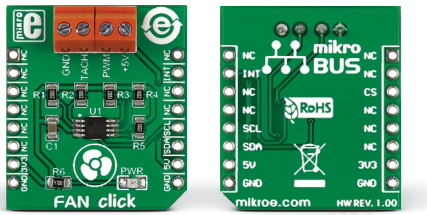


FAN click

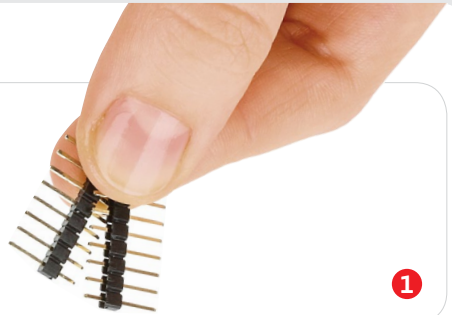


1. Introduction

Fan click carries an **EMC2301 controller** for powering and regulating the operation of four-wire fans, which are commonly utilized as coolers in computers and other electronics. The top of the board features two pairs of screw terminals with PWM, 5V power supply, TACH and GND pins. The communication with the target MCU is done through the mikroBUS™ I2C interface, with an additional INT pin. Board is designed to use 3.3V power supply, but also works with 5v logic.

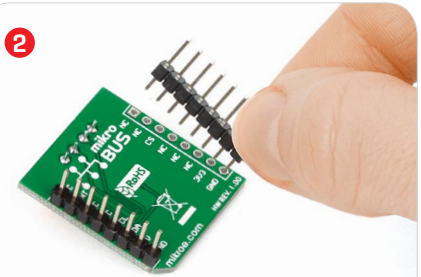
2. Soldering the headers

Before using your click board™, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.



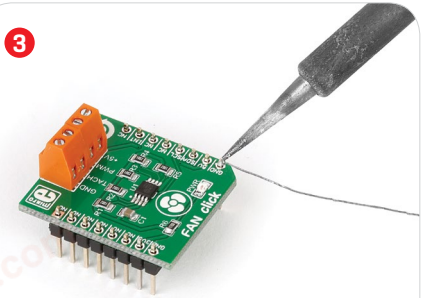
1

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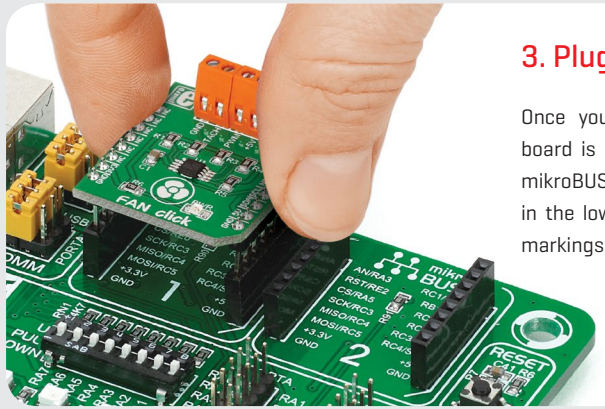


Turn the board upside down so that the bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

3

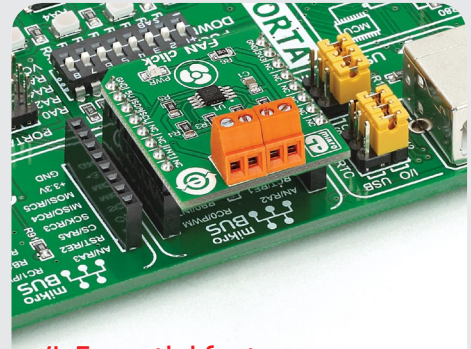


Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.



3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into the desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all the pins are aligned correctly, push the board all the way into the socket.



4. Essential features

Fan click supports **PWM speeds from 9.5Hz to 29 KHz,** in four programmable frequency bands. The control algorithms and the clock inside the circuit allow you to regulate the RPM of a given fan with 1% accuracy in the 500-16k RPM range. The TACH pin gives feedback on the fan's operation. The IC also incorporates detection of aging fans, and alert on fan stall (the fan driver even attempts to fix a stalled fan while sending the interrupt) These alerts are sent through the mikroBUS™ INT pin.

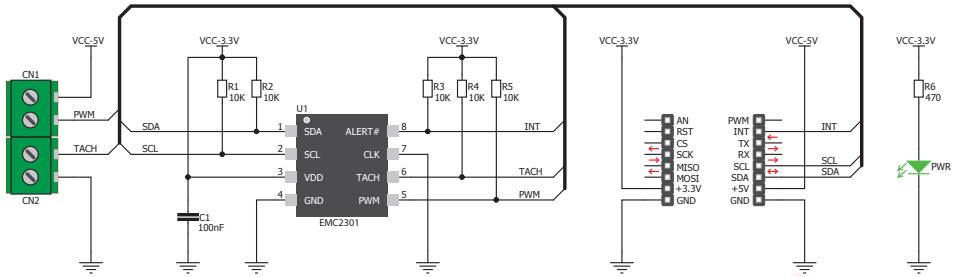
click BOARDS™

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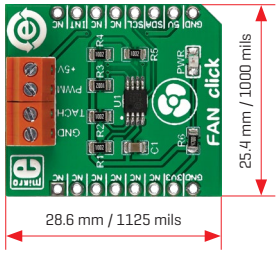
Fan click Manual v100

0100000089743

5. Schematic



6. Dimensions



	mm	mils
LENGTH	28.6	1125
WIDTH	25.4	1000
HEIGHT*	3.3	130

* without headers

7. Power supply



The pins on Fan click are both 3.3V or 5V tolerant, so you can use both logic levels (3.3V and 5V). Board is designed to use 3.3V power supply only.

8. Code examples

Once you have done all the necessary preparations, it's time to get your click board™ up and running. We have provided examples for mikroC™, mikroBasic™ and mikroPascal™ compilers on our **Libstock** website. Just download them and you are ready to start.

LIBSTOCK.com

9. Support

MikroElektronika offers **free tech support (www.mikroe.com/support)** until the end of the product's lifetime, so if something goes wrong, we're ready and willing to help!

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10. Disclaimer

MikroElektronika assumes no responsibility or liability for any errors or inaccuracies that may appear in the present document. Specification and information contained in the present schematic are subject to change at any time without notice.

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