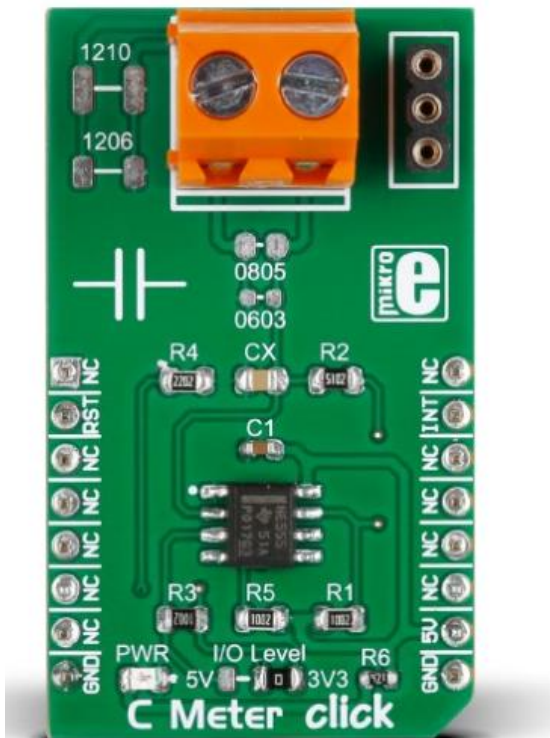


C Meter click



PID: MIKROE-2376

RS Product Code: [136-0834](#)

C Meter click is a mikroBUS add-on board with circuitry for measuring the value of capacitors. The design is based on a NE-555 timer/square-wave generator.

The chip is implemented in an a stable multi vibrator circuit with fixed resistors and adjustable capacitors.

The board has four different-sized plates for placing SMD capacitors (covering standard SMD packaging dimensions) as well as a socket for inserting a through hole capacitor.

The board outputs a square wave frequency through the INT pin. Depending on the capacitor placed on the board, the value of this frequency changes. The value of a capacitor can be inferred using a simple algorithm (shown in the Libstock code example).

On board screw terminals are placed to allow the click to be used with multimeter probes.

C Meter click is designed to use a 5V power supply, but can work with either 3.3V or 5V logic levels.

Specification

| | |
|------------------|--|
| Product Type | Measurements |
| Applications | Capacitance measurement tool |
| On-board modules | NE-555 timer/square-wave generator |
| Key Features | Plates and sockets for placing capacitors |
| Key Benefits | Screw terminals allow use with multimeter probes |
| Interface | INT, RST |
| Power Supply | 3.3V or 5V |
| Compatibility | mikroBUS |
| Click board size | M (42.9 x 25.4 mm) |
| Weight | 25g |

C Meter click has circuitry for measuring the value of capacitors. The design is based on a NE-555 timer/square-wave generator. The chip is implemented in an a stable multi vibrator circuit with fixed resistors and adjustable capacitors.

Features and usage notes

C Meter click has four different-sized plates for placing SMD capacitors (covering standard SMD packaging dimensions) as well as a socket for inserting a thru hole resistor. Each plate is labelled with package size in standard imperial measurements:

- 1210 — 3.2mm x 2.5mm
- 1206 — 3.2 mm x 1.6 mm
- 0805 — 2.0 mm x 1.25 mm
- 0603 — 1.6 mm x 0.8 mm

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On board screw terminals are placed to allow the click to be used with oscillator probes.

C Meter click is designed to use a 5V power supply, but can work with either 3.3V or 5V logic levels.

Programming

Click on this link [Mikroe.com](https://mikroe.com) to find a code snippet that uses a preset calibration value and finds the capacitance of the capacitor for displaying on the TFT

Code examples that demonstrate the usage of C Meter click with MikroElektronika hardware, written for mikroC for ARM is available on Libstock

Downloads

[C Meter click Examples](#)

[C Meter click Schematic](#)