

# SILICON LABS Microcontrollers



RoHS Compliant This product is RoHS compliant.

## AUTOMOTIVE MICROCONTROLLERS

Silicon Labs offers automotive customers a complete family of small footprint, high-performance, highly reliable mixed-signal mixed-signal MCUs, featuring:

- 50 MIPS 8051 CPU
- 24 MHz on-board oscillator (±0.5%) with clock multiplier
- 32-channel, 12-bit, 200 kbps ADC
- Up to 3 comparators
- -40 to +125°C Operating temperature range
- On-board Temperature Sensor

For quantities of 5000 and up, call for quote.

MOUSER STOCK NO.		Development Kit Part No.	MIPS (Peak)	Flash Mem. (KB)	RAM (bytes)	Digital Port I/O Pins	Serial Buses	Internal Osc	Analog Peripherals	Package	Price Each			
Mfr.	Mfr. Part No.										1	25	100	1000
634-C8051F500-IM	634-C8051F500DK	50	64	4352	40	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN48					
634-C8051F500-IQ	634-C8051F500DK	50	64	4352	40	CAN 2.0, LIN 2.0, SPI, UART & I2C	±0.5%	2 Comparators, VREF	QFP48					
634-C8051F501-IM	634-C8051F500DK	50	64	4352	40	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN48					
634-C8051F501-IQ	634-C8051F500DK	50	64	4352	40	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP48					
634-C8051F502-IM	634-C8051F500DK	50	64	4352	25	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN32					
634-C8051F502-IQ	634-C8051F500DK	50	64	4352	25	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP32					
634-C8051F503-IM	634-C8051F500DK	50	64	4352	25	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN32					
634-C8051F503-IQ	634-C8051F500DK	50	64	4352	25	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP32					
634-C8051F504-IM	634-C8051F500DK	50	32	4352	40	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN48					
634-C8051F504-IQ	634-C8051F500DK	50	32	4352	40	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP48					
634-C8051F505-IM	634-C8051F500DK	50	32	4352	25	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN48					
634-C8051F505-IQ	634-C8051F500DK	50	32	4352	40	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP48					
634-C8051F506-IM	634-C8051F500DK	50	32	4352	25	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN32					
634-C8051F506-IQ	634-C8051F500DK	50	32	4352	25	CAN 2.0, LIN 2.0, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP32					
634-C8051F507-IM	634-C8051F500DK	50	32	4352	25	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN32					
634-C8051F507-IQ	634-C8051F500DK	50	32	4352	25	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFP32					
634-C8051F508-IM	C8051F500DK	50	64	4	33	CAN 2.0, LIN 2.1, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN40					
634-C8051F509-IM	C8051F500DK	50	64	4	33	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN40					
634-C8051F510-IM	C8051F500DK	50	32	4	33	CAN 2.0, LIN 2.1, SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN40					
634-C8051F511-IM	C8051F500DK	50	32	4	33	SPI, UART, I2C	±0.5%	2 Comparators, VREF	QFN40					
634-C8051F520A-IM	634-C8051F530ADK	25	8	256	6	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F521A-IM	634-C8051F530ADK	25	8	256	6	SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F523A-IM	634-C8051F530ADK	25	4	256	6	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F524A-IM	634-C8051F530ADK	25	4	256	6	SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F526A-IM	634-C8051F530ADK	25	2	256	6	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F527A-IM	634-C8051F530ADK	25	2	256	6	SPI, UART	±0.5%	1 Comparator, VREF	DFN10					
634-C8051F530A-IM	634-C8051F530ADK	25	8	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F530A-IT	634-C8051F530ADK	25	8	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F531A-IM	634-C8051F530ADK	25	8	256	16	SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F531A-IT	634-C8051F530ADK	25	8	256	16	SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F533A-IM	634-C8051F530ADK	25	4	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F533A-IT	634-C8051F530ADK	25	4	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F534A-IM	634-C8051F530ADK	25	4	256	16	SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F534A-IT	634-C8051F530ADK	25	4	256	16	SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F536A-IM	634-C8051F530ADK	25	2	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F536A-IT	634-C8051F530ADK	25	2	256	16	LIN 2.0, SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F537A-IM	634-C8051F530ADK	25	2	256	16	SPI, UART	±0.5%	1 Comparator, VREF	QFN20					
634-C8051F537A-IT	634-C8051F530ADK	25	2	256	16	SPI, UART	±0.5%	1 Comparator, VREF	TSSOP20					
634-C8051F580-IM	C8051F580DK	50	128	8	40	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN48					
634-C8051F580-IQ	C8051F580DK	50	128	8	40	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP48					
634-C8051F581-IM	C8051F580DK	50	128	8	40	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN48					
634-C8051F581-IQ	C8051F580DK	50	128	8	40	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP48					
634-C8051F582-IM	C8051F580DK	50	128	8	25	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP32					
634-C8051F583-IM	C8051F580DK	50	128	8	25	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN32					
634-C8051F583-IQ	C8051F580DK	50	128	8	25	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP32					
634-C8051F584-IM	C8051F580DK	50	96	8	40	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN48					
634-C8051F584-IQ	C8051F580DK	50	96	8	40	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP48					
634-C8051F585-IM	C8051F580DK	50	96	8	40	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN48					
634-C8051F585-IQ	C8051F580DK	50	96	8	40	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP48					
634-C8051F586-IM	C8051F580DK	50	96	8	25	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN32					
634-C8051F586-IQ	C8051F580DK	50	96	8	25	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP32					
634-C8051F587-IM	C8051F580DK	50	96	8	25	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN32					
634-C8051F587-IQ	C8051F580DK	50	96	8	25	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFP32					
634-C8051F588-IM	C8051F580DK	50	128	8	33	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN40					
634-C8051F588-IQ	C8051F580DK	50	128	8	33	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN40					
634-C8051F590-IM	C8051F580DK	50	96	8	33	CAN 2.0, LIN 2.1, SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN40					
634-C8051F591-IM	C8051F580DK	50	96	8	33	SPI, 2x UART, I2C	±0.5%	3 Comparators, VREF	QFN40					

## OTP-EPROM MICROCONTROLLERS

Silicon Laboratories OTP-EPROM family of MCUs is a high-performance solution for cost and space-sensitive applications. Pin compatible with Silicon Labs' Flash-based MCUs, these devices provide designers the flexibility to develop code in Flash and switch to low cost OTP versions for mass production.

For quantities of 5000 and up, call for quote.

MOUSER STOCK NO.		Development Kit Part No.	MIPS (Peak)	Flash Mem. (KB)	RAM (bytes)	Digital Port I/O Pins	Serial Buses	Internal Osc	Analog Peripherals	Price Each			
Mfr.	Mfr. Part No.									1	25	100	1000
634-C8051T600-GM	634-C8051T600DK	25	8	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T600-GS	634-C8051T600DK	25	8	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T601-GM	634-C8051T600DK	25	8	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T601-GS	634-C8051T600DK	25	8	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T602-GM	634-C8051T600DK	25	4	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T602-GS	634-C8051T600DK	25	4	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T603-GM	634-C8051T600DK	25	4	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T603-GS	634-C8051T600DK	25	4	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T604-GM	634-C8051T600DK	25	2	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T604-GS	634-C8051T600DK	25	2	EPROM	256	8	UART, I2C	±2%	10-bit, 8ch. ADC, Temp. Snsr, 1 Comp, VREG				
634-C8051T605-GM	634-C8051T600DK	25	2	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T605-GS	634-C8051T600DK	25	2	EPROM	256	8	UART, I2C	±2%	Comparator, VREG				
634-C8051T606-GM	634-C8051T606DK	25	1.5K	EPROM	128	6	UART, I2C	±2%	1 Comparator, VREG				
634-C8051T606-GS	634-C8051T606DK	25	1.5K	EPROM	128	6	UART, I2C	±2%	1 Comparator, VREG				
634-C8051T606-ZM	634-C8051T606DK	25	1.5K	EPROM	128	6	UART, I2C	±2%	1 Comparator, VREG				
634-C8051T610-GQ	634-C8051T610DK	25	16	KB EPROM	1280	29	UART, SPI, I2C	±2%	10-bit, 21ch. ADC, Temp. Snsr, 2 Comp, VREG				
634-C8051T611-GM	634-C8051T610DK	25	16	KB EPROM	1280	25	UART, SPI, I2C	±2%	10-bit, 21ch. ADC, Temp. Snsr, 2 Comp, VREG				
634-C8051T612-GQ	634-C8051T610DK	25	8	KB EPROM	1280	29	UART, SPI, I2C	±2%	10-bit, 21ch. ADC, Temp. Snsr, 2 Comp, VREG				
634-C8051T613-GM	634-C8051T610DK	25	8	KB EPROM	1280	25	UART, SPI, I2C	±2%	10-bit, 21ch. ADC, Temp. Snsr, 2 Comp, VREG				
634-C8051T614-GQ	634-C8051T610DK	25	8	KB EPROM	1280	29	UART, SPI, I2C	±2%	2 Comparators, VREG				
634-C8051T615-GM	634-C8051T610DK	25	8	KB EPROM	1280	25	UART, SPI, I2C	±2%	2 Comparators, VREG				
634-C8051T616-GM	634-C8051T610DK	25	16	KB EPROM	1280	21	UART, SPI, I2C	±2%	10-bit, 17ch. ADC, Temp. Snsr, 2 Comp, VREG				
634-C8051T617-GM	634-C8051T610DK	25	16	KB EPROM	1280	21	UART, SPI, I2C	±2%	2 Comparators, VREG				
634-C8051T630-GM	634-C8051T630DK	25	8	KB EPROM	768	17	UART, SPI, I2C	±2%	10-bit ADCDAC, Temp. Snsr, VREF, Comp, VREG, LFO				
634-C8051T631-GM	634-C8051T630DK	25	8	KB EPROM	768	17	UART, SPI, I2C	±2%	1 Comparator, VREG, LFO				
634-C8051T632-GM	634-C8051T630DK	25	4	KB EPROM	768	17	UART, SPI, I2C	±2%	10-bit ADCDAC, Temp. Snsr, VREF, Comp, VREG, LFO				
634-C8051T633-GM	634-C8051T630DK	25	4	KB EPROM	768	17	UART, SPI, I2C	±2%	1 Comparator, VREG, LFO				
634-C8051T634-GM	634-C8051T630DK	25	2	KB EPROM	768	17	UART, SPI, I2C	±2%	10-bit ADCDAC, Temp. Snsr, VREF, Comp, VREG, LFO				
634-C8051T635-GM	634-C8051T630DK	25	2	KB EPROM	768	17	UART, SPI, I2C	±2%	1 Comparator, VREG,				