Model Name
Afero Modulo-1B Development Board

Afero Model Number
Modulo-1B-TY

Bluetooth Radio
Bluetooth® low energy wireless technology (5.0)

Bluetooth Antennas
 1

Antenna Configuration
Built into the module.

Maximum Transmit Power
+4dBm (at antenna port)

Receive Sensitivity
-96dBm (at antenna port)

Power Consumption
Tx/Rx 7.5/5.4 mA typ

Security Features
Cryptographic coprocessor with secure hardware-based key storage

Host Interface
SPI, UART

Interface Pins
4× GPIO

LED Indicators
1

Buttons
1

Ports
1× 5V, USB

Certifications
FCC, IC COMPLIANCE, TELEC

Dimensions
62W x 17.9H x 11.1D mm

Weight (Earth ABL)
5 g

Package
SIP DIP

Power (VCC)
4.25 - 5.5V (configurable for 2.1 - 3.6V DC)

Operating Temperature
0 to 40° C

Storage Temperature
-20 to 60° C

Operating Humidity
10 to 80% non-condensing

Storage Humidity
5 to 90% non-condensing

TAIYO YUDEN + afero

The Afero Modulo-1B-TY Development Board

Your IoT development starts here. And on your team, you have two industry leaders, TAIYO YUDEN and Afero, to help speed up your project.

Known for its excellence in materials and electronics, TAIYO YUDEN leads in a number of categories, including Bluetooth® low energy wireless technology and production. That expertise is combined with IoT platform technology from Afero, representing the fifth largest IoT patent portfolio in the world.

The Afero Modulo-1B development board family provides – in minutes – secure connectivity, a mobile app, and cloud API.

Silicon-Backed Security

Representing best practices in device, data, and communication security, the Afero Modulo-1B family contains the Afero Secure Radio module (ASR). The module comes with authentication, encryption, and multi-pathing connection management software.

Flexible Form Factor

Use Modulo-1B standalone, or as a tool to enhance your Arduino project. Modulo-1B attaches to a compatible Arduino® board (such as Uno) via the Afero Plinto™ shield, or to a Teensy development board directly.

Communication Protocols

Modulo-1B provides four GPIO lines of programmable bidirectional I/O. ASR uses the Afero Serial Protocol (afPro™) over Serial Peripheral Interface or UART to communicate with an external MCU.
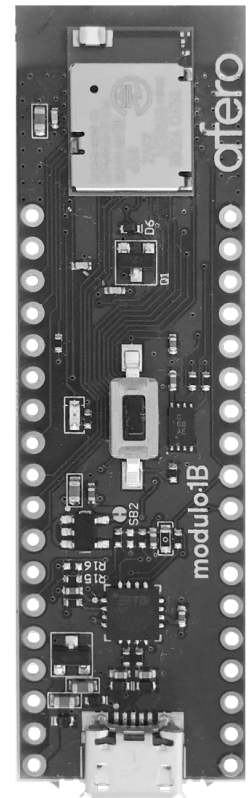
Quick & Easy Setup

Use your smartphone to install the Afero mobile app, create a developer account, then scan the QR code on your Modulo-1B. You're ready to start your project.

Smart Devices Made Easy

Once you design your project and decide what functions you want Modulo-1B to control, use the Afero Profile Editor™ to step you through configuration and mobile app creation.

IoT That Just Works

Let Afero assist you in differentiating and bringing your solutions to market, and help you launch your organization to a higher growth path.

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