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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
											144-LQFP	DF2377RVFQ33WV-ND	18.80	17.55	16.29
											144-LQFP	HD64F2377RVFQ33-ND	17.90	16.71	15.51
											144-LQFP	HD64F2377RVFQ33W-ND	18.80	17.55	16.29
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
											144-LQFP	DF2378BVFQ35V-ND	15.42	14.40	13.37
											144-LQFP	DF2378BVFQ35WV-ND	16.97	15.84	14.71
											144-LQFP	DF2378BVLP35V-ND	18.29	17.07	15.85
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	DF2378RVFQ34V-ND	16.20	15.12	14.04
											144-LQFP	DF2378RVLP34V-ND	20.96	19.56	18.17
											120-TQFP	DF2398TE20V-ND	16.74	15.63	14.51
											128-QFP	DF2398F20V-ND	17.82	16.64	15.45
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	128-QFP	DF2398F20V-ND	16.20	15.12	14.04
											128-QFP	DF2437FV-ND	16.20	15.12	14.04
											176-LFBGA	DF2505BR26DV-ND	25.01	23.34	21.68
											144-QFP	DF2505FC26V-ND	22.86	21.34	19.82
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	-20°C - 75°C	144-QFP	DF2505FC26V-ND	22.86	21.34	19.82
											176-LFBGA	DF2506BR26DV-ND	27.00	25.20	23.40
											176-LFBGA	DF2511BR26DV-ND	26.00	24.27	22.53
											144-QFP	DF2511FC26V-ND	24.00	22.40	20.80
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	-20°C - 75°C	176-LFBGA	DF2511BR26DV-ND	26.00	24.27	22.53
											144-QFP	DF2511FC26V-ND	24.00	22.40	20.80
											176-LFBGA	DF2552BR26DV-ND	27.90	26.04	24.18
											144-QFP	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	4/6/—	120	20MHz/3 - 5.5V	-40°C - 75°C	144-QFP	DF2556FC20DV-ND	26.00	24.27	22.53
											80-QFP	DF2612FA20V-ND	16.01	14.94	13.88
											100-QFP	DF2623FA20V-ND	28.97	27.04	25.11
											100-QFP	DF2623FA20V-ND	24.00	22.40	20.80
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
											100-QFP	DF2623FA20V-ND	28.97	27.04	25.11
											100-QFP	DF2623FA20V-ND	24.00	22.40	20.80
											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
											128-QFP	DF2630UF20V-ND	37.52	35.02	32.52
											128-QFP	DF2630WF20V-ND	38.48	35.91	33.35
											128-QFP	DF2633F16V-ND	21.90	20.44	18.98
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
											128-QFP	DF2630UF20V-ND	37.52	35.02	32.52
											128-QFP	DF2630WF20V-ND	38.48	35.91	33.35
											128-QFP	DF2633F16V-ND	21.90	20.44	18.98
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
											128-QFP	DF2633F25V-ND	21.90	20.44	18.98
											120-TQFP	DF2633TE25V-ND	24.00	22.40	20.80
											128-QFP	DF2633RF28V-ND	19.01	17.74	16.48
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
											120-TQFP	DF2633RTE28V-ND	19.61	18.30	17.00
											120-TQFP	HD64F2633RTE28-ND	19.61	18.30	17.00
											120-TQFP	DF2633TE16V-ND	23.81	22.22	20.64
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
											128-QFP	DF2636F20V-ND	22.28	20.79	19.31
											128-QFP	DF2636UF20V-ND	23.63	22.05	20.48
											128-QFP	DF2638F20V-ND	25.14	23.47	21.79
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
											128-QFP	HD64F2638F20V-ND	30.66	28.62	26.58
											128-QFP	DF2638UF20V-ND	26.28	24.53	22.78
											128-QFP	DF2638WF20V-ND	27.42	25.60	23.77
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	DF2638WF20V-ND	33.29	31.07	28.85
											128-QFP	DF2639UF20V-ND	27.80	25.95	24.09
											128-QFP	DF2639WF20V-ND	28.76	26.84	24.93
											144-QFP	DF2643FC16V-ND	23.04	21.51	19.97
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	144-QFP	DF2643FC16V-ND	23.04	21.51	19.97
											144-QFP	DF2643FC25V-ND	23.04	21.51	19.97
											144-QFP	DF2646RF20V-ND	30.29	28.27	26.25
											144-QFP	DF2646RF20V-ND	25.14	23.47	21.79
Flash	128K	—	4K	12-ch. 10-bit	—	2 USART, Smart Card, 1 CAN	—/6/—	108	20MHz/4.5 - 5.5V	-20°C - 75°C	144-QFP	DF2646RF20V-ND	30.29	28.27	26.25
											144-QFP	DF2646RF20V-ND	25.14	23.47	21.79
											144-QFP	DF2648RF20V-ND	31.62	29.52	27.41
											144-QFP	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
											144-LQFP	DF2667VFQ33V-ND	18.66	17.42	16.18
											144-LQFP	DF2676VFQ33V-ND	20.00	18.67	17.33
											144-LQFP	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	DS61651N48FPV-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
											120-TQFP	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
											144-LQFP	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	M30302FAFPF0U3-ND	6.30	5.04	4.26
											100-QFP	M30302FAFPF0U5-ND	6.00	4.80	4.05

◆ RoHS Compliant *SSU = SPI®

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