RX200 MCU series is developed based on the RX proprietary core, delivering top level security and various functions such as HMI, Bluetooth and ΔΣA/D needed in applications related in home appliance, industrial and IoT. This series has a good balance between high-speed processing by DSP / FPU and power consumption and is suitable for high-performance / energy-saving equipment such as battery powered equipment.

**Benefits/ Key Features**

**High processing performance and excellent power consumption**

- Ideal for battery powered applications and high-performance and energy saving equipment
- DSP/FPU, enhanced by RXv2 core, provides high-speed calculation
- Operating current: 0.12mA/MHz
- RAM holding standby current: 0.8µA

**Equipped with Functions Easily Developed for Home Appliances, Industry, and IoT**

<table>
<thead>
<tr>
<th>Application</th>
<th>Group</th>
<th>Touch</th>
<th>Bluetooth</th>
<th>Security</th>
<th>ΔΣA/D</th>
<th>5V</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>RX231</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>RX230</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Home · OA</td>
<td>RX23W</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Measuring equipment</td>
<td>RX23E-A</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Supporting IoT with Abundant Communication Functions and Advanced Security**

- CAN: For FA applications. Highly reliable maximum 1Mbps communication
- USB: Connection with PC, F / W update with USB memory
- SDHI: Easy connection to wireless module such as WiFi, WiSUN, BLE
- SSI: Audio data Tx/Rx (I²S standard compliant)
- Bluetooth Low Energy: Realize new functions by communicating with smartphones, etc.
### Product Information

<table>
<thead>
<tr>
<th>Product</th>
<th>RX Core</th>
<th>FPU</th>
<th>Frequency/Flash</th>
<th>Peripheral Functions</th>
<th>Trusted secure IP Lite</th>
<th>Bluetooth</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX23W</td>
<td>RXv2</td>
<td>Single Precision</td>
<td>54MHz/512KB</td>
<td>CAN, USB, SDHI, Touch Key, SSI</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RX23E-A</td>
<td>RXv2</td>
<td>Single Precision</td>
<td>32MHz/256KB</td>
<td>CAN</td>
<td>-</td>
<td>High Precision AFE</td>
</tr>
<tr>
<td>RX231</td>
<td>RXv2</td>
<td>Single Precision</td>
<td>54MHz/512KB</td>
<td>CAN, USB, SDHI, Touch Key, SSI</td>
<td>Trusted secure IP Lite</td>
<td>-</td>
</tr>
<tr>
<td>RX230</td>
<td>RXv2</td>
<td>Single Precision</td>
<td>54MHz/256KB</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Solution/ Development Environment

#### Bluetooth Solution
**Facilitates the development of Bluetooth Low Energy**
Jumpstart Bluetooth Low Energy development immediately with RX development boards, protocol stacks and evaluation tools.

#### Security Solution
**Peace of mind for the product**
TSIP technology protects products from counterfeit, eavesdropping, spoofing, tampering by hijacking, etc.

#### Touch Key Solution
**Lower Touch Key development barriers**
HMI Kit can evaluation Touch function, segment LCD and audio playback.

#### High-Precision Analog Front-end Development Support Tool
**Accurate and easy evaluation of analog performance**

### 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](http://www.renesas.com/RX)