Epson develops new low-power-consumption real-time clock modules

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RX-4035SA

Seiko Epson Corporation today announced development of the RX-4035SA/LC and RX-8035SA/LC real-time clock modules - units designed to be compatible with primary batteries, secondary batteries, capacitors (one type of storage cell) and various other power sources. The company plans to begin accepting orders for these new products from the end of July. Volume production is slated to commence for the RX-8035SA from August, and for the RX-4035SA/LC and RX-8035LC from October.

Alongside growing public awareness of the need to conserve energy, manufacturers have made rapid moves to ensure lower power consumption in electronic devices. This trend has sparked increased use of real-time clocks for retaining the current time in electronic devices in place of microcontrollers (which effectively internalize clock function),

due to the ability of such clocks to retain the current time with extremely low power consumption.

Conventional real-time clocks use an external special-purpose power management IC to sustain operation of the clock in case the electronic device's main power supply is cut off. However, this can cause battery power loss, prompting calls for solutions toward lower power consumption and greater efficiency. To address these needs, Epson has developed the RX-4035SA/LC and RX-8035SA/LC real-time clock modules with built-in power source switching function, realizing extremely low leakage current and voltage drops, while maximizing battery power.

RX-8035LC

Epson's new products have the following characteristics:

• In addition to dry cell batteries, button batteries and rechargeable batteries, the power source switching function in this module is compatible with electric double layer capacitors suitable for use in low power consumption real-time clocks.

• Also onboard is an event recorder function for retaining the current time of electrical devices even during system failures at night, on

holidays or other inconvenient times. The event recorder is equipped with two event input terminal systems with built-in chattering-free circuits, enabling recordings of individual events ranging from years to seconds in length.

• These modules are equipped with dual alarms and clock output, realizing clock power consumption for the SA package type of 350nA (Typ.), and for the LC package type of 400nA (Typ.). For clock accuracy, in normal temperature environments two different accuracy levels may be designated -within 13 seconds or one minute per month.

• The RX-4035SA/LC is compatible with SPI interface, while the RX-8035SA/LC is compatible with I2C-Bus interface.

This real-time clock module series is engineered to contribute significantly to lowering power consumption in electrical devices, while ensuring highly accurate time information. Buoyed by this breakthrough, Epson is determined to continue living up to its reputation as a leading company in quartz devices, striving to offer even stronger support for the safety, comfort and peace of mind of its customers.

More information: For further details about the RX-4035SA, please see the following link:
www.epsontoyocom.co.jp/english … 4035sa_lc/index.html

For further details about the RX-8035SA, please see the following link:
www.epsontoyocom.co.jp/english … 8035sa_lc/index.html

Source: Epson