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What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "[Embedded - Microcontrollers](#)"

Details

Product Status	Obsolete
Core Processor	8051
Core Size	8-Bit
Speed	25MHz
Connectivity	SMBus (2-Wire/I ² C), SPI, UART/USART
Peripherals	POR, PWM, Temp Sensor, WDT
Number of I/O	29
Program Memory Size	16KB (16K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	1.25K x 8
Voltage - Supply (Vcc/Vdd)	2.7V ~ 3.6V
Data Converters	A/D 21x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	32-LQFP
Supplier Device Package	32-LQFP (7x7)
Purchase URL	https://www.e-xfl.com/product-detail/silicon-labs/c8051f310r

Table Of Contents

1. System Overview.....	17
1.1. CIP-51™ Microcontroller Core.....	27
1.1.1. Fully 8051 Compatible.....	27
1.1.2. Improved Throughput.....	27
1.1.3. Additional Features	28
1.2. On-Chip Memory.....	29
1.3. On-Chip Debug Circuitry.....	30
1.4. Programmable Digital I/O and Crossbar	31
1.5. Serial Ports	32
1.6. Programmable Counter Array.....	32
1.7. 10-Bit Analog to Digital Converter.....	33
1.8. Comparators	34
2. Absolute Maximum Ratings	35
3. Global DC Electrical Characteristics	36
4. Pinout and Package Definitions.....	39
5. 10-Bit ADC (ADC0, C8051F310/1/2/3/6 only) ...	51
5.1. Analog Multiplexer	51
5.2. Temperature Sensor	52
5.3. Modes of Operation	54
5.3.1. Starting a Conversion.....	54
5.3.2. Tracking Modes.....	55
5.3.3. Settling Time Requirements	56
5.4. Programmable Window Detector	61
5.4.1. Window Detector In Single-Ended Mode	63
5.4.2. Window Detector In Differential Mode.....	64
6. Voltage Reference (C8051F310/1/2/3/6 only).....	67
7. Comparators	69
8. CIP-51 Microcontroller	79
8.1. Instruction Set.....	80
8.1.1. Instruction and CPU Timing	80
8.1.2. MOVX Instruction and Program Memory	81
8.2. Memory Organization.....	85
8.2.1. Program Memory.....	85
8.2.2. Data Memory.....	86
8.2.3. General Purpose Registers	86
8.2.4. Bit Addressable Locations.....	86
8.2.5. Stack	86
8.2.6. Special Function Registers.....	87
8.2.7. Register Descriptions	90
8.3. Interrupt Handler	93
8.3.1. MCU Interrupt Sources and Vectors	94
8.3.2. External Interrupts	95
8.3.3. Interrupt Priorities.....	95

Table 8.3. Special Function Registers (Continued)

Register	Address	Description	Page
P2SKIP	0xD6	Port 2 Skip	141
P3	0xB0	Port 3 Latch	142
P3MDIN	0xF4	Port 3 Input Mode Configuration	142
P3MDOUT	0xA7	Port 3 Output Mode Configuration	143
PCA0CN	0xD8	PCA Control	215
PCA0CPH0	0xFC	PCA Capture 0 High	219
PCA0CPH1	0xEA	PCA Capture 1 High	219
PCA0CPH2	0xEC	PCA Capture 2 High	219
PCA0CPH3	0xEE	PCA Capture 3 High	219
PCA0CPH4	0xFE	PCA Capture 4 High	219
PCA0CPL0	0xFB	PCA Capture 0 Low	218
PCA0CPL1	0xE9	PCA Capture 1 Low	218
PCA0CPL2	0xEB	PCA Capture 2 Low	218
PCA0CPL3	0xED	PCA Capture 3 Low	218
PCA0CPL4	0xFD	PCA Capture 4 Low	218
PCA0CPM0	0xDA	PCA Module 0 Mode	217
PCA0CPM1	0xDB	PCA Module 1 Mode	217
PCA0CPM2	0xDC	PCA Module 2 Mode	217
PCA0CPM3	0xDD	PCA Module 3 Mode	217
PCA0CPM4	0xDE	PCA Module 4 Mode	217
PCA0H	0xFA	PCA Counter High	218
PCA0L	0xF9	PCA Counter Low	218
PCA0MD	0xD9	PCA Mode	216
PCON	0x87	Power Control	103
PSCTL	0x8F	Program Store R/W Control	116
PSW	0xD0	Program Status Word	92
REF0CN	0xD1	Voltage Reference Control	68
RSTSRC	0xEF	Reset Source Configuration/Status	109
SBUF0	0x99	UART0 Data Buffer	169
SCON0	0x98	UART0 Control	168
SMB0CF	0xC1	SMBus Configuration	152
SMB0CN	0xC0	SMBus Control	154
SMB0DAT	0xC2	SMBus Data	156
SP	0x81	Stack Pointer	91
SPI0CFG	0xA1	SPI Configuration	180
SPI0CKR	0xA2	SPI Clock Rate Control	182
SPI0CN	0xF8	SPI Control	181
SPI0DAT	0xA3	SPI Data	182
TCON	0x88	Timer/Counter Control	191
TH0	0x8C	Timer/Counter 0 High	194
TH1	0x8D	Timer/Counter 1 High	194
TL0	0x8A	Timer/Counter 0 Low	194
TL1	0x8B	Timer/Counter 1 Low	194
TMOD	0x89	Timer/Counter Mode	192
TMR2CN	0xC8	Timer/Counter 2 Control	197
TMR2H	0xCD	Timer/Counter 2 High	198

