

[Featured Tools]

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Solutions and development tools for 32-bit RX671 that realizes high-speed real-time control and contactless HMI

Outline

This news introduces the features and development tool for the 32-bit RX671 microcontroller that realizes real-time control, contactless HMI control, and cloud connectivity on a single chip, making it ideal for real-time applications such as HVAC and smart meters.



1. RX671 product overview

This product is a 32-bit microcontroller ideal for real-time applications such as HVAC and smart meters. The RXv3 core running at 120MHz and the on-chip flash memory with 60MHz high-speed read access provide outstanding real-time performance. In addition, serial sound I/F and capacitive touch sensing unit contribute to realizing HMI control on a single chip. By implementing RTOS and connecting to a wireless module, it is possible to link up with cloud computing services.

<p><b>CPU</b></p> <ul style="list-style-type: none"> <li>120MHz RXv3 core</li> <li>Double-precision FPU</li> <li>Register bank save function</li> </ul>	<p><b>HMI</b></p> <ul style="list-style-type: none"> <li>Serial sound I/F</li> <li>17ch capacitive touch sensing unit</li> </ul> <p><b>Advanced communication I/F</b></p> <ul style="list-style-type: none"> <li>SD host I/F</li> <li>2ch USB 2.0 full-speed</li> <li>3ch CAN</li> <li>QSPI with XIP mode</li> </ul>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>Cryptographic engine (AES, RSA, ECC, SHA, TRNG)</li> <li>Key management</li> <li>Access management</li> <li>Flash memory protection</li> </ul>	
<p><b>Memory</b></p> <ul style="list-style-type: none"> <li>2MB code flash memory</li> <li>8KB data flash memory</li> <li>384KB SRAM</li> </ul>	<p><b>Motor control</b></p> <ul style="list-style-type: none"> <li>PWM timers</li> <li>2-phase encoder pulse inputs</li> <li>20ch 12-bit A/D converter</li> </ul>		
<p><b>Package</b></p> <ul style="list-style-type: none"> <li>64/100/144-pin LQFP</li> <li>48-pin HWQFN, 64-pin TFBGA</li> <li>100/145-pin TFLGA</li> </ul>			

URL: <https://www.renesas.com/RX671>







