



## Introducing **THE RX600**

Performance without Sacrifice

Combining the revolutionary new RX CPU Core with the industry's fastest embedded flash memory, the RX600 series microcontrollers deliver an industry leading 1.65 DMIPS per MHz and include support for digital signal processing and floating point operations. And with RX you get performance without sacrifice. The economical RX600 has a unique instruction set which enables up to 28% code size reductions and a low power architecture which consumes only 1mW per DMIPS.

▶ [View Video](#)

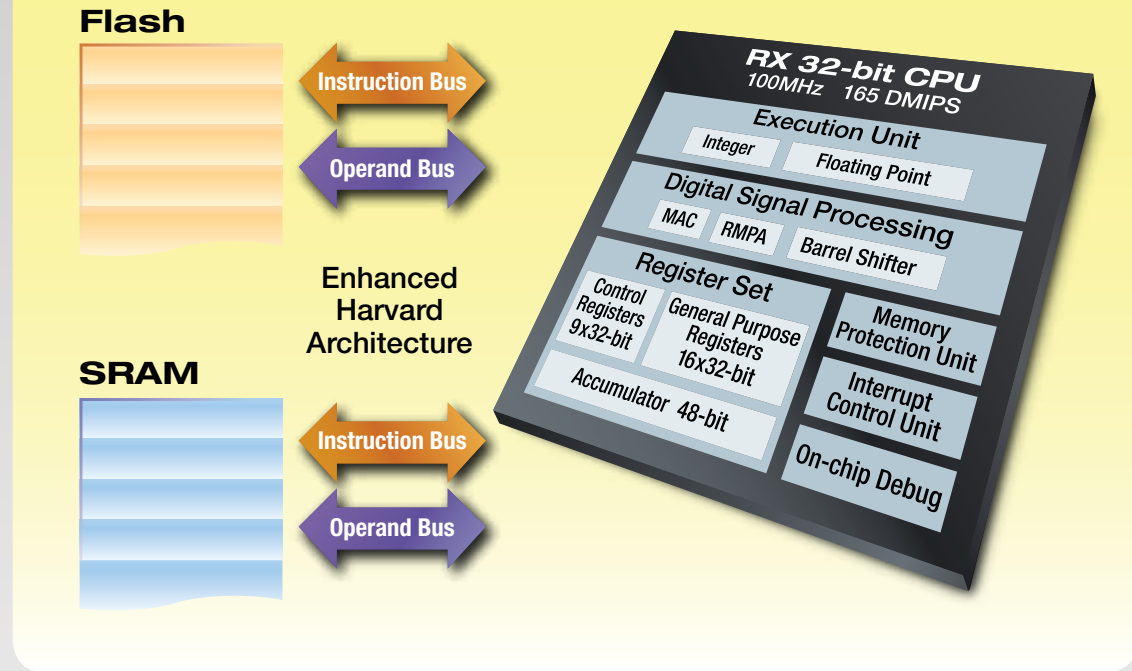
▶ [Press Room](#)

▶ [Product Info](#)

▶ [Get Started](#)

# View Video

Nxtbook please put video player here



Watch the video to learn more about the revolutionary new RX CPU Core.

[CLICK HERE TO PLAY TRAILER](#)

[CLICK HERE TO PLAY FULLVIDEO](#)

[▶ View Video](#)

[▶ Press Room](#)

[▶ Product Info](#)

[▶ Get Started](#)

# Press Room



## Renesas Technology Announces 100MHz 32-bit RX62T Flash MCUs

Enabling the Design of Control Systems for Electric Motors and Inverters that are More Energy-efficient

SAN JOSE, Calif. – March 9, 2010

Renesas Technology America, Inc., today announced the release of the RX62T group of microcontrollers (MCU). The new devices have strong eco-features and deliver the environmental performance now in high demand for motor-control and inverter-control applications. These 100MHz, feature-rich MCUs with no-wait flash memory illustrate how Renesas is using the goals of its corporate 'Green Energy Initiative' to drive chip design in eco-friendly directions. The RX62T devices allow manufacturers of embedded systems to better address the increased importance that buyers of products such as consumer, industrial and HVAC equipment give to energy efficiency. Primary applications span a wide range: solar inverters, air conditioners, washing machines, lighting controllers and power-factor controllers, among many others.

This announcement closely follows the launch of two other RX600 groups: the RX62N and RX621 MCUs, which feature enhanced connectivity capabilities ...

[FOR MORE INFORMATION](#)

## ADD instruction offers 3-operand flexibility in Doctor Micro

*Posted by maurywright Jul 8, 2010*

I'm going to continue with a few more posts that focus on Renesas RX microcontroller (MCU) instructions that really demonstrate the advantages of the CISC architecture. Today let's examine the ADD instruction. The instruction implementation in the RX offers great flexibility in that it supports a variety of addressing modes and even a three-operand format. Moreover there is a code density story as well...

[CLICK HERE FOR MORE INFO](#)

### LINKS

[Press Release: Renesas Technology Expands its Flagship RX Flash MCU Family](#)

[Press Release: Renesas Technology Releases RX610 Group](#)

[32-bit MCU targets efficient motor control](#)

[Low-cost 32-bit MCU yields 1.65 DMIPS/MHz](#)

[Low-power 32-bit MCUs feature 2 Mbytes of fast flash](#)

[▶ View Video](#)

[▶ Press Room](#)

[▶ Product Info](#)

[▶ Get Started](#)

# Product Info

**RX610 Group** — The RX610 Group is built around the X CPU Core and comes equipped with large-capacity memory up to 2MB flash and up to 128KB RAM. The RX610 devices include a variety of general purpose peripherals such as ADC, DAC, SCI, SPI, I2C, and timers. They enable a system to be configured without external memory and with fewer external devices thereby reducing the total cost of the system.

**RX621, RX62N Group** — These groups come with a rich set of communication peripherals such as Ethernet MAC, USB 2.0 full-speed (Host, Device, and OTG), and CAN. They are also equipped with several DMA controllers including a dedicated External DMA controller which can be used to drive a TFT-LCD.

**RX62T Group** — Optimized for motor control and inverter control applications, the RX62T devices include advanced PWM timers and advanced analog-to-digital converter sub-systems with six programmable op amps, six sample/hold circuits, and six window comparators. With one RX62T device, it is possible to drive two three phase motors at the same time.

**RENESAS RX600**

**RX 32-bit CPU**  
100MHz 165 DMIPS

**Memory**

- Zero-wait Flash up to 2MB
- SRAM up to 128KB
- Data Flash up to 32KB

**System**

- DMA & Event System
- Fast Interrupt Handler
- Clock Generation
- POR/LVD

**Analog**

- 12-bit ADC  
Prog Op Amps  
Multi-sample/Hold Comparators
- 10-bit ADC
- 10-bit DAC

**Timers**

- Motor Control  
3-phase PWM  
Dead-time Insertion  
Shunt Control  
PFC, QEI
- Timer Pulse Unit
- Compare/Match Timer
- General Purpose Timer
- Multi-function Timer
- Prog Pulse Generator
- Watchdog Timer
- Real-time Clock

**Communication**

- Ethernet  
10/100  
MAC with DMA
- USB  
12Mbps  
Host/Device/OTG
- CAN
- LIN
- I2C
- SCI/UART
- SPI
- External Bus  
with SDRAM
- GPIO

Chip features:

- Floating Point Unit 32-bit
- Digital Signal Processing
- MAC 48-bit
- RMPA 80-bit
- Barrel Shifter 32-bit

[RX Family Overview](#)

[Application Notes](#)

[Documentation](#)

[Development Tools](#)

[Presentation: Announcing the RX62T Group for Motor Control, the Third Release of Products in the RX Family](#)

[▶ View Video](#)

[▶ Press Room](#)

[▶ Product Info](#)

[▶ Get Started](#)

# Get Started



Getting started with RX is easy. The RX610 Starter Kit comes complete with hardware platform to evaluate RX and begin your development project. The kit also includes the E1 Debugger, trial HEW Integrated Development Environment, and demo firmware.

[CLICK HERE TO ORDER YOUR KIT TODAY.](#)

## Free Downloads Software Library

Find something useful among our 1,000+ FREE sample codes



TCP/IP



DSP Library



Motor Control



Graphics



Audio

Accelerate your development by leveraging FREE Software Libraries from Renesas.

[CLICK HERE TO DOWNLOAD.](#)

[▶ View Video](#)

[▶ Press Room](#)

[▶ Product Info](#)

[▶ Get Started](#)