

BRICK-ML BOX

Machine Learning at the Edge



Brick-ML Box is a low-power high-performance embedded board designed to run machine learning operations at the edge.

Brick-ML Box is a complete device that can be mounted directly on various kind of equipments to collect data (vibrations, temperature and humidity, noise, voltage) to be used for training a specific AI model for your application.

Ready-to-use trained Edge ML models can be loaded on the device and detect specific events or states, sending them through wired or wireless connectivity. Brick-ML features on-board elaboration, sensing and communication capabilities, all packed in a reduced form factor. It is fully integrate into Edge Impulse's industry-leading Edge ML platform.



MAIN APPLICATIONS

- **Embedded Machine Learning**
- **Inference at the Edge**
- **Gesture Recognition**
- **Voice and Sounds Classification**
- **Environmental Conditions Automatic Analysis**
- **Connected Intelligent Sensors**

KEY FEATURES

- 32-bit ARM® Cortex®-M33 core with FPU
- 200 MHz clock speed
- Up-to 2-MB code flash memory, 8-KB data flash and 512-KB RAM
- 128-Mbit on-board serial flash
- Bluetooth 5.1 core specification compliant BLE transceiver and link layer
- Sensors
 - Knowles SPH0641LU4H-1 microphone
 - Bosch BNO055 9-DOF IMU
 - Renesas HS3001 high-performance T/H sensor

VARIANTS

- **RD-BML-1U**: USB 2.0 High-Speed
- **RD-BML-1C**: USB 2.0 High-Speed, CAN-FD
- **RD-BML-1E**: USB 2.0 High-Speed, CAN-FD, Ethernet

SPECIFICATIONS

Power Supply	USB 5.0V 12V÷24V (-1C / 1E)
Operating Temperature	-40°C to +85°C
Standby Current	1µA
Wireless connectivity	BLE 5.1 - output 2.2 dBm
Wired connectivity	USB High-Speed CAN (-1C / -1E) Ethernet (-1E)
Expansion	Analog input (-1C / -1E)
Size (RD-BML-1x)	89.0 x 79.0 x 33.0 mm

Mouser Electronics

Authorized Distributor

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RELOC:

[RD-BML-1C](#) [RD-BML-1E](#) [RD-BML-1U](#)