The RX Family Flagship Product with High Performance and Scalable Product Lineup

RENESAS RX700, RX600 MCU SERIES

Renesas RX700 and RX600 series are ideal for real-time applications with its outstanding processing performance based on the latest RX CPU core. Abundant peripheral functions enable various device control and network control with a single chip, allowing more smaller devices developed with lesser parts needed. Also, enabling HMI control and cloud connectivity with top-level security for IoT solutions; and the RX72M supports major industrial network protocols including EtherCAT®.

Benefits/Key Features

Overwhelming Real-Time Processing Performance

<table>
<thead>
<tr>
<th>Product A</th>
<th>Product B</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX72N</td>
<td>RX66N</td>
</tr>
<tr>
<td>31 cycle</td>
<td>7 cycle</td>
</tr>
<tr>
<td>1 cycle</td>
<td>0 cycle</td>
</tr>
<tr>
<td>fast</td>
<td>slow</td>
</tr>
</tbody>
</table>

High-speed built-in Flash Capable of no-wait operation up to 120MHz
Stable CPU performance with no wait time
Ideal for real-time applications with the high-speed operation

Large-Capacity Memory and Minimal Package Lineup

Extensive line-up to suit market needs
Large-capacity memory that does not require external memory
Small package can be mounted on a small board

Equipped with Essential Functions for IoT Implementation

Connectivity
- In addition to standard functions such as Ethernet, USB and CAN/CAN-FD, products supporting industrial network protocols and home bus system are also available.

HMI
- LCD C/I/F capable of WVGA 8-bit, WQVGA 16-bit display
- Large-capacity working memory that realizes display with 1 chip
- UI with contact/Touchless UI can be implemented with Touch Key

Security
- Trusted Secure IP enables strong and high-speed security processing
- Protect your system from hijacking and tampering

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Product Information

<table>
<thead>
<tr>
<th>Product</th>
<th>CPU</th>
<th>Supply Voltage</th>
<th>Flash/SRAM</th>
<th>HMI</th>
<th>Communication</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX72M</td>
<td>RXv3 240MHz</td>
<td>3.3V</td>
<td>4MB*/1MB</td>
<td>LCD</td>
<td>I’S</td>
<td>Ethernet, CAN, SDHI, USB, QSPI</td>
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<tr>
<td>RX66N</td>
<td>RXv3 120MHz</td>
<td>3.3V</td>
<td>4MB*/1MB</td>
<td>LCD</td>
<td>I’S</td>
<td>Ethernet, CAN, SDHI, USB, QSPI</td>
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<tr>
<td>RX671</td>
<td>RXv3 120MHz</td>
<td>3.3V</td>
<td>2MB*/384KB</td>
<td>Touch key</td>
<td>I’S</td>
<td>Home Bus Support, CAN, SDHI, USB, QSPI</td>
</tr>
<tr>
<td>RX65N</td>
<td>RXv2 120MHz</td>
<td>3.3V</td>
<td>2MB*/640KB</td>
<td>LCD</td>
<td>-</td>
<td>Ethernet, CAN, SDHI, USB, QSPI</td>
</tr>
<tr>
<td>RX651</td>
<td>RXv2 120MHz</td>
<td>3.3V</td>
<td>2MB*/640KB</td>
<td>LCD</td>
<td>-</td>
<td>-</td>
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<tr>
<td>RX660</td>
<td>RXv3 120MHz</td>
<td>2.7–5V</td>
<td>1MB/128KB</td>
<td>-</td>
<td>-</td>
<td>Home Bus Support, CAN-FD, Remote control reception</td>
</tr>
</tbody>
</table>

*1: Dual Bank compatible

Solution/Development Environment

Cloud Solution
Simple Cloud connection
- Obtained FreeRTOS™ certification
- Easy connection to AWS cloud

GUI Solution
One-stop service
One-stop service for evaluation boards, middleware, and useful tools

Security Solution
Product safety
- Renesas original key management function
- One-stop solution
- Life cycle management support
- Cryptographic technology with proven safety

Industrial Network Solution
Multi-protocol support
Industries supporting major protocols
Network solutions available

Smart Configurator
Terminal setting, code generation, middleware import possible

Long-term Product Supply Program
Renesas Electronics operates a long-term product supply program (commonly known as PLP: Product Longevity Program) so that customers with long equipment life cycles can select products with peace of mind. We will supply for up to 15 years.

For more details, please visit www.renesas.com/RX