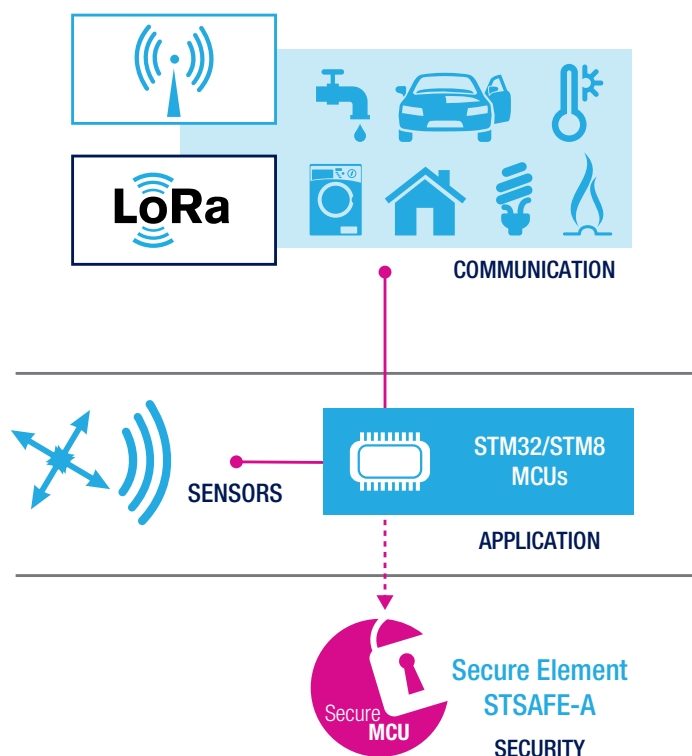
Choose the appropriate LoRa radio which best matches your application needs. Add short range connectivity with NFC and Bluetooth.

SECURITY

STSAFE-A is a turnkey solution for the IoT. Optimized for small platforms and providing state-of-the-art security relying on CC EAL5+ hardware, the STSAFE-A allows easy integration using libraries compatible with standard MCUs.

SENSING

Add sensing capabilities to your application with environmental, motion and proximity sensors.



STM32 32-BIT ARM CORTEX MCUS

STM32 32-bit Arm® Cortex®-M MCUs			
High Performance	STM32F2 398 CoreMark 120 MHz - Cortex-M3		STM32H7 3224 CoreMark 480 MHz - Cortex-M7 240 MHz - Cortex-M4
			STM32F4 608 CoreMark 180 MHz - Cortex-M4
Mainstream	STM32G0 142 CoreMark 64 MHz - Cortex-M0+	STM32F1 177 CoreMark 72 MHz - Cortex-M3	STM32F3 245 CoreMark 72 MHz - Cortex-M4
	STM32F0 106 CoreMark 48 MHz - Cortex-M0		
Ultra-low-power	STM32L0 75 CoreMark 32 MHz - Cortex-M0+	STM32L1 93 CoreMark 32 MHz - Cortex-M3	STM32L4+ 409 CoreMark 120 MHz - Cortex-M4
			STM32L4 273 CoreMark 80 MHz - Cortex-M4
Wireless			STM32WB 216 CoreMark 32 MHz - Cortex-M0+ 64 MHz - Cortex-M4

Legend: ● Optimized for Mixed-signals applications ● Cortex-M0+ Radio Co-processor

STM32 Solutions

Artificial Neural Networks

Graphic User Interface

STM32 Motor Control

STM32Cube Ecosystem

STM32 Community

STM32 Education

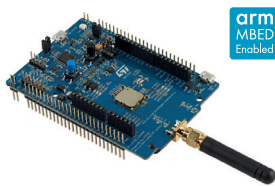
MORE THAN 85 PRODUCT LINES

With 15 product series, the STM32 MCUs portfolio offers an extraordinary variety of options including Arm® Cortex®-M cores (M0, M0+, M3, M33, M4, and M7), giving developers flexibility to find the perfect match for their application. Particular attention is paid to make it easy to migrate from one device to another. The compatibility of binaries combined with the similar pinout assignment, proliferation of hardware IPs and higher-level programming languages greatly facilitates the work of developers.

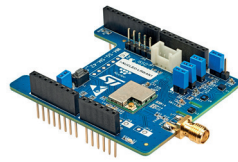


HARDWARE TOOLS AND EMBEDDED SOFTWARE

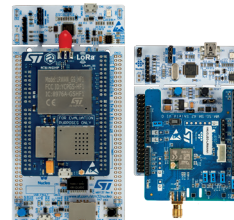
Up to three dedicated HW tools to play and develop with STM32™ around LoRa® technology



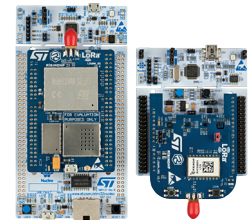
DISCOVERY KIT
P/N: B-L072Z-LRWAN1
(ST and Murata®)



EXPANSION BOARD
P/N: I-NUCLEO-LRWAN1
(ST and USI®)



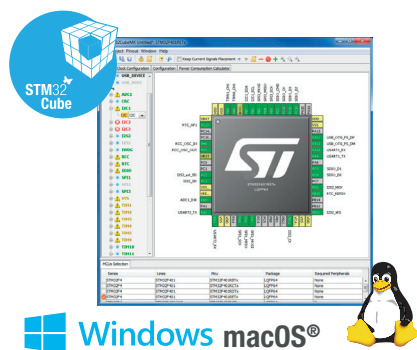
**STM32 NUCLEO PACK:
END-NODE + GATEWAY**
P/N: P-NUCLEO-LRWAN2
EU/US/APAC (868/915/923 MHz)
(ST and USI®)



**STM32 NUCLEO PACK:
END-NODE + GATEWAY**
P/N: P-NUCLEO-LRWAN3
CN (433/470 MHz)
(ST and RisingHF®)

A LoRaWAN stack (I-CUBE-LRWAN) is now available from www.st.com/i-cube-lrwan

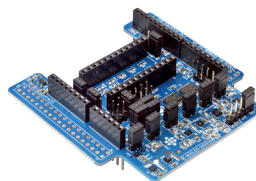
SOFTWARE TOOL



STM32CubeMX enables fast development thanks to its MCU clock configurator, power consumption calculator and code generation tools.

ADDITIONAL ST EXPANSION BOARDS

STM32 Nucleo expansion boards open the door to any type of specialized application, and are supported in the corresponding STM32Cube Expansion packages (available at www.st.com/x-cube) with many preconfigured example projects for IAR, Arm® Keil, and STM32CubeIDE.



P/N: X-NUCLEO-IKS01A3
Motion and environmental sensors



P/N: X-NUCLEO-NFC04A1
M24SR-based NFC tag expansion board



P/N: X-NUCLEO-IDB05A1
BlueNRG-based Bluetooth Smart expansion board