

Stepper 10 Click



PID: MIKROE-4138

Stepper 10 Click is a two-phase bipolar stepping motor driver capable of controlling one stepper motor with PWM constant current drive. Click's featured chip [TB67S128FTG](#), from [Toshiba Semiconductor](#), fabricated with BiCD process with an output rating of 50V/5A and a built-in decoder can supply the motor with voltage of up to 44V. Toshiba's innovative technology process results in low-power consumption with low on-resistance (0.25Ω) on the integrated MOSFET output stage. The stepper motor can be driven in both directions from full step to 1/128 micro-steps. The motor driver possesses features like high-efficiency motor current control mechanism, advanced current detection system, active gain control and multi error detect functions. Stepper 10 Click has two types of interfaces for motor control drive: CLK and Serial mode.

Stepper 10 Click board™ 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 | Stepper |
| Applications | This Click board™ is a perfect solution for building various applications that require advanced stepper motor control, with maximum precision and reliability. |
| On-board modules | Stepper 10 Click uses the TB67S128FTG IC, a two-phase bipolar stepper motor driver using a PWM chopper, from Toshiba Semiconductor |
| Key Features | Allows full, half, quarter, 1/8, 1/16, 1/32, 1/64, 1/128 step operation, low on-resistance. MOSFET output stage, high-efficiency motor current control mechanism, built-in anti-stall architecture, built-in sense resistor less current control architecture, high voltage and current, multi error detect functions |
| Interface | GPIO,I2C,SPI |
| ClickID | No |
| Compatibility | mikroBUS |
| Click board size | L (57.15 x 25.4 mm) |
| Input Voltage | 3.3V,5V |

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

Downloads

[TB67S128FTG datasheet](#)

[TS5A23157 datasheet](#)

[Stepper 10 click 2D and 3D files](#)

[Stepper 10 click example on Libstock](#)

[Stepper 10 click schematic](#)

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