

## Product Overview:

The SH7216 Series with 32-bit SH-2A CPU core offers a maximum operating frequency of 200 MHz, representing a 1.2x performance over the 160 MHz of Renesas Electronics's existing SH7211 Series. They also include large-capacity high-speed RAM through the use of cutting-edge flash memory technology. Featuring an on-chip power supply step-down circuit, they are designed to achieve lower current dissipation by suppressing the increase in current dissipation associated with high 3.3 V single-power-supply operation while at the high operating frequency of 200 MHz. In addition, the SH7216 Series timer, 12-bit AD converter, LAN controller, USB, and CAN as peripheral functions.

The SH7216 Series lineup consists of the SH7216 Group (with floating-point unit (FPU)) and the SH7214 Group (without

## Key Features:

- High-performance single-chip RISC with SH-2A core
  - 400 MIPS 200 MHz
  - Built-in 32-bit multiplier
  - With floating-point unit (FPU): SH7216 Group
  - Without floating-point unit (FPU): SH7214 Group
- Built-in large-capacity memory
  - ROM 1MB
  - RAM 128KB
- Various peripheral functions
  - Powerful timers: MTU2 (16 bits x 6 ch), MTU2S (16 bits x 3 ch), Compare match timer (CMT) x 2 channels
  - A/D converters (12-bit resolution): 8 ch (4 ch x 2 units)
  - Ether MAC: 1 ch
  - USB 2.0 Function Full-Speed: 1 ch
  - Serial I/F SCI: 4 ch; SCIF: 1 ch
  - RCAN-ET Bosch 2.0B active: 1 ch
  - DTC installed
  - DMAC: 8 ch
  - IIC: 1 ch master/slave mode
  - Bus state controller (BSC)
  - H-UDI/AUD: On-chip debugging functions

## Key Applications:

- Industrial equipment: PLC, General-purpose inverters, AC servos, etc.