

# CAMERA click<sup>™</sup>



# 1. Introduction

Camera click<sup>™</sup> carries **OV7670-VL2A**, a low voltage CMOS image sensor, connected to an onboard **FT900** MCU through a parallel camera interface. The FT900 in turn outputs the camera image to the target board microcontroller through the **mikroBUS<sup>™</sup>** SPI interface [CS, SCK, MISO, MOSI]. An additional RDY pin [INT] signals the camera's status. Camera click<sup>™</sup> is designed to use a 3.3V power supply only.

#### 2. Soldering the headers

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Before using your click<sup>™</sup> 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.

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

Streaming video is a demanding task for microcontrollers. Camera click<sup>™</sup> combined with a 32-bit target board MCU will enable you to stream QCIF resolution video [176 x 144 px]. Increased processing power and storage capabilities will get you better results [the maximum resolution of the OV07670 sensor aboard camera click<sup>™</sup> is VGA, 640x480]. With 8-bit MCUs, camera click<sup>™</sup> is best used for rendering static images, or for specific applications where a few frames per second are enough.



# 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<sup>™</sup> board 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!



# 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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### 6. Dimensions



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

\* without headers

# 7. Focusing lens



The lens on camera click<sup>™</sup> allows you to manually set the focus by turning the plastic ring clockwise or counter clockwise.