RTC2 PROTO ™

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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RTC2 PROTO (Real time clock PROTO)

The *RTC2 PROTO* enables the microcontroller to keep the real time and date including corrections for a leap year and months that have less than 31 days. It has an alarm function, featuring automatic power-fail detection. It is used to generate an interrupt and square wave output signal. Due to baterry cell the *RTC2 PROTO* enables the microcontroller to keep the real time when the power supply is off. The *RTC2 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 *RTC2 PROTO* communicates to the microcontroller by using the serial I2C interface. The *RTC2 PROTO* is placed on the development system's port that is connected to the built-in I2C microcontroller module.
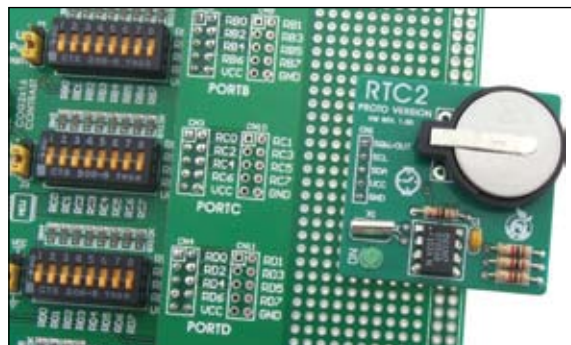

Figure 1: *RTC2 PROTO*

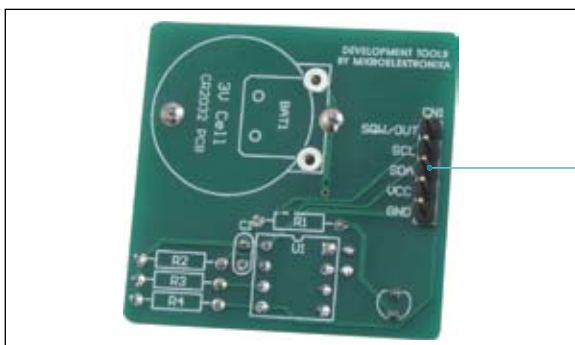**Figure 2:** *RTC2 PROTO* placed on the development system

Figure 3: *RTC2 PROTO's* back side

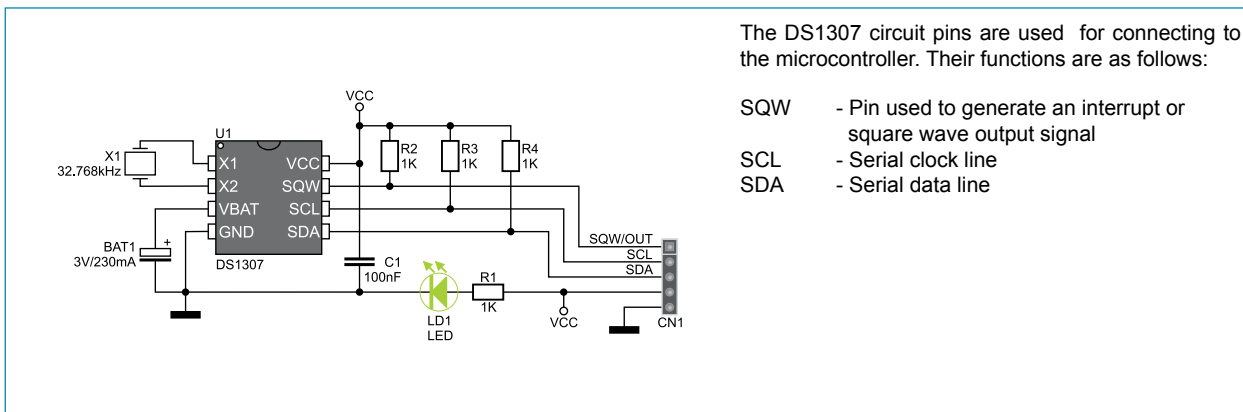1x5 male is used for connecting the additional board to the development system via proto board

Figure 4: *RTC2 PROTO* connection schematic

The DS1307 circuit pins are used for connecting to the microcontroller. Their functions are as follows:

SQW — Pin used to generate an interrupt or square wave output signal
SCL — Serial clock line
SDA — Serial data line