

RX200, Low power, low voltage Microcontroller RX210



The new RX200 Core, offers the powerful, RX 32-bit CPU core combined with a wide operating voltage range and huge range of on-chip peripherals.

Key features

- Powerful 1.56 DMIPs / MHz RX CPU Core
- Flash Operation (read and write) from 1.62 V – 5.5 V
- 200 μ A/MHz Operation
- 1.3 μ A RTC mode
- EE dataflash with 100 k w/e & BGO
- Highly integrated
- Powerful in circuit debug solution



Product release



RX210 features

20 ns RX200 32-bit CPU Core

- 50 MHz, 2.7 V – 5.5 V
- 32 MHz, 1.8 V – 5.5 V
- 20 MHz, 1.62 V – 5.5 V
- 50 MHz High speed internal oscillator
- 125 kHz Low speed internal oscillator
- 32 kHz Sub-system oscillator
- PLL

On Chip Memory

- 128 – 512 kBytes on chip Flash
- 8 kBytes EE dataflash (100 k w/e)
- 16 – 64 kBytes on chip SRAM

Timers

- MTU2: 6 ch x 16-bit complex timer
- CMT: 4 channel 16-bit counter module
- TMR: 4 channel 8-bit timer module
- RTC: Real Time Clock calendar with calibration, tamper and alarm function
- Watchdog Timer with window & reset out

Serial I/O

- Up to 6 x SCI, (with simple SPI, simple I²C)
- 1 x SCIX, (LIN, simple SPI, simple I²C)
- Multi-master I²C interface
- RSPI Interface with CS

Analogue I/O

- Up to 16 channel 1 μ s 12-bit A/D converter
- 2 channel 10-bit DAC
- 4 channel comparator

Digital I/O

- Up to 84 I/O pins and 1 input only pin

POR & LVD

Other

- DMAC, Data Transfer Controller (DTC)
- Event Link Controller (ELC)
- CRC check circuit
- Data Operation Circuit (DOC)
- Multifunction Pin Controller (MPC)
- Temperature sensor

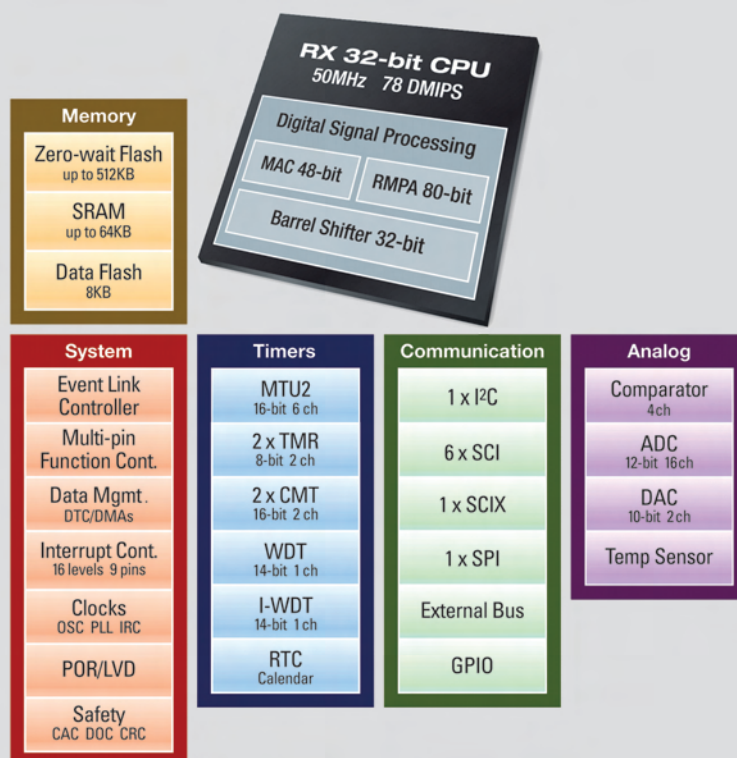
Interrupts

- NMI & 8 IRQ

Package options

- 64 – 100-pin QFP
- 100-pin LGA

RX210 block diagram



RX210 Starter Kit

Includes compiler, development board and the powerful E1 in-circuit debugger. Ordering code: **R0K505210S000BE**

Before purchasing or using any Renesas Electronics products listed herein, please refer to the latest product manual and/or data sheet in advance.

