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RENESAS
Everywhere you imagine

H8S/2168 Series Microcontrollers

Renesas' H8S/2168 series microcontrollers (MCUs) are widely acknowledged to be the best design choices for implementing IPMI-compliant solutions in server and telecommunication applications. The popular devices provide a wide variety of on-chip peripherals, including six independent multimaster or slave I²C bus controllers, to ensure complete coverage of the IPMI requirements.

On-chip single-cycle flash and SRAM memory, in combination with low power 3.3 V operation and three flash memory size options, enable high performance and low cost IPMI solutions. All major suppliers of IPMI firmware for AdvancedTCA applications support proven H8S/2168 series microcontrollers.

For more information on this or other Renesas products, contact webmaster.america@renesas.com.

Or visit our website, www.renesas.com.

H8S/2000 CPU Core	Serial Interface (3 ch)
	I²C (6 ch)
Flash 256KB/384KB/512KB	H-UDI
	16-bit FRT x1

RAM 40KB	8-bit Timer x4	16-bit Timer x1
3-channel LPC		

85-channel DTC	Watchdog Timer (2 ch)
PWM (4-channel x 14-bit)	PWM (16-channel x 8-bit)
A/D (8-channel x 10-bit)	D/A (2-channel x 8-bit)

115 I/O ports

FEATURES:

■ High performance with low power; typical dissipation is 60 mW operating at 33 MHz and 3.3 V

■ Pin-compatible versions with 256 KB, 384 KB, or 512 KB of on-chip, single-cycle-access flash-enabled design flexibility

■ On-chip 40 KB single-cycle-access SRAM enables optimum performance

■ Six independent 400 kHz I²C (multimaster/slave) bus controllers can automatically generate start/stop conditions

■ Three low-pin-count channels support I/O read/write mode and have independently programmable 16-bit addresses

■ LPC Channel 3 has independent 64-byte transmit and receive buffers and supports KCS, BT, and SMIC modes

■ Three channels of async or synchronous serial communication controllers, each with built-in baud rate generators

■ Eight channels of 10-bit A/D and two channels of 8-bit D/A enable monitoring and controlling of system variables

■ Two watchdog timers and 8-, 14-, and 16-bit general purpose timers permit control of time-critical system functions

■ External 16-bit bus expansion can be used to access or interface to off-chip memory or peripheral functions

■ Built-in, high-level User Debug Interface (UDI) eases system debugging and integration in complex systems

■ JTAG boundary scan capability facilitates testing for high reliability