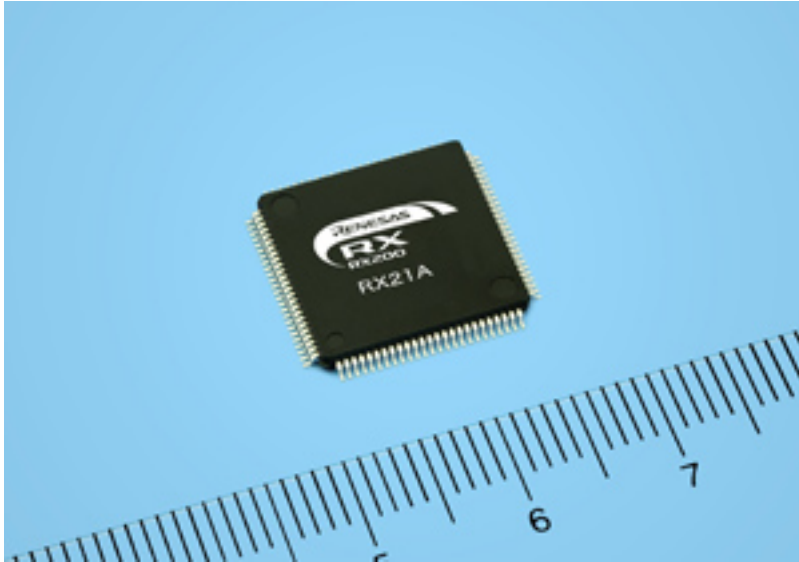


32-bit MCUs tout large memory capacity, built-in ADC



Renesas Electronics announced the RX21A Group of 32-bit microcontrollers (MCUs) for smart meters with advanced functionality. The new MCUs are said to be the first in the industry to combine large flash memory capacity of 512 KB and a 24-bit delta-sigma (Delta-sigma) A/D converter for high-resolution measurement. These MCUs implement in a single chip functions that previously required separate devices, such as power measurement, meter control, calculation of electricity charges, and data encryption. This MCU group includes product versions for a variety of meter models, allowing common and effective system design. The 24-bit Delta-sigma A/D converter achieves conversion accuracy (SNDR) of 85 dB, and the encryption engine supports AES (256-bit key length). This provides smart meters with improved calculation precision and enhanced security functionality, such as communication data protection and unauthorized data access prevention that will be needed for the next-generation smart meters. The operating frequency of the RX21A Group of MCUs has been increased to 50 megahertz (MHz), and DSP functions added for filter calculation. The MCUs also have a large on-chip flash memory with a capacity of up to 512 KB, twice that of Renesas' existing products, to accommodate larger programs.

Renesas Electronics Corporation

408-382-7500, www.renesas.com [1]

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