Brushless 21 Click

PID: MIKROE-5055

Brushless 21 Click is a compact add-on board suitable for controlling brushless DC (BLDC) motors with any MCU. This board features the AMT49400, an advanced 3-phase, sensorless BLDC motor driver with integrated power MOSFETs from Allegro Microsystems. The AMT49400 is rated for an operating voltage range from 4V to 16V. Motor rotation speed is controlled by applying a duty cycle command to the PWM input, while a simple I2C interface is provided for setting motor-rated voltage, rated current, rated speed, resistance, and startup profiles. Besides, it features additional diagnostic circuits and drive-control functions such as motor lock detection and over-current (short) protection. This Click board™ makes the perfect solution for home appliances such as pumps and cooling fans, industrial equipment, and more.

Brushless 21 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.

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Specifications

Type	Brushless
Applications	Can be used for home appliances such as pumps and cooling fans, industrial equipment, and more
On-board modules	AMT49400 - three-phase BLDC controller with integrated MOSFETs from Allegro Microsystems
Key Features	Coding-free sensorless field-oriented control, quiet and quick startup, PWM/I2C interface, lock detection, optional closed-loop speed control, protection features, and more
Interface	I2C,PWM
ClickID	No
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V,External

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

Downloads

[Brushless 21 click 2D and 3D files](#)

[AMT49400 datasheet](#)

[Brushless 21 click schematic](#)

[Brushless 21 click example on Libstock](#)