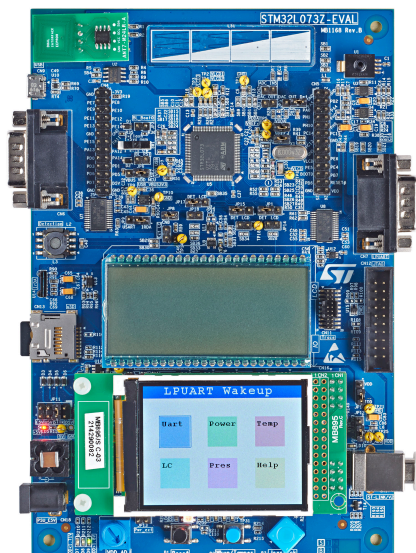## Evaluation board with STM32L073VZ MCU

Picture is not contractual.

Product status link
STM32L073Z-EVAL

Features

- STM32L073VZT6 ultra-low-power Arm® Cortex® core-based microcontroller featuring 192 Kbytes of flash memory and 20 Kbytes of RAM in an LQFP100 package
- Selectable MCU voltage: 3.3 V or adjustable from 1.71 V to 3.6 V
- 2.8-inch color TFT LCD with resistive touch panel
- LCD 40 × 8 segments
- USB 2.0 FS
- IrDA transceiver
- Pressure sensor
- LC sensor metering
- Touch-sensing linear sensor
- User and reset push-buttons
- 4-direction joystick with selection button
- On-board current measurement
- Board connectors:
    – 2× RS-232 with DB9
    – USB with Micro-B
    – microSD™ card
    – RF-EEPROM daughterboard expansion
    – Extension for daughterboard or wrapping board
- Four 5 V power supply options: power jack, ST-LINK USB connector, user USB FS connector, or daughterboard
- On-board ST-LINK/V2-1 debugger/programmer with USB re-enumeration capability: mass storage, Virtual COM port, and debug port
- Comprehensive free software libraries and examples available with the STM32CubeL0 MCU Package
- Support of a wide choice of Integrated Development Environments (IDEs) including IAR Embedded Workbench®, MDK-ARM, and STM32CubeIDE

Description

The STM32L073Z-EVAL Evaluation board is designed as a complete demonstration and development platform for the STMicroelectronics Arm® Cortex®-M0+ core-based STM32L073VZT6 microcontroller with three I²Cs, two SPIs, four USARTs, one UART, one 12-bit ADC, two 12-bit DACs, LCD driver, up to 192-Kbyte flash memory, 20-Kbyte RAM, 6-Kbyte EEPROM, touch sensing, USB FS, LCD controller, SWD debugging support.

The full range of hardware features on the board helps the user to evaluate all peripherals (USB FS, RS-232, USART, 12-bit ADC and DAC, color TFT LCD, LCD segments, low-power UART, IrDA, microSD™ card, touch-sensing slider, pressure measurement, temperature measurement, LC sensor metering) and to develop applications. The extension headers offer the possibility to connect a daughterboard or a wrapping board for a specific application.

An ST-LINK/V2-1 is integrated on the board as an embedded in-circuit debugger and programmer for the STM32 MCU and USB Virtual COM port bridge.

DB2542 - Rev 3 - January 2024
For further information contact your local STMicroelectronics sales office.

www.st.com

1 Ordering information

To order the STM32L073Z-EVAL Evaluation 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 reference	User manual	Target STM32
STM32L073Z-EVAL	• MB895[1] • MB979[2] • MB1020[3] • MB1168[4] • MB1199[5]	UM1878	STM32L073VZT6

1. *TFT LCD daughterboard.*
2. *LCD segment daughterboard.*
3. *RF-EEPROM daughterboard.*
4. *Main board.*
5. *Detection accessory daughterboard.*

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

STM32L0XXY-EVAL	Description	Example: STM32L073Z-EVAL
STM32L0	MCU series in STM32 32-bit Arm Cortex MCUs	STM32L0 series
XX	MCU product line in the series	STM32L0x3 includes the STM32L073xx MCUs
Y	STM32 flash memory size: • Z for 192 Kbytes	192 Kbytes
EVAL	Toolkit type: • Evaluation board	Evaluation board

2 Development environment

The STM32L073Z-EVAL Evaluation board runs with the STM32L073VZT6 32-bit microcontroller based on the Arm® Cortex®-M0+ processor.

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

2.1 System requirements

- Multi-OS support: Windows® 10, Linux® 64-bit, or macOS®
- USB Type-A or USB Type-C® to Type-B 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] [2]
- STMicroelectronics - STM32CubeIDE

1. *On Windows® only.*
2. *Free MDK-ARM for Arm® Cortex®-M0/M0+ cores.*

2.3 Demonstration software

The demonstration software, included in the STM32Cube MCU Package corresponding to the on-board microcontroller, is preloaded in the STM32 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 *www.st.com*.

Revision history

Table 3. Document revision history

Date	Revision	Changes
21-Apr-2015	1	Initial release.
5-Jun-2018	2	Updated cover feature list. Updated description. Added *Section System requirements*. Added *Section Development toolchains*. Added *Section Demonstration software*. Added *Table 1. Ordering information*.
30-Jan-2024	3	Updated the microcontroller order code and the cover feature list. Added sections Product marking and Codification. Updated sections Ordering information, System requirements, and Development toolchains.

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