# imall

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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### **RELAY 2 click**



#### 1. Introduction

Relay 2 click carries two **LCA717** single-pole, OptoMOS® solid state relays and two screw terminals for connecting the wiring. These relays have a load current of 2A, low maximum on-resistance of just 0.15 Ohms, and a blocking Voltage of 30V. They are controlled by the microcontroller through RL1 and RL2 pins, which are in place of default mikroBUS<sup>™</sup> AN and PWM pins. The board is designed to use a 3.3V power supply only.

#### 2. Soldering the headers

2

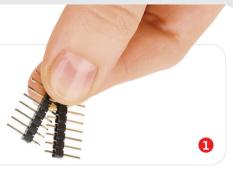
Before using your click board<sup>™</sup>, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.

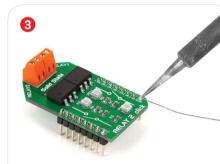
Turn the board upside down so that

the bottom side is facing you upwards.

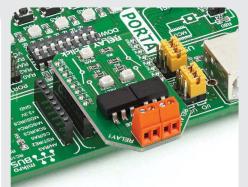
Place shorter pins of the header into the

appropriate soldering pads.





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

Relay is an electrical switch used to terminate or establish circuit using a low power signal from a microcontroller. Relay provides complete electrical isolation between the microcontroller and controlled circuits. The LCA717 have optically coupled outputs that use the patented *OptoMOS technology*. Solid state relays enable fast, silent and bouncefree switching. On this click board<sup>TM</sup>, each relay has a corresponding onboard signal LED to indicate whether it's on or off.

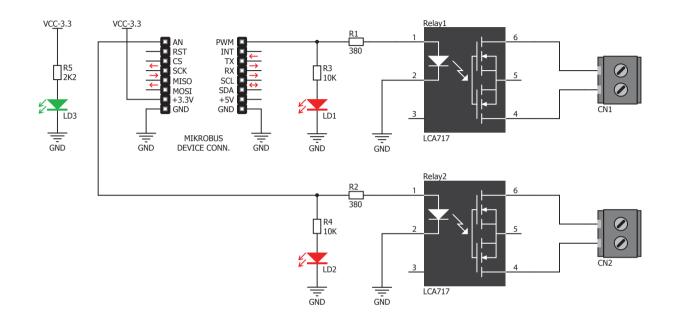


#### 3. Plugging the board in

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



#### 5. Schematic



#### 8. Code examples

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

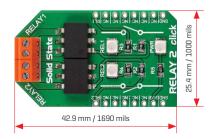


#### 9. Support

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!



#### 6. Dimensions



	mm	mils
LENGTH	42.9	1690
WIDTH	25.4	1000
HEIGHT*	12.2	480

\* without headers

#### 7. Alternative solution



If you require a relay which can handle higher currents and voltages, see the original *Relay click*: **www.mikroe.com/click/relay** 

#### 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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