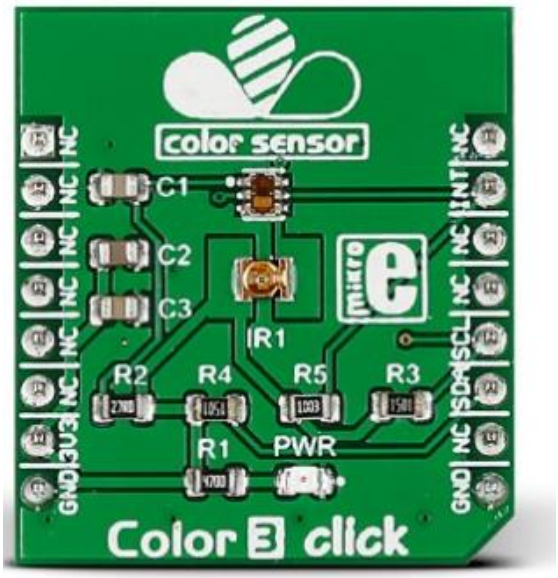
Color 3 click



PID: MIKROE-2103

RS Product Code: 136-0798

Color 3 click is a mikroBUS™ add-on board with a TCS3771 color sensor (also known as a light-to-digital converter) and a narrow beam Infrared LED. The circuit can also function as a proximity sensor.

TCS3771 is a RGBC sensor: it can detect Red, Green, Blue and clear light. The IC performs well under a variety of lighting conditions. For example, it can be covered with different attenuation materials.

As a proximity sensor it has a large dynamic range of operation. It can take short distance measurements behind dark glass; or it can be configured for longer distance measurement, for example, human presence detection in front of monitors or laptops.

For power-saving, TCS3771 has an internal state machine that can put the device into a low power mode between successive RGBC and proximity measurements.

TCS3771 is also fast enough to give off proximity information at a high rate of repetition. This makes it useful for proximity detection in portable devices (such as a phone coming near to a speaker's ear).

Color 3 click communicates with the target MCU through the mikroBUS™ I2C interface, with additional functionality provided by an INT pin. Designed to use a 3.3 power supply only.

Specification

Product Type	Optical
Applications	RGBC colour sensing and proximity sensing (suitable for portable devices)
On-board modules	TCS3771 colour sensor, Infrared LED
Key Features	RGBC colour sensing and proximity detection
Key Benefits	Power-saving options, Fast operation (suitable for proximity detection in portable devices), Proximity detection for short or longer ranges
Interface	I2C
Power Supply	3.3V
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Weight	22g

Programming

The following code snippet shows how to send temperature readings from Colour 3 click to a TFT display.

Code examples that demonstrate the usage of Colour 3 click with MikroElektronika hardware, written for mikroC for ARM, AVR, dsPIC, FT90x, PIC and PIC32 are available on Libstock

Downloads

Colour 3 click Examples

Colour 3 click Schematic