

Light mix-sens Click



PID: MIKROE-4148

Light mix-sens Click is carrying TMD37253, an advanced proximity measurement, color sense (RGBC+IR), and digital ambient light sensing (ALS) device. The TMD37253 slim module package has been designed to accommodate a “single hole” aperture approach that incorporates an IR LED and factory calibrated LED driver. The proximity detection feature provides object detection (e.g., mobile device screen to the user’s ear) by photodiode detection of reflected IR energy (sourced by the integrated LED). The ALS detection feature provides photopic light intensity data. The color photodiodes have UV and IR blocking filters and a dedicated data converters producing 16-bit data. This architecture allows applications to accurately measure ambient light which enables devices to calculate illuminance and color temperature to control display backlight and chromaticity.

Light mix-sens Click board™ is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.
 ISO 14001: 2015 certification of environmental management system.
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

Specifications

Type	Optical
Applications	Can be used for ambient light sensing, single hole proximity sensing, mobile phone touch screen disable, color temperature sensing to assist backlight, camera, and flash control.
On-board modules	Light mix-sens Click uses the TMD37253 IC, an advanced proximity measurement, color sense (RGBC+IR), and digital ambient light sensing (ALS) device, from AMS.
Key Features	Accurate color temperature and ambient light sensing, UV / IR blocking filters, 46° Average FOV, Photopic ambient light sensing (ALS), Programmable gain and integration time, Reduced power consumption.
Interface	I2C
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V

Resources

[mikroBUS™ Standard specification](#)

[LibStock: mikroSDK](#)

[Click board catalog](#)

[Click boards™ Standard Page](#)

Downloads

[Light mix-sens click example on Libstock](#)

[Light mix-sens click 2D and 3D files](#)

[TMD37253 datasheet](#)

[Light mix-sens click schematic](#)

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