

Boost 3 Click



PID: MIKROE-4287

Boost 3 Click is a compact add-on board that contains a boost converter with an integrated current mirror function. This board features the TPS61391, a 700-kHz pulse-width modulating (PWM) Step-Up converter with a 70V switch FET with an input voltage up to 5.5V from Texas Instruments. The TPS61391 includes an accurate current mirror, with two selectable gain options (1:5 or 4:5), and provides high optical-power protection with an additional FET in series with the APD power path, with the typical response time of 0.5 μ s. This Click board™ is designed to be used for applications such as biasing and monitoring the avalanche photodiodes (APD) in the optical receivers, but it also can be used as a high voltage sensor supply or in battery-powered and automotive applications.

Boost 3 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	Boost
Applications	Can be used for applications such as biasing and monitoring the avalanche photodiodes (APD) in the optical receivers, but it also can be used as a high voltage sensor supply or in battery-powered and automotive applications.
On-board modules	Boost 3 Click is based on the TPS61391, a 700-kHz pulse-width modulating (PWM) Step-Up converter with a 70V switch FET with an input voltage up to 5.5 V from Texas Instruments.
Key Features	An under-voltage lockout, high optical power protection, wide output voltage range from 20V to 70V, current mirror function, and more.
Interface	GPIO
ClickID	No
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™](#)

Downloads

[Boost 3 click 2D and 3D files](#)
[TPS61391 datasheet](#)
[Boost 3 click example on Libstock](#)
[Boost 3 click schematic](#)

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