

• Specifications (H8S/2600 Series)

Group		H8S/2612						H8S/2630						H8S/2636																
Memory	ROM (Bytes)	64K			128K			384K						128K																
	RAM (Bytes)	4K						16K						4K																
	ROM Type*1	M			F			M			F		M																	
	Program Security	—			Yes (H/W Protect, S/W Protect, Error Protect)			—			Yes (H/W Protect, S/W Protect, Error Protect)		—																	
CPU	CPU	H8S/2600 Core																												
	Basic Instructions	69																												
	Minimum Instruction Execution Time (ns)	50 (@20MHz)																												
	Multiplier	16 × 16 → 32																												
DMA	Multiply-Accumulate Instruction	16 × 16 + 42 → 42																												
	DMAC (Channels)	—																												
	EXDMAC	—																												
	DTC/DMAC II	DTC	—	DTC	—	DTC																								
External Bus Expansion	Address Space (Bytes)	16M																												
	Bus State Controller	—						Direct connection to SRAM/ROM is supported																						
	Bus Structure	—						Separate bus (8/16-bit)																						
	SDRAM Controller	—																												
	DRAM Controller	—																												
Clock	Host Interface	—																												
	Clock Generation Circuit	1 circuit (Main clock)						2 circuits (Main clock, Sub clock)				1 circuit (Main clock)		2 circuits (Main clock, sub clock)		1 circuit (Main clock)														
	PLL	Yes (× 1, × 2, × 4)																												
	Subclock	—						Yes				—		Yes		—														
	RTC	—						Yes (WDT for watch)				—		Yes (WDT for watch)		—														
	Frequency Divider	—						1/n (n = 1, 2, 4, 8, 16, 32)																						
A/D Converter	Resolution × Channels	10-bit × 12																												
	Sample and Hold	Yes																												
	Resolution × Channels	—						8-bit × 2																						
	8-bit	—																												
	16-bit	6 (TPU)																												
	32-bit	—																												
Timer	Input Capture	6 (shared with TPU)																												
	Output Compare	6 (shared with TPU)																												
	PWM Output	7 (shared with 1 (MMT) + 6 (TPU))	6 (shared with TPU)	7 (shared with 1 (MMT) + 6 (TPU))	6 (shared with TPU)	7 (shared with 1 (MMT) + 6 (TPU))	8 (shared with 2 (PWM) + 6 (TPU))																							
	Real-Time Port	—																												
	Programmable Pulse Generator	8 (shared with TPU + PPG)	—	8 (shared with TPU + PPG)	—	8 (shared with TPU + PPG)																								
	Event Counter	4 (shared with TPU)																												
Watchdog Timer	2-Phase Encoder Input	2 (shared with TPU)																												
	Serial Interface	1						2																						
	PC-bus	—						3				2		—																
	IEBus	—																												
	Smart Card/SIM	3																												
	Synchronous Serial Communication Unit/Special Serial I/O	—																												
CAN	Channels	1						2																						
	Message Box (Numbers)	16 × 1						16 × 2																						
Ethernet	—																													
USB Function	—																													
LPC/ISA	—																													
IrDA	—																													
LCD	—																													
CRC Calculation Circuit	Input Only (Numbers)	12																												
	CMOS Output Only (Numbers)	—																												
	CMOS I/O (Numbers)	44						72																						
	High Voltage Port (Numbers)	—																												
	N-Channel Open Drain Port (Numbers)	20						26																						
	DTMF	—																												
I/O Ports	High Current Drive Port	—						16																						
	Pull-Up Resistor	28						36																						
	NMOS Push-Pull	—						2				—		2		—														
	External Interrupts Pins	7 (NMI + IRQ (6))																												
	Boundary Scan/JTAG	—																												
	On-Chip Debug	Yes (PC break)	—	Yes (PC break)	—	Yes (PC break)																								
Other Functions	On-Board Flash Program	—						Yes				—		Yes		—														
	ROM Correction Function	—																												
Operating Frequency/Supply Voltage	Others	MMT (× 1)	—	MMT (× 1)	—	MMT (× 1)	10-bit PWM Timer (× 2)																							
	Operating Ambient Temperature (°C)	20MHz/4.5 to 5.5V																												
Package*2		PRQP0080JD-A						-20 to 75																						
		PRQP0128KB-A																												
Part No.		HD6432611XXXFA		HD6432614XXXFA		HD6432612XXXFA		HD6432616XXXFA		HD64F2612FA20V		HD64F2630F20V		HD64F2630UF20V		HD64F2630WF20V		HD6432630UXXF		HD6432630WXXF		HD6432630XXF		HD64F2636F20V		HD64F2636UF20V		HD6432636UXXF		HD6432636XXF

*1 F : Flash memory version, L : ROM-less version, M : Mask ROM version, O : One time PROM version, Qz : QzROM version
 *2 Please refer to "Package Code and Size Table" in the end of this catalog for the previous code

★ : New product ★★ : Under development