

# TouchPanel Controller PROTO™

## Manual

*All Mikroelektronika's development systems feature a large number of peripheral modules expanding microcontroller's range of application and making the process of program testing easier. In addition to these modules, it is also possible to use numerous additional modules linked to the development system through the I/O port connectors. Some of these additional modules can operate as stand-alone devices without being connected to the microcontroller.*

# Additional board

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## TouchPanel Controller PROTO

The TouchPanel Controller PROTO additional board is used to connect a touch panel to a microcontroller or other device.

### Key features:

- Connection established via a 1x6 connector CN1;
- Low power consumption; and
- 3.3V or 5V power supply voltage.

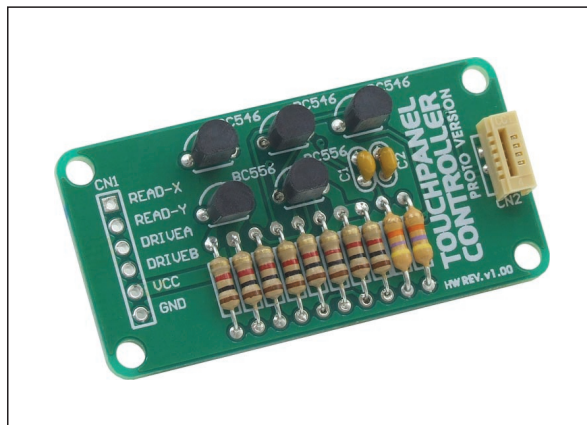


Figure 1: TouchPanel Controller PROTO additional board

### How to connect the board?

The TouchPanel Controller PROTO additional board can be easily connected to a microcontroller or some other device via a 1x6 connector CN1. Connection between the additional board and a touch panel is established via the CN2 connector provided on the additional board.

### How to use the board?

A touch panel is a transparent touch sensitive foil. In order to register any touch, it is necessary to connect the touch panel to this additional board. The principle of the touch panel operation is based on the voltage change caused by a touch or pressure applied to the touch screen. Voltage change detection is enabled due to the touch screen design. It is composed of two flexible sheets coated with a resistive material separated by an air gap. In order to detect a contact, it is necessary to apply voltage to one of these two sheets (DRIVEA for example). When contact is made, the two sheets are pressed together and the second sheet measures the voltage in the pressed point as a distance along the first sheet. The measured distance is referred to as X-axis (BOTTOM). As soon as this data is acquired, the same voltage is applied to the second sheet (DRIVEB). Now, the first sheet measures the distance referred to as Y-axis (LEFT).

Here you can find examples for the TouchPanel Controller PROTO board:  
<http://www.mikroe.com/eng/products/view/200/touchpanel-controller-PROTO/>

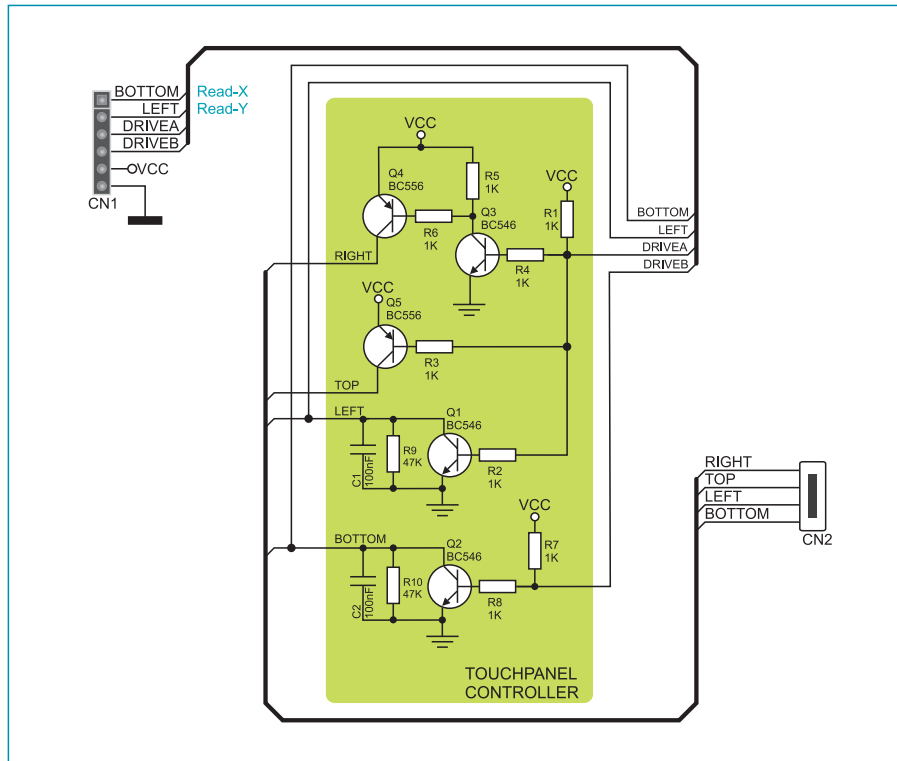


Figure 2: TouchPanel Controller PROTO additional board connection schematic

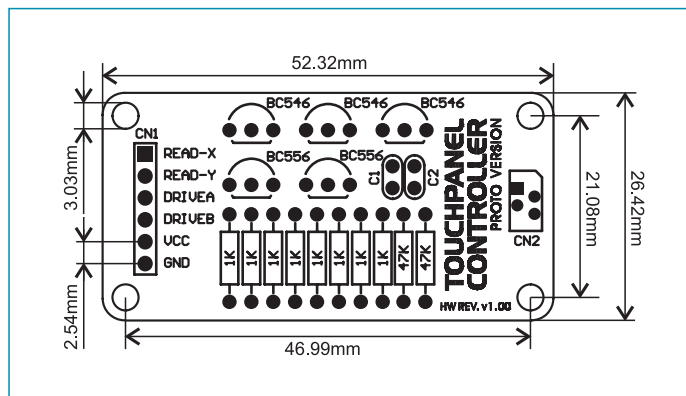


Figure 3: Dimensions of the TouchPanel Controller PROTO board



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