STM32

NUCLEO-64

Board

STM32

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STM32 Nucleo-64 Board
[32-bit | ARM Cortex M4]

STM32 Nucleo-64 Board

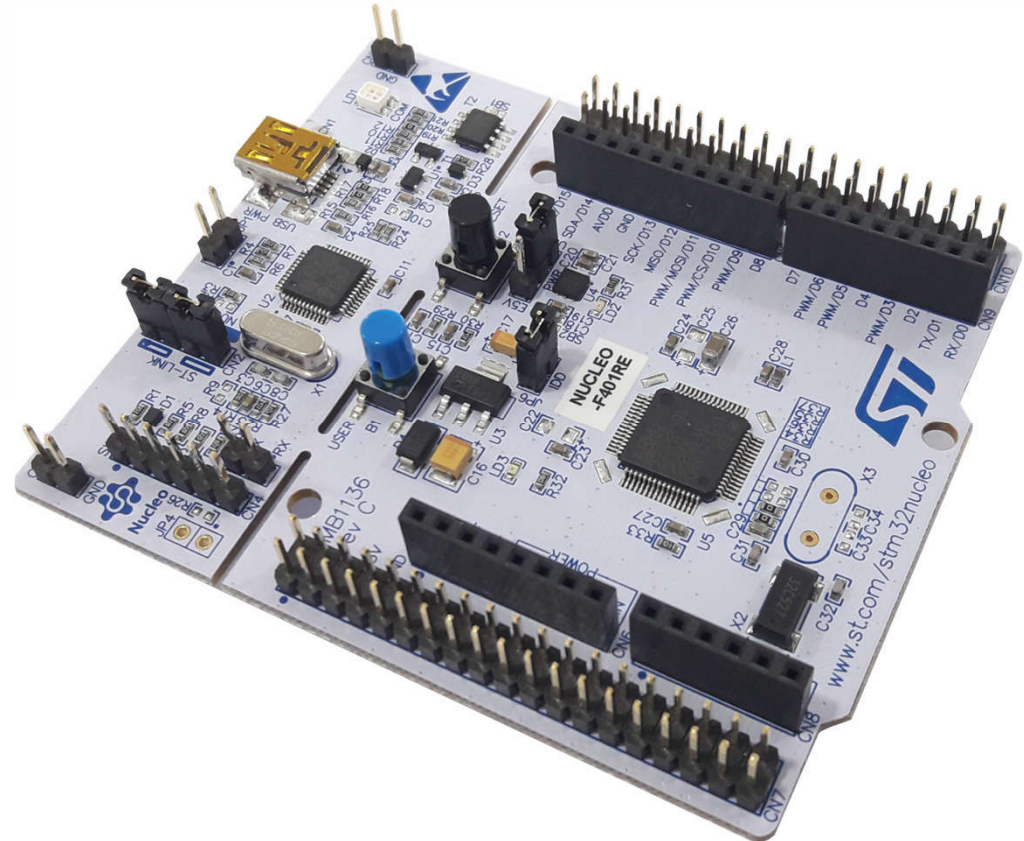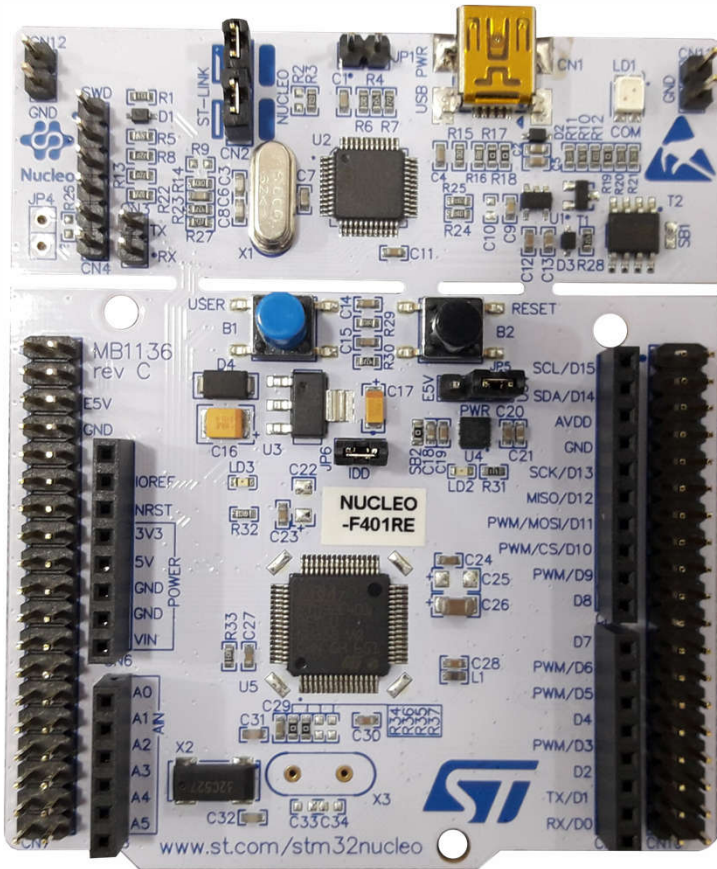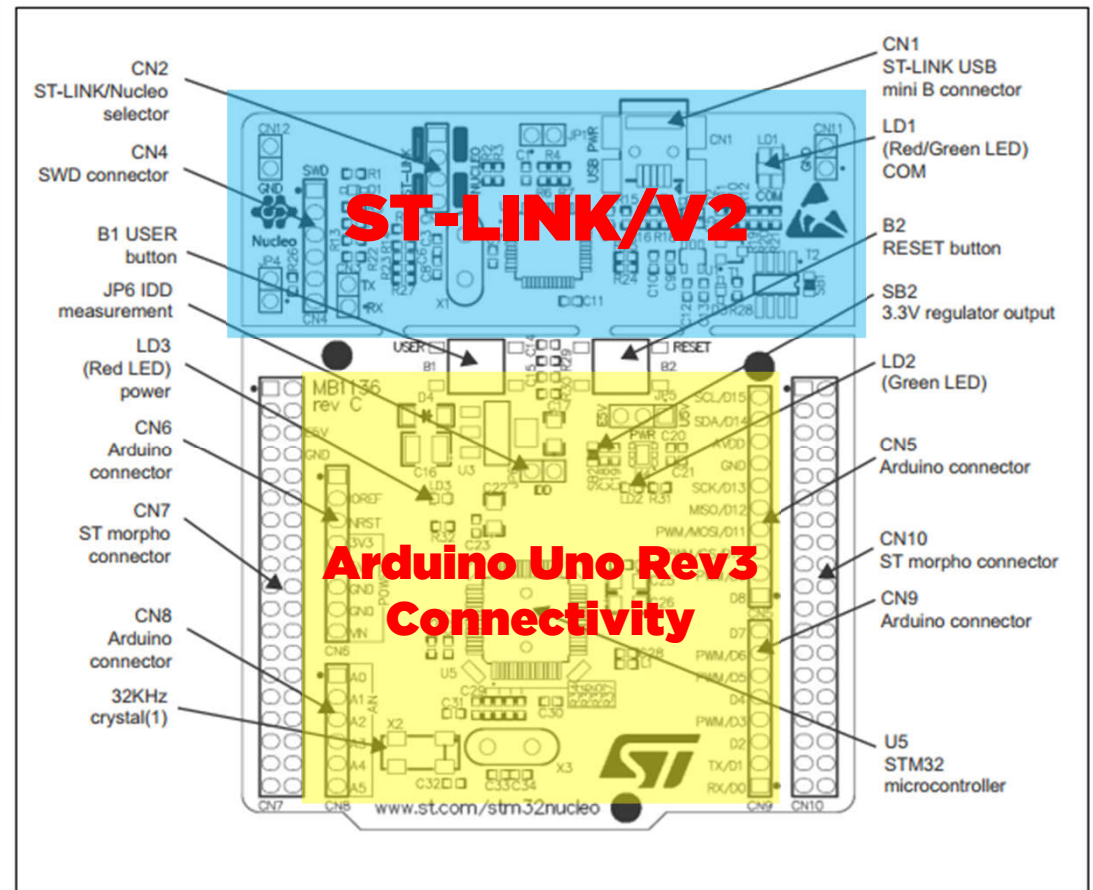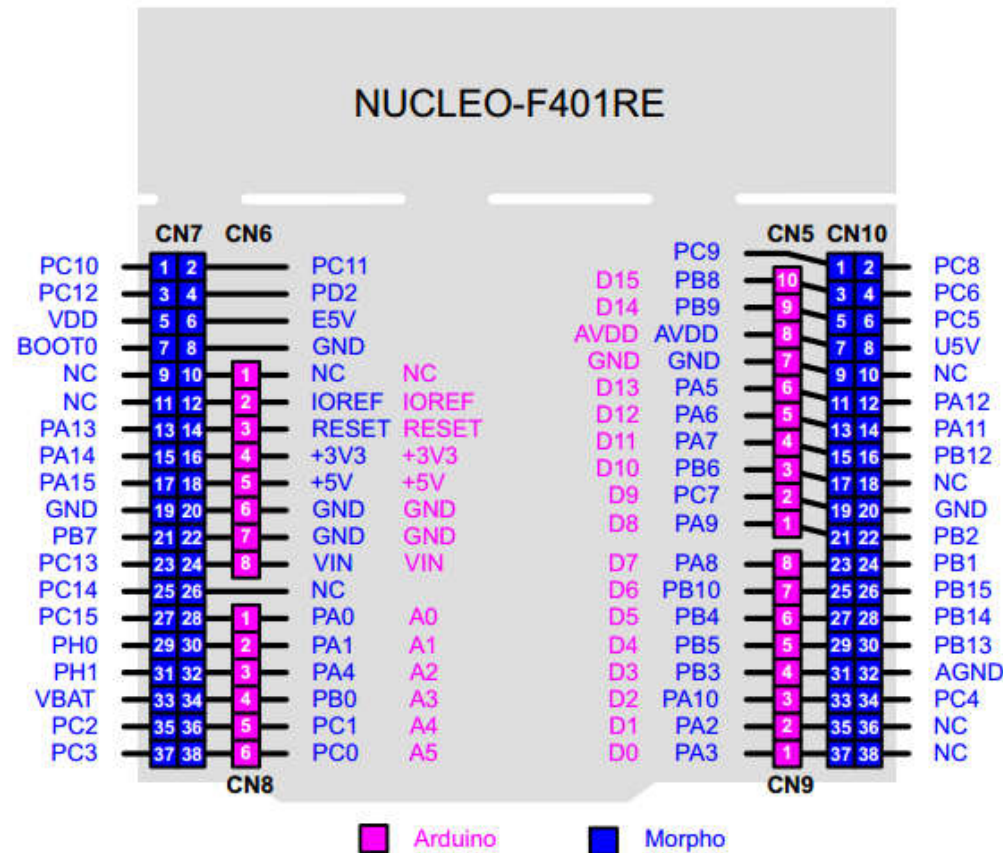# STM32 Nucleo-64 Board - Block Diagram & Top View
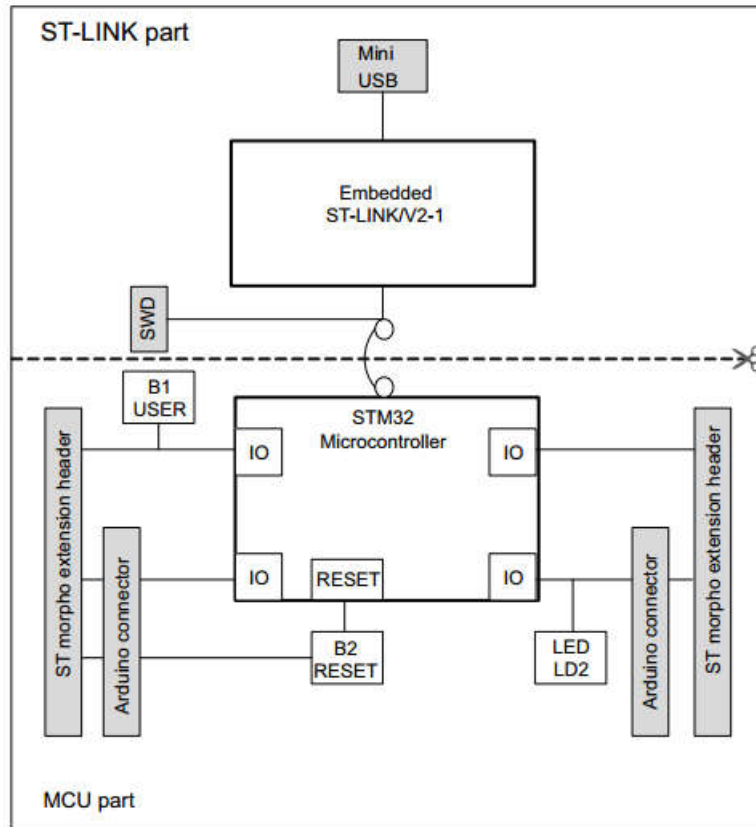
STM32 Nucleo-64 hardware block diagram

STM32 Nucleo-64 Board - Top view layout

STM32 Nucleo-64 Board - Pin Mapping

Fitur STM32 Nucleo-64 Board

- STM32 microcontroller (**STM32F401RET6**) in LQFP64 package.

- Three LEDs: USB communication (LD1), user LED (LD2), power LED (LD3).

- Two push-buttons: USER and RESET.

- Two types of extension resources: **Arduino™ Uno V3** connectivity and **ST morpho extension pin** headers for full access to all STM32 I/Os.

- Flexible board power supply: USB VBUS or external source (3.3V, 5V, 7 - 12V) and Power management access point.

- **On-board ST-LINK/V2-1 debugger and programmer** with SWD connector - Selection-mode switch to use the kit as a standalone ST-LINK/V2-1

- USB re-enumeration capability. Three different interfaces supported on USB: Virtual COM port, Mass storage, Debug port.

- Comprehensive free software **HAL (*Hardware Abstraction Layer*)** library including a variety of software examples, as well as direct access to the Arm® Mbed™ online resources at http://mbed.org/

Kebutuhan Sistem - STM32 Nucleo-64 Board

- Komputer Windows® OS (XP, 7, 8 and 10)
- Kabel USB type A to Mini-B.

Software Development - STM32 Nucleo-64 Kit

- ARM® mbed Enabled™ online
- **STM32CubeIDE** (**Free**)

Support untuk STM32 Nucleo-64 Board

1. UM1724 - User manual - STM32 Nucleo-64 boards

https://www.st.com/resource/en/user_manual/dm00105823-stm32-nucleo64-boards-mb1136-stmicroelectronics.pdf

2. STM32 Nucleo Board

https://www.st.com/en/evaluation-tools/stm32-nucleo-boards.html

3. NUCLEO-F401RE

https://os.mbed.com/platforms/ST-Nucleo-F401RE/

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Support untuk ST-Link/V2 di STM32 Nucleo-64 Board

1. STM32 ST-LINK utility (GUI for download program process)

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-programmers/stsw-link004.html

 2. ST-Link/V2 Firmware

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-programmers/stsw-link007.html
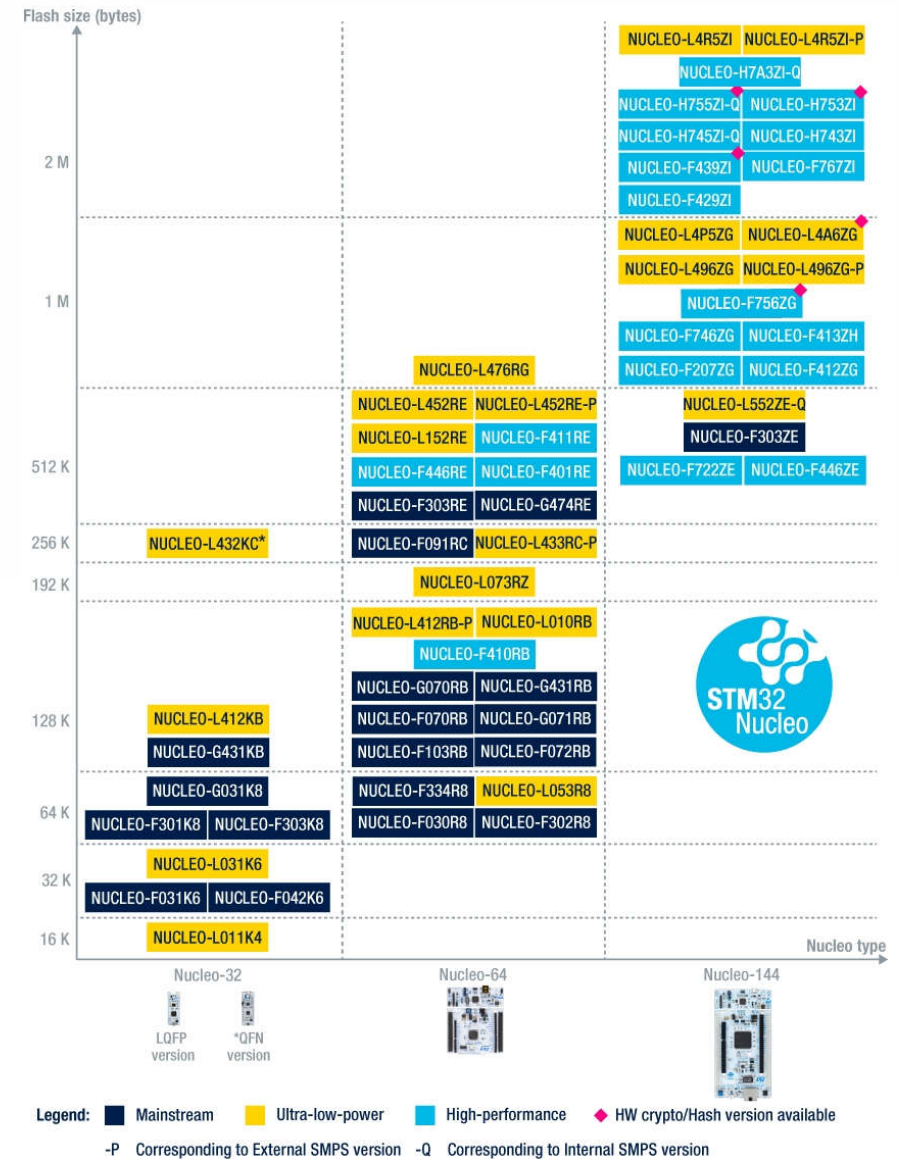
3. ST-LINK/V2 USB driver (for Windows7/8/10)

https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-utilities/stsw-link009.html

Jenis STM32 Nucleo Board

Untuk mengetahui STM32 Nucleo board jenis yang lain, silakan klik link di bawah ini!

https://www.st.com/en/evaluation-tools/stm32-nucleo-boards.html

Flash size (bytes)

	Nucleo-32	Nucleo-64	Nucleo-144
2 M			NUCLEO-L4R5ZI / NUCLEO-L4R5ZI-P, NUCLEO-H7A3ZI-Q, NUCLEO-H755ZI-Q / NUCLEO-H753ZI, NUCLEO-H745ZI-Q / NUCLEO-H743ZI, NUCLEO-F439ZI / NUCLEO-F767ZI, NUCLEO-F429ZI
1 M			NUCLEO-L4P5ZG / NUCLEO-L4A6ZG, NUCLEO-L496ZG / NUCLEO-L496ZG-P, NUCLEO-F756ZG, NUCLEO-F746ZG / NUCLEO-F413ZH, NUCLEO-F207ZG / NUCLEO-F412ZG
		NUCLEO-L476RG	
		NUCLEO-L452RE / NUCLEO-L452RE-P	NUCLEO-L552ZE-Q
		NUCLEO-L152RE / NUCLEO-F411RE	NUCLEO-F303ZE
512 K		NUCLEO-F446RE / NUCLEO-F401RE	NUCLEO-F722ZE / NUCLEO-F446ZE
		NUCLEO-F303RE / NUCLEO-G474RE	
256 K	NUCLEO-L432KC*	NUCLEO-F091RC / NUCLEO-L433RC-P	
192 K		NUCLEO-L073RZ	
		NUCLEO-L412RB-P / NUCLEO-L010RB	
		NUCLEO-F410RB	
		NUCLEO-G070RB / NUCLEO-G431RB	
128 K	NUCLEO-L412KB	NUCLEO-F070RB / NUCLEO-G071RB	
	NUCLEO-G431KB	NUCLEO-F103RB / NUCLEO-F072RB	
	NUCLEO-G031K8	NUCLEO-F334R8 / NUCLEO-L053R8	
64 K	NUCLEO-F301K8 / NUCLEO-F303K8	NUCLEO-F030R8 / NUCLEO-F302R8	
32 K	NUCLEO-L031K6		
	NUCLEO-F031K6 / NUCLEO-F042K6		
16 K	NUCLEO-L011K4		

Nucleo type

LQFP version — *QFN version

Legend: ■ Mainstream ■ Ultra-low-power ■ High-performance ◆ HW crypto/Hash version available

-P Corresponding to External SMPS version   -Q Corresponding to Internal SMPS version

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Terima kasih