



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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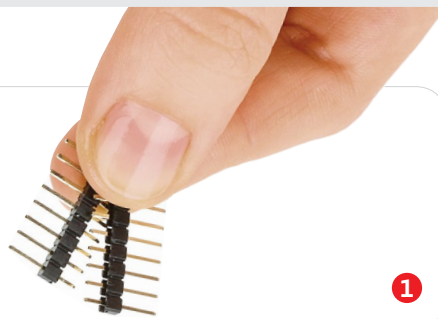




4x4 RGB click™

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.

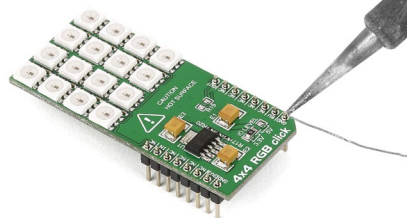


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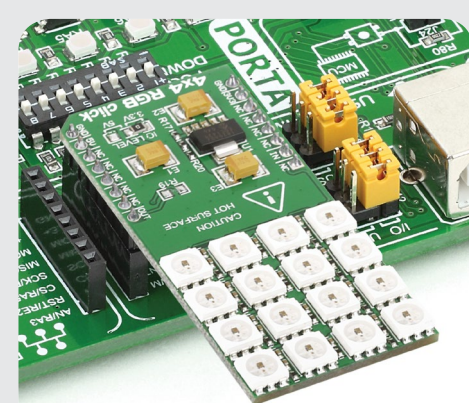


Turn the board upside down so that the bottom side is facing you upwards. Place shorter pins of the header into the appropriate soldering pads.

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.

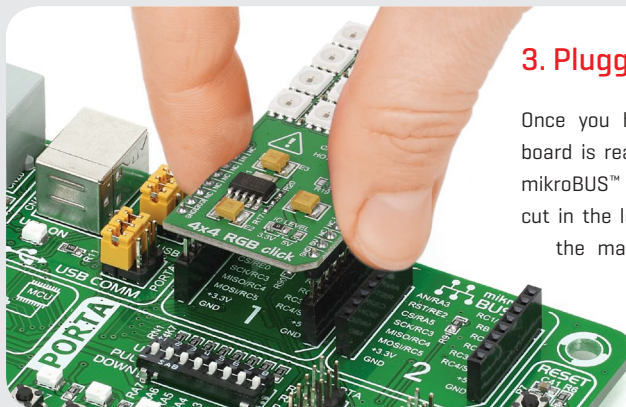


4. Essential features

The LED matrix can heat up so be careful when using 4x4 RGB click™. Avoid touching the board when it's in use, and don't drive the LEDs to max brightness levels. With that in mind, you can use the board to generate colorful moving displays [RGB LED matrices are commonly used for displaying graphics on electronic billboards, signs, and similar].

1. Introduction

4x4 RGB click™ carries a **matrix of 16 WS2812 RGB LEDs and a MCP1826 low dropout regulator**. These LEDs actually consist of three single colored LEDs [Red, Green and Blue], plus a control chip in a single package. The LED matrix is connected to the target board microcontroller through the mikroBUS™ RST pin. The board uses either a 3.3V or 5V power supply.



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.

click™
BOARD
www.mikroe.com

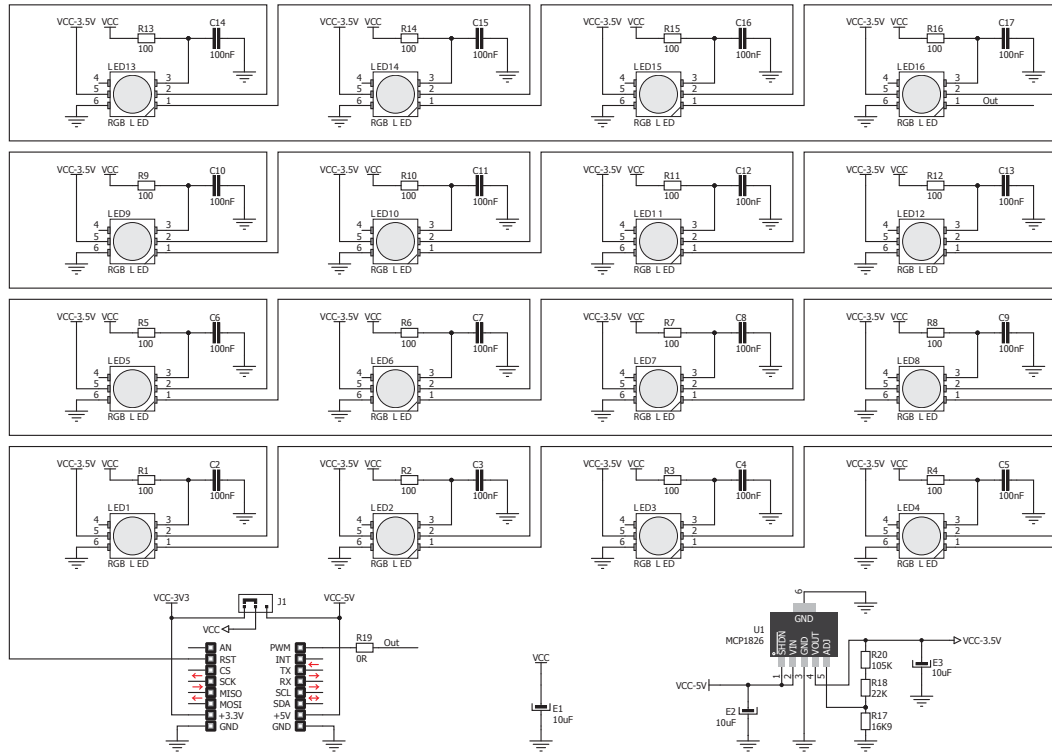


4x4 RGB click™ manual
ver 1.01

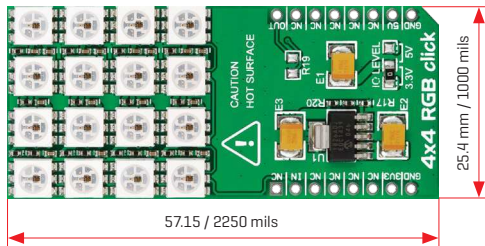


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5. Schematic



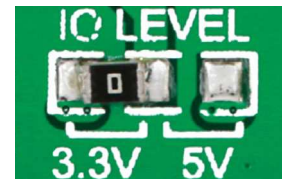
6. Dimensions



	mm	mils
LENGTH	57.15	2250
WIDTH	25.4	1000
HEIGHT*	3.6	142

* without headers

7. SMD jumper



4x4 RGB click™ features a jumper [zero ohm resistor] for setting the I/O logic level. By default it's soldered in the 3.3V position.

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.



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!



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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