# NUCLEO-8XXXXRX

## STM8 Nucleo-64 boards

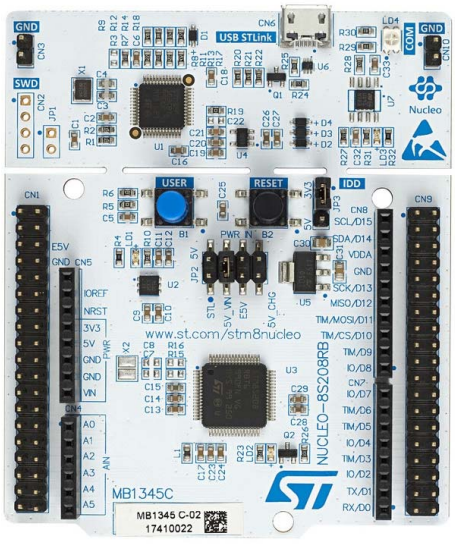
**Data brief**

## Features

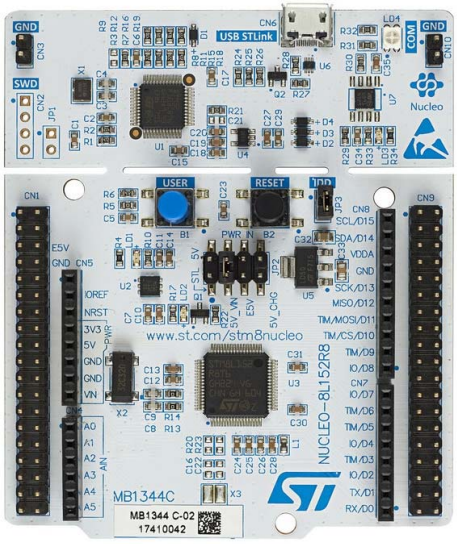
- STM8 microcontroller in LQFP64 package
- Flash memory size:
  - 64 Kbytes for STM8L152R8T6
  - 128 Kbytes for STM8S208RBT6
- 4 LEDs
  - USB communication (LD4)
  - 5 V STLINK (LD3)
  - User (LD2)
  - Power (LD1)
- 2 push-buttons: USER and RESET
- 32.768 kHz LSE crystal oscillator for the NUCLEO-8L152R8 only
- Board expansion connectors:
  - Arduino™ Uno V3
  - ST morpho extension pin headers for full access to all STM8 I/Os
- Flexible board power-supply:
  - USB $V_{BUS}$ or external source (3.3 V, 5 V, 7 - 12 V)
  - Power management access point
- On-board ST-LINK/V2-1 debugger and programmer with SWIM connector
- USB re-enumeration capability. Three different interfaces supported: Virtual COM port, mass storage, debug port
- Comprehensive free software STM8 libraries including a variety of software examples
- Support of a wide choice of Integrated Development Environments (IDEs) including STMicroelectronics free STVD-STM8 (using Cosmic toolchain), IAR™, Cosmic free IDEA

**Table 1. Device summary**

| Reference | Part number |
|---|---|
| NUCLEO-8XXXXRX | NUCLEO-8S208RB, NUCLEO-8L152R8. |




Top view of the NUCLEO-8S208RB board.




Top view of the NUCLEO-8L152R8 board.

Pictures are not contractual.

# Description

The STM8 Nucleo-64 boards provide an affordable and flexible way for users to try out new concepts and build prototypes with the LQFP64-packaged STM8 microcontroller, which provides various combinations of performance, power consumption and features.

The Arduino™ Uno V3 connectivity support, and the ST morpho headers allow easy expansion of the Nucleo open development platform functionality with a wide choice of specialized shields.

The STM8 Nucleo-64 boards do not require any separate probe as they integrate the ST-LINK/V2-1 debugger and programmer.

# System requirements

- Windows® OS (7, 8 and 10)
- USB Type-A to Micro-B cable

# Development toolchains

- STMicroelectronics: free STVD-STM8 (using Cosmic toolchain)
- IAR™: IAR-EWSTM8
- Cosmic: free IDEA

# Demonstration software

The demonstration software, included in the STM8CubeMX package, is preloaded in the STM8 Flash memory for easy demonstration of the device peripherals in standalone mode. The latest versions of the demonstration source code and associated documentation can be downloaded from the www.st.com/stm8nucleo website.

# Ordering information

To order a STM8 Nucleo-64 board, refer to *Table 2*.

**Table 2. Ordering information**

| Order code | Targeted STM32 |
|---|---|
| NUCLEO-8S208RB | STM8S208RBT6 |
| NUCLEO-8L152R8 | STM8L152R8T6 |

The meaning of the codification is explained in *Table 3*.

**Table 3. Codification explanation**

| NUCLEO-TXXXRY-P | Description | Example: NUCLEO-8L152R8 |
|---|---|---|
| TXXXX | STM8 product line | 8L152 |
| R | STM8 package pin count | 64 pins |
| Y | STM8 Flash memory size:<br>– 8 for 64 Kbytes<br>– B for 128 Kbytes<br>– C for 256 Kbytes<br>– E for 512 Kbytes<br>– G for 1 Mbyte<br>– Z for 192 Kbytes | 64 Kbytes |

The order code is printed on a sticker placed at the top or bottom of the board.

# Revision history

Table 4. Document revision history

| Date | Revision | Changes |
|---|---|---|
| 3-May-2018 | 1 | Initial release. |