

Microcontroller Overview

Family	Family Device	CPU bit-Size	Internal max. Speed (MHz)	Address Space (Bytes)	External Data-Bus Size (bit)	Supply Voltage (V)	Package	ROM (Bytes)	RAM (Bytes)	EPROM	ZTAT®	Flash (Bytes)	I/O Pins	32-bit Timer	16-bit Timer	8-bit Timer	PWM Timer	Watch-dog	SCI	A/D Converter (bit, channel)	D/A Converter (bit, channel)	DMAC (channel)	ITU / IPU (channel)	TPC (bit)	Interrupts (internal, external)	Others
H8/300	H8/3101	8	5	64 k	-	4,5 - 5,5	Chip, COB	10 k ROM + 8 k EEPROM	256	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	8k EEPROM, security function, low supply current
H8/300	H8/3102	8	5	64 k	-	2,7 ; 5,5	Chip, COB	16 k ROM + 8 k EEPROM	512	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	8k EEPROM, security function, 3 V operation
H8/300	H8/322	8	10	64 k	8	4,5 - 5,5	DP-64S, FP-64A, CP-68	8 k	256	yes	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/323	8	10	64 k	8	4,5 - 5,5	DP-64S, FP-64A, CP-68	16 k, ROM-less	512	yes	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/324	8	10	64 k	8	4,5 - 5,5	DP-64S, FP-64A, CP-68	24 k	1 k	-	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/325	8	10	64 k	8	4,5 - 5,5	DP-64S, FP-64A, CP-68	32 k, ROM-less	1 k	yes	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/3256	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, CP-68	48 k	2 k	yes	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/3257	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, CP-68	60 k	2 k	yes	yes	-	53	-	1	2	-	-	2	-	-	-	-	-	17, 4	parallel handshake interface
H8/300	H8/326	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, CP-68	8 k	256	-	-	-	51	-	1	2	-	-	1	8, 8	-	-	-	-	18, 4	
H8/300	H8/327	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, CP-68	16 k	512	yes	yes	-	51	-	1	2	-	-	1	8, 8	-	-	-	-	18, 4	

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H8/300	H8/328	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, CP-68	24 k	1 k	-	-	-	51	-	1	2	-	-	1	8, 8	-	-	-	-	18, 4	
H8/300	H8/329	8	10	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, DC-64S, CP-68	32 k	1 k	yes	yes	-	51	-	1	2	-	-	1	8, 8	-	-	-	-	18, 4	
H8/300	H8/3292	8	16	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, TFP-80C	16 k	512	-	-	-	51	-	1	2	-	1	1	10, 8	-	-	-	-	19, 4	
H8/300	H8/3294	8	16	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, TFP-80C	32 k	1 k	-	yes	-	51	-	1	2	-	1	1	10, 8	-	-	-	-	19, 4	
H8/300	H8/3296	8	16	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, TFP-80C	48 k	2 k	-	-	-	51	-	1	2	-	1	1	10, 8	-	-	-	-	19, 4	
H8/300	H8/3297	8	16	64 k	8	4,5 - 5,5; 2,7 - 5,5	DP-64S, FP-64A, TFP-80C	60 k	2 k	-	yes	-	51	-	1	2	-	1	1	10, 8	-	-	-	-	19, 4	
H8/300	H8/330	8	10	64 k	8	2,7 - 5,5	FP-80A, CP-84, CG-84	16 k, ROM-less	512	yes	yes	-	66	-	1	2	2	-	1	8, 8	-	-	-	-	19, 9	15-byte dual port RAM
H8/300	H8/3334Y	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80, TFP-80, PC-84, CG-84	32 k	1 k	yes	yes	-	66	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Controller; Host Interface, I <sup>2</sup> C-Bus
H8/300	H8/3334YF	8	16	64 k	8	4,5 - 5,5	FP-80A, CP-84, TFP-80C	-	1 k	-	-	32 k	66	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Controller; Host Interface, I <sup>2</sup> C-Bus

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H8/300	H8/3336Y	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80, TFP-80, PC-84, CG-84	48 k	2 k	-	-	-	66	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Controller; Host Interface, I <sup>2</sup> C- Bus
H8/300	H8/3337Y	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80, TFP-80, PC-84, CG-84	60 k	2 k	yes	yes	-	66	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Controller; Host Interface, I <sup>2</sup> C- Bus
H8/300	H8/336	8	10	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, CP-84	24 k	1 k	-	-	-	66	-	1	2	2	-	2	8, 8	8, 2	-	-	-	22, 9	
H8/300	H8/337	8	10	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, CP-84, CG-84	32 k	1 k	yes	yes	-	66	-	1	2	2	-	2	8, 8	8, 2	-	-	-	22, 9	
H8/300	H8/338	8	10	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, CP-84, CG-84	48 k	2 k	yes	yes	-	66	-	1	2	2	-	2	8, 8	8, 2	-	-	-	22, 9	
H8/300	H8/3394	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, TFP-80C, CP-84,	32 k	1 k	-	-	-	66	-	1	2	2	1	2	10, 8	-	-	-	-	26, 9	
H8/300	H8/3396	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, TFP-80C, CP-84,	48 k	2 k	-	-	-	66	-	1	2	2	1	2	10, 8	-	-	-	-	26, 9	
H8/300	H8/3397	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, TFP-80C, CP-84,	60 k	2 k	-	-	-	66	-	1	2	2	1	2	10, 8	-	-	-	-	26, 9	
H8/300	H8/3434	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-100B, TFP-100B	32 k	1 k	-	yes	-	82	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Control, Host Interface, I <sup>2</sup> C- Bus
H8/300	H8/3434F	8	16	64 k	8	4,5 - 5,5	FP-100B, TFP-100B	-	1 k	-	-	32 k	82	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Control, Host Interface, I <sup>2</sup> C- Bus

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H8/300	H8/3436	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-100B, TFP-100B	48 k	2 k	-	-	-	82	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Control, Host Interface, I <sup>2</sup> C-Bus
H8/300	H8/3437	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-100B, TFP-100B	60 k	2 k	-	yes	-	82	-	1	2	2	1	2	10, 8	8, 2	-	-	-	26, 9	Keyboard Control, Host Interface, I <sup>2</sup> C-Bus
H8/300	H8/3292	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	DP-64S, FP-64A, TFP-80C,	16 k	512	-	-	-	51	-	1	2	-	1	1	10, 8	-	-	-	-	19, 4	Wait State Controller
H8/300	H8/3334Y	8	16	64 k	8	4,5 - 5,5; 2,7 - 3,6	FP-80A, TFP-80C, CP-84	32 k	1 k	-	-	-	66	-	1	2	2	1	2	10, 8	-	-	-	-	26, 9	
H8/300H	H8/3001	16	16	16 M	8;16	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	ROM-less	512	-	-	-	32	-	5	-	5	-	1	10, 4	-	-	5	12	20, 4	
H8/300H	H8/3002	16	16	16 M	8;16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	ROM-less	512	-	-	-	46	-	5	-	5	1	2	10, 8	-	4	5	-	30, 7	refresh controller
H8/300H	H8/3003	16	16	16 M	8;16	4,5 - 5,5; 2,7 - 5,5	FP-112	ROM-less	512	-	-	-	58	-	5	-	5	1	2	10, 8	-	8	5	-	34, 9	refresh controller
H8/300H	H8/3004	16	16	16 M	8	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	ROM-less	2 k	-	-	-	32	-	5	-	5	1	1	10, 8	-	-	5	16	21, 6	
H8/300H	H8/3005	16	16	16 M	8	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	ROM-less	4k	-	-	-	32	-	5	-	5	1	1	10, 8	-	-	5	16	21, 6	
H8/300H	H8/3030	16	16	1 M	8	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	16 k	512	-	-	-	63	-	5	-	5	1	1	10, 8	-	-	5	16	21, 6	

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H8/300H	H8/3031	16	16	1 M	8	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	32 k	1 k	-	-	-	63	-	5	-	5	1	1	10, 8	-	-	5	16	21, 6	
H8/300H	H8/3032	16	16	1 M	8	4,5 - 5,5; 2,7 - 5,5	FP-80A, TFP-80C	64 k	2 k	-	yes	-	63	-	5	-	5	1	1	10, 8	-	-	5	16	21, 6	
H8/300H	H8/3040	16	16	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	32 k	2 k	-	-	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller
H8/300H	H8/3041	16	16	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	48 k	2 k	-	-	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller
H8/300H	H8/3042	16	16	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	64 k	2 k	-	yes	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller
H8/300H	H8/3044	16	18	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	32 k	2 k	-	-	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller, smart card I/F
H8/300H	H8/3045	16	18	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	64k	2k	-	-	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller, smart card I/F
H8/300H	H8/3047	16	18	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	96 k	4 k	-	-	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller, smart card I/F
H8/300H	H8/3048	16	18	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	128 k	4 k	-	yes	-	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller, smart card I/F
H8/300H	H8/3048F	16	16	16 M	8; 16	4,5 - 5,5; 2,7 - 5,5	FP-100B, TFP-100B	-	4 k	-	-	128 k	78	-	5	-	5	1	2	10, 8	8, 2	4	5	16	30, 7	refresh controller, smart card I/F

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H8/300L	H8/3612	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	16 k	512	-	-	-	54	-	-	5	-	-	2	8, 8	-	-	-	-	9, 6	
H8/300L	H8/3613	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	24 k	1 k	-	-	-	54	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	
H8/300L	H8/3614	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	32 k	1 k	yes	yes	-	54	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	
H8/300L	H8/3712	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	16 k	384	-	-	-	54	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (24 Seg. x 16 Dig.)
H8/300L	H8/3713	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	24 k	384	-	-	-	54	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (24 Seg. x 16 Dig.)
H8/300L	H8/3714	8	4,19	64 k	-	2,7 - 5,5	DP-64S, FP-64A	32 k	512	yes	yes	-	54	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (24 Seg. x 16 Dig.)
H8/300L	H8/3723	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	24 k	384	-	-	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3724	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	32 k	512	yes	yes	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3725	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	40 k	640	-	-	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3726	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	48 k	1 k	yes	yes	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3753	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	24 k	1 k	-	-	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3754	8	4,19	64 k	-	2,7 - 5,5	FP-80A, FP-80B	32 k	1 k	-	-	-	70	-	-	5	1	-	2	8, 8	-	-	-	-	9, 6	VFD Controller, (28 Seg. x 16 Dig.)
H8/300L	H8/3812	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	16 k	512	-	-	-	84	-	1	2	-	-	2	8, 12	-	-	-	-	16, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3813	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	24 k	512	-	-	-	84	-	1	2	-	-	2	8, 12	-	-	-	-	16, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3814	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	32 k	512	-	-	-	84	-	1	2	-	-	2	8, 12	-	-	-	-	16, 13	LCD Controller, (40 Seg. x 4 Com.), ROM 16k-32kB

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H8/300L	H8/3814U	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	32 k	512	-	-	-	84	-	1	2	-	-	2	8, 12	-	-	-	-	16, 13	see H8/3814 ; low voltage ADC
H8/300L	H8/3833	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	24 k	1 k	-	-	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3834	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	32 k	1 k	yes	yes	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20, 13	LCD Controller, (40 Seg. x 4 Com.), ROM 24k-60kB, RAM 1k-2kB
H8/300L	H8/3834U	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	32 k	1 k	yes	yes	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20,13	see H8/3834 ; low voltage ADC
H8/300L	H8/3835	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	40 k	2 k	-	-	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3836	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	48 k	2 k	-	-	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3837	8	5	64 k	-	2,7 - 5,5	FP-100A, FP-100B	60 k	2 k	yes	yes	-	84	-	1	4	1	-	3	8, 12	-	-	-	-	20, 13	LCD Controller, (40 Seg. x 4 Com.)
H8/300L	H8/3875	8	5	64 k	-	2,7 - 5,5	FP-100B	40 k	2 k	-	-	-	80	-	1	2	-	-	2	8, 8	-	-	-	-	17, 14	LCD Controller, (52 Seg. x 4 Com.), DTMF Generator
H8/300L	H8/3876	8	5	64 k	-	2,7 - 5,5	FP-100B	48 k	2 k	-	-	-	80	-	1	2	-	-	2	8, 8	-	-	-	-	17, 14	LCD Controller, (52 Seg. x 4 Com.), DTMF Generator
H8/300L	H8/3877	8	5	64 k	-	2,7 - 5,5	FP-100B	60 k	2 k	yes	yes	-	80	-	1	2	-	-	2	8, 8	-	-	-	-	17, 14	LCD Controller, (52 Seg. x 4 Com.), DTMF Generator, ROM 60kB-40kB

Microcontroller Overview

Family	Family Device	CPU bit-Size	Internal max. Speed (MHz)	Address Space (Bytes)	External Data-Bus Size (bit)	Supply Voltage (V)	Package	ROM (Bytes)	RAM (Bytes)	EPROM	ZTAT®	Flash (Bytes)	I/O Pins	32-bit Timer	16-bit Timer	8-bit Timer	PWM Timer	Watch-dog	SCI	A/D Converter (bit, channel)	D/A Converter (bit, channel)	DMAC (channel)	ITU / IPU (channel)	TPC (bit)	Interrupts (internal, external)	Others
H8/300L	H8/3877U	8	5	64 k	-	2,7 - 5,5	FP-100B	60 k	2 k	yes	yes	-	80	-	1	2	-	-	2	8, 8	-	-	-	-	17, 14	see H8/3877 ; low voltage ADC
H8/300L	H8/3924	8	5	64 k	-	2,7 - 5,5	FP-100B	32 k	1 k	-	-	-	68	-	2	7	1	1	2	8, 8	8, 4	-	-	-	23, 13	
H8/300L	H8/3925	8	5	64 k	-	2,7 - 5,5	FP-100B	40 k	1 k	-	-	-	68	-	2	7	1	1	2	8, 8	8, 4	-	-	-	23, 13	
H8/300L	H8/3926	8	5	64 k	-	2,7 - 5,5	FP-80B, TFP-80F	48 k	1 k	-	-	-	68	-	2	7	1	1	2	8, 8	8, 4	-	-	-	23, 13	
H8/300L	H8/3927	8	5	64 k	-	2,7 - 5,5	FP-80B, TFP-80F	60 k	1 k	yes	yes	-	68	-	2	7	1	1	2	8, 8	8, 4	-	-	-	23, 13	
H8/300L	H8/3945	8	5	64 k	-	2,7 - 5,5	FP-100A	40 k	2 k	-	-	-	86	-	-	8	8	-	1	8, 12	-	-	-	-	24, 14	2 x I <sup>2</sup> C-Bus Interface
H8/300L	H8/3946	8	5	64 k	-	2,7 - 5,5	FP-100A	48 k	2 k	-	-	-	86	-	-	8	8	-	1	8, 12	-	-	-	-	24, 14	2 x I <sup>2</sup> C-Bus Interface
H8/300L	H8/3947	8	5	64 k	-	2,7 - 5,5	FP-100A	60 k	2 k	yes	yes	-	86	-	-	8	8	-	1	8, 12	-	-	-	-	24, 14	2 x I <sup>2</sup> C-Bus Interface
H8/500	H8/510	16	10	16 M	8; 16	3,0 - 5,5	FP-112	ROM-less	-	-	-	-	60	-	2	1	-	1	2	10, 4	-	DTC	-	-	18, 5	refresh controller
H8/500	H8/520	16	10	1 M	8	4,5 - 5,5	DP-64S, DC-64S, FP-64A, CP-68	16 k	512	yes	yes	-	50; 54	-	2	1	-	1	2	10, 4; 10, 8	-	DTC	-	-	18, 9	
H8/500	H8/532	16	10	1 M	8	4,5 - 5,5	CG-84, CP-84, FP-80A	32 k	1 k	yes	yes	-	65	-	3	1	3	1	1	10, 8	-	DTC	-	-	19, 3	
H8/500	H8/534, H8/534S, H8/534U	16	10; 16	1 M	8	4,5 - 5,5; 2,7 - 5,5; 4,5 - 5,5	CG-84, CP-84, FP-80A, TFP-80C	32 k	2 k	yes	yes	-	65	-	3	1	3	1	2	10, 8	-	DTC	-	-	23, 7	
H8/500	H8/536, H8/536S, H8/536U	16	10; 16	1 M	8	4,5 - 5,5; 2,7 - 5,5; 4,5 - 5,5	CG-84, CP-84, FP-80A, TFP-80C	62 k	2 k	yes	yes	-	65	-	3	1	3	1	2	10, 8	-	DTC	-	-	23, 7	

Microcontroller Overview

Family	Family Device	CPU bit-Size	Internal max. Speed (MHz)	Address Space (Bytes)	External Data-Bus Size (bit)	Supply Voltage (V)	Package	ROM (Bytes)	RAM (Bytes)	EPROM	ZTAT®	Flash (Bytes)	I/O Pins	32-bit Timer	16-bit Timer	8-bit Timer	PWM Timer	Watch-dog	SCI	A/D Converter (bit, channel)	D/A Converter (bit, channel)	DMAC (channel)	ITU / IPU (channel)	TPC (bit)	Interrupts (internal, external)	Others
H8/500	H8/537	16	16	1 M	8	4,5 - 5,5; 2,7 - 5,5	CG-84, CP-84, FP-80A, TFP-80C	124 k	4 k	yes	yes	-	65	-	3	1	3	1	2	10, 8	-	DTC	-	-	23, 7	
H8/500	H8/538	16	10	1 M	8;16	4,5 - 5,5	FP-112	60 k	2 k	-	yes	-	86	-	7	-	-	1	2	10, 12	-	DTC	7	-	39, 5	
H8/500	H8/538F	16	16	1 M	8;16	4,5 - 5,5; 2,7 - 5,5	FP-112, TFP-120	-	2 k	-	-	60 k	86	-	7	-	-	1	2	10, 12	-	DTC	7	-	39, 5	
H8/500	H8/539	16	16	1 M	8;16	4,5 - 5,5; 2,7 - 5,5	FP-112	128 k	4 k	-	yes	-	86	-	7	-	3	1	3	10, 12	-	DTC	7	-	39, 5	hardware multiply
H8S	H8/2655	16	20	16M	8;16	2,7 - 5,5	TFP-120, FP-128	128 k	4 k	-	yes	-	95	-	6	2	6	1	3	10, 8	8,2	4 + DT C	6	16	52,9	available in 2nd half '96
SH7000	SH7020	32	20	128M	8;16	4,5 - 5,5; 3,0 - 5,5	TFP-100	16 k	1 k	-	-	-	40	-	5	-	-	1	2	-	-	4	5	16	30, 9	32-bit RISC CPU, 16 MIPS, Bus State Controller, Multiply and Accumulate
SH7000	SH7021	32	20	128M	8;16	4,5 - 5,5; 3,0 - 5,5	TFP-100	32 k ; ROM-less	1 k	-	yes	-	40	-	5	-	-	1	2	-	-	4	5	16	30, 9	32-bit RISC CPU, 16 MIPS, Bus State Controller, Multiply and Accumulate
SH7000	SH7032	32	20	128M	8;16	4,5 - 5,5; 3,0 - 5,5	FP-112, TFP-120	ROM-less	8 k	-	-	-	40	-	5	-	-	1	2	10, 8	-	4	5	16	31, 9	32-bit RISC CPU, 16 MIPS, Bus State Controller, Multiply and Accumulate
SH7000	SH7034	32	20	128M	8;16	4,5 - 5,5; 3,0 - 5,5	FP-112	64 k	4 k	-	yes	-	40	-	5	-	-	1	2	10, 8	-	4	5	16	31, 9	32-bit RISC CPU, 16 MIPS, Bus State Controller, HW Multiply and Accumulate

Microcontroller Overview

Family	Family Device	CPU bit-Size	Internal max. Speed (MHz)	Address Space (Bytes)	External Data-Bus Size (bit)	Supply Voltage (V)	Package	ROM (Bytes)	RAM (Bytes)	EPROM	ZTAT®	Flash (Bytes)	I/O Pins	32-bit Timer	16-bit Timer	8-bit Timer	PWM Timer	Watch-dog	SCI	A/D Converter (bit, channel)	D/A Converter (bit, channel)	DMAC (channel)	ITU / IPU (channel)	TPC (bit)	Interrupts (internal, external)	Others												
SH7600	SH7604	32	28,7	128 M	8; 16; 32	4,5 - 5,5; 3,0 - 5,5	FP-144A	ROM-less	4 k unified cache	-	-	-	-	-	1	-	-	1	1	-	-	2	1	-	12, 5	32-bit RISC CPU, 25 MIPS, 4 kbytes 4-way Cache, Bus State Controller, HW Multiply and Accumulate, Divider, PLL, SDRAM I/F												
SH7700	SH7702	32	45	4G	8; 16; 32	3,0 - 3,6	TFP-120	ROM-less	2k unified cache	-	-	-	8	3	-	-	-	-	1	-	-	-	-	-	5,5	32-bit RISC CPU, MMU, 45 MIPS, PCMCIA I/F, 2 k Cache, MAC, PLL, RTC												
SH7700	SH7708	32	60	4G	8; 16; 32	1,8 - 3,0	FP-144A	ROM-less	8 k unified cache	-	-	-	8	3	-	-	-	-	1	-	-	-	-	-	5,5	32-bit RISC CPU, MMU, 60 MIPS, PCMCIA I/F, 8 k Cache, MAC, PLL, RTC												
		Abbreviations:																																				
													ZTAT®: Zero Turn Around Time = OTP (One-Time Programmable ,EPROM without Window)													SCI: Serial Communication Interface												
													ITU / IPU: Integrated Timer Pulse Unit (H8/300H / H8/500, SH)													DMAC: Direct Memory Access Controller												
													TPC: Timing Pattern Controller													DTC: Data Transfer Controller												