## **RTC PROTO**<sup>™</sup>

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.

## Manual

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## **RTC PROTO (Real time clock PROTO)**

The RTC PROTO enables the microcontroller to keep the real time and date, providing the alarm function. It is used to generate an interrupt. Due to baterry cell the RTC PROTO enables the microcontroller to keep the real time when the power supply is off. The RTC PROTO is linked to the development system by connecting 1x5 male connector provided on the additional board to the proto board provided on the development system's ports. The RTC PROTO communicates to the microcontroller by using the serial I<sup>2</sup>C interface. The RTC PROTO is placed on the development system's port that is connected to the built-in I<sup>2</sup>C microcontroller module.



Figure 1: RTC PROTO



Figure 2: RTC PROTO placed on the development system



Figure 3: RTC PROTO's back side



PCF8583P circuit pins are used for connecting to the microcontroller. Their functions are as follows:

- Output pin used to generate an interrupt
- Serial clock line

INT

SCL

SDA

- Serial data line

Figure 4: RTC PROTO connection schematic

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