

Brushless 7 Click



PID: MIKROE-4182

Brushless 7 Click is a compact add-on board suitable for controlling BLDC motors with any MCU. This board features the [TC78B009FTG](#), a three-phase 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 7 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	Brushless
Applications	Can be used for high-velocity server fans, blowers, and pumps
On-board modules	TC78B009FTG - three-phase 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

Resources

[mikroBUS™](#)
[mikroSDK](#)
[Click board™ Catalog](#)
[Click Boards™](#)

Downloads

[SSM6K513NU datasheet](#)
[TC78B009FTG datasheet](#)
[Brushless 7 click 2D and 3D files](#)
[Brushless 7 click example on Libstock](#)
[Brushless 7 click schematic](#)

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).