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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
Flash	384K	—	30K	16-ch. 10-bit	4-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	2/6/—	97	33MHz/3 - 3.6V	-20°C - 75°C	144-LQFP	DF2376VFQ33V-ND	17.34	16.19	15.03
Flash	384K	—	24K	16-ch. 10-bit	6-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	2/6/—	113	33MHz/3 - 3.6V	-20°C - 75°C	144-LQFP	DF2377RVFQ33V-ND	17.90	16.71	15.51
												DF2377RVFQ33WV-ND	18.80	17.55	16.29
												HD64F2377RVFQ33-ND	17.90	16.71	15.51
												HD64F2377RVFQ33W-ND	18.80	17.55	16.29
DF2377VFQ33V-ND	17.34	16.19	15.03												
Flash	512K	—	32K	16-ch. 10-bit	6-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	2/6/—	113	34MHz/3 - 3.6V	-20°C - 75°C	144-LQFP	DF2378AVFQ34V-ND	16.20	15.12	14.04
												DF2378BVQ35V-ND	15.42	14.40	13.37
												DF2378BVQ35WV-ND	16.97	15.84	14.71
												DF2378BVLQ35V-ND	18.29	17.07	15.85
												DF2378RVQ34V-ND	16.20	15.12	14.04
DF2378RVLQ34V-ND	20.96	19.56	18.17												
Flash	256K	—	8K	8-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card	2/6/—	95	20MHz/4.5 - 5.5V	-20°C - 75°C	120-TQFP	DF2398TE20V-ND	16.74	15.63	14.51
												DF2398F20TV-ND	17.82	16.64	15.45
												DF2398F20V-ND	16.20	15.12	14.04
Flash	256K	—	16K	16-ch. 10-bit	—	5 USART, 4 I ² C	4/5/—	110	20MHz/3 - 3.6V	-20°C - 75°C	128-QFP	DF2437FV-ND	16.20	15.12	14.04
Flash	384K	—	32K	16-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card, 2 I ² C	4/6/—	120	26MHz/3 - 5.5V	-40°C - 75°C	176-LFBGA	DF2505BR26DV-ND	25.01	23.34	21.68
												DF2505FC26V-ND	22.86	21.34	19.82
Flash	512K	—	32K	16-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card, 2 I ² C	4/6/—	120	26MHz/3 - 5.5V	-40°C - 75°C	176-LFBGA	DF2506BR26DV-ND	27.00	25.20	23.40
Flash	384K	—	24K	16-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card, 2 I ² C	4/6/—	120	26MHz/3 - 5.5V	-40°C - 75°C	176-LFBGA	DF2511BR26DV-ND	26.00	24.27	22.53
												DF2511FC26V-ND	24.00	22.40	20.80
Flash	512K	—	32K	16-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card, 2 I ² C	4/6/—	120	26MHz/3 - 5.5V	-40°C - 75°C	176-LFBGA	DF2552BR26DV-ND	27.90	26.04	24.18
												DF2552FC26V-ND	26.00	24.27	22.53
Flash	512K	—	32K	16-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card, 2 I ² C, 1 CAN	4/6/—	120	20MHz/3 - 5.5V	-40°C - 75°C	144-QFP	DF2556FC20DV-ND	26.00	24.27	22.53
Flash	128K	—	4K	12-ch. 10-bit	—	3 USART, Smart Card, 1 CAN	—/6/—	56	20MHz/4.5 - 5.5V	-20°C - 75°C	80-QFP	DF2612FA20V-ND	16.01	14.94	13.88
Flash	256K	—	12K	16-ch. 10-bit	—	3 USART, Smart Card, 1 CAN	—/6/—	70	20MHz/4.5 - 5.5V	-40°C - 85°C	100-QFP	DF2623FA20V-ND	28.97	27.04	25.11
												DF2623FA20V-ND	24.00	22.40	20.80
Flash	128K	—	8K	16-ch. 10-bit	—	2 USART, 2 SSU*, Smart Card, 1 CAN	4/6/—	76	24MHz/4.5 - 5.5V	-20°C - 75°C	100-QFP	DF2628FA24V-ND	16.01	14.94	13.88
Flash	384K	—	16K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2630F20V-ND	36.20	33.79	31.37
												DF2630UF20V-ND	37.52	35.02	32.52
Flash	384K	—	16K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 I ² C, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2630WF20V-ND	38.48	35.91	33.35
Flash	256K	—	16K	16-ch. 10-bit	4-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	4/6/—	89	16MHz/3 - 3.6V	-20°C - 75°C	128-QFP	DF2633F16V-ND	21.90	20.44	18.98
												DF2633F25V-ND	21.90	20.44	18.98
												DF2633TE25V-ND	24.00	22.40	20.80
Flash	256K	—	16K	16-ch. 10-bit	4-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	4/6/—	89	28MHz/4.5 - 5.5V	-20°C - 75°C	120-TQFP	DF2633RF28V-ND	19.01	17.74	16.48
												DF2633RTE28V-ND	19.61	18.30	17.00
												HD64F2633RTE28-ND	19.61	18.30	17.00
Flash	256K	—	16K	16-ch. 10-bit	4-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	4/6/—	89	16MHz/3 - 3.6V	-20°C - 75°C	120-TQFP	DF2633TE16V-ND	23.81	22.22	20.64
Flash	128K	—	4K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2636F20V-ND	22.28	20.79	19.31
												DF2636UF20V-ND	23.63	22.05	20.48
Flash	256K	—	16K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2638F20V-ND	25.14	23.47	21.79
												HD64F2638F20V-ND	30.66	28.62	26.58
												DF2638UF20V-ND	26.28	24.53	22.78
												DF2638WF20V-ND	27.42	25.60	23.77
Flash	256K	—	16K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 I ² C, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2638WF20V-ND	33.29	31.07	28.85
												DF2639UF20V-ND	27.80	25.95	24.09
Flash	256K	—	16K	12-ch. 10-bit	2-ch. 8-bit	3 USART, Smart Card, 2 I ² C, 2 CAN	—/6/—	84	20MHz/4.5 - 5.5V	-20°C - 75°C	128-QFP	DF2639WF20V-ND	28.76	26.84	24.93
Flash	256K	—	16K	16-ch. 10-bit	4-ch. 8-bit	5 USART, IrDA, Smart Card, 2 I ² C	4/6/—	111	16MHz/3 - 3.6V	-20°C - 75°C	144-QFP	DF2643FC16V-ND	23.04	21.51	19.97
												DF2643FC25V-ND	23.04	21.51	19.97
Flash	128K	—	4K	12-ch. 10-bit	—	2 USART, Smart Card, 1 CAN	—/6/—	108	20MHz/4.5 - 5.5V	-40°C - 85°C	144-QFP	DF2646RF20V-ND	30.29	28.27	26.25
												DF2646RF20V-ND	25.14	23.47	21.79
Flash	128K	—	4K	12-ch. 10-bit	—	3 USART, Smart Card, 1 CAN	—/6/—	108	20MHz/4.5 - 5.5V	-40°C - 85°C	144-QFP	DF2648RF20V-ND	31.62	29.52	27.41
												DF2648RF20V-ND	26.28	24.53	22.78
Flash	384K	—	16K	12-ch. 10-bit	4-ch. 8-bit	3 USART, IrDA, Smart Card	2/6/—	115	33MHz/3 - 3.6V	-20°C - 75°C	144-LQFP	DF2667VFQ33V-ND	18.66	17.42	16.18
Flash	256K	—	8K	12-ch. 10-bit	4-ch. 8-bit	3 USART, IrDA, Smart Card	2/6/—	115	33MHz/3 - 3.6V	-20°C - 75°C	144-QFP	DF2676VFQ33V-ND	20.00	18.67	17.33

H8SX Series

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
Flash	256K	—	12K	16-ch. 10-bit	—	2 USART, 3 SSU*, Smart Card	—/12/—	99	48MHz/4.5 - 5.5V	-20°C - 85°C	120-LQFP	DF61582N48FPV-ND	22.86	21.34	19.82
ROMless	—	—	40K	8-ch. 10-bit	2-ch. 8-bit	5 USART, Smart Card	4/6/2	50	50MHz/3.0 - 3.6V	-20°C - 75°C	120-LQFP	DS61651N50FPV-ND NEW!	9.57	8.60	7.63
ROMless	—	—	40K	8-ch. 10-bit	2-ch. 8-bit	4 USART, IrDA, Smart Card	4/6/—	90	50MHz/3 - 3.6V	-20°C - 75°C	120-LQFP	DS61651N50FPV-ND	9.69	8.70	7.72
Flash	384K	—	40K	8-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, USB FS, Smart Card, 2 I ² C	8/6/—	75	50MHz/3 - 3.6V	-20°C - 75°C	120-TQFP	R5F61653N50FTV-ND	17.15	16.01	14.86
Flash	512K	—	40K	8-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, Smart Card, 2 I ² C	8/6/—	84	50MHz/3 - 3.6V	-20°C - 75°C	120-TQFP	DF61654N50FTV-ND	18.59	17.35	16.11
Flash	512K	—	24K	8-ch. 10-bit	2-ch. 8-bit	4 USART, Smart Card	4/6/—	90	35MHz/3 - 3.6V	-20°C - 75°C	120-TQFP	DF61656N35FTV-ND	17.52	16.36	15.19
												DF61656W35FTV-ND	19.28	17.99	16.71
Flash	768K	—	24K	8-ch. 10-bit	2-ch. 8-bit	4 USART, Smart Card	4/6/—	90	35MHz/3 - 3.6V	-20°C - 75°C	120-TQFP	DF61657N35FTV-ND	19.01	17.74	16.48
Flash	384K	—	40K	8-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 2 I ² C	8/6/—	101	50MHz/3 - 3.6V	-20°C - 75°C	144-LQFP	DF61663N50FPV-ND	17.52	16.36	15.19
												DF61663W50FPV-ND	19.28	17.99	16.71
Flash	512K	—	40K	8-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 2 I ² C	8/6/—	101	50MHz/3 - 3.6V	-40°C - 85°C	144-LQFP	DF61664W50FPV-ND	20.85	19.46	18.07

◆ RoHS Compliant *SSU = SPI®

M16C Family

The M16C family offers the industry's broadcast multi-purpose microcontroller platform, with seamless code and pin compatibility – all the way from 8-bit to 32-bit functionality. A robust platform of 16/32-bit CISC microcontrollers with speeds from 16MHz - 64MHz, up to 512K on-chip flash memory, high ROM code efficiency, extensive EMI/EMS noise immunity, and very low power consumption. It also features a broad choice of standard on-chip peripheral options and the highest pin-to-pin compatibility (up to 144 pins) in the industry.

M16C Platform Series

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
Flash	64K	—	3K	14-ch. 10-bit	1-ch. 8-bit	2 USART, 1 CAN	4/1/—	37	16MHz/4.2 - 5.5V	-40°C - 85°C	48-LQFP	M301N2F8TFFU3-ND	14.52	13.56	12.59
Flash	128K	—	10K	8-ch. 10-bit	—	4 USART, 1 I ² C	—/5/—	85	16MHz/3 - 3.6V	-20°C - 85°C	100-LQFP	M30245FCGPFU1-ND	15.00	14.00	13.00
Flash	96K	4K	5K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C	100-QFP	M30302FAFPFU3-ND	6.30	5.04	4.26
												M30302FAFPFU5-ND	6.00	4.80	4.05

◆ RoHS Compliant *SSU = SPI®

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Microcontrollers
M16C Family M16C Platform 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
Flash	96K	4K	5K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30302FAGP#U3-ND◆ M30302FAGP#U5-ND◆	5.88	4.71 3.97
													5.60	4.48 3.78
Flash	128K	4K	5K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30302FCPP#U3-ND◆ M30302FCPP#U5-ND◆	6.52	5.22 4.41
													6.20	4.96 4.19
Flash	128K	4K	5K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30302FCGP#U3-ND◆ M30302FCGP#U5-ND◆	6.10	4.88 4.12
													5.80	4.64 3.92
Flash	192K	4K	6K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30302F2FP#U3-ND◆ M30302F2FP#U5-ND◆	6.94	5.56 4.69
													6.60	5.28 4.46
Flash	192K	4K	6K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30302F2GP#U3-ND◆ M30302F2GP#U5-ND◆	6.52	5.22 4.41
													6.20	4.96 4.19
ROMless	—	—	6K	18-ch. 10-bit	—	3 USART, 3 I ² C	—/6/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-LQFP 100-LQFP	M30302SPFP#U3-ND◆ M30302SPGP#U3-ND◆ M30302SPGP#U5-ND◆	6.10	4.88 4.12
													4.38	4.09 3.80
Flash	256K	—	8K	—	—	5 USART, 1 I ² C	—/11/—	89	16MHz/2 - 5.5V	-20°C - 70°C	116-LQFP 100-QFP	M306H5FGP#U0-ND◆ M306H7FGP#U0-ND◆	38.10	35.56 33.02
													19.62	18.32 17.01
Flash	384K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C, 1 CAN	—/11/—	88	24MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M306NLFHGP#U3-ND◆	21.00	19.60 18.20
													23.00	21.47 19.93
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C, 1 CAN	—/11/—	88	24MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M306NLFHGP#U3-ND◆	22.01	20.54 19.08
													24.00	22.40 20.80
Flash	384K	—	31K	26-ch. 10-bit	2-ch. 8-bit	7 USART, 3 I ² C, 1 CAN	—/11/—	114	24MHz/3 - 5.5V	-40°C - 85°C	128-LQFP	M306NMFHGP#U3-ND◆	24.77	23.12 21.47
													24.00	22.40 20.80
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	7 USART, 3 I ² C, 1 CAN	—/11/—	114	24MHz/3 - 5.5V	-40°C - 85°C	128-LQFP	M306NMFHGP#U3-ND◆	24.00	22.40 20.80
													24.77	23.12 21.47
Flash	128K	—	5K	26-ch. 10-bit	2-ch. 8-bit	4 USART, 3 I ² C, 1 CAN	—/11/—	88	20MHz/4.2 - 5.5V	-40°C - 85°C	100-QFP	M306N5FCTP#U0-ND◆	15.00	14.00 13.00
													14.28	13.33 12.38
Flash	96K	—	24K	—	—	5 USART, 3 I ² C	—/5/—	22	15.36MHz/3 - 3.6V	-20°C - 85°C -20°C - 85°C	64-LQFP 64-LQFP	M306S0FAGP#U3-ND◆ M306S0FAGP#U5-ND◆	31.04	28.97 26.90
													15.12	14.12 13.11
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-QFP	M3062LFGPP#U3C-ND◆ M3062LFGPP#U5C-ND◆ M3062LFGPP#U7C-ND◆ M3062LFGPP#U9C-ND◆	15.12	14.12 13.11
													14.40	13.44 12.48
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M3062LFGPP#U3C-ND◆ M3062LFGPP#U5C-ND◆ M3062LFGPP#U7C-ND◆ M3062LFGPP#U9C-ND◆	14.70	13.72 12.74
													14.00	13.07 12.13
Flash	128K	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-QFP	M30620FCPP#U3C-ND◆ M30620FCPP#U5C-ND◆ M30620FCPP#U7C-ND◆ M30620FCPP#U9C-ND◆	14.10	13.16 12.22
													14.95	13.43 11.91
Flash	128K	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30620FCGP#U3C-ND◆ M30620FCGP#U5C-ND◆ M30620FCGP#U7C-ND◆ M30620FCGP#U9C-ND◆	14.18	13.23 12.29
													14.99	13.50 11.97
Flash	128K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30620FCGP#U3C-ND◆ M30620FCGP#U5C-ND◆ M30620FCGP#U7C-ND◆ M30620FCGP#U9C-ND◆	13.50	12.60 11.70
													14.39	13.43 12.47
Flash	128K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30620FCGP#U3C-ND◆ M30620FCGP#U5C-ND◆ M30620FCGP#U7C-ND◆ M30620FCGP#U9C-ND◆	13.70	12.79 11.87
													13.70	12.79 11.87
ROMless	—	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30620SPPP#U3C-ND◆ M30620SPPP#U5C-ND◆	10.54	9.47 8.40
													9.57	8.60 7.63
ROMless	—	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30620SPGP#U3C-ND◆ M30620SPGP#U5C-ND◆	9.80	8.81 7.81
													8.90	8.00 7.09
Flash	128K	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	71	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -20°C - 85°C	80-LQFP 80-QFP 80-QFP	M30621FCGP#U3C-ND◆ M30621FCGP#U5C-ND◆ M30621FCGP#U9C-ND◆	14.85	13.34 11.83
													14.14	12.71 11.27
Flash	64K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-QFP	M30622F8FP#U3C-ND◆ M30622F8FP#U5C-ND◆ M30622F8FP#U7C-ND◆ M30622F8FP#U9C-ND◆	13.76	12.84 11.93
													14.54	13.10 11.62
Flash	64K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30622F8GP#U3C-ND◆ M30622F8GP#U5C-ND◆ M30622F8GP#U7C-ND◆ M30622F8GP#U9C-ND◆	13.88	12.50 11.08
													13.88	12.50 11.08
Flash	64K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30622F8GP#U3C-ND◆ M30622F8GP#U5C-ND◆ M30622F8GP#U7C-ND◆ M30622F8GP#U9C-ND◆	13.21	11.90 10.55
													14.11	12.71 11.27
ROMless	—	—	3K	10-ch. 10-bit	2-ch. 8-bit	5 USART, 1 I ² C	—/11/—	88	16MHz/2.7 - 5.5V	-20°C - 85°C	100-QFP	M30622SAPP#U5-ND◆	9.86	7.89 6.66
													9.30	8.36 7.41
ROMless	—	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-LQFP 100-LQFP	M30622SPFP#U3C-ND◆ M30622SPFP#U5C-ND◆ M30622SPGP#U3C-ND◆ M30622SPGP#U5C-ND◆	8.47	7.61 6.75
													8.57	7.70 6.83
Flash	64K	—	4K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	71	24MHz/2.7 - 5.5V	-20°C - 85°C	80-QFP	M30623F8GP#U5C-ND◆	13.88	12.50 11.08
													37.68	35.17 32.66
Flash	256K	—	20K	10-ch. 10-bit	2-ch. 8-bit	5 USART, 1 I ² C	—/11/—	88	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30624FAGP#U3-ND◆ M30624FAGP#U5-ND◆	35.87	33.48 31.09
													35.87	33.48 31.09
Flash	256K	—	20K	10-ch. x 10-bit	2-ch. x 8-bit	1 I ² C, 1 IEBus, 1 Smart Card	—/11/—	85	16MHz/4.2 - 5.5V	-40°C - 85°C	100-QFP	M30624G6MFP#D3-ND	37.68	35.17 32.66
													37.68	35.17 32.66
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-QFP	M30624FGPP#U3C-ND◆ M30624FGPP#U5C-ND◆ M30624FGPP#U7C-ND◆ M30624FGPP#U9C-ND◆	16.38	15.29 14.20
													15.60	14.56 13.52
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30624FGGP#U3C-ND◆ M30624FGGP#U5C-ND◆ M30624FGGP#U7C-ND◆ M30624FGGP#U9C-ND◆	15.74	14.69 13.64
													15.00	14.00 13.00
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30624FGGP#U3C-ND◆ M30624FGGP#U5C-ND◆ M30624FGGP#U7C-ND◆ M30624FGGP#U9C-ND◆	15.95	14.89 13.82
													15.20	14.19 13.17
ROMless	—	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30624SPFP#U3C-ND◆ M30624SPFP#U5C-ND◆	12.37	11.12 9.86
													11.24	10.10 8.96
ROMless	—	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30624SPGP#U3C-ND◆ M30624SPGP#U5C-ND◆	11.07	9.95 8.82
													10.07	9.05 8.02
Flash	256K	—	20K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	114	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	128-LQFP 128-LQFP 128-LQFP 128-LQFP	M30625FGGP#U3C-ND◆ M30625FGGP#U5C-ND◆ M30625FGGP#U7C-ND◆ M30625FGGP#U9C-ND◆	16.80	15.68 14.56
													17.78	16.01 14.20
Flash	384K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	88	24MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-QFP</			

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
Flash	384K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	114	24MHz/2.7 - 5.5V	-40°C - 85°C	128-LQFP	M30627FHGPF#U3C-ND	18.90	17.64	16.38
		-20°C - 85°C								18.00			16.80	15.60	
		-20°C - 85°C								18.00			16.80	15.60	
		-40°C - 85°C								19.10			17.83	16.55	
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C	—/11/—	114	24MHz/2.7 - 5.5V	-40°C - 85°C	128-LQFP	M30627FJGPF#U3C-ND	21.00	19.60	18.20
		-20°C - 85°C								20.00			18.67	17.33	
		-40°C - 85°C								21.20			19.79	18.37	
		-20°C - 85°C								20.21			18.86	17.52	
Flash	256K	—	10K	26-ch. 10-bit	2-ch. 8-bit	4 USART, 3 I ² C, 2 CAN	—/11/—	88	24MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M306N4FGGP#U3-ND	19.01	17.74	16.48
	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	7 USART, 3 I ² C, 2 CAN	—/11/—	114	24MHz/3 - 5.5V	-40°C - 85°C	128-LQFP	M306NMFJGP#U3-ND	25.01	23.34	21.68
	384K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C, 2 CAN	—/11/—	88	24MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M306NKFJGP#U3-ND	22.01	20.54	19.08
	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 3 I ² C, 2 CAN	—/11/—	88	24MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M306NKFJGP#U3-ND	24.00	22.40	20.80
	256K	—	20K	10-ch. 10-bit	2-ch. 8-bit	5 USART	—/11/—	88	20MHz/2.7 - 5.5V	-40°C - 85°C	100-LQFP	M30803FGGP#U3-ND	39.66	37.02	34.38
	256K	—	20K	10-ch. 10-bit	2-ch. 8-bit	5 USART	—/11/—	124	20MHz/2.7 - 5.5V	-20°C - 85°C	144-LQFP	M30805FGGP#U5-ND	41.42	38.66	35.90



M16C Tiny Series

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
Flash	24K	—	1K	12-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	39	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30260F3AGP#U3-ND	9.38	7.51	6.34
		-40°C - 85°C								9.38			7.51	6.34	
		-20°C - 85°C								8.88			7.11	6.00	
		-20°C - 85°C								8.88			7.11	6.00	
Flash	48K	—	2K	12-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	39	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30260F6AGP#U3A-ND	8.48	7.62	6.76
		-20°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								8.70			7.82	6.93	
		-20°C - 85°C								9.92			7.94	6.70	
Flash	64K	—	2K	12-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	39	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30260F8AGP#U3A-ND	8.90	8.00	7.09
		-20°C - 85°C								8.48			7.62	6.76	
		-40°C - 85°C								9.13			8.21	7.28	
		-20°C - 85°C								8.70			7.82	6.93	
Flash	24K	4K	1K	8-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	38	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30262F3GPF#U7-ND	9.66	7.73	6.53
		-40°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								9.92			7.94	6.70	
Flash	32K	—	1K	8-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	38	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30262F4GPF#U3-ND	9.66	7.73	6.53
		-40°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								9.92			7.94	6.70	
Flash	48K	—	2K	8-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	38	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30262F6GPF#U3-ND	8.48	7.62	6.76
		-20°C - 85°C								9.66			7.73	6.53	
		-40°C - 85°C								8.70			7.82	6.93	
		-20°C - 85°C								9.92			7.94	6.70	
Flash	64K	—	2K	8-ch. 10-bit	—	3 USART, 1 I ² C	—/8/—	38	20MHz/2.7 - 5.5V	-40°C - 85°C	48-LQFP	M30262F8GPF#U3-ND	8.88	8.00	7.09
		-20°C - 85°C								8.90			8.00	7.09	
		-40°C - 85°C								9.13			8.21	7.28	
		-20°C - 85°C								9.13			8.21	7.28	
Flash	24K	—	1K	10-ch. 10-bit	—	2 USART, 1 I ² C	—/8/—	33	20MHz/2.7 - 5.5V	-20°C - 85°C	42-SSOP	M30263F3AFP#U5A-ND	8.88	7.11	6.00
		-20°C - 85°C								9.66			7.73	6.53	
		-20°C - 85°C								9.66			7.73	6.53	
		-20°C - 85°C								9.66			7.73	6.53	
Flash	48K	—	2K	10-ch. 10-bit	—	2 USART, 1 I ² C	—/8/—	33	20MHz/2.7 - 5.5V	-20°C - 85°C	42-SSOP	M30263F6AFP#U5A-ND	9.66	7.73	6.53
		-20°C - 85°C								9.66			7.73	6.53	
		-20°C - 85°C								9.66			7.73	6.53	
		-20°C - 85°C								9.66			7.73	6.53	
Flash	64K	—	2K	10-ch. 10-bit	—	2 USART, 1 I ² C	—/8/—	33	20MHz/2.7 - 5.5V	-20°C - 85°C	42-SSOP	M30263F8AFP#U5A-ND	8.48	7.62	6.76
		-20°C - 85°C								8.70			7.82	6.93	
		-20°C - 85°C								8.70			7.82	6.93	
		-20°C - 85°C								8.70			7.82	6.93	
Flash	48K	—	4K	24-ch. 10-bit	—	5 USART, 2 I ² C	—/9/—	71	20MHz/2.7 - 5.5V	-20°C - 85°C	80-LQFP	M30280F6HP#D5-ND	11.44	9.16	7.73
		-40°C - 85°C								9.95			8.96	7.95	
		-20°C - 85°C								9.53			8.58	7.61	
		-20°C - 85°C								9.55			8.58	7.61	
		-40°C - 85°C								10.18			9.17	8.13	
		-40°C - 85°C								10.20			9.17	8.13	
		-20°C - 85°C								9.75			8.78	7.79	
		-20°C - 85°C								9.77			8.78	7.79	
		-40°C - 85°C								10.38			9.35	8.29	
		-40°C - 85°C								10.40			9.35	8.29	
		-20°C - 85°C								11.94			9.56	8.06	
		-20°C - 85°C								9.95			8.96	7.95	
Flash	64K	—	4K	24-ch. 10-bit	—	5 USART, 2 I ² C	—/9/—	71	20MHz/2.7 - 5.5V	-40°C - 85°C	80-LQFP	M30280F8HP#U3B-ND	10.38	9.35	8.29
		-40°C - 85°C								10.40			9.35	8.29	
		-20°C - 85°C								11.94			9.56	8.06	
		-20°C - 85°C								9.95			8.96	7.95	
		-40°C - 85°C								9.97			8.96	7.95	
		-40°C - 85°C								10.60			9.54	8.46	
		-40°C - 85°C								10.62			9.54	8.46	
		-20°C - 85°C								10.18			9.17	8.13	
		-40°C - 85°C								11.24			10.10	8.96	
		-20°C - 85°C								12.96			10.37	8.75	
		-20°C - 85°C								10.82			9.72	8.62	
		-40°C - 85°C								11.45			10.31	9.14	
Flash	96K	—	8K	24-ch. 10-bit	—	5 USART, 2 I ² C	—/9/—	71	20MHz/2.7 - 5.5V	-40°C - 85°C	80-LQFP	M30280FAHP#U3B-ND	11.47	10.31	9.14
		-40°C - 85°C								11.47			10.31	9.14	
		-20°C - 85°C								11.47			10.31	9.14	
		-20°C - 85°C								11.47			10.31	9.14	
		-40°C - 85°C								11.47			10.31	9.14	
		-40°C - 85°C								11.47			10.31	9.14	
		-20°C - 85°C								11.04			9.92	8.80	
		-40°C - 85°C								12.26			11.01	9.77	
		-40°C - 85°C								11.67			10.49	9.30	
		-40°C - 85°C								12.47			11.21	9.94	
		-20°C - 85°C								11.89			10.68	9.47	
		Flash								48K			—	4K	13-ch. 10-bit
-40°C - 85°C	9.55		8.58	7.61											
-20°C - 85°C	9.11		8.21	7.28											
-20°C - 85°C	9.13		8.21	7.28											
-40°C - 85°C	9.75		8.78	7.79											
-40°C - 85°C	9.77		8.78	7.79											
-20°C - 85°C	9.33		8.40	7.45											
-20°C - 85°C	9.35		8.40	7.45											
-40°C - 85°C	9.95		8.96	7.95											
-40°C - 85°C	9.97		8.96	7.95											
-20°C - 85°C	11.44		9.16	7.73											
-20°C - 85°C	9.53		8.58	7.61											
Flash	64K	—	4K	13-ch. 10-bit	—	4 USART, 2 I ² C	—/9/—	55	20MHz/2.7 - 5.5V	-40°C - 85°C	64-LQFP	M30281F8HP#U3B-ND	10.20	9.17	8.13
		-40°C - 85°C								10.20			9.17	8.13	
		-20°C - 85°C								9.77			8.78	7.79	
		-20°C - 85°C								9.77			8.78	7.79	
		-40°C - 85°C								10.20			9.17	8.13	
		-40°C - 85°C								9.77			8.78	7.79	
		-20°C - 85°C								11.81			10.61	9.41	
		-40°C - 85°C								10.80			9.72	8.62	
		-40°C - 85°C								11.04			9.92	8.80	
		-20°C - 85°C								10.62			9.54	8.46	
		-40°C - 85°C								12.86			12.00	11.15	
		-40°C - 85°C								11.81			10.61	9.41	
Flash	96K	—	8K	13-ch. 10-bit	—	4 USART, 2 I ² C	—/9/—	55	20MHz/2.7 - 5.5V	-40°C - 85°C	64-LQFP	M30281FAHP#U3B-ND	11.81	10.61	9.41
		-40°C - 85°C								11.81			10.61	9.41	
		-20°C - 85°C								12.02			10.80	9.58	
		-20°C - 85°C								11.47			10.31	9.14	
		-40°C - 85°C								12.94			11.63	10.31	
		-20°C - 85°C								12.29			11.04	9.79	
		-40°C - 85°C								13.13			11.82	10.49	
		-20°C - 85°C								12.48			11.24	9.97	

• RoHS Compliant *SSU = SPI®

(Continued)

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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
Flash	128K	— 4K 4K	12K	27-ch. 10-bit	—	5 USART, 2 I ² C, 1 CAN	—/9/—	71	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	80-LQFP 80-LQFP 80-LQFP 80-LQFP	M30290FCHP#U3A-ND◆ M30290FCHP#U5A-ND◆ M30290FCHP#U7A-ND◆ M30290FCHP#U9A-ND◆	14.01	12.59	11.16
													13.36	12.00	10.64
													14.23	12.78	11.34
													13.58	12.20	10.82
Flash	96K	— 4K 4K	8K	16-ch. 10-bit	—	4 USART, 2 I ² C, 1 CAN	—/9/—	55	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	64-LQFP 64-LQFP 64-LQFP 64-LQFP	M30291FAHP#U3A-ND◆ M30291FAHP#U5A-ND◆ M30291FAHP#U7A-ND◆ M30291FAHP#U9A-ND◆	12.48	11.24	9.97
													11.85	10.67	9.46
													12.71	11.45	10.15
													12.09	10.86	9.63
Flash	96K	—	8K	16-ch. 10-bit	—	4 USART, 2 I ² C, 1 CAN	—/9/—	55	20MHz/4.2 - 5.5V	-40°C - 125°C	64-LQFP	M30291FAVHP#U3A-ND◆	15.20	14.19	13.17
Flash	128K	— 4K 4K	12K	16-ch. 10-bit	—	4 USART, 2 I ² C, 1 CAN	—/9/—	55	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	64-LQFP 64-LQFP 64-LQFP 64-LQFP	M30291FCHP#U3A-ND◆ M30291FCHP#U5A-ND◆ M30291FCHP#U7A-ND◆ M30291FCHP#U9A-ND◆	13.58	12.20	10.82
													12.91	11.63	10.31
													13.81	12.41	11.00
													13.16	11.82	10.49

M32 Series

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	—	—	8K	10-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C	—/11/—	48	32MHz/3 - 5.5V	-20°C - 85°C -20°C - 85°C -20°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-LQFP 100-LQFP	M30800SAP#U5-ND◆ M30800SAP#U5-ND◆ M30800SAGP#U5-ND◆ M30800SAGP#U5-ND◆	9.57	8.60	7.63
													10.02	9.00	7.98
													8.90	8.00	7.09
													9.35	8.40	7.45
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-LQFP	M30833FJGP#U3-ND◆ M30833FJGP#U5-ND◆	40.19	37.51	34.83
													38.27	35.72	33.17
													39.95	37.29	34.62
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30833FJGP#U3-ND◆ M30833FJGP#U5-ND◆	39.95	37.29	34.62
													38.00	35.47	32.93
													41.70	38.92	36.14
Flash	512K	—	31K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30835FJGP#U3-ND◆ M30835FJGP#U5-ND◆	41.70	38.92	36.14
													39.68	37.03	34.39
													—	—	—
ROMless	—	—	10K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-20°C - 85°C	100-LQFP	M30840SGP#U5-ND◆	8.87	8.28	7.69
													10.88	9.80	8.69
Flash	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30843FHGP#U3-ND◆ M30843FHGP#U5-ND◆	24.86	23.20	21.55
													22.61	21.10	19.60
Flash	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C	100-LQFP	M30843FHGP#U3-ND◆	24.20	22.59	20.97
													22.01	20.54	19.08
Flash	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-20°C - 85°C	100-LQFP 100-LQFP	M30843FHGP#D5-ND◆ M30843FHGP#U5-ND◆	22.01	20.54	19.08
													22.01	20.54	19.08
Flash	512K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -40°C - 85°C -20°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-LQFP 100-LQFP	M30843FJGP#U3-ND◆ M30843FJGP#U5-ND◆ M30843FJGP#D5-ND◆ M30843FJGP#U5-ND◆	27.06	25.26	23.46
													26.40	24.64	22.88
													24.60	22.96	21.32
													24.00	22.40	20.80
Flash	512K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-20°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-QFP 100-LQFP 100-LQFP 100-LQFP	M30843FJGP#U5-ND◆ M30843FJGP#U5-ND◆ M30843FJGP#D5-ND◆ M30843FJGP#U5-ND◆	24.60	22.96	21.32
													24.00	22.40	20.80
													24.60	22.96	21.32
													24.00	22.40	20.80
Flash	320K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30843FWGP#U3-ND◆ M30843FWGP#U5-ND◆	23.10	21.56	20.02
													21.00	19.60	18.20
Flash	384K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30845FHGP#U3-ND◆ M30845FHGP#U5-ND◆	27.50	25.67	23.83
													25.01	23.34	21.68
Flash	512K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30845FJGP#U3-ND◆ M30845FJGP#U5-ND◆	29.70	27.72	25.74
													27.00	25.20	23.40
Flash	320K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30845FWGP#U3-ND◆ M30845FWGP#U5-ND◆	26.40	24.64	22.88
													24.00	22.40	20.80
Flash	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C -20°C - 85°C	100-QFP 100-QFP 100-QFP 100-LQFP	M30853FHGP#D5-ND◆ M30853FHGP#U3-ND◆ M30853FHGP#U5-ND◆ M30853FHGP#U5-ND◆	23.60	22.03	20.45
													25.97	24.24	22.51
													23.60	22.03	20.45
													25.31	23.62	21.94
Flash	512K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C -40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP 100-QFP 100-QFP	M30853FJGP#U3-ND◆ M30853FJGP#U5-ND◆ M30853FJGP#U5-ND◆ M30853FJGP#U5-ND◆	27.50	25.67	23.83
													25.01	23.34	21.68
													28.17	26.30	24.42
													25.61	23.90	22.20
Flash	320K	—	24K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-20°C - 85°C -20°C - 85°C -40°C - 85°C -40°C - 85°C	100-QFP 100-LQFP 100-LQFP 100-LQFP	M30853FWGP#U5-ND◆ M30853FWGP#U5-ND◆ M30853FWGP#U3-ND◆ M30853FWGP#U5-ND◆	31.58	29.47	27.37
													31.34	29.25	27.16
													32.90	30.71	28.51
													28.61	26.70	24.80
Flash	384K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30855FHGP#U3-ND◆ M30855FHGP#U5-ND◆	28.61	26.70	24.80
													26.00	24.27	22.53
Flash	320K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30855FWGP#U3-ND◆ M30855FWGP#U5-ND◆	34.64	32.33	30.02
													33.00	30.80	28.60
Flash	512K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30855FJGP#U3-ND◆ M30855FJGP#U5-ND◆	30.80	28.75	26.69
													28.01	26.14	24.28
Flash	512K	—	24K	34-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 100-LQFP	M30855FJGP#U3-ND◆ M30855FJGP#D5-ND◆	31.91	29.78	27.66
													29.00	27.07	25.13
Flash	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30873FHAGP#U3-ND◆ M30873FHAGP#U5-ND◆	20.21	18.86	17.52
													18.36	17.14	15.92
	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30873FHAGP#U3-ND◆ M30873FHAGP#U5-ND◆	19.61	18.30	17.00
													17.82	16.64	15.45
	384K	—	24K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30873FHAGP#U3-ND◆ M30873FHAGP#U5-ND◆	20.81	19.42	18.04
													18.90	17.64	16.38
384K	—	24K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30875FHAGP#U3-ND◆ M30875FHAGP#U5-ND◆	22.02	20.56	19.09	
												20.18	18.83	17.49	
384K	—	24K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30875FHAGP#U3-ND◆ M30875FHAGP#U5-ND◆	21.42	20.00	18.57	
												19.64	18.33	17.02	
Flash	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30876FJAGP#U3-ND◆ M30876FJAGP#U5-ND◆	22.40	20.91	19.41
													20.36	19.00	17.65
	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30876FJAGP#U3-ND◆ M30876FJAGP#U5-ND◆	21.80	20.35	18.89
													19.82	18.50	17.18
	512K	—	31K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C -					

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
Flash	768K	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30879FKBGP#U3-ND M30879FKBGP#U5-ND	24.09	22.49	20.88
Flash	768K	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30879KFGP#U3-ND M30879KFGP#U5-ND	25.20	23.52	21.84
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30879FLAFP#U3-ND M30879FLAFP#U5-ND	26.82	25.04	23.25
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30879FLAGP#U3-ND M30879FLAGP#U5-ND	26.81	25.02	23.24
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30879LFBFP#U3-ND M30879LFBFP#U5-ND	25.76	24.04	22.33
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30879LFBGP#U3-ND M30879LFBGP#U5-ND	26.21	24.46	22.72
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-QFP 100-QFP	M30879LFFP#U3-ND M30879LFFP#U5-ND	27.77	25.92	24.07
Flash	1M	—	48K	26-ch. 10-bit	2-ch. 8-bit	6 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	88	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	100-LQFP 100-LQFP	M30879LFGP#U3-ND M30879LFGP#U5-ND	27.41	25.58	23.76
Flash	768K	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879FKBGP#U3-ND M30879FKBGP#U5-ND	27.24	25.43	23.61
Flash	768K	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879KFGP#U3-ND M30879KFGP#U5-ND	25.14	23.47	21.79
Flash	768K	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879KFGP#U3-ND M30879KFGP#U5-ND	22.86	21.34	19.82
Flash	1M	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C, 1 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879LFBGP#U3-ND M30879LFBGP#U5-ND	28.80	26.88	24.96
Flash	1M	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879LFBGP#U3-ND M30879LFBGP#U5-ND	26.18	24.43	22.69
Flash	1M	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879LFBGP#U3-ND M30879LFBGP#U5-ND	28.02	26.16	24.29
Flash	1M	—	48K	34-ch. 10-bit	2-ch. 8-bit	7 USART, IrDA, 5 I ² C, 2 CAN	—/11/—	124	32MHz/3 - 5.5V	-40°C - 85°C -20°C - 85°C	144-LQFP 144-LQFP	M30879LFBGP#U3-ND M30879LFBGP#U5-ND	29.22	27.28	25.23
Flash	320K	—	18K	26-ch. 10-bit	2-ch. 8-bit	5 USART, 5 I ² C, 3 CAN	—/11/—	88	32MHz/4.2 - 5.5V	-40°C - 85°C	100-LQFP	M30880FWTGP#U0-ND	38.28	35.73	33.18

R8C Tiny Series

The R8C 16-bit microcontrollers are small in size, yet big in performance and value. They excel for 8-bit embedded system applications that need low-cost devices and deliver high performance, yet save space with small, low-pin count packages. These microcontrollers for general purpose applications deliver up to 20MHz speed, up to 96K of on-chip flash memory, offer versatile peripherals, and are packaged with 80 pins or less. Based on the MC16 family of 16-bit microcontrollers, the R8C Tiny inherits the same features of high performance, ROM code efficiency, low power consumption, and low noise, while its instruction compatibility allows the use of existing M16C family software resources.

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
Flash	4K	—	375	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C	20-SDIP	R5F211A1DD#U0-ND	3.71	2.97	2.31
Flash	4K	—	375	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP 20-LSSOP	R5F211A1DSP#U0-ND R5F211A1DSP#U5-ND	3.44	2.76	2.15
Flash	4K	2K	375	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-SDIP 20-LSSOP	R5F211B1DD#U0-ND R5F211B1DSP#U0-ND	4.14	3.32	2.58
Flash	4K	2K	375	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP	R5F211B1DSP#U0-ND	3.87	3.10	2.41
Flash	4K	—	375	4-ch. Comparator	—	2 USART	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C	20-SSOP	R5F21181SP#U0-ND	2.99	2.40	1.87
Flash	4K	2K	375	4-ch. Comparator	—	2 USART	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -20°C - 85°C -40°C - 85°C	20-SDIP 20-SSOP 20-LSSOP	R5F21191DD#U0-ND R5F21191DSP#U0-ND R5F21191DSP#U5-ND	3.98	3.19	2.48
Flash	8K	—	500	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-SDIP 20-LSSOP 28-HWQFN	R5F211A2DD#U0-ND R5F211A2DSP#U0-ND R5F211A2NP#U0-ND	3.71	2.97	2.31
Flash	8K	—	500	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-LSSOP 28-HWQFN 20-LSSOP	R5F211A2SP#U0-ND R5F211B2DD#U0-ND R5F211B2DSP#U0-ND	4.14	3.32	2.58
Flash	8K	2K	500	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-LSSOP 28-HWQFN 20-LSSOP	R5F211B2SP#U0-ND R5F211B2DD#U0-ND R5F211B2DSP#U0-ND	3.87	3.10	2.41
Flash	8K	—	500	8-ch. 10-bit	—	2 USART	2/1/—	24	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21102DFF#U0-ND R5F21102FFP#U0-ND	4.57	3.66	2.85
Flash	16K	—	1K	8-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-40°C - 85°C	32-LQFP	R5F21104DFF#U0-ND	4.30	3.44	2.68
Flash	8K	—	500	12-ch. 10-bit	—	2 USART	3/1/—	24	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21112DFF#U0-ND R5F21112FFP#U0-ND	5.13	4.11	3.20
Flash	12K	—	750	12-ch. 10-bit	—	2 USART	3/1/—	24	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21112DFF#U0-ND R5F21112FFP#U0-ND	4.75	3.80	2.96
Flash	16K	—	1K	12-ch. 10-bit	—	2 USART	3/1/—	24	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP	R5F21114DFF#U0-ND	4.43	3.55	2.76
Flash	8K	4K	500	8-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP	R5F21122DFF#U0-ND R5F21122FFP#U0-ND	5.02	4.02	3.13
Flash	12K	4K	750	8-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP	R5F21123DFF#U0-ND	4.70	3.77	2.93
Flash	8K	4K	500	12-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21132DFF#U0-ND R5F21132FFP#U0-ND	5.29	4.23	3.29
Flash	8K	—	500	4-ch. 10-bit	—	1 USART, 1 SSU*	3/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP 20-SSOP	R5F21142DSP#U0-ND R5F21142SP#U0-ND	3.98	3.19	2.48
Flash	12K	—	750	4-ch. 10-bit	—	1 USART, 1 SSU*	3/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP	R5F21143DSP#U0-ND	3.71	2.97	2.31
Flash	16K	—	1K	4-ch. 10-bit	—	1 USART, 1 SSU*	3/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C	20-LSSOP	R5F21144DSP#U0-ND	4.30	3.44	2.68
Flash	8K	2K	500	4-ch. 10-bit	—	1 USART, 1 SSU*	2/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-SSOP 20-SSOP	R5F21152DSP#U0-ND R5F21152SP#U0-ND	4.57	3.66	2.85
Flash	8K	—	500	4-ch. 10-bit	—	1 USART, 1 I ² C	2/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-SSOP 20-SSOP	R5F21162DSP#U0-ND R5F21162SP#U0-ND	4.43	3.55	2.76
Flash	12K	—	750	4-ch. 10-bit	—	1 USART, 1 I ² C	2/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP	R5F21163DSP#U0-ND	4.14	3.32	2.58
Flash	16K	—	1K	4-ch. 10-bit	—	1 USART, 1 I ² C	2/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C	20-LSSOP	R5F21164DSP#U0-ND	3.87	3.10	2.41
Flash	8K	2K	500	4-ch. 10-bit	—	1 USART, 1 I ² C	2/1/—	15	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-SSOP	R5F21172DSP#U0-ND	4.70	3.77	2.93
Flash	8K	—	500	4-ch. Comparator	—	2 USART	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-SDIP 20-LSSOP 28-HWQFN	R5F21182DD#U0-ND R5F21182DSP#U0-ND R5F21182NP#U0-ND	3.87	3.10	2.41
Flash	8K	—	500	4-ch. Comparator	—	2 USART	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-LSSOP 28-HWQFN 20-SSOP	R5F21182SP#U0-ND R5F21192DD#U0-ND R5F21192DSP#U0-ND	3.98	3.19	2.48
Flash	8K	2K	500	4-ch. Comparator	—	2 USART	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-SSOP 28-HWQFN 20-SSOP	R5F21192NP#U0-ND R5F21192SP#U0-ND	4.30	3.44	2.68
Flash	12K	—	750	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-40°C - 85°C	20-SDIP 20-LSSOP 28-HWQFN	R5F211A3DD#U0-ND R5F211A3DSP#U0-ND R5F211A3NP#U0-ND	4.03	3.23	2.51
Flash	12K	—	750	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-20°C - 85°C -40°C - 85°C -20°C - 85°C	20-LSSOP 28-HWQFN 20-LSSOP	R5F211A3SP#U0-ND R5F211B3DD#U0-ND R5F211B3DSP#U0-ND	4.43	3.55	2.76
Flash	12K	—	750	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	2/1/—	16	20MHz/2.7 - 5.5V	-40°C - 85°C -20°C - 85°C	20-LSSOP 28-HWQFN	R5F211B3NP#U0-ND R5F211B3SP#U0-ND	3.71	2.97	2.31
Flash	12K	—	750	8-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-20°C - 85°C	32-LQFP 32-LQFP	R5F21103DFF#U0-ND R5F21103FFP#U0-ND	4.70	3.77	2.93
Flash	12K	—	750	12-ch. 10-bit	—	2 USART	3/1/—	24	20MHz/2.7 - 5.5V	-20°C - 85°C	32-LQFP	R5F21113FFP#U0-ND	4.86	3.89	3.03
Flash	12K	4K	750	8-ch. 10-bit	—	2 USART	3/1/—	24	16MHz/2.7 - 5.5V	-20°C - 85°C	32-LQFP	R5F21123FFP#U0-ND	4.57	3.66	2.85

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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.	1	Price Each 25	100
Flash	8K	2K	500	12-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	28	20MHz/2.2 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21272SDFF#U0-ND R5F21272SNFP#U0-ND	5.24 4.95	4.20 3.96	3.27 3.08
Flash	16K	2K	1K	12-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	28	20MHz/2.2 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21274SDFF#U0-ND R5F21274SNFP#U0-ND	5.56 5.24	4.45 4.20	3.46 3.27
Flash	24K	2K	1.5K	12-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	28	20MHz/2.2 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21275SDFF#U0-ND R5F21275SNFP#U0-ND	5.20 5.56	4.16 4.45	3.51 3.46
Flash	32K	2K	1.5K	12-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	28	20MHz/2.2 - 5.5V	-40°C - 85°C -20°C - 85°C	32-LQFP 32-LQFP	R5F21276SDFF#U0-ND R5F21276SNFP#U0-ND	5.46 5.20	4.37 4.16	3.69 3.51
Flash	8K	—	500	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	16	20MHz/2.2 - 5.5V	-40°C - 85°C	20-LSSOP	R5F21282SDSP#U0-ND	4.21	3.37	2.62
Flash	16K	—	1K	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	16	20MHz/2.2 - 5.5V	-40°C - 85°C	20-LSSOP	R5F21284SDSP#U0-ND	4.50	3.60	2.80
Flash	16K	2K	1K	4-ch. 10-bit	—	2 USART, 1 SSU*, 1 I ² C	3/1/—	16	20MHz/2.2 - 5.5V	-40°C - 85°C	20-LSSOP	R5F21294SDSP#U0-ND	4.95	3.96	3.08

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C

740 Family

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.	1	Price Each 25	100
Flash	36K	—	1K	8-ch. 10-bit	—	2 USART	2/2/—	29	8MHz/2.2 - 5.5V	-20°C - 85°C	36-SSOP	M37542F8FP#U0-ND	8.64	6.92	5.84
Flash	32K	—	1K	—	—	3 USART, 1 USB	3/2/—	66	24MHz/3 - 5.25V	-20°C - 70°C	80-LQFP	M37641F8HP#U0-ND	10.80	9.72	8.62
OTP	24K	—	512	8-ch. 8-bit	—	1 USART	3/2/—	38	8MHz/1.8 - 5.5V	-20°C - 85°C	64-LQFP	M38C13E6HP#U0-ND	6.80	5.44	4.59
Flash	60K	—	2K	8-ch. 10-bit	—	2 USART	4/2/—	51	8MHz/1.8 - 5.5V	-20°C - 85°C	64-LQFP	M38C29FFAFP#U0-ND	9.90	7.92	6.69
QzROM	16K	—	625	8-ch. 10-bit	—	2 USART	4/6/—	51	12.5MHz/1.8 - 5.5V	-20°C - 85°C	64-LQFP 64-LQFP	M38D24G4FP#U0-ND M38D24G4HP#U0-ND	4.79 4.79	3.84 3.84	2.99 2.99
QzROM	24K	—	625	8-ch. 10-bit	—	2 USART	4/2/—	51	12.5MHz/1.8 - 5.5V	-20°C - 85°C	64-LQFP 64-LQFP	M38D24G6FP#U0-ND M38D24G6HP#U0-ND	5.11 5.11	4.09 4.09	3.18 3.18
QzROM	32K	—	1.5K	8-ch. 10-bit	—	2 USART	4/2/—	59	12.5MHz/1.8 - 5.5V	-20°C - 85°C	80-QFP 80-LQFP	M38D58G8FP#U0-ND M38D58G8HP#U0-ND	5.34 5.34	4.28 4.28	3.61 3.61
QzROM	48K	—	2K	8-ch. 10-bit	—	2 USART	4/2/—	59	12.5MHz/1.8 - 5.5V	-20°C - 85°C	80-QFP 80-LQFP	M38D59G8FP#U0-ND M38D59G8HP#U0-ND	5.60 5.60	4.48 4.48	3.78 3.78
QzROM	60K	—	2K	8-ch. 10-bit	—	2 USART	4/2/—	59	12.5MHz/1.8 - 5.5V	-20°C - 85°C	80-QFP 80-LQFP	M38D59G9FP#U0-ND M38D59G9HP#U0-ND	5.84 5.84	4.68 4.68	3.95 3.95
Flash	32K	—	2K	8-ch. 10-bit	—	1 USART	3/—/—	44	8MHz/3.0 - 5.2V	-20°C - 85°C	64-LQFP	M38K29F8LHP#U0-ND	9.80	8.81	7.81
QzROM	60K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16MHz/2.7 - 5.5V	-20°C - 85°C	64-QFP	M38039FFHP#U0-ND	9.86	7.89	6.66
QzROM	48K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16.8MHz/2 - 5.5V	-20°C - 85°C	64-LQFP	M38039GCHHP#U0-ND	5.40	4.32	3.36
QzROM	16K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16.8MHz/2 - 5.5V	-20°C - 85°C	64-LQFP 64-SDIP	M38039G4HHP#U0-ND M38039G4HSP#U0-ND	3.96 5.51	3.17 4.41	2.47 3.43
QzROM	24K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16.8MHz/2 - 5.5V	-20°C - 85°C	64-LQFP 64-LQFP 64-SDIP	M38039G6HHP#U0-ND M38039G6HP#U0-ND M38039G6HSP#U0-ND	4.21 4.32 5.14	3.37 3.46 4.12	2.62 2.69 3.47
QzROM	32K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16.8MHz/2 - 5.5V	-20°C - 85°C	64-LQFP 64-LQFP 64-SDIP	M38039G8HHP#U0-ND M38039G8HP#U0-ND M38039G8HSP#U0-ND	4.48 4.59 5.38	3.59 3.68 4.31	2.79 2.86 3.64
QzROM	48K	—	2K	16-ch. 10-bit	2-ch. 8-bit	3 USART	4/1/—	56	16.8MHz/2 - 5.5V	-20°C - 85°C	64-LQFP 64-SDIP	M38039GCHHP#U0-ND M38039GCHSP#U0-ND	5.56 6.40	4.45 5.12	3.46 4.32
QzROM	16K	—	512	9-ch. 10-bit	2-ch. 8-bit	2 UART	4/1/—	34	12.5MHz/1.8 - 5.5V	-20°C - 85°C	42-SSOP	M38503G4AFP#U1-ND	3.89	3.12	2.43
QzROM	16K	—	512	9-ch. 10-bit	2-ch. 8-bit	2 UART	4/—/—	34	12.5MHz/1.8 - 5.5V	-20°C - 85°C	42-DIP	M38503G4ASP#U1-ND	5.11	4.09	3.18
Flash	32K	—	1K	9-ch. 10-bit	—	2 USART	4/—/—	34	12.5MHz/2.7 - 5.5V	-20°C - 85°C	42-SSOP	M38507F8AFP#U1-ND	8.80	7.04	5.94
QzROM	48K	—	1.5K	—	—	2 USART	4/1/—	34	12.5MHz/2.7 - 5.5V	-20°C - 85°C	42-SSOP 42-SDIP	M38588GCFP#U0-ND M38588GCFP#U0-ND	5.34 6.10	4.28 4.88	3.61 4.12
Flash	60K	—	2K	8-ch. 10-bit	2-ch. 8-bit	2 USART	4/—/—	72	10MHz/2.7 - 5.5V	-20°C - 85°C	80-QFP 80-LQFP	M38869FFAFP#U0-ND M38869FFAFP#U0-ND	9.08 14.48	8.16 13.51	7.24 12.55
ROMless	—	—	148K	—	—	3 UART, 1 USART, 1 I ² C	—/4/4	132	266MHz/1.2V	-20°C - 70°C	449-BGA	R8A77220AC266BGV-ND	45.00	42.00	39.00

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SuperH™ Family

SuperH is an embedded RISC developed for high performance, miniaturization and performance per power consumption (MIPS/W). We are developing CPU cores for a wide range of applications and functions and have many products. Our product lines include the series with SH-2 as the CPU core with on-chip large capacity flash memory and peripheral functions such as timer, serial and AD converter, and the series with SH-3 and SH-4 as the CPU core which enable high-speed data processing and come equipped with cache and MMU. Additionally, there is lineup of series with SH2-DSP and SH3-DSP as the CPU core, which have full DSP functions and an emphasis on multimedia processing and communications processing. Currently available series (products) also have lots of features such as low power mode, contributing to low power consumption and miniaturization for application hardware. Various versatile operating systems and development tools have been improved and, crucially, more efficient development can be achieved.

SH Series

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.	1	Price Each 25	100
ROMless	—	—	4K	—	—	3 USART, IrDA	—/2/—	78	100MHz/1.4 - 1.6V	-20°C - 75°C	176-LFBGA	D17618RBG100V-ND	14.81	13.34	11.83
ROMless	—	—	16K	—	—	4 USART, IrDA	—/2/—	78	125MHz/1.71 - 1.89V	-20°C - 70°C	176-LFBGA 176-LFBGA	DS76190B125BGV-ND DS76190M125BGV-ND	18.09 19.01	16.89 17.74	15.68 16.48
ROMless	—	—	8K	8-ch. 10-bit	—	4 USART, IrDA, Smart Card, 1 I ² C	—/5/—	106	50MHz/3 - 3.6V	-20°C - 75°C	114-LQFP	HD6417145F50V-ND	11.02	9.90	8.78
ROMless	—	—	—	8-ch. 10-bit	2-ch. 10-bit	UART	—/1/3	96	100MHz/3.3V 137MHz/3.3V	-20°C - 75°C	208-QFP 208-QFP	D6417709SF100BV-ND D6417709SF133BV-ND	21.57 23.72	20.14 22.14	18.70 20.56
ROMless	—	—	16K	—	—	2 UART, 2 SSU,* 2 Ethernet	—/—/3	24	200MHz/1.5V	-20°C - 75°C	256-QFP	HD6417710FV-ND	23.93	22.33	20.74
ROMless	—	—	16K	6-ch. 10-bit	2-ch. 8-bit	3 UART, 2 USB, Smart Card	—/—/3	104	167MHz/1.9V	-20°C - 75°C	240-BGA 240-BGA	HD6417727BP160CV-ND	35.93	33.53	31.14
Flash	256K	—	12K	16-ch. 10-bit	—	3 USART, IrDA, 1 CAN	—/5/—	69	50MHz/4.5 - 5.5V	-20°C - 75°C	100-QFP	HD64F047F50V-ND	19.04	17.77	16.50

SH-2 Series

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.	1	Price Each 25	100
ROMless	—	—	3K	8-ch. 10-bit	—	2 USART, IrDA	—/3/—	43	28.7MHz/4.5 - 5.5V	-20°C - 75°C	112-QFP 112-QFP	HD6417014F28V-ND HD6417014RF28V-ND	12.59 12.59	11.75 11.75	10.91 10.91
ROMless	—	—	4K	8-ch. 10-bit	—	2 USART, IrDA	—/5/—	82	16.7MHz/3 - 3.6V 28.7MHz/4.5 - 5.5V	-20°C - 75°C	112-QFP 112-QFP	HD6417040AVCF16V-ND HD6417040ACF28V-ND	18.66 21.75	17.42 20.30	16.18 18.85
ROMless	—	—	4K	8-ch. 10-bit	—	2 USART, IrDA	—/5/—	82	28.7MHz/4.5 - 5.5V 28.7MHz/4.5 - 5.5V 16.7MHz/3 - 3.6V	-20°C - 75°C	144-QFP 144-QFP 144-QFP	HD6417041ACF28V-ND HD6417041AF28V-ND HD6417041AVF16V-ND	18.48 18.48 19.25	17.25 17.25 17.97	16.02 16.02 16.68

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