

## VCP monitor 2 Click



PID: MIKROE-4126

VCP Monitor 2 Click is a three-channel, high-side current and bus voltage monitor with alert indication function ensuring the intended application works within desired operating conditions. Featured chip INA3221-Q1, by Texas Instruments, monitors both shunt voltage drops and bus supply voltages, in addition to having programmable conversion times and averaging modes for these signals. The INA3221-Q1 offers both critical and warning alerts to detect multiple programmable out-of-range conditions for each channel. The INA3221-Q1 senses current on buses that can vary from 0V to 26V. The device is powered from a single 2.7V to 5.5V supply, and draws 350  $\mu$ A (typical) of supply current. The I2C and SMBUS-compatible interface features four programmable addresses.

VCP Monitor 2 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             | Measurements  |
|------------------|---|
| Applications     | Electronic control units, digital clusters, rear-seat entertainment, infotainment, computers, power management, telecom equipment, battery chargers, power supplies, test equipment.                        |
| On-board modules | VCP Monitor 2 Click uses the INA3221-Q1, a three-channel, high-side current and bus voltage monitor, from Texas Instruments and PCA9538A, an IO expander with interrupt and reset, from NXP Semiconductors. |
| Key Features     | Shunt voltage drops and bus supply voltages monitoring, programmable conversion times, critical and warning alerts, single power supply, 350 $\mu$ A of supply current                                      |
| Interface        | I2C   |
| Compatibility    | mikroBUS  |
| Click board size | L (57.15 x 25.4 mm)   |
| Input Voltage    | 3.3V or 5V  |

## Resources

[mikroBUS™ Standard specification](#)

[LibStock: mikroSDK](#)

[Click board catalog](#)

[Click boards™ Standard Page](#)

## Downloads

[VCP monitor 2 Click schematic](#)

[VCP monitor 2 click 2D and 3D files](#)

[INA3221-Q1 datasheet](#)

[VCP monitor 2 click example on Libstock](#)

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