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!

Contact us

Matrix click

Matrix click is a mikroBUS™ add-on board with two red or green (there are two options) 5x7 matrices driven by two MAX7219 8-bit LED Display Drivers. The active area of each matrix is 7.62mm high and 5.08 mm wide. 7x5 is a standard resolution for displaying ASCII characters, so 7x10 click is essentially a dual-character display capable of showing letters in more readable typefaces compared to a 14-segment display. The click communicates with the target MCU through the mikroBUS™ SPI interface with two separate Chip Select lines for each matrix (CSL for the left, CSR for the right). This board is designed to use a 5V power supply.
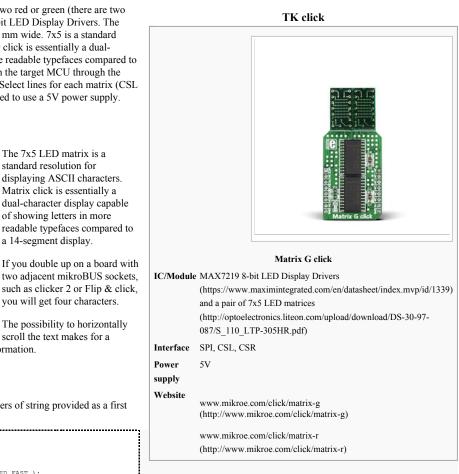
Features and usage notes

Schematic also available in PDF (http://cdn-docs.mikroe.com/images/f/f4/Matrix_G_click_schem

The 7x5 LED matrix is a standard resolution for displaying ASCII characters. Matrix click is essentially a dual-character display capable of showing letters in more readable typefaces compared to a 14-segment display.

If you double up on a board with two adjacent mikroBUS sockets, such as clicker 2 or Flip & click, you will get four characters.

The possibility to horizontally scroll the text makes for a virtually unlimited space for displaying written information.

TK click

Matrix G click

IC/Module	MAX7219 8-bit LED Display Drivers (https://www.maximintegrated.com/en/datasheet/index.mvp/id/1339) and a pair of 7x5 LED matrices (http://optoelectronics.liteon.com/upload/download/DS-30-97-087/S_110_LTP-305HR.pdf)
Interface	SPI, CSL, CSR
Power supply	5V
Website	www.mikroe.com/click/matrix-g (http://www.mikroe.com/click/matrix-g)
	www.mikroe.com/click/matrix-r (http://www.mikroe.com/click/matrix-r)

Programming

The code snippet results in blinking two by two letters of string provided as a first parameter.

```
1  void main()
2  {
3    system_init();
4    matrix_init();
5    matrix_text_blink( "MIKROELEKTRONIKA", MATRIX_MED_FAST );
6    Delay_ms( 1000 );}
```

Code examples that demonstrate the usage of Matrix clicks with MikroElektronika hardware, written for mikroC for ARM, AVR, dsPIC, FT90x, PIC and PIC32 are available on Libstock (http://libstock.mikroe.com/projects/view/1852/matrix-click).

Resources

- Data sheet for LED drivers (https://www.maximintegrated.com/en/datasheet/index.mvp/id/1339)

- LTP-305HR LED matrix data sheet (http://optoelectronics.liteon.com/upload/download/DS-30-97-087/S_110_LTP-305HR.pdf)

- mikroBUS standard specifications (http://www.mikroe.com/downloads/get/1737/mikrobus_specification.pdf)

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