

Two-Wire ETH Click



PID: MIKROE-5543

Two-Wire ETH Click is a compact add-on board with the purpose of a generic interface to many third-party processors in EtherCAT Slave applications. This board features the LAN8651, a low-power single-port Ethernet transceiver from Microchip. The LAN8651 combines a Media Access Controller (MAC) and PHY to enable low-cost MCUs access to 10BASE-T1S networks (allows for creating both multidrop and point-to-point network topologies). The simultaneous transfer of both Ethernet transmit and receive packets between the station controller and the LAN8651 is performed over a high-speed SPI interface, according to the OPEN Alliance 10BASE-T1x MAC-PHY Serial Interface specification. This Click board™ is suitable for functional safety-related applications such as industrial control, process/factory automation, sensor/actuator networks operating at high bandwidth, building automation, and more.

Two-Wire ETH 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	Ethernet
Applications	Can be used for industrial control, process/factory automation, sensor/actuator networks operating at high bandwidth, building automation, and more
On-board modules	LAN8651 - single-port 10BASE-T1S MAC-PHY Ethernet Controller with SPI from Microchip
Key Features	High-performance 10BASE-T1S Ethernet PHY, an industry-standard serial peripheral interface, simultaneous transfer of transmit and receive packets, status interrupt, two jumpers for enabling 100Ω edge termination, Wake-Up feature, MAC address EEPROM, reset, and more
Interface	GPIO,I2C,SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

Downloads

[Two-Wire ETH click schematic](#)

[Two-Wire ETH click 2D and 3D files](#)

[AT24MAC402 datasheet](#)

[MIC2790 datasheet](#)

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