

EXPAND 6 Click



PID: MIKROE-4243

EXPAND 6 Click is a compact add-on board that contains an I2C configurable multi-port I/O expander with independently configurable pins as bi-directional input/outputs or PWM outputs. This board features the CY8C9520A, 20-bit I/O expander with EEPROM, and 4 independently configurable 8-bit PWM outputs from [Cypress Semiconductor](#). The CY8C9520A operates as two I2C slave devices, first as a multi-port I/O expander, and second as a serial EEPROM with 3 Kbyte address space. It has a user default storage, flexible I2C address configuration, and a programmable interrupt function that indicates input pin level changes and PWM state changes. This Click board™ can be used to monitor and control LEDs and system intrusion detection devices, but also as a storage for information such as error codes or board manufacturing data for diagnostic purposes.

EXPAND 6 Click is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.
 ISO 14001: 2015 certification of environmental management system.
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

Specifications

Type	Port expander
Applications	Can be used to monitor and control LEDs and system intrusion detection devices, but also as a storage for information such as error codes or board manufacturing data for diagnostic purposes.
On-board modules	EXPAND 6 Click is based on the CY8C9520A, 20-bit I/O expander with EEPROM, and 4 independently configurable 8-bit PWM outputs from Cypress Semiconductor.
Key Features	20-bit, 100kHz I2C port expander, flexible I2C address configuration, internal 3Kbyte EEPROM, user default storage, and more.
Interface	I2C
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

Downloads

[EXPAND 6 click example on Libstock](#)

[EXPAND 6 click 2D and 3D files](#)

[CY8C9520A datasheet](#)

[EXPAND 6 click schematic](#)

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