## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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# 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.

#### Manual

Additional Board

## SOFTWARE AND HARDWARE SOLUTIONS FOR EMBEDDED WORLD ... making it simple

#### **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 I<sup>2</sup>C interface. The *RTC2 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: RTC2 PROTO

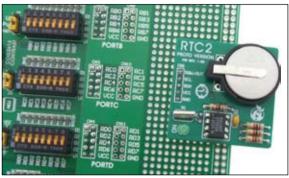


Figure 2: RTC2 PROTO placed on the development system

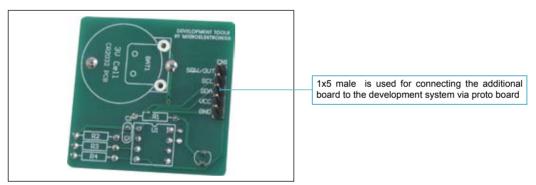
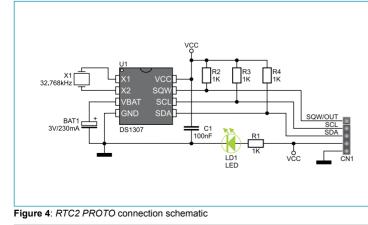


Figure 3: RTC2 PROTO's back side



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