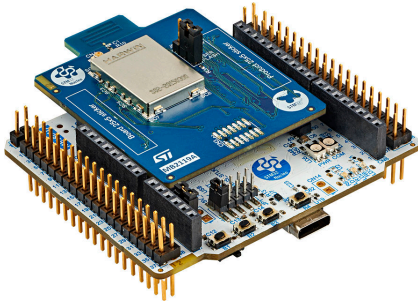## STM32WB07 Nucleo-64 board (MB1801 and MB2119)

NUCLEO-WB07CC global view. Picture is not contractual.

Product status link
NUCLEO-WB07CC

Features

- Ultra-low-power wireless STM32WB07CC microcontroller based on the Arm® Cortex®-M0+ core, featuring 256 Kbytes of flash memory and 64 Kbytes of SRAM in a VFQFPN48 package
- MCU RF board (MB2119):
    - 2.4 GHz RF transceiver supporting Bluetooth® specification v5.4
    - Built-in PCB antenna
- Three user LEDs
- Three user and one reset push-buttons
- Board connectors:
    - USB Type-C®
    - ARDUINO® Uno V3 expansion connector
    - ST morpho headers for full access to all STM32 I/Os
- Flexible power-supply options: ST-LINK USB V_{BUS} or external sources
- On-board STLINK-V3EC debugger/programmer with USB re-enumeration capability: mass storage, Virtual COM port, and debug port
- Comprehensive free software libraries and examples available with the STM32CubeWB0 MCU Package
- Support of a wide choice of Integrated Development Environments (IDEs) including IAR Embedded Workbench®, MDK-ARM, and STM32CubeIDE

Description

NUCLEO-WB07CC is a Bluetooth® Low Energy wireless and ultra-low-power board embedding a powerful and ultra-low-power radio compliant with the Bluetooth® Low Energy SIG specification v5.4.

The ARDUINO® Uno V3 connectivity support and the ST morpho headers allow the easy expansion of the functionality of the STM32 Nucleo open development platform with a wide choice of specialized shields.

DB5243 - Rev 1 - July 2024
For further information contact your local STMicroelectronics sales office.

www.st.com

1 Ordering information

To order the NUCLEO-WB07CC board, refer to Table 1. For a detailed description, refer to its user manual on the product web page. Additional information is available from the datasheet and reference manual of the target STM32.

Table 1. List of available products

| Order code	Board references	User manual	Target STM32
NUCLEO-WB07CC	• MB1801[1] • MB2119[2]	UM3344	STM32WB07CC

1. *Mezzanine board*
2. *MCU RF board*

1.1 Product marking

The stickers located on the top or bottom side of all PCBs provide product information:
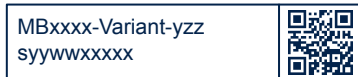
- First sticker: product order code and product identification, generally placed on the main board featuring the target device.
  Example:

  > Product order code
  > Product identification
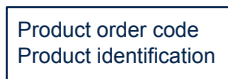
- Second sticker: board reference with revision and serial number, available on each PCB.
  Example:

  > MBxxxx-Variant-yzz
  > syywwxxxxx

On the first sticker, the first line provides the product order code, and the second line the product identification.

On the second sticker, the first line has the following format: *"MBxxxx-Variant-yzz"*, where *"MBxxxx"* is the board reference, *"Variant"* (optional) identifies the mounting variant when several exist, *"y"* is the PCB revision, and *"zz"* is the assembly revision, for example B01. The second line shows the board serial number used for traceability.

Parts marked as *"ES"* or *"E"* are not yet qualified and therefore not approved for use in production. ST is not responsible for any consequences resulting from such use. In no event will ST be liable for the customer using any of these engineering samples in production. ST's Quality department must be contacted prior to any decision to use these engineering samples to run a qualification activity.

"ES" or *"E"* marking examples of location:

- On the targeted STM32 that is soldered on the board (for an illustration of STM32 marking, refer to the STM32 datasheet *Package information* paragraph at the *www.st.com* website).
- Next to the evaluation tool ordering part number that is stuck, or silk-screen printed on the board.

Some boards feature a specific STM32 device version, which allows the operation of any bundled commercial stack/library available. This STM32 device shows a *"U"* marking option at the end of the standard part number and is not available for sales.

To use the same commercial stack in their applications, the developers might need to purchase a part number specific to this stack/library. The price of those part numbers includes the stack/library royalties.

1.2 Codification

The meaning of the codification is explained in Table 2.

Table 2. Codification explanation

NUCLEO-XXYYZT	Description	Example: NUCLEO-WB07CC
XX	MCU series in STM32 32-bit Arm Cortex MCUs	STM32WB0 series
YY	MCU product line in the series	STM32WB07 product line
Z	STM32 package pin count: • C for 48 pins	48 pins
T	STM32 flash memory size: • C for 256 Kbytes	256 Kbytes

2   Development environment

The NUCLEO-WB07CC board runs with the STM32WB07CC 32-bit microcontroller based on the Arm® Cortex®-M0+ core.

Note: *Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.*

arm

2.1   System requirements

- Multi-OS support: Windows® 10, Linux® 64-bit, or macOS®
- USB Type-A or USB Type-C® to USB Type-C® cable

Note: *macOS® is a trademark of Apple Inc., registered in the U.S. and other countries and regions.*

Linux® is a registered trademark of Linus Torvalds.

Windows is a trademark of the Microsoft group of companies.

2.2   Development toolchains

- IAR Systems® - IAR Embedded Workbench®[1]
- Keil® - MDK-ARM[1]
- STMicroelectronics - STM32CubeIDE

1. *On Windows® only.*

Revision history

Table 3. Document revision history

Date	Revision	Changes
03-Jul-2024	1	Initial release.

IMPORTANT NOTICE – READ CAREFULLY