



## Microcontrollers

### SuperH™ Family SH-3/SH-4/SH-4A Series (Cont.)

Memory Type	ROM Bytes	Data Flash Bytes	RAM Bytes	A/D	D/A	Serial Communication	Timers 8/16/32	GPIO	Operating Frequency/Supply Voltage	Temperature	Package	Digi-Key Part No.	Price Each																																																																																																																
													1	25	100																																																																																																														
ROMless	—	—	—	—	—	1 UART, Smart Card	—/—/5	29	240MHz/1.5 - 3.3V 240MHz/1.5 - 3.3V	-20°C - 75°C	256-BGA 208-QFP	HD6417750RBP240-ND HD6417750RPF240-ND	38.63 34.86	36.05 32.54	33.48 30.22																																																																																																														
																4-ch. 10-bit	3 UART, 2 I <sup>2</sup> C, Smart Card, 2 CAN, USB	—/—/3	69	200MHz/2.0 - 3.3V	-20°C - 75°C	256-BGA	D6417751RBP200DV-ND	49.22	45.94	42.66																																																																																																			
																											32K	I <sup>2</sup> C, SCI, USB	—/2/—	86	200MHz/2.0 - 3.3V	-20°C - 70°C	256-BGA	R5S76700B200BG-ND <b>NEW!</b>	18.30	17.08	15.86																																																																																								
																																						16K	4-ch. 10-bit	2-ch. 8-bit	I <sup>2</sup> C, SCI, SIO, SSI, USB	—/4/6	107	499-BGA	R5S77631Y266BGV-ND <b>NEW!</b>	52.49	48.99	45.49																																																																													
																																																	16K	—	—	I <sup>2</sup> C, SSU*, Ethernet/USB	—/—/6	77	404-BGA	R5S77640N300BG-ND	49.13	45.85	42.58																																																																		
																																																												16K	4-ch. 10-bit	2-ch. 8-bit	I <sup>2</sup> C, SCI, SIO, SSI, USB	—/4/6	107	256-CSP	R8A77210C133BAV-ND <b>NEW!</b>	30.15	28.14	26.13																																																							
																																																																							148K	—	—	4 USART, 1 I <sup>2</sup> C, Smart Card, 2 SSU, USB, IrDA	—/4/3	99	417-BGA	R8A77220AC266BAV-ND	35.36	33.00	30.65																																												
																																																																																		16K	4 ch. 10-bit	—	SCI, SSU, USB, IrDA	—/4/6	162	449-BGA	R8A77230C400BG#U0-ND <b>NEW!</b>	75.50	70.47	65.43																																	
																																																																																													16K	—	—	2 USART SCI, SIO, SPI, SSI	—/4/6	75	449-BGA	R8A77800ANBGAV-ND R8A77800BNBGV-ND <b>NEW!</b>	75.00 88.13	70.00 82.25	65.00 76.38																						
																																																																																																								128K	—	—	7 USART	—/—/7	109	436-BGA	R8A77850ADBGF#RD0Z-ND	68.75	64.17	59.58											
																																																																																																																			8K	—	—	SCI, SIO, SPI, SSI	—/—/7	108	449-BGA	R8A77850BDBGF#RD0Z-ND <b>NEW!</b>	120.00	112.00	104.00

◆ RoHS Compliant \*SSU = SPI®

## Tools

Description	Digi-Key Part No.	Price Each
<b>Keys — Evaluation, Development, and Starter</b>		
Development Evaluation Kit H8SX/1657	3DK1657-ND	270.00
Development Evaluation Kit H8S/2218	3DK2218-ND	418.25
Development Evaluation Kit H8S/2218	3DK2218-SS-ND	1020.00
Development Evaluation Kit H8/38076R	3DK38076-ND	267.68
Development Evaluation Kit H8/38086R	3DK38086R-ND	235.20
Development Evaluation Kit H8S/2215	EDK2215-ND	366.24
Development Evaluation Kit H8S/2215	EDK2215R-ND	403.20
Development Evaluation Kit H8S/2239	EDK2239-ND	366.24
Development Evaluation Kit H8S/2282	EDK2282-ND	366.24
Development Evaluation Kit H8S/2329	EDK2329-ND	319.20
Development Evaluation Kit H8S/2378	EDK2378-ND	504.00
Development Evaluation Kit H8S/2398	EDK2398-ND	504.00
Development Evaluation Kit H8S/2638	EDK2638-ND	504.00
Development Evaluation Kit H8/3069	EDK3069-ND	588.00
Development Evaluation Kit H8/3687	EDK3687-ND	341.04
Development Evaluation Kit SH7145	EDK7145-ND	403.20
Development Evaluation Kit H8S/2674	EDOSK2674-ND	261.80
Flash Programmer	FDM-ND	504.00
Development H8 HEW and E10A	HEWH8E10A-ND	1434.71
Development E10A-USB 14-pin Cable	HS0005PUU01H-ND	147.36
Development Evaluation Kit M16C/26A	OSK26A-ND	54.81
Development Evaluation Kit for M16C/62P	OSK62P-ND	54.81
Development Add-On Board RSK38347	ROK0APPBDB010BE-ND	252.00
Development RSK Add-On Board Ethernet and USB	ROK0APPBDB020BE-ND	546.00
Development Evaluation Kit M16C/26A	ROK33026AS000BE-ND	270.00
Development Evaluation Kit M16C/29	ROK33029S000BE-ND	270.00
Development Evaluation Kit M16C/6NK	ROK3306NK001BE-ND	252.00
Development Evaluation Kit M16C/62P	ROK33062P000BE-ND	270.00
Development Evaluation Kit M37542	ROK337542S000B#ES-ND	252.00
Development Evaluation Kit H8S/2215R	ROK42215R000BE-ND	252.00
Development Evaluation Kit H8/38099	ROK438099S000BE-ND	252.00
Development Evaluation Kit H8/38347	ROK438347S000BE-ND	252.00
Development Evaluation Kit R8C/1B	ROK5211B4S000BE-ND	252.00
Development Evaluation Kit R8C/13	ROK521134S000BE-ND	270.00
Development Evaluation Kit R8C/23	ROK521237S000BE-ND	270.00
Development Evaluation Kit R8C/25	ROK521256S000BE-ND	270.00
Development Evaluation Kit R8C/26-29	ROK521276S000BE-ND	252.00
Development Evaluation Kit H8SX/1582F	ROK561582S000BE-ND	270.00
Development Evaluation Kit H8S/1664F	ROK561664S000BE-ND	252.00
Development Evaluation Kit R8C/2D	ROK5212D8S000BE-ND	252.00
Development Evaluation Kit SH7086	ROK570865S000BE-ND	336.00
Development Evaluation Kit SH7124	ROK571242S000BE-ND	270.00
Development Evaluation Kit SH7203	ROK572030S000BE-ND	1554.00
Development Evaluation Kit CAN R8C/23	RCDK8C-ND	588.00
Demo Kit ZigBee 2.4GHz	RZB-CC16C-ZDK-ND	1275.00
Development Evaluation Kit ZigBee 2.4GHz	RZB-CC28FC-BRD-ND	286.88
Demo Kit ZigBee ZMD 900MHz	RZB-ZMD16C-ZDK-ND	1190.00
Development Evaluation Kit H8/38024	SKP38024-ND	127.50
Development Evaluation Kit H8/38602R	SKP38602-ND	127.50
Development Evaluation Kit H8/36077	SKP36077-ND	154.56
Development Evaluation Kit H8S/2612	US2612EDK1-ND	366.24
Development Evaluation Kit H8S/2623	US2623EDK1-ND	693.84
Development Evaluation Kit H8/3068	US3068EDK1-ND	676.20
Development Evaluation Kit R8C/SPB	YR8CSPB-ND	94.53
Development Evaluation Kit H8C/2378	YLCDRSK2378-ND <b>NEW!</b>	924.00
Starter Kit M32C/87	ROK330879S0001BE-ND <b>NEW!</b>	252.00
<b>Software</b>		
C Compiler H8 1 User	RTA-HEWH8-1U-ND	1363.25
C Compiler M16C 1 User	RTA-HEWNC30-1U-ND	1363.25
C Compiler M16C 1 User LAN	RTA-HEWNC30-1UL-ND	1734.79
C Compiler M32C 1 User	RTA-HEWNC308-1U-ND	1363.25
C Compiler M32C 1 User LAN	RTA-HEWNC308-1UL-ND	1734.79
C Compiler SH 1 User	RTA-HEWSH-1U-ND	2893.25
C Compiler SH 1 User LAN	RTA-HEWSH-1UL-ND	2891.30
<b>Emulators</b>		
Development Emulator Base Unit H8S/2100	E62140-ND	8658.30
Development Emulator Base Unit H8S/2300	E62339-ND	9904.50
Development Emulator Base Unit H8S/2633	E62633R-ND	9336.60
Development Emulator Base Unit H8S/2678	E62678R-ND	11299.50
Development Emulator Base Unit H8/3064	E63064R-ND	9647.82

Description	Digi-Key Part No.	Price Each
Development Emulator Base Unit H8/300L	E63800-ND	7734.22
On Chip Debug Emulator	HS0005KU01H-ND	1474.00
On Chip Debug Emulator with Trace	HS0005KU02H-ND	2430.00
On Chip Debug Emulator E10A Lite	HS0005KU11H-ND	900.00
Emulator Base Unit H8S/2168	HS2168PEI6H-ND	8299.20
Emulator Base Unit H8S/2214	HS2214EPI62H-ND	7710.00
Emulator Base Unit H8/3664	HS3664EPI62H-ND	5910.00
Compact Emulator for M16C/26A/28/29	M30290T2-CPE-ND	1620.00
Compact Emulator for M16C/Tiny	M30290T2-CPE-HP-ND	1829.23
Compact Emulator for M16C/26A/28/29	M3062PT3-CPE-3-ND	1860.00
Emulator Base Unit M16C/60	M3062PT3-RPD-E-ND	3777.20
Compact Emulator for M16C/60	M30800T-CPE-ND	1995.00
Emulator Base Unit M16C Platform	PC7501-ND	6727.50
Compact Emulator for H8/3664	ROE436640CPE10-ND	2457.00
Compact Emulator for H8/TINY	ROE436640CPE20-ND	2457.00
Compact Emulator for M16C/62P	ROKZ1SNY003001R-ND	3593.13
Emulator Personality Kit H8/3664	ROE436640CPE00-ND	2715.00
Emulator Personality Kit R8C/13	ROE52100CEP00-ND	1215.00
Emulator Base E8A for H8 and M16C	ROE0008AKCE00-ND	175.00
Emulator Personality Kit R8C/13	ROE521134CPE00-ND	1935.00
Emulator Personality Kit R8C/10-13	ROE521134EP00-ND	1725.00
Emulator Personality Kit R8C/17	ROE521174CPE00-ND	1935.00
Emulator for R8C/18/19A/1B	ROE521174CPE10-ND	1800.00
Emulator Personality Kit R8C/20-23	ROE521237CPE00-ND	1935.00
On Chip Debug Emulator	RTA-F0USB-MON-ND	60.86
<b>Accessories</b>		
Development Emulator Accessory	E6EIOEXT-ND	369.60
Emulator PCB Adapter 100-QFP	EHB2148Q100B-ND	628.50
Emulator PCB Adapter 100-QFP	EHB2238Q100B-ND	554.40
Emulator PCB Adapter 100-QFP	EHB2318Q100B-ND	586.32
Emulator PCB Adapter 128-QFP	EHB2328Q128-ND	925.20
Emulator PCB Adapter 128-QFP	EHB2633Q128-ND	1267.20
Emulator PCB Adapter 100-QFP	EHB3064Q100B-ND	520.80
Emulator PCB Adapter 120-TQFP	HS1650ECN61H-ND	1226.40
Personality Kit H8SX/1650	HS1650EPH60H-ND	9456.30
Emulator PCB Adapter 100-QFP	HS2148CHE1H-ND	1428.42
Emulator PCB Adapter 144-TQFP	HS2168CNC61H-ND	2766.40
Emulator PCB Adapter 64-QFP	HS2212CHE1H-ND	2912.70
Emulator PCB Adapter 112-LFBGA	HS2215ECB62H-ND	3370.86
Emulator PCB Adapter 120-TQFP	HS2215ECN61H-ND	2761.08
Emulator PCB Adapter 120-TQFP	HS2215REC61H-ND	3120.00
Emulator PCB Adapter 100-QFP	HS2218CNC61H-ND	3120.00
Emulator PCB Adapter 100-QFP	HS2238CHE61H-ND	1436.40
Emulator PCB Adapter 112-LFBGA	HS2238REC62H-ND	2154.60
Emulator PCB Adapter 144-QFP	HS2338CHE61H-ND	1436.40
Emulator PCB Adapter 144-QFP	HS2378CHE61H-ND	1822.10
Emulator Personality Kit H8S/2633	HS2633CHE61H-ND	1428.42
Emulator PCB Adapter 64-QFP	HS36014ECH61H-ND	1436.40
Emulator PCB Adapter 48-QFP	HS36014ECH63H-ND	1436.40
Emulator PCB Adapter 80-QFP	HS36049ECH61H-ND	1620.00
Emulator PCB Adapter 64-QFP	HS3664ECH61H-ND	1436.40
Emulator PCB Adapter 64-QFP	HS3664ECH62H-ND	1436.40
Emulator PCB Adapter 48-QFP	HS3664ECH63H-ND	1436.40
Emulator PCB Adapter 48-QFP	HS3664ECH64H-ND	1436.40
Emulator PCB Adapter 64-QFP	HS3687ECH61H-ND	1620.00
Emulator PCB Adapter 64-QFP	HS3687ECH62H-ND	1620.00
Emulator Personality Kit M16C/26	M30260T-EPB-GP-ND	1374.24
Emulator Personality Kit M16C/26	M30262T-PTC-ND	570.00
Emulator Personality Kit M16C/28	M30290T-EPB-HP-ND	1374.24
Emulator Personality Kit M16C/28	M30291T-EPB-HP-ND	1374.24
Emulator Personality Kit M16C/62P	M3062PT-EPB-ND	1359.00
Emulator Probe M16C/6N	M306NKT-EPB-ND	1710.00
M16C/26 Socket Board (48-Pin-A)	M3A-0286G01-ND	295.20
Emulator PCB Adapter 100-LQFP	M3T-F160-100NSD-ND	381.00
Emulator PCB Adapter 128-LQFP	M3T-F160-128NRD-ND	570.00
Emulator PCB Adapter 100-QFP	M3T-FLX-100NRB-ND	728.00
Emulator PCB Adapter 100-LQFP	M3T-FLX-100NSD-ND	780.00
Emulator Accessory	M3T-FLX100-R-ND	196.00

◆ RoHS Compliant

More Product Available Online: [www.digkey.com](http://www.digkey.com)

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380

(T091) 755