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SPRING 2013



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Product Selector Tables

32-bit Microcontroller Products

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Precision32™ Analog-Intensive 32-bit MCU

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC 2	DAC	TOUCH CH.	TEMP SENSOR	VREF	COMP.	PACKAGE
SiM3C164	256 kB	80	32 kB	28	2 x I^2C, I^2S, 3 x SPI, 2 x UART, 2 x USART, USB	5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3C166	256 kB	80	32 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64
SiM3C167	256 kB	80	32 kB	65		5	10	±1.5%	12-bit, 16-ch.	12-bit, 16-ch.	10-bit, 2-ch.	16	•	•	2	LGA92/TQFP80
SiM3C154	128 kB	80	32 kB	28		5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3C156	128 kB	80	32 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64
SiM3C157	128 kB	80	32 kB	65		5	10	±1.5%	12-bit, 16-ch.	12-bit, 16-ch.	10-bit, 2-ch.	16	•	•	2	LGA92/TQFP80
SiM3C144	64 kB	80	16 kB	28		5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3C146	64 kB	80	16 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64
SiM3C134	32 kB	80	8 kB	28		5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3C136	32 kB	80	8 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64

Precision32™ Low Power 32-bit MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	DAC	TOUCH CH.	TEMP SENSOR	VREF	COMP.	PACKAGE
SiM3L164	256 kB	50	32 kB	28	I^2C, 2 x SPI, 2 x UART	3	1x6	±2%	12-bit, 20-ch.	10-bit	—	•	•	2	QFN40
SiM3L166	256 kB	50	32 kB	51		3	1x6	±2%	12-bit, 23-ch.	10-bit	—	•	•	2	QFN64/TQFP64
SiM3L167	256 kB	50	32 kB	62/64		3	1x6	±2%	12-bit, 24-ch.	10-bit	—	•	•	2	QFP80/BGA80
SiM3L154	128 kB	50	16 kB	28		3	1x6	±2%	12-bit, 20-ch.	10-bit	—	•	•	2	QFN40
SiM3L156	128 kB	50	16 kB	51		3	1x6	±2%	12-bit, 23-ch.	10-bit	—	•	•	2	QFN64/TQFP64
SiM3L157	128 kB	50	16 kB	62/64		3	1x6	±2%	12-bit, 24-ch.	10-bit	—	•	•	2	QFP80/BGA80
SiM3L144	64 kB	50	8 kB	28		3	1x6	±2%	12-bit, 20-ch.	10-bit	—	•	•	2	QFN40
SiM3L146	64 kB	50	8 kB	51		3	1x6	±2%	12-bit, 23-ch.	10-bit	—	•	•	2	QFN64/TQFP64
SiM3L134	32 kB	50	8 kB	28		3	1x6	±2%	12-bit, 20-ch.	10-bit	—	•	•	2	QFN40
SiM3L136	32 kB	50	8 kB	47		3	1x6	±2%	12-bit, 23-ch.	10-bit	—	•	•	2	QFN64/TQFP64

Precision32™ USB 32-bit MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC 2	DAC	TOUCH CH.	TEMP SEN-SOR	VREF	COMP.	PACKAGE
SiM3U164	256 kB	80	32 kB	28	2 x I^2C, I^2S, 3 x SPI, 2 x UART, 2 x USART, USB	5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3U166	256 kB	80	32 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64
SiM3U167	256 kB	80	32 kB	65		5	10	±1.5%	12-bit, 16-ch.	12-bit, 16-ch.	10-bit, 2-ch.	16	•	•	2	LGA92/TQFP80
SiM3U154	128 kB	80	32 kB	28		5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3U156	128 kB	80	32 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64
SiM3U157	128 kB	80	32 kB	65		5	10	±1.5%	12-bit, 16-ch.	12-bit, 16-ch.	10-bit, 2-ch.	16	•	•	2	LGA92/TQFP80
SiM3U144	64 kB	80	16 kB	28		5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3U146	64 kB	80	16 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC 2	DAC	TOUCH CH.	TEMP SEN-SOR	VREF	COMP.	PACKAGE
SiM3U134	32 kB	80	8 kB	28	2 x I^2C, I^2S, 3 x SPI, 2 x UART, 2 x USART, USB	5	10	±1.5%	12-bit, 7-ch.	12-bit, 11-ch.	10-bit, 2-ch.	12	•	•	2	QFN40
SiM3U136	32 kB	80	8 kB	50		5	10	±1.5%	12-bit, 13-ch.	12-bit, 15-ch.	10-bit, 2-ch.	15	•	•	2	QFN64/TQFP64

Ember® ZigBee® ICs

PART NUMBER	FLASH (kB)	RAM (kB)	DATA RATE	FREQ. RANGE (MHz)	SENS.	ADJ CHANNEL REJECTION (15.4)	ALT CHANNEL REJECTION (15.4)	802.11g REJECTION +12/-13 MHz	TX POWER	TOTAL LINK BUDGET	DEEP SLEEP CURRENT	RX CURRENT	TX CURRENT	CRYSTAL FREQ.	VOLTAGE (V)	PACKAGE
EM351	128	12	250 kbps	2400-2500	-102 dBm (boost)	35 dB	46 dB	36 dB	-55 to +8 dBm (boost)	110 dB (boost)	400 mA (no timer)	26.5 mA (normal)	31 mA (normal @ +3 dBm)	24 MHz	2.1 to 3.6	QFN48
EM357	192	12	250 kbps	2400-2500	-102 dBm (boost)	35 dB	46 dB	36 dB	-55 to +8 dBm (boost)	110 dB (boost)	400 mA (no timer)	26.5 mA (normal)	31 mA (normal @ +3 dBm)	24 MHz	2.1 to 3.6	QFN48

8-bit Microcontroller Products

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Capacitive Touch Controller MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TOUCH CH.	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F760	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN48	—
C8051F761	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN32	—
C8051F762	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN24	—
C8051F765	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN48	—
C8051F766	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN32	—
C8051F767	32 kB	25	8	—	I^2C; SPI; UART	—	—	—	10-bit, 9-ch., 300 ksps	—	—	—	—	QFN24	—
C8051F702	16 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 500 ksps	38	•	•	1	QFP64	C8051F700DK
C8051F703	16 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	—	38	—	—	1	QFP64	C8051F700DK
C8051F706	16 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	10-bit, 12-ch., 500 ksps	27	•	•	1	QFN48/ QFP48	C8051F700DK
C8051F707	16 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	—	27	—	—	1	QFN48/ QFP48	C8051F700DK
C8051F716	16 kB	25	0.5	29	I^2C; SPI; UART	4	3	±2%	10-bit, 3-ch., 500 ksps	26	•	•	1	QFN32	C8051F700DK
C8051F717	16 kB	25	0.5	20	I^2C; SPI; UART	4	3	±2%	—	18	—	—	1	QFN24	C8051F700DK
C8051F800	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	16	•	•	1	QFN20/ QSOP24	C8051F800DK
C8051F801	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	8	•	•	1	QFN20/ QSOP24	C8051F800DK
C8051F802	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	—	•	•	1	QFN20/ QSOP24	C8051F800DK
C8051F803	16 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	12	•	•	1	SOIC16	C8051F800DK
C8051F804	16 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	8	•	•	1	SOIC16	C8051F800DK
C8051F806	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	16	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F807	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	8	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F808	16 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	—	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F809	16 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	12	—	—	1	SOIC16	C8051F800DK

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C8051F810	16 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	8	—	—	1	SOIC16	C8051F800DK
C8051F811	16 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	—	—	—	1	SOIC16	C8051F800DK
C8051F805	16 kB	28	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	—	•	•	1	SOIC16	C8051F800DK
C8051F700	15 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 500 ksps	38	•	•	1	QFP64	C8051F700DK
C8051F701	15 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	—	38	—	—	1	QFP64	C8051F700DK
C8051F704	15 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	10-bit, 12-ch., 500 ksps	27	•	•	1	QFN48/ QFP48	C8051F700DK
C8051F705	15 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	—	27	—	—	1	QFN48/ QFP48	C8051F700DK
C8051F708	8 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 500 ksps	38	•	•	1	QFP64	C8051F700DK
C8051F709	8 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	—	38	—	—	1	QFP64	C8051F700DK
C8051F710	8 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 500 ksps	38	•	•	1	QFP64	C8051F700DK
C8051F711	8 kB	25	0.5	54	EMIF; I^2C; SPI; UART	4	3	±2%	—	39	—	—	1	QFP64	C8051F700DK
C8051F712	8 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	10-bit, 12-ch., 500 ksps	27	•	•	1	QFN48/ QFP48	C8051F700DK
C8051F713	8 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	—	27	—	—	1	QFN48/ QFP48	C8051F700DK
C8051F714	8 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	10-bit, 12-ch., 500 ksps	27	•	•	1	QFN48/ QFP48	C8051F700DK
C8051F715	8 kB	25	0.5	39	I^2C; SPI; UART	4	3	±2%	—	27	—	—	1	QFN48/ QFP48	C8051F700DK
C8051F812	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	16	•	•	1	QFN20/ QSOP24	C8051F800DK
C8051F813	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	8	•	•	1	QSOP24	C8051F800DK
C8051F814	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	—	•	•	1	QFN20/ QSOP24	C8051F800DK
C8051F815	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	12	•	•	1	SOIC16	C8051F800DK
C8051F816	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	8	•	•	1	SOIC16	C8051F800DK
C8051F817	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	—	•	•	1	SOIC16	C8051F800DK
C8051F818	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	16	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F819	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	8	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F820	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	—	—	—	—	1	QFN20/ QSOP24	C8051F800DK
C8051F821	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	12	—	—	1	SOIC16	C8051F800DK
C8051F822	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	8	—	—	1	SOIC16	C8051F800DK
C8051F823	8 kB	25	0.5	13	I^2C; SPI; UART	3	3	±2%	—	—	—	—	1	SOIC16	C8051F800DK
C8051F990	8 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	12-bit, 9-ch., 75 ksps	13	•	•	1	QFN20	C8051F996DK
C8051F991	8 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	—	13	—	—	1	QFN20	C8051F996DK
C8051F996	8 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	12-bit, 10-ch., 75 ksps	14	•	•	1	QFN24/ QSOP24	C8051F996DK
C8051F997	8 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	—	14	—	—	1	QFN24/ QSOP24	C8051F996DK
C8051F813	8 kB	25	0.5	17	I^2C; SPI; UART	3	3	±2%	10-bit, 16-ch., 500 ksps	8	•	•	1	QSOP24	C8051F800DK
C8051F824	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	12	•	•	1	SOIC16	C8051F800DK
C8051F825	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	8	•	•	1	SOIC16	C8051F800DK
C8051F826	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	—	•	•	1	SOIC16	C8051F800DK
C8051F827	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	—	12	—	—	1	SOIC16	C8051F800DK
C8051F828	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	—	8	—	—	1	SOIC16	C8051F800DK
C8051F829	8 kB	25	0.25	13	I^2C; SPI; UART	3	3	±2%	—	—	—	—	1	SOIC16	C8051F800DK

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C8051F830	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	12	•	•	1	SOIC16	C8051F800DK
C8051F831	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	8	•	•	1	SOIC16	C8051F800DK
C8051F832	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	10-bit, 12-ch., 500 ksps	—	•	•	1	SOIC16	C8051F800DK
C8051F833	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	—	12	—	—	1	SOIC16	C8051F800DK
C8051F834	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	—	8	—	—	1	SOIC16	C8051F800DK
C8051F835	4 kB	25	0.25	13	I²C; SPI; UART	3	3	±2%	—	—	—	—	1	SOIC16	C8051F800DK

Small Form Factor MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	DAC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	OTP-EPROM VERSION	DEV KIT
C8051F360	32 kB	100	1.25	39	EMIF; I²C; SPI; UART	4	6	±2%	10-bit, 21-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	TQFP48		C8051F360DK
C8051F361	32 kB	100	1.25	27	I²C; SPI; UART	4	6	±2%	10-bit, 21-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	LQFP32		C8051F360DK
C8051F362	32 kB	100	1.25	24	I²C; SPI; UART	4	6	±2%	10-bit, 17-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	QFN28		C8051F360DK
C8051F363	32 kB	100	1.25	39	EMIF; I²C; SPI; UART	4	6	±2%	—	—	—	—	2	16x16 MAC	TQFP48		C8051F360DK
C8051F364	32 kB	100	1.25	29	I²C; SPI; UART	4	6	±2%	—	—	—	—	2	16x16 MAC	LQFP32		C8051F360DK
C8051F365	32 kB	100	1.25	25	I²C; SPI; UART	4	6	±2%	—	—	—	—	2	16x16 MAC	QFN28		C8051F360DK
C8051F366	32 kB	50	1.25	29	I²C; SPI; UART	4	6	±2%	10-bit, 21-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	LQFP32		C8051F360DK
C8051F367	32 kB	50	1.25	25	I²C; SPI; UART	4	6	±2%	10-bit, 17-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	QFN28		C8051F360DK
C8051F410	32 kB	50	2.25	24	I²C; SPI; UART	4	6	±2%	12-bit, 24-ch., 200 ksps	12-bit, 2-ch.	•	•	2	RTC; VREG	LQFP32		C8051F410DK
C8051F411	32 kB	50	2.25	20	I²C; SPI; UART	4	6	±2%	12-bit, 20-ch., 200 ksps	12-bit, 2-ch.	•	•	2	RTC; VREG	QFN28		C8051F410DK
C8051F368	16 kB	50	1.25	29	I²C; SPI; UART	4	6	±2%	10-bit, 21-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	LQFP32		C8051F360DK
C8051F369	16 kB	50	1.25	25	I²C; SPI; UART	4	6	±2%	10-bit, 17-ch., 200 ksps	10-bit, 1-ch.	•	•	2	16x16 MAC	QFN28		C8051F360DK
C8051F370	16 kB	50	1	21	I²C; 2 x I²C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	2	LFO; VREG	QFN24		C8051F370DK
C8051F371	16 kB	50	1	21	I²C; 2 x I²C; SPI; UART	6	3	±2%	—	—	—	—	2	LFO; VREG	QFN24		C8051F370DK
C8051F390	16 kB	50	1	21	I²C; 2 x I²C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN24		C8051F390DK
C8051F391	16 kB	50	1	21	I²C; 2 x I²C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN24		C8051F390DK
C8051F392	16 kB	50	1	17	I²C; 2 x I²C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN20		C8051F390DK
C8051F393	16 kB	50	1	17	I²C; 2 x I²C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN20		C8051F390DK
C8051F412	16 kB	50	2.25	24	I²C; SPI; UART	4	6	±2%	12-bit, 24-ch., 200 ksps	12-bit, 2-ch.	•	•	2	RTC; VREG	LQFP32		C8051F410DK
C8051F413	16 kB	50	2.25	20	I²C; SPI; UART	4	6	±2%	12-bit, 20-ch., 200 ksps	12-bit, 2-ch.	•	•	2	RTC; VREG	QFN28		C8051F410DK
C8051F310	16 kB	25	1.25	29	I²C; SPI; UART	4	5	±2%	10-bit, 21-ch., 200 ksps	—	•	—	2	—	LQFP32	T610	C8051F310DK
C8051F311	16 kB	25	1.25	25	I²C; SPI; UART	4	5	±2%	10-bit, 17-ch., 200 ksps	—	•	—	2	—	QFN28	T611	C8051F310DK
C8051F316	16 kB	25	1.25	21	I2C; SPI; UART	4	5	±2%	10-bit, 13-ch.,200 ksps	—	•	—	2	—	QFN24	T616	C8051F310DK
C8051F317	16 kB	25	1.25	21	I²C; SPI; UART	4	5	±2%	—	—	—	—	2	—	QFN24	T617	C8051F310DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	DAC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	OTP-EPROM VERSION	DEV KIT
C8051F336	16 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 200 ksps	10-bit, 1-ch.	•	•	1	LFO	QFN20		C8051F336DK
C8051F337	16 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	—	—			1	LFO	QFN20		C8051F336DK
C8051F338	16 kB	25	0.75	21	I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 200 ksps	10-bit, 1-ch.	•	•	1	LFO	QFN24		C8051F336DK
C8051F339	16 kB	25	0.75	21	I^2C; SPI; UART	4	3	±2%	—	—	—	—	1	LFO	QFN24		C8051F336DK
C8051F206	8 kB	25	1.25	32	SPI; UART	3	—	±20%	12-bit, 32-ch., 100 ksps	—	—	—	2	—	TQFP48		C8051F206DK
C8051F220	8 kB	25	0.25	32	SPI; UART	3	—	±20%	8-bit, 32-ch., 100 ksps	—	—	—	2	—	TQFP48		C8051F226DK
C8051F221	8 kB	25	0.25	22	SPI; UART	3	—	±20%	8-bit, 22-ch., 100 ksps	—	—	—	2	—	LQFP32		C8051F226DK
C8051F226	8 kB	25	1.25	32	SPI; UART	3	—	±20%	8-bit, 32-ch., 100 ksps	—	—	—	2	—	TQFP48		C8051F226DK
C8051F230	8 kB	25	0.25	32	SPI; UART	3	—	±20%	—	—	—	—	2	—	TQFP48		C8051F226DK
C8051F231	8 kB	25	0.25	22	SPI; UART	3	—	±20%	—	—	—	—	2	—	LQFP32		C8051F226DK
C8051F236	8 kB	25	1.25	32	SPI; UART	3	—	±20%	—	—	—	—	2	—	TQFP48		C8051F226DK
C8051F300	8 kB	25	0.25	8	I^2C; UART	3	3	±2%	8-bit, 8-ch., 500 ksps	—	•	—	1	—	QFN11/ SOIC14	T600	C8051F300DK
C8051F301	8 kB	25	0.25	8	I^2C; UART	3	3	±2%	—	—	—	—	1	—	QFN11/ SOIC14	T601	C8051F300DK
C8051F302	8 kB	25	0.25	8	I^2C; UART	3	3	±20%	8-bit, 8-ch., 500 ksps	—	•	—	1	—	QFN11/ SOIC14	T600	C8051F300DK
C8051F303	8 kB	25	0.25	8	I^2C; UART	3	3	±20%	—	—	—	—	1	—	QFN11/ SOIC14	T601	C8051F300DK
C8051F312	8 kB	25	1.25	29	I^2C; SPI; UART	4	5	±2%	10-bit, 21-ch., 200 ksps	—	•	—	2	—	LQFP32	T612	C8051F310DK
C8051F313	8 kB	25	1.25	25	I^2C; SPI; UART	4	5	±2%	10-bit, 17-ch., 200 ksps	—	•	—	2	—	QFN28	T613	C8051F310DK
C8051F314	8 kB	25	1.25	29	I^2C; SPI; UART	4	5	±2%	—	—	—	—	2	—	LQFP32	T614	C8051F310DK
C8051F315	8 kB	25	1.25	25	I^2C; SPI; UART	4	5	±2%	—	—	—	—	2	—	QFN28	T615	C8051F310DK
C8051F330	8 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 200 ksps	10-bit, 1-ch.	•	•	1	LFO	QFN20/ DIP20	T630	C8051F330DK
C8051F331	8 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	—	—	—	—	1	LFO	QFN20	T631	C8051F330DK
C8051F850	8 kB	25	0.50	16	I^2C; SPI; UART	4	3	±2%	12-bit, 15-ch., 200 ksps	—	•	•	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F853	8 kB	25	0.50	16	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F860	8 kB	25	0.50	13	I^2C; SPI; UART	4	3	±2%	12-bit, 12-ch., 200 ksps	—	•	•	2	LFO	SOIC16		C8051F850DK
C8051F863	8 kB	25	0.50	13	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	SOIC16		C8051F850DK
C8051F374	8 kB	50	1	21	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN24		C8051F370DK
C8051F375	8 kB	50	1	21	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN24		C8051F370DK
C8051F394	8 kB	50	1	21	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN24		C8051F390DK
C8051F395	8 kB	50	1	21	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN24		C8051F390DK
C8051F396	8 kB	50	1	17	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN20		C8051F390DK
C8051F397	8 kB	50	1	17	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN20		C8051F390DK
C8051F304	4 kB	25	0.25	8	I^2C; UART	3	3	±20%	—	—	—	—	1	—	QFN11/ SOIC14	T603	C8051F300DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMM.	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	DAC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	OTP-EPROM VERSION	DEV KIT
C8051F332	4 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 200 ksps	—	•	•	1	LFO	QFN20	T632	C8051F330DK
C8051F333	4 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	—	—	—	—	1	LFO	QFN20	T633	C8051F330DK
C8051F851	4 kB	25	0.50	16	I^2C; SPI; UART	4	3	±2%	12-bit, 15-ch., 200 ksps	—	•	•	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F854	4 kB	25	0.50	16	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F861	4 kB	25	0.50	13	I^2C; SPI; UART	4	3	±2%	12-bit, 12-ch., 200 ksps	—	•	•	2	LFO	SOIC16		C8051F850DK
C8051F864	4 kB	25	0.50	13	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	SOIC16		C8051F850DK
C8051F398	4 kB	50	1	17	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	10-bit, 16-ch., 500 ksps	10-bit, 2-ch.	•	•	1	LFO; VREG	QFN20		C8051F390DK
C8051F399	4 kB	50	1	17	I^2C; 2 x I^2C; SPI; UART	6	3	±2%	—	—	—	—	1	LFO; VREG	QFN20		C8051F390DK
C8051F305	2 kB	25	0.25	8	I^2C; UART	3	3	±20%	—	—	—	—o	1	—	QFN11/ SOIC14	T605	C8051F300DK
C8051F334	2 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	10-bit, 16-ch., 200 ksps	—	•	•	1	LFO	QFN20	T634	C8051F330DK
C8051F335	2 kB	25	0.75	17	I^2C; SPI; UART	4	3	±2%	—	—	—	—	1	LFO	QFN20	T635	C8051F330DK
C8051F852	2 kB	25	0.25	16	I^2C; SPI; UART	4	3	±2%	12-bit, 15-ch., 200 ksps	—	•	•	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F855	2 kB	25	0.25	16	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	QFN20/ QSOP24		C8051F850DK
C8051F862	2 kB	25	0.25	13	I^2C; SPI; UART	4	3	±2%	12-bit, 12-ch., 200 ksps	—	•	•	2	LFO	SOIC16		C8051F850DK
C8051F865	2 kB	25	0.25	13	I^2C; SPI; UART	4	3	±2%	—	—	—	—	2	LFO	SOIC16		C8051F850DK

Industrial and Automotive Qualified MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	DEV KIT
C8051F580	128 kB	50	8	40	CAN; EMIF; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN48/ QFP48	C8051F580DK
C8051F581	128 kB	50	8	40	EMIF; I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN48/ QFP48	C8051F580DK
C8051F582	128 kB	50	8	25	CAN; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 25-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN32/ QFP32	C8051F580DK
C8051F583	128 kB	50	8	25	I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 25-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN32/ QFP32	C8051F580DK
C8051F588	128 kB	50	8	33	CAN; EMIF; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN40	C8051F580DK
C8051F589	128 kB	50	8	33	EMIF; I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN40	C8051F580DK
C8051F584	96 kB	50	8	40	CAN; EMIF; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN48/ QFP48	C8051F580DK
C8051F585	96 kB	50	8	40	EMIF; I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN48/ QFP48	C8051F580DK
C8051F586	96 kB	50	8	25	CAN; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 25-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN32/ QFP32	C8051F580DK
C8051F587	96 kB	50	8	25	I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 25-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN32/ QFP32	C8051F580DK
C8051F590	96 kB	50	8	33	CAN; EMIF; I^2C; LIN; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN40	C8051F580DK
C8051F591	96 kB	50	8	33	EMIF; I^2C; SPI; UART; 2 x UART	6	12	±0.5%	12-bit, 32-ch., 200 ksps	•	•	3	-40 to 125 °C	QFN40	C8051F580DK
C8051F500	64 kB	50	4.25	40	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN48/ QFP48	C8051F500DK
C8051F501	64 kB	50	4.25	40	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN48/ QFP48	C8051F500DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	DEV KIT
C8051F502	64 kB	50	4.25	25	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F500DK
C8051F503	64 kB	50	4.25	25	I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F500DK
C8051F508	64 kB	50	4.25	33	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F500DK
C8051F509	64 kB	50	4.25	33	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F500DK
C8051F504	32 kB	50	4.25	40	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN48/ QFP48	C8051F500DK
C8051F505	32 kB	50	4.25	40	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN48/ QFP48	C8051F500DK
C8051F506	32 kB	50	4.25	25	CAN; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F500DK
C8051F507	32 kB	50	4.25	25	I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F500DK
C8051F510	32 kB	50	4.25	33	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F500DK
C8051F511	32 kB	50	4.25	33	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F500DK
C8051F550	32 kB	50	2.25	18	CAN; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F551	32 kB	50	2.25	18	CAN; I^2C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F552	32 kB	50	2.25	18	I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F553	32 kB	50	2.25	18	I^2C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F560	32 kB	50	2.25	25	CAN; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F561	32 kB	50	2.25	25	CAN; I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F562	32 kB	50	2.25	25	I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F563	32 kB	50	2.25	25	I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps		•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F568	32 kB	50	2.25	33	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F569	32 kB	50	2.25	33	CAN; EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F570	32 kB	50	2.25	33	EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F571	32 kB	50	2.25	33	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F554	16 kB	50	2.25	18	CAN; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F555	16 kB	50	2.25	18	CAN; I^2C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F556	16 kB	50	2.25	18	I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F557	16 kB	50	2.25	18	I^2C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F560DK
C8051F564	16 kB	50	2.25	25	CAN; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F565	16 kB	50	2.25	25	CAN; I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F566	16 kB	50	2.25	25	I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F567	16 kB	50	2.25	25	I^2C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F560DK
C8051F572	16 kB	50	2.25	33	CAN; EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F573	16 kB	50	2.25	33	CAN; EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F574	16 kB	50	2.25	33	EMIF; I^2C; LIN; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK
C8051F575	16 kB	50	2.25	33	EMIF; I^2C; SPI; UART	4	6	±0.5%	12-bit, 32-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN40	C8051F560DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	DEV KIT
C8051F540	16 kB	50	1.25	25	I²C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F540DK
C8051F541	16 kB	50	1.25	25	I²C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F540DK
C8051F542	16 kB	50	1.25	18	I²C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F540DK
C8051F543	16 kB	50	1.25	18	I²C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F540DK
C8051F544	8 kB	50	1.25	25	I²C; LIN; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F540DK
C8051F545	8 kB	50	1.25	25	I²C; SPI; UART	4	6	±0.5%	12-bit, 25-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN32/ QFP32	C8051F540DK
C8051F546	8 kB	50	1.25	18	I²C; LIN; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F540DK
C8051F547	8 kB	50	1.25	18	I²C; SPI; UART	4	6	±0.5%	12-bit, 18-ch., 200 ksps	•	•	2	-40 to 125 °C	QFN24	C8051F540DK
C8051F531	8 kB	26	0.25	16	SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20	C8051F530ADK
C8051F520	8 kB	25	0.25	6	LIN; SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F521	8 kB	25	0.25	6	SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F530	8 kB	25	0.25	16	LIN; SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20/ TSSOP20	C8051F530ADK
C8051F531	8 kB	26	0.25	16	SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20	C8051F530ADK
C8051F523	4 kB	25	0.25	6	LIN; SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F524	4 kB	25	0.25	6	SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F533	4 kB	25	0.25	16	LIN; SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20/ TSSOP20	C8051F530ADK
C8051F534	4 kB	25	0.25	16	SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20/ TSSOP20	C8051F530ADK
C8051F526	2 kB	25	0.25	6	LIN; SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F527	2 kB	25	0.25	6	SPI; UART	3	3	±0.5%	12-bit, 6-ch., 200 ksps	•	•	1	-40 to 125 °C	DFN10	C8051F530ADK
C8051F536	2 kB	25	0.25	16	LIN; SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20/ TSSOP20	C8051F530ADK
C8051F537	2 kB	25	0.25	16	SPI; UART	3	3	±0.5%	12-bit, 16-ch., 200 ksps	•	•	1	-40 to 125 °C	QFN20/ TSSOP20	C8051F530ADK

High Performance Analog-Intensive MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC2	DAC	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F120	128 kB	100	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F120DK
C8051F121	128 kB	100	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F120DK
C8051F122	128 kB	100	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F120DK
C8051F123	128 kB	100	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F120DK
C8051F130	128 kB	100	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP100	C8051F120DK
C8051F131	128 kB	100	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP64	C8051F120DK
C8051F124	128 kB	50	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F120DK
C8051F125	128 kB	50	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F120DK
C8051F126	128 kB	50	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F120DK
C8051F127	128 kB	50	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F120DK
C8051F132	64 kB	100	8	64	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP100	C8051F120DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC2	DAC	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F133	64 kB	100	8	32	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP64	C8051F120DK
C8051F020	64 kB	25	4.25	64	EMIF; I²C; SPI; UART; 2 x UART	5	5	±20%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F020DK
C8051F021	64 kB	25	4.25	32	EMIF; I²C; SPI; UART; 2 x UART	5	5	±20%	12-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F020DK
C8051F022	64 kB	25	4.25	64	EMIF; I²C; SPI; UART; 2 x UART	5	5	±20%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP100	C8051F020DK
C8051F023	64 kB	25	4.25	32	EMIF; I²C; SPI; UART; 2 x UART	5	5	±20%	10-bit, 8-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	2	TQFP64	C8051F020DK
C8051F040	64 kB	25	4.25	64	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 13-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	3	TQFP100	C8051F040DK
C8051F041	64 kB	25	4.25	32	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	12-bit, 13-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	3	TQFP64	C8051F040DK
C8051F042	64 kB	25	4.25	64	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	3	TQFP100	C8051F040DK
C8051F043	64 kB	25	4.25	32	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	8-bit, 8-ch., 500 ksps	12-bit, 2-ch.	•	•	3	TQFP64	C8051F040DK
C8051F044	64 kB	25	4.25	64	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	—	—	•	•	3	TQFP100	C8051F040DK
C8051F045	64 kB	25	4.25	32	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	—	—	•	•	3	TQFP64	C8051F040DK
C8051F060	64 kB	25	4.25	59	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	12-bit, 2-ch.	•	•	3	TQFP100	C8051F060DK
C8051F061	64 kB	25	4.25	24	CAN; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	12-bit, 2-ch.	•	•	3	TQFP64	C8051F060DK
C8051F062	64 kB	25	4.25	59	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	12-bit, 2-ch.	•	•	3	TQFP100	C8051F060DK
C8051F063	64 kB	25	4.25	24	CAN; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	12-bit, 2-ch.	•	•	3	TQFP64	C8051F060DK
C8051F064	64 kB	25	4.25	59	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	—	—	•	3	TQFP100	C8051F060DK
C8051F065	64 kB	25	4.25	24	I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	—	—	•	3	TQFP64	C8051F060DK
C8051F046	32 kB	25	4.25	64	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	—	—	•	•	3	TQFP100	C8051F040DK
C8051F047	32 kB	25	4.25	32	CAN; EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	10-bit, 13-ch., 100 ksps	—	—	•	•	3	TQFP64	C8051F040DK
C8051F066	32 kB	25	4.25	59	EMIF; I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	—	—	•	3	TQFP100	C8051F060DK
C8051F067	32 kB	25	4.25	24	I²C; SPI; UART; 2 x UART	5	6	±2%	16-bit, 1-ch., 1 Msps	16-bit, 1-ch., 1 Msps	—	—	•	3	TQFP64	C8051F060DK
C8051F005	32 kB	25	2.25	32	I²C; SPI; UART	4	5	±20%	12-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP64	C8051F005DK
C8051F006	32 kB	25	2.25	16	I²C; SPI; UART	4	5	±20%	12-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP48	C8051F005DK
C8051F007	32 kB	25	2.25	8	I²C; SPI; UART	4	5	±20%	12-bit, 4-ch., 100 ksps	—	12-bit, 2-ch.	•	•	1	LQFP32	C8051F005DK
C8051F015	32 kB	25	2.25	32	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP64	C8051F005DK
C8051F016	32 kB	25	2.25	16	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP48	C8051F005DK
C8051F017	32 kB	25	2.25	8	I²C; SPI; UART	4	5	±20%	10-bit, 4-ch., 100 ksps	—	12-bit, 2-ch.	•	•	1	LQFP32	C8051F005DK
C8051F000	32 kB	20	0.25	32	I²C; SPI; UART	4	5	±20%	12-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP64	C8051F005DK
C8051F001	32 kB	20	0.25	16	I²C; SPI; UART	4	5	±20%	12-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP48	C8051F005DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	ADC2	DAC	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F002	32 kB	20	0.25	8	I²C; SPI; UART	4	5	±20%	12-bit, 4-ch., 100 ksps	—	12-bit, 2-ch.	•	•	1	LQFP32	C8051F005DK
C8051F010	32 kB	20	0.25	32	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP64	C8051F005DK
C8051F011	32 kB	20	0.25	16	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	12-bit, 2-ch.	•	•	2	TQFP48	C8051F005DK
C8051F012	32 kB	20	0.25	8	I²C; SPI; UART	4	5	±20%	10-bit, 4-ch., 100 ksps	—	12-bit, 2-ch.	•	•	1	LQFP32	C8051F005DK
C8051F018	16 kB	25	1.25	32	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP64	C8051F005DK
C8051F019	16 kB	25	1.25	16	I²C; SPI; UART	4	5	±20%	10-bit, 8-ch., 100 ksps	—	—	•	•	2	TQFP48	C8051F005DK
C8051F350	8 kB	50	0.75	17	I²C; SPI; UART	4	3	±2%	24-bit, 8-ch., 1 ksps	—	8-bit, 2-ch.	•	•	1	LQFP32	C8051F350DK
C8051F351	8 kB	50	0.75	17	I²C; SPI; UART	4	3	±2%	24-bit, 8-ch., 1 ksps	—	8-bit, 2-ch.	•	•	1	QFN28	C8051F350DK
C8051F352	8 kB	50	0.75	17	I²C; SPI; UART	4	3	±2%	16-bit, 8-ch., 1 ksps	—	8-bit, 2-ch.	•	•	1	LQFP32	C8051F350DK
C8051F353	8 kB	50	0.75	17	I²C; SPI; UART	4	3	±2%	16-bit, 8-ch., 1 ksps	—	8-bit, 2-ch.	•	•	1	QFN28	C8051F350DK

Low-Power MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	DEV KIT
C8051F960	128 kB	25	8	57	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	128 LCD Segments; AES; dc-dc; Low Power	DQFN76/ TQFP80	C8051F960DK
C8051F961	128 kB	25	8	34	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	36 LCD Segments; AES; dc-dc; Low Power	QFN40	C8051F960DK
C8051F962	128 kB	25	8	57	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	AES; dc-dc; Low Power	DQFN76/ TQFP80	C8051F960DK
C8051F963	128 kB	25	8	34	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	AES; dc-dc; Low Power	QFN40	C8051F960DK
C8051F964	64 kB	25	8	57	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	128 LCD Segments; AES; dc-dc; Low Power	DQFN76/ TQFP80	C8051F960DK
C8051F965	64 kB	25	8	34	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	36 LCD Segments; AES; dc-dc; Low Power	QFN40	C8051F960DK
C8051F930	64 kB	25	4.25	24	EMIF; I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 23-ch., 300 ksps	•	•	2	170 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN32/ LQFP32	C8051F930DK
C8051F931	64 kB	25	4.25	16	I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 15-ch., 300 ksps	•	•	2	170 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN24	C8051F930DK
C8051F966	32 kB	25	8	57	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	128 LCD Segments; AES; dc-dc; Low Power	DQFN76/ TQFP80	C8051F960DK
C8051F967	32 kB	25	8	34	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	36 LCD Segments; AES; dc-dc; Low Power	QFN40	C8051F960DK
C8051F920	32 kB	25	4.25	24	EMIF; I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 23-ch., 300 ksps	•	•	2	170 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN32/ LQFP32	C8051F930DK
C8051F921	32 kB	25	4.25	16	I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 15-ch., 300 ksps	•	•	2	170 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN24	C8051F930DK
C8051F968	16 kB	25	4.25	57	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	128 LCD Segments; AES; dc-dc; Low Power	DQFN76/ TQFP80	C8051F960DK
C8051F969	16 kB	25	4.25	34	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 16-ch., 75 ksps	•	•	2	36 LCD Segments; AES; dc-dc; Low Power	QFN40	C8051F960DK
C8051F911	16 kB	25	0.75	16	I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 15-ch., 300 ksps	•	•	2	160 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN24/ QSOP24	C8051F912DK
C8051F912	16 kB	25	0.75	16	I²C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 15-ch., 75 ksps	•	•	2	160 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN24/ QSOP24	C8051F912DK
C8051F901	8 kB	25	0.75	16	I²C; SPI; 2 x SPI; UART	4	6	±2%	10-bit, 15-ch., 300 ksps	•	•	2	160 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN20/ QSOP24	C8051F912DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	OTHER	PACKAGE	DEV KIT
C8051F902	8 kB	25	0.75	16	I^2C; SPI; 2 x SPI; UART	4	6	±2%	12-bit, 15-ch., 75 ksps	•	•	2	160 µA/MHz active 50 nA sleep; dc-dc; Low Power	QFN24/ QSOP24	C8051F912DK
C8051F980	8 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	12-bit, 9-ch., 75 ksps	•	•	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN20	C8051F996DK
C8051F981	8 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	—	—	—	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN20	C8051F996DK
C8051F986	8 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	12-bit, 10-ch., 75 ksps	•	•	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN24/ QSOP24	C8051F996DK
C8051F987	8 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	—	—	—	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN24/ QSOP24	C8051F996DK
C8051F982	4 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	10-bit, 9-ch., 300 ksps	•	•	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN20	C8051F996DK
C8051F983	4 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	—	—	—	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN20	C8051F996DK
C8051F988	4 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	10-bit, 10-ch., 300 ksps	•	•	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN24/ QSOP24	C8051F996DK
C8051F989	4 kB	25	0.5	17	I^2C; SPI; UART	4	3	±2%	—	—	—	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN24/ QSOP24	C8051F996DK
C8051F985	2 kB	25	0.5	16	I^2C; SPI; UART	4	3	±2%	—	—	—	1	10 nA sleep; 150 uA/MHz active; Low Power	QFN20	C8051F996DK

USB MCUs

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F34C	64 kB	48	5.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	2	TQFP48	C8051F340DK
C8051F34D	64 kB	48	5.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	—	—	—	2	LQFP32	C8051F340DK
C8051F340	64 kB	48	4.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 20-ch., 200 ksps	•	•	2	TQFP48	C8051F340DK
C8051F342	64 kB	48	4.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051F34A	64 kB	48	4.25	25	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051F380	64 kB	48	4.25	40	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	10-bit, 32-ch., 500 ksps	•	•	2	TQFP48	C8051F380DK
C8051F381	64 kB	48	4.25	25	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±0.5%	10-bit, 21-ch., 500 ksps	•	•	2	QFN32/ LQFP32	C8051F380DK
C8051F384	64 kB	48	4.25	40	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	—	—	—	2	TQFP48	C8051F380DK
C8051F385	64 kB	48	4.25	25	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	—	—	—	2	QFN32/ LQFP32	C8051F380DK
C8051T626	64 kB	48	3.328	24	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 21-ch., 500 ksps	•	•	2	QFN32	C8051T620DK
C8051F344	64 kB	25	4.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 20-ch., 200 ksps	•	•	2	TQFP48	C8051F340DK
C8051F346	64 kB	25	4.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051T627	32 kB	48	3.328	24	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 21-ch., 500 ksps	•	•	2	QFN32	C8051T620DK
C8051F341	32 kB	48	2.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 20-ch., 200 ksps	•	•	2	TQFP48	C8051F340DK
C8051F343	32 kB	48	2.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051F34B	32 kB	48	2.25	25	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051F382	32 kB	48	2.25	40	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	10-bit, 32-ch., 500 ksps	•	•	2	TQFP48	C8051F380DK
C8051F383	32 kB	48	2.25	25	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	10-bit, 32-ch., 500 ksps	•	•	2	QFN32/ LQFP32	C8051F380DK
C8051F386	32 kB	48	2.25	40	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	—	—	—	2	TQFP48	C8051F380DK

PART NUMBER	FLASH MEMORY	MHz	RAM (kB)	DIG. I/O	COMMUNICATIONS	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	TEMP SENSOR	VREF	COMP.	PACKAGE	DEV KIT
C8051F387	32 kB	48	2.25	25	I^2C; 2 x I^2C; SPI; UART; 2 x UART; USB	6	5	±1.5%	—	—	—	2	QFN32/ LQFP32	C8051F380DK
C8051F345	32 kB	25	2.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 20-ch., 200 ksps	•	•	2	TQFP48	C8051F340DK
C8051F347	32 kB	25	2.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 21-ch., 200 ksps	•	•	2	QFN32/ LQFP32	C8051F340DK
C8051F348	32 kB	25	2.25	40	EMIF; I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	2	TQFP48	C8051F340DK
C8051F349	32 kB	25	2.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	—	—	—	2	QFN32/ LQFP32	C8051F340DK
C8051T320	16 kB	48	1.25	25	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 16-ch., 500 ksps	•	•	2	LQFP32	C8051T620DK
C8051T321	16 kB	48	1.25	21	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 16-ch., 500 ksps	•	•	2	QFN28	C8051T321-GM
C8051T322	16 kB	48	1.25	25	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	2	LQFP32	C8051T620DK
C8051T323	16 kB	48	1.25	21	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	2	QFN28	C8051T620DK
C8051T326	16 kB	48	1.25	15	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	—	QFN28	C8051T62DK
C8051T327	16 kB	48	1.25	15	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	—	QFN28	C8051T622DK
C8051T620	16 kB	48	1.25	24	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	10-bit, 20-ch., 500 ksps	•	•	2	QFN32	C8051T620DK
C8051T621	16 kB	48	1.25	24	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	2	QFN32	C8051T620DK
C8051T622	16 kB	48	1.25	16	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	—	QFN24	C8051T622-GM
C8051F320	16 kB	25	2.25	25	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 17-ch., 200 ksps	•	•	2	LQFP32	C8051F320DK
C8051F321	16 kB	25	2.25	21	I^2C; SPI; UART; USB	4	5	±1.5%	10-bit, 13-ch., 200 ksps	•	•	2	QFN28	C8051F320DK
C8051F326	16 kB	25	1.5	15	UART; USB	2	—	±1.5%	—	—	—	—	QFN28	C8051F326DK
C8051F327	16 kB	25	1.5	15	UART; USB	2	—	±1.5%	—	—	—	—	QFN28	C8051F326DK
C8051T623	8 kB	48	1.25	16	I^2C; SPI; UART; 2 x UART; USB	4	5	±1.5%	—	—	—	—	QFN24	C8051T622DK

Wireless MCUs

PART NUMBER	FLASH MEM.	MHz	RAM (kB)	DIG. I/O	COMM.	FSK/ GFSK (kbps)	OOK (kbps)	OUTPUT POWER (dBm)	2/4.8 KBPS SENS.	TX CURRENT (mA) +11/+20 (dBM)	+13	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	COMP.	OTHER	PACKAGE	DEV KIT
Si1020	128 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1024	128 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1030	128 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1034	128 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1021	64 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1025	64 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1031	64 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1035	64 kB	25	8448	53	I^2C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1000	64 kB	25	4352	22	I^2C, SPI, UART	256	40	+1 to +20	-121/ -110	35mA/ 85 mA	—	4	6	±2%	10-bit, 18-ch., 300 ksps	2	CRC; RTC	LGA42	Si1000DK

PART NUMBER	FLASH MEM.	MHz	RAM (kB)	DIG. I/O	COMM.	FSK/ GFSK (kbps)	OOK (kbps)	OUTPUT POWER (dBm)	2/4.8 KBPS SENS.	TX CURRENT (mA) +11/+20 (dBM)	+13	TIMERS (16-BIT)	PWM/ PCA	INT. OSC	ADC	COMP.	OTHER	PACKAGE	DEV KIT
Si1002	64 kB	25	4352	22	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	10-bit, 18-ch., 300 ksps	2	CRC; RTC	LGA42	Si1000DK
Si1004	64 kB	25	4352	19	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	10-bit, 15-ch., 300 ksps	2	CRC; dc-dc; RTC	LGA42	Si1000DK
Si1022	32 kB	25	8448	53	I²C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1026	32 kB	25	8448	53	I²C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1032	32 kB	25	8448	53	I²C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1036	32 kB	25	8448	53	I²C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1001	32 kB	25	4352	22	I²C, SPI, UART	256	40	+1 to +20	-121/ -110	35mA/ 85 mA	—	4	6	±2%	10-bit, 18-ch., 300 ksps	2	CRC; RTC	LGA42	Si1000DK
Si1003	32 kB	25	4352	22	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	10-bit, 18-ch., 300 ksps	2	CRC; RTC	LGA42	Si1000DK
Si1005	32 kB	25	4352	19	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	10-bit, 15-ch., 300 ksps	2	CRC; dc-dc; RTC	LGA42	Si1000DK
Si1023	16 kB	25	4352	53	I²C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1027	16 kB	25	4352	53	I²C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	128 LCD Segments	LGA85	Si1020DK
Si1033	16 kB	25	4352	53	I²C, 2x SPI, UART	256	40	+1 to +20	-121/ -110	85 mA	—	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1037	16 kB	25	4352	53	I²C, 2x SPI, UART	256	40	-8 to +13	-121/ -110	17 mA	30 mA	4	6	±2%	12-bit, 16-ch., 75 ksps	2	—	LGA85	Si1020DK
Si1010	16 kB	25	768	15	I²C, SPI, UART	256	40	+1 to +20	-121/ -110	35mA/ 85 mA	—	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; RTC	LGA42	Si1010DK
Si1012	16 kB	25	768	15	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; RTC	LGA42	Si1010DK
Si1014	16 kB	25	768	15	I²C, SPI, UART	256	40	-8 to +13	-121/ -110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; dc-dc; RTC	LGA42	Si1010DK
Si1011	8 kB	25	768	15	I²C, SPI, UART	256	40	+1 to +20	-121/- 110	35 mA/ 85 mA	—	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; RTC	LGA42	Si1010DK
Si1013	8 kB	25	768	15	I²C, SPI, UART	256	40	-8 to +13	-121/- 110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; RTC	LGA42	Si1010DK
Si1015	8 kB	25	768	15	I²C, SPI, UART	256	40	-8 to +13	-121/- 110	—	30 mA	4	6	±2%	12-bit, 11-ch., 75 ksps	2	CRC; dc-dc; RTC	LGA42	Si1010DK

Smart Interface Devices

PART NUMBER	DESCRIPTION	LCD SEGMENTS	EEPROM (kB)	RAM (BYTES)	DIGITAL PORT I/O PINS	COMM.	TIMERS (16-BIT)	INT. OSC	TEMP RANGE	OTHER	PACKAGE	EVAL KIT
CP2102	UART to USB Bridge	—	1024	1024	—	UART, USB 2.0	—	•	–40 to 85 ºC	Volt Reg	QFN28	CP2102EK
CP2103	UART to USB Bridge	—	1024	1024	4	UART, USB 2.0	—	•	–40 to 85 ºC	Volt Reg, RS-485	QFN28	CP2103EK
CP2104	UART to USB Bridge	—	1024	1152	4	UART, USB 2.0	—	•	–40 to 85 ºC	Volt Reg, RS-485	QFN24/ QFN28	CP2104EK
CP2105	USB to Dual UART	—	296	608	5	UART, USB 2.0	—	•	–40 to 85 ºC	Volt Reg, RS-485	QFN24	CP2105EK

PART NUMBER	DESCRIPTION	LCD SEGMENTS	EEPROM (kB)	RAM (BYTES)	DIGITAL PORT I/O PINS	COMM.	TIMERS (16-BIT)	INT. OSC	TEMP RANGE	OTHER	PACKAGE	EVAL KIT
CP2108	USB to Quad UART	—	Yes	1536 (FIFO)	16	UART, USB 2.0	—	•	–40 to 85 ºC	RS-485	QFN64	CP2108EK
CP2110	HID USB to UART Bridge	—	343	960	10	UART, USB 2.0	—	•	–40 to 85 ºC	Volt Reg, RS-485	QFN24/ QFN28	CP2110EK
CP2112	USB to I^2C Bridge	—	194	512	8	USB 2.0, I^2C	—	•	–40 to 85 ºC	Volt Reg	QFN24	CP2112EK
CP2114	USB to I^2S Audio Bridge	—	352	512 (FIFO)	12	USB 2.0, I^2S	—	•	–40 to 85 ºC	Volt Reg	QFN32	CO2114EK
CP2120	SPI to I^2C Bridge, GPIO Port Expander	—	0	512 (buffer RAM)	—	SPI to I^2C	—	•	–40 to 85 ºC	Voltage Monitor	QFN20	CP2120EB
CP2200	Ethernet Controller	—	8 K	2 kB TX buffer, 4 kB RX buffer	—	8-bit n-muxed Ext. Mem I/F	—		–40 to 85 ºC	Integrated Ethernet Transceiver	TQFP48	ETHERNETDK
CP2201	Ethernet Controller	—	8 K	2 kB TX buffer, 4 kB RX buffer	—	8-bit muxed Ext. Mem I/F	—		–40 to 85 ºC	Integrated Ethernet Transceiver	QFN28	ETHERNETDK
CP2400	LCD Driver	128	0	256	36	SPI	2	•	–40 to 85 ºC	Ultra-low power mode	QFN48/ TQFP48	CP2400DK
CP2401	LCD Driver	128	0	256	36	I^2C	2	•	–40 to 85 ºC	Ultra-low power mode	QFN48/ TQFP48	CP2401DK
CP2402	LCD Driver	64	0	256	20	SPI	2	•	–40 to 85 ºC	Ultra-low power mode	QFN32	CP2400DK
CP2403	LCD Driver	64	0	256	20	I^2C	2	•	–40 to 85 ºC	Ultra-low power mode	QFN32	CP2401DK

Hardware Support

FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT www.silabs.com/MCU

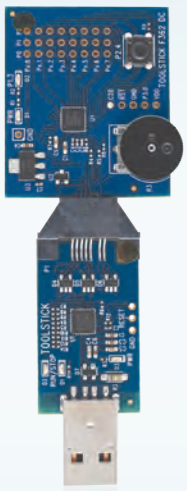
Development Kits

Silicon Labs offers complete tools to help designers throughout the entire project. All microcontroller solutions offer hardware and software platforms to easily set up and configure, compile and debug a project. Full documentation and a broad range of third-party compilers and development tools are available. Software stacks provide networking support for multi-node metering networks. Software simulation tools can estimate power consumption and determine expected battery life. www.silabs.com/devkits

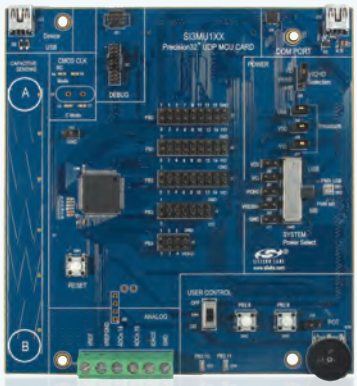


Complete development/prototyping system includes the following:

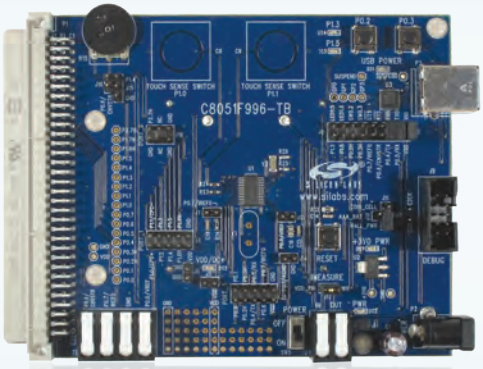
- Prototyping/demonstration board
- Integrated development environment
- Configuration tools
- MCU configuration wizard



MCU USB TOOLSTICK



SiM3U1xx Precision32 32-bit MCU UDP CARD



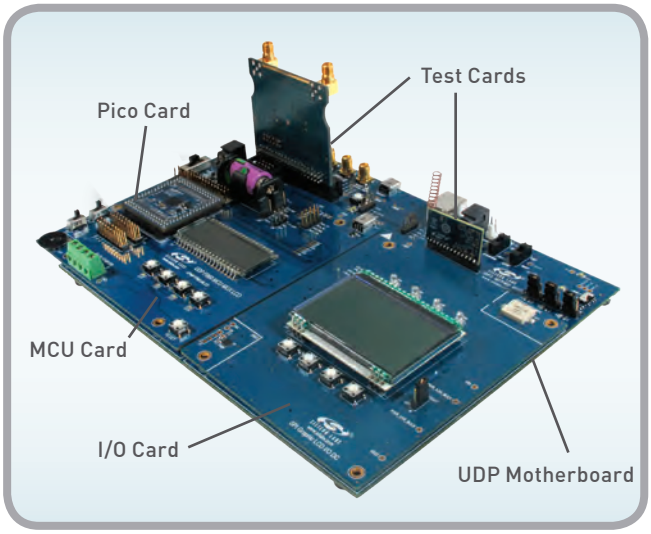
C8051F996 LOW POWER TARGET BOARD



C8051F990 SLIDER EVALUATION KIT

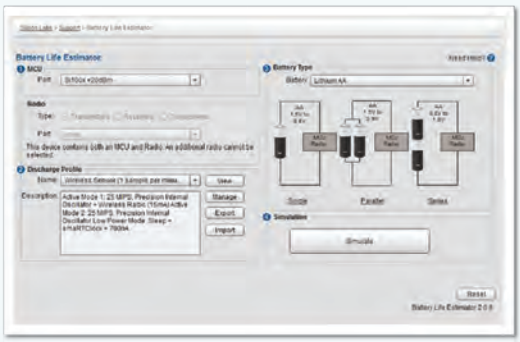
Unified Development Platform

Silicon Labs offers an innovative approach in hardware support with the Unified Development Platform (UDP), featuring a main mother board, modular daughter cards, integrated LCD and ample real estate for prototyping, expansion and integration. The UDP provides a standalone demonstration and software development platform for the Wireless MCU devices and both 8-bit and Precision32™ 32-bit MCU products. Kits include UDP base boards and RF test cards. Additional test cards may be ordered if the 915 MHz or 868 MHz test cards don't satisfy the requirements for the end application.
www.silabs.com/UDP

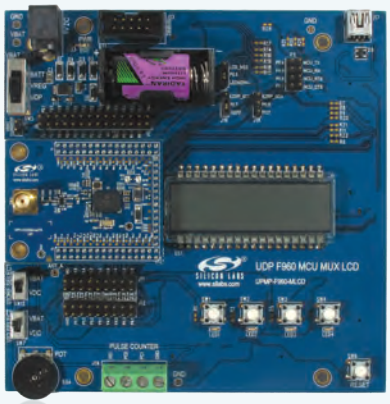


The UDP platform supports all of the following:

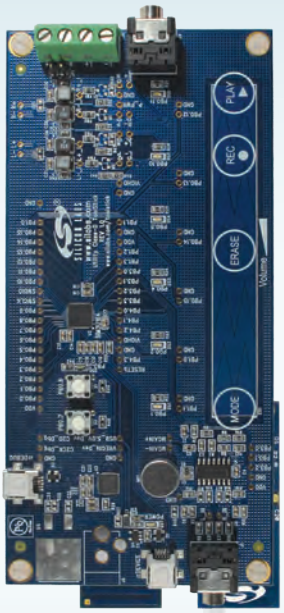
- MCU code and firmware development (IDE, Configuration Wizard, example code etc.)
- RF design and optimization (WDS support, automatic board detection and firmware download, sample RF code, run-time PHY interface etc.)
- Networks and protocol stacks (such as the wireless M-Bus stack)



BATTERY LIFE ESTIMATION UTILITY



C8051F960 MCU UDP CARD WITH Si1120 DAUGHTER CARD



CLASS D TOOLSTICK

Silicon Labs Online Utilities

FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT **www.silabs.com/online-utilities**



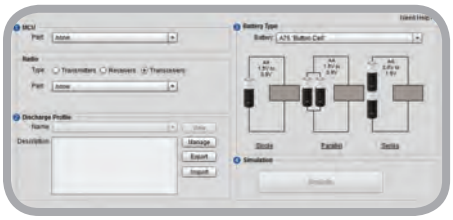
MCU Parametric Search

Silicon Labs offers an easy-to-use parametric search for our Microcontroller products. Click the buttons to filter as you search for the features you require and find the perfect part to meet your needs. You can then buy or sample parts or export your results into a sortable Excel spreadsheet. www.silabs.com/parametric-search



Cross-Reference Utility

Silicon Labs' cross reference utility allows you to type in a competitor's part number (full or partial) and if we have a cross-match, our part number pops up. Results are automatically filtered as you type and can be exported to excel so you can e-mail or save results. www.silabs.com/cross-reference



Battery Life Estimator

The Battery Life Estimator is an easy-to-use web-based calculator that gives designers a quick and easy way to understand the discharge characteristics of different system configurations to help optimize low-power applications. You can also download the software to your desktop. www.silabs.com/batterycalculator

Parametric Search iPad App

Take the parametric search mobile! The Silicon Labs Parametric Search iPad app makes it easy to find exactly what you need for your next embedded design. Quickly jump between microcontroller and other product families. Access data sheets and other documentation directly in the app and download to iBooks for offline access. Browse detailed product information – features, applications, block diagrams and even order samples and development kits, all from within the app. Offline access available – refresh data the next time you're connected to the Internet. www.silabs.com/parametric-search



Microcontroller Resources

FIND THE TOOLS YOU NEED TO HELP WITH YOUR ENTIRE PROJECT **www.silabs.com/mcu**

Third Party Tool Support

A broad range of third-party compilers and development tools are available including a free Small Device C Compiler (SDCC) supported by Application Note 198, "Integrating SDCC 8051 Tools into the Silicon Labs IDE." Device programming and source-level debug of OMF-51 object files is fully supported.

Product and Design Support

The MCU Knowledge Base provides answers to common technical questions about the MCU product line and product use. MCU User's Forum is a place where C8051 MCU users can share experiences and technical questions with other users. For MCU support email: mcuapps@silabs.com

Silicon Labs' products are designed and manufactured to ISO 9001, ISO 14001 and ISO/TS 16949 standards.

ISO 9001
Quality Management System
Design and Manufacture of Integrated Circuits
Certificate Registration No: 951 08 4762

ISO 14001
Environmental Management System
Design and Manufacture of Integrated Circuits
Certificate Registration No: 951 09 4998

ISO/TS 16949
Quality Management System for
Manufacture of Integrated Circuits and Related
Products for Automotive Applications
Certificate Registration No.: 12 111 33114 TMS
IATF Certificate No.: 0080212

Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fiber
www.fsc.org Cert no. SW-COC-001730
© 1996 Forest Stewardship Council

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