

SILICON LABS Microcontrollers



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MCU / MPU / DSP

Silicon Labs

USB MICROCONTROLLERS (CONT.)

USB MCUs feature an on-board USB 2.0 function controller with an integrated transceiver and on-chip clock recovery. No external resistors, crystal, voltage regulator, EEPROM or other components are required. On-chip resources include a high-speed 8051 CPU with up to 64 kB Flash, UARTs, SMBus, SPI, timers, counters and PWM generators. On-chip analog features include a multi-channel 10-bit ADC, voltage reference, internal oscillator, comparators and a temperature sensor. Available in 28-pin QFN, 32-pin LQFP or 48-pin TQFP packages, these devices provide a single-chip solution for embedded USB applications.



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For quantities greater than listed, call for quote.

MOUSER STOCK NO.		Package	MIPS (Peak)	Flash Mem. (KB)	RAM (bytes)	Digital Port I/O Pins	Interfaces					Analog Peripherals							Price Each			
Mfr.	Mfr. Part No.						UART	I2C	SPI	SMBus	USB	Internal Osc.	Timers	PCA Ch.	ADC	DAC	Temp Sensor	VREF	Comparators	1	25	100
634	C8051F383-GM	QFN-32	48	32	2304	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	10-bit	No	Yes	Yes	2	8	6.74	5.61
634	C8051F383-GQ	LQFP-32	48	32	2304	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	10-bit	No	Yes	Yes	2	11.97	9.58	7.65
634	C8051F386-GM	TQFP-48	48	32	2304	40	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	5.25	4.50	3.28
634	C8051F387-GM	QFN-32	48	32	2304	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	7.32	6.10	5.08
634	C8051F387-GQ	LQFP-32	48	32	2304	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	10.01	8.13	6.51
634	C8051F340-GQ	TQFP-48	48	64	4352	40	2	2	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	11.09	9.07	8.25
634	C8051F342-GM	QFN-32	48	64	4352	25	Yes	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	10.76	8.80	7.99
634	C8051F342-GQ	LQFP-32	48	64	4352	25	Yes	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	10.76	8.80	8.00
634	C8051F344-GM	QFN-32	48	64	4352	25	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	10.98	8.98	8.15
634	C8051F344-GQ	LQFP-32	48	64	4352	25	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	10.98	8.98	8.41
634	C8051F380-GQ	TQFP-48	48	64	4352	40	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	10-bit	No	Yes	Yes	2	6.40	5.77	5.01
634	C8051F381-GM	QFN-32	48	64	4352	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	10-bit	No	Yes	Yes	2	8.07	7.48	5.53
634	C8051F381-GQ	LQFP-32	48	64	4352	25	2	2	Yes	No	2.0	±0.5%	6 16-bit	5	10-bit	No	Yes	Yes	2	9.01	8.35	6.06
634	C8051F384-GQ	TQFP-48	48	64	4352	40	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	8.19	7.59	5.78
634	C8051F385-GM	QFN-32	48	64	4352	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	6.42	5.78	5.02
634	C8051F385-GQ	LQFP-32	48	64	4352	25	2	2	Yes	No	2.0	±1.5%	6 16-bit	5	No	No	No	No	2	5.25	4.50	3.94
634	C8051F34C-GQ	TQFP-48	48	64	5376	40	2	No	Yes	Yes	2.0	±1.5%	4 16-bit	5	No	No	No	No	2	10.20	8.34	7.57
634	C8051F34D-GQ	LQFP-32	48	64	5376	25	Yes	No	Yes	Yes	2.0	±1.5%	4 16-bit	5	No	No	No	No	2	9.89	8.09	7.35

OTP - USB MICROCONTROLLERS

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Mfr.	Mfr. Part No.						UART	I2C	SPI	SMBus	USB	Internal Osc.	Timers	PCA Ch.	ADC	DAC	Temp Sensor	VREF	Comparators	1	25	100
634	C8051T623-GM	QFN-24	48	8	1280	16	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	-----	2.10	2.00	1.93
634	C8051T320-GM	LQFP-32	48	16	1280	25	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	3.87	3.58	3.32
634	C8051T321-GM	QFN-28	48	16	1280	21	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	3.26	3.07	2.94
634	C8051T322-GQ	LQFP-32	48	16	1280	25	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	2	4.25	3.25	2.37
634	C8051T323-GM	QFN-28	48	16	1280	21	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	2	3.17	3.05	3.03
634	C8051T326-GM	QFN-28	48	16	1280	15	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	-----	2.35	2.23	2.18
634	C8051T327-GM	QFN-28	48	16	1280	15	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	-----	2.44	2.26	2.10
634	C8051T620-GM	QFN-32	48	16	1280	24	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	Yes	Yes	2	4.16	3.75	3.59
634	C8051T621-GM	QFN-32	48	16	1280	24	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	10-bit	No	No	No	2	3.49	3.24	3.00
634	C8051T622-GM	QFN-24	48	16	1280	16	2	Yes	Yes	No	2.0	±1.5%	4 16-bit	5	No	No	No	No	-----	2.80	2.52	2.19

SMALL FORM FACTOR MICROCONTROLLERS

The Small Form Factor family of microcontrollers combines a high-speed 8051 CPU, Flash memory and high-performance analog circuits in remarkably small packages allowing system designers to reduce component count while improving system performance. These highly-integrated devices are optimized for space-constrained, low-power, low-cost applications in consumer, industrial, communications and automotive markets. Development is quick and easy due to low-cost, professional development tools and in-system debug. High integration, small size, high CPU throughput and best-in-class analog peripherals make the Small Form Factor family ideal for a wide range of applications.



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Mfr.	Mfr. Part No.						UART	I2C	SPI	SMBus	USB	Internal Osc.	Timers	PCA Ch.	ADC	DAC	Temp Sensor	VREF	Comparators	1	25
634	C8051F305-GM	QFN-11	25	2	256	8	Yes	Yes	No	±20%	3 16-bit	3	No	No	No	No	No	1	2.58	2.10	1.89
634	C8051F334-GM	QFN-20	25	2	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	10-bit	No	Yes	No	No	1	2.98	2.43	2.19
634	C8051F335-GM	QFN-20	25	2	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	No	No	No	No	No	1	2.67	2.18	1.96
634	C8051F304-GM	QFN-11	25	4	256	8	Yes	Yes	No	±20%	3 16-bit	3	No	No	No	No	No	1	2.64	2.16	1.94
634	C8051F332-GM	QFN-20	25	4	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	10-bit	No	Yes	No	No	1	3.51	2.87	2.58
634	C8051F220-GM	TQFP-48	25	8	256	32	Yes	No	Yes	±20%	3 16-bit	No	8-bit	No	No	No	No	2	4.84	3.96	3.50
634	C8051F221-GQ	TQFP-32	25	8	256	22	Yes	No	Yes	±20%	3 16-bit	No	8-bit	No	No	No	No	2	4.31	3.52	3.11
634	C8051F300-GM	QFN-11	25	8	256	8	Yes	Yes	No	±2%	3 16-bit	3	8-bit	No	Yes	No	No	1	3.31	2.70	2.34
634	C8051F301-GM	QFN-11	25	8	256	8	Yes	Yes	No	±2%	3 16-bit	3	No	No	No	No	No	1	3.16	2.58	2.32
634	C8051F302-GM	QFN-11	25	8	256	8	Yes	Yes	No	±20%	3 16-bit	3	8-bit	No	Yes	No	No	1	3.09	2.52	2.27
634	C8051F303-GM	QFN-11	25	8	256	8	Yes	Yes	No	±20%	3 16-bit	3	No	No	No	No	No	1	2.98	2.43	2.19
634	C8051F330-GM	QFN-20	25	8	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	10-bit	10-bit	Yes	No	No	1	4.71	3.85	3.50
634	C8051F331-GM	QFN-20	25	8	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	No	No	No	No	No	1	4.22	3.45	3.11
634	C8051F206-GQ	TQFP-48	25	8	1280	32	Yes	No	Yes	±20%	3 16-bit	No	8-bit	No	No	No	No	2	5.87	4.80	4.24
634	C8051F226-GQ	TQFP-48	25	8	1280	32	Yes	No	Yes	±20%	3 16-bit	No	8-bit	No	No	No	No	2	5.11	4.18	3.69
634	C8051F236-GQ	TQFP-48	25	8	1280	32	Yes	No	Yes	±20%	3 16-bit	No	No	No	No	No	No	2	4.76	3.89	3.44
634	C8051F312-GQ	LQFP-32	25	8	1280	29	Yes	Yes	Yes	±2%	4 16-bit	5	10-bit	No	Yes	No	No	2	4.93	4.03	3.63
634	C8051F313-GM	QFN-28	25	8	1280	25	Yes	Yes	Yes	±2%	4 16-bit	5	10-bit	No	Yes	No	No	2	4.58	3.74	3.37
634	C8051F314-GQ	LQFP-32	25	8	1280	29	Yes	Yes	Yes	±2%	4 16-bit	5	No	No	No	No	No	2	4.16	3.40	3.05
634	C8051F315-GM	QFN-28	25	8	1280	25	Yes	Yes	Yes	±2%	4 16-bit	5	No	No	No	No	No	2	3.87	3.16	2.85
634	C8051F336-GM	QFN-20	25	16	768	17	Yes	Yes	Yes	±2%	4 16-bit	3	10-bit	10-bit	No	No	No	1	5.18	4.23	3.84
634	C8051F338-GM	QFN-24	25	16	768	21	Yes	Yes	Yes	±2%	4 16-bit	3	10-bit	10-bit	No	No	No	1	5.27	4.15	3.91
634	C8051F310-GQ	LQFP-32	25	16	1280	29	Yes	Yes	Yes	±2%	4 16-bit	5	10-bit	No	Yes	No	No	2	6.33	5.18	4.70
634	C8051F311-GM	QFN-28	25	16	1280	25	Yes	Yes	Yes	±2%	4 16-bit	5	10-bit	No	Yes	No	No	2	5.67	4.63	4.17
634	C8051F316-GM	QFN-24	25	16	1280	21	Yes	Yes	Yes	±2%	4 16-bit	5	10-bit	No	Yes	No</					