

LED Driver 16 Click



PID: MIKROE-5534

LED Driver 16 Click is a compact add-on board that simplifies the control of multiple LEDs. This board features the [PCA9745B](#), an SPI-configurable sixteen-channel constant current LED driver from [NXP Semiconductors](#). Each LED output has an 8-bit resolution (256 steps) fixed-frequency individual PWM controller that operates at 31.25kHz with an adjustable duty cycle from 0 to 100% to allow the LED to be set to a specific brightness value. Powered through a selected mikroBUS™ power rail, either 3.3V or 5V, it provides a maximum output current of 57mA per channel and multiple built-in protection functions that protect the circuit during abnormalities. This Click board™ is optimized for dimming and blinking Red/Green/Blue/Amber (RGBA) LEDs for various consumer amusement applications, LED status signalization, and many more.

LED Driver 16 Click 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	LED Drivers
Applications	Can be used for dimming and blinking Red/Green/Blue/Amber (RGBA) LEDs for various consumer amusement applications, LED status signalization, and more
On-board modules	PCA9745B - 16-channel constant current LED driver from NXP Semiconductors
Key Features	Programmable outputs, gradation control for all channels, output channels can sink up to 57mA, output current adjustable through onboard resistor, protection features, SPI interface, output enable feature, and more
Interface	SPI
ClickID	Yes
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

[ClickID](#)

Downloads

[LED Driver 16 click example on Libstock](#)

[PCA9745B datasheet](#)

[LED Driver 16 click 2D and 3D files](#)

[LED Driver 16 click schematic](#)

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