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Brushless 23 Click

PID: MIKROE-5100

Brushless 23 Click is a compact add-on board suitable for controlling BLDC motors with any microcontroller. This board features the TC78B011FTG, a three-phase sine-wave PWM pre-driver realized with six external MOSFETs to drive sensorless brushless motors from Toshiba Semiconductor. Some of the main features are a built-in closed-loop speed control function with internal non-volatile memory (NVM) for speed profile setting and the ability to set other features such as rotation direction selection, brake, Standby mode, and others. It also has a wide operating voltage range of 11V to 27V with an output current capacity of 5A and several built-in error detection circuits. This Click board™ provides optimum operational efficiency in applications such as high-velocity server fans, blowers, and pumps.

Brushless 23 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 high-velocity server fans, blowers, and pumps
On-board modules	TC78B011FTG - three-phase sine-wave PWM pre-driver for sensorless brushless motors from Toshiba Semiconductor
Key Features	Sensorless PWM drive, capable to drive Delta or Wye configured motors, low power consumption, built-in closed loop speed control with adjustable speed curve, motor speed control by analog voltage, PWM duty cycle, or I2C, integrated error detection circuits, and more
Interface	Analog,GPIO,I2C,PWM
ClickID	No
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V or 5V,External

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

Downloads

[Brushless 23 click example on Libstock](#)

[Brushless 23 click 2D and 3D files](#)

[SSM6K513NU datasheet](#)

[TC78B011FTG datasheet](#)

[Brushless 23 click schematic](#)