


MCU 8-bit 8051 CISC 64KB Flash 3V 100-Pin TQFP Tray

Manufacturer:	Silicon Laboratories Inc
Package/Case:	QFP100
Product Type:	Embedded Processors & Controllers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The C8051F04x highly integrated mixed-signal 8-bit microcontroller (MCU) devices feature two separate high speed ADC sub-systems (either 10/12-bit, 100 ksp/s or 8-bit, 500 ksp/s). These analog-intensive microcontrollers also include two separate 12-bit DACs and a ± 60 V PGA (programmable gain amplifier). With on-chip VDD monitor, Watchdog Timer, and a clock oscillator, the C8051F04x family of devices are truly stand-alone System-on-a-Chip solutions. All analog and digital peripherals are enabled/disabled and configured by user firmware. The Flash memory can be reprogrammed even in-circuit, providing non-volatile data storage, and also allowing field upgrades of the 8051 firmware.

Key Features

High-speed 8051 μ C Core

Pipelined instruction architecture - Executes 70% of instruction set in 1 or 2 system clocks

Up to 25MIPS throughput with 25MHz clock

20 Vectored Interrupt Sources

Three Analog comparators

Voltage reference

Precision VDD Monitor/Brown-out detector

On-chip debug circuitry facilitates full-speed, nonintrusive In-circuit/In-system debugging

Provides breakpoints, single-stepping, watchpoints, stack monitor

Inspect/Modify memory and registers

Superior performance to emulation systems using ICEChips, target pods and sockets

IEEE1149.1 compliant boundary scan

Bosch controller area network (CAN 2.0B), hardware SMBus™, SPI™ and two UART serial ports

Programmable 16-bit counter/timer array with 6 capture/compare modules

5 General purpose 16-bit counter/timers

Dedicated watch-dog timer, bi-directional reset pin

3 to 24.5MHz Internal programmable oscillator

External oscillator - Crystal, RC, C or clock

Real-time clock mode using Timer 2, 3, 4 or PCA

Multiple power saving sleep and shutdown modes

Recommended For You

C8051F320-GQ

Silicon Laboratories Inc

QFP

C8051F120-GQ

Silicon Laboratories Inc

QFP

C8051F300-GMR

Silicon Laboratories Inc

QFN11

C8051F020-GQ

Silicon Laboratories Inc

TQFP100

C8051F300-GM

Silicon Laboratories Inc

QFN11

C8051F330-GM

Silicon Laboratories Inc

QFN

C8051F330-GMR

Silicon Laboratories Inc

QFN20

C8051F410-GQR

Silicon Laboratories Inc

LQFP32

C8051F350-GQ

Silicon Laboratories Inc

LQFP32

C8051F321-GM

Silicon Laboratories Inc

QFN28

C8051F530-C-IT

Silicon Laboratories Inc

TSSOP20

C8051F503-IQ

Silicon Laboratories Inc

QFP

C8051F411-GMR

Silicon Laboratories Inc

QFN28

C8051F130-GQ

Silicon Laboratories Inc

TQFP100

C8051F582-IQ

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QFP