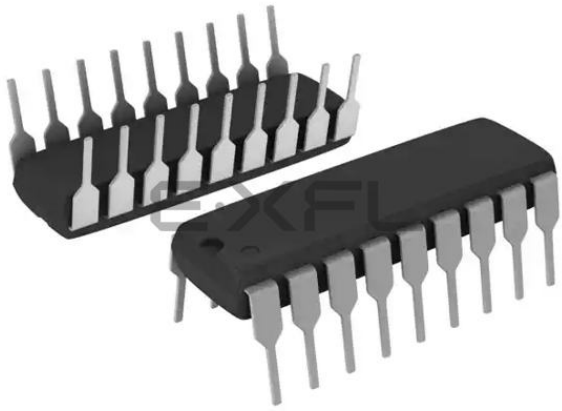

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What is "Embedded - Microcontrollers"?

"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	Active
Core Processor	Z8
Core Size	8-Bit
Speed	8MHz
Connectivity	-
Peripherals	POR, WDT
Number of I/O	14
Program Memory Size	512B (512 x 8)
Program Memory Type	OTP
EEPROM Size	-
RAM Size	61 x 8
Voltage - Supply (Vcc/Vdd)	3.5V ~ 5.5V
Data Converters	-
Oscillator Type	Internal
Operating Temperature	0°C ~ 70°C (TA)
Mounting Type	Through Hole
Package / Case	18-DIP (0.300", 7.62mm)
Supplier Device Package	-
Purchase URL	https://www.e-xfl.com/product-detail/zilog/z86e0208psg1925

- Low-Power Consumption (50 mΩ typical)
- Fast Instruction Pointer (1.5µs @ 8 MHz)
- RAM Bytes (61)

Connection	Circuit	Device
Power	V_{CC}	V_{DD}
Ground	GND	V_{SS}

BLOCK DIAGRAMS

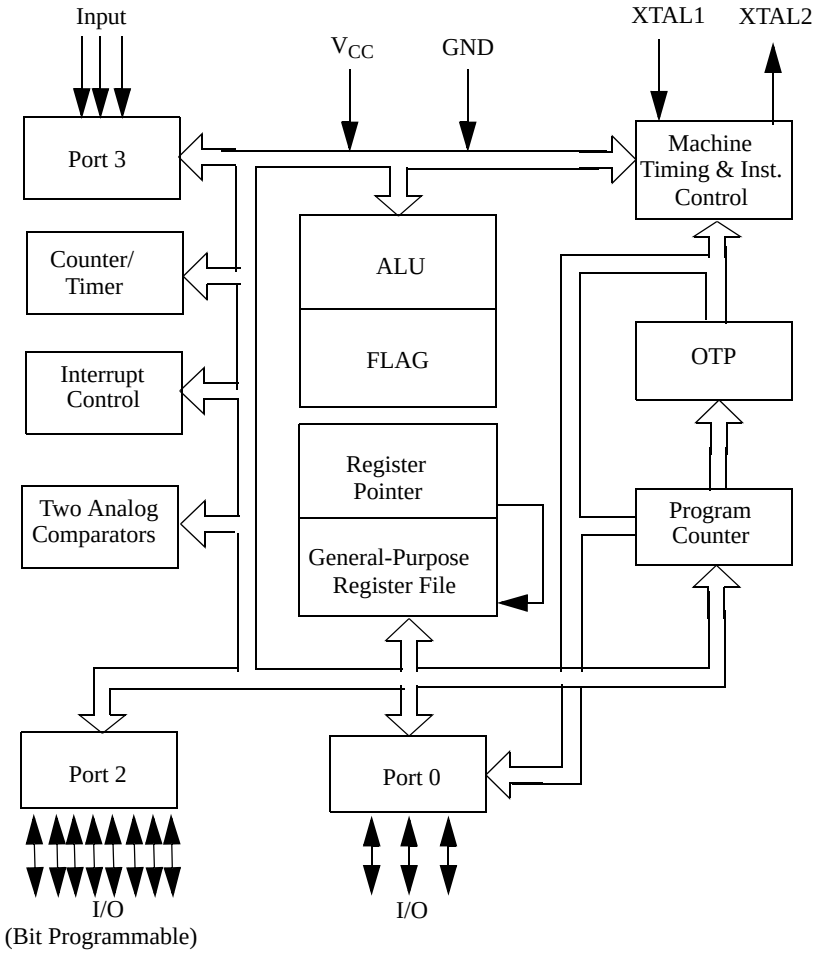


Figure 1. Functional Block Diagram

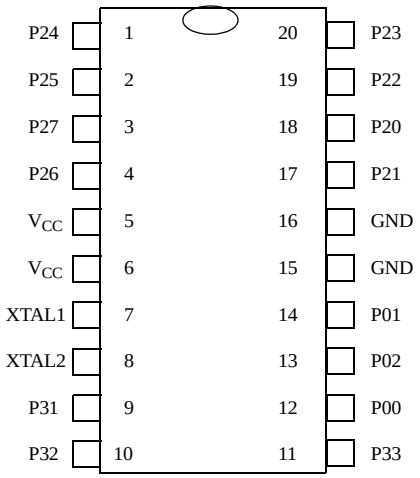


Figure 5. 20-Pin SSOP Pin Configuration, STANDARD Mode

Table 4. 20-Pin SSOP Pin Identification, STANDARD Mode

Pin #	Symbol	Function	Direction
1,2	P24-P25	Port 2, Pins 4-5	Input/Output
3	P27	Port 2, Pin 7	Input/Output
4	P26	Port 2, Pin 6	Input/Output
5	V_{CC}	Power Supply	
6	V_{CC}	Power Supply	
7	XTAL1	Crystal Oscillator Clock	Input
8	XTAL2	Crystal Oscillator Clock	Output
9	P31	Port 3, Pin 1, AN1	Input
10	P32	Port 3, Pin 2, AN2	Input
11	P33	Port 3, Pin 3, REF	Input
12	P00	Port 0, Pin 0	Input/Output
13	P02	Port 0, Pin 1	Input/Output
14	P01	Port 0, Pin 1	Input/Output
15	GND	Ground	
16	GND	Ground	
17	P21	Port 2, Pin 1	Input/Output
18	P20	Port 2, Pin 0	Input/Output
19-20	P22-P23	Port 2, Pins 2-3	Input/Output

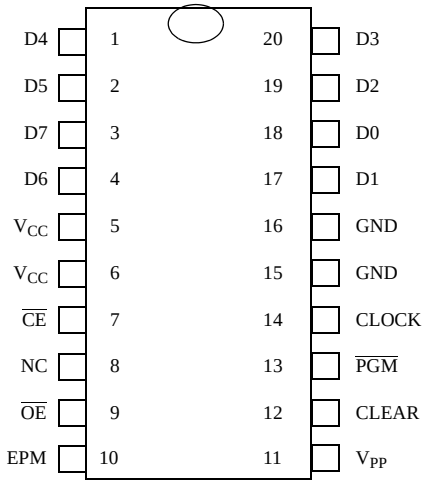


Figure 6. 20-Pin SSOP Pin Configuration, EPROM Mode

Table 5. 20-Pin SSOP Pin Identification, EPROM Mode

Pin #	Symbol	Function	Direction
1-2	D4-D5	Data 4-5	Input/Output
3	D7	Data 7	Input/Output
4	D6	Data 6	Input/Output
5	V_{CC}	Power Supply	
6	V_{CC}	Power Supply	
7	$\overline{CE}$	Chip Enable	Input
8	NC	No Connection	
9	$\overline{OE}$	Output Enable	Input
10	EPM	EPROM Program Mode	Input
11	V_{PP}	Program Voltage	Input
12	CLEAR	Clear Clock	Input
13	$\overline{PGM}$	Program Mode	Input
14	CLOCK	Address	Input
15	GND	Ground	
16	GND	Ground	
17	D1	Data 1	Input/Output
18	D0	Data 0	Input/Output
19-20	D2-D3	Data 2-3	Input/Output

Electrical Characteristics

Absolute Maximum Ratings

Stresses greater than those listed on Table 6 may cause permanent damage to the device. This rating is a stress rating only; functional operation of the device at any condition above those indicated in the operational sections of these specifications is not implied. Exposure to absolute maximum rating conditions for an extended period may affect device reliability. Total power dissipation should not exceed 462 mΩ for the package. See Table 6. Power dissipation is calculated as follows:

Total Power Dissipation = V_{CC} X [I_{CC}–(sum of I_{OH})]
+sum of [(V_{CC}–V_{OH}) X I_{OH}]
+ sum of (V_{OL} X I_{OL})

Table 6. Absolute Maximum Ratings

Parameter	Min	Max	Units	Note
Ambient Temperature under Bias	-40	+105	C	
Storage Temperature	-65	+150	C	
Voltage on any Pin with Respect to V_{SS}	-0.7	+12	V	1
Voltage on V_{DD} Pin with Respect to V_{SS}	-0.3	+7	V	
Voltage on XTAL1, P31, P32, P33 with respect to V_{SS}	-0.6	V_{DD}+1	V	3
Total Power Dissipation		462	mΩ	
Maximum Allowable Current out of V_{SS}		300	mA	
Maximum Allowable Current into V_{DD}		270	mA	
Maximum Allowable Current into an Input Pin	-600	+600	µA	4
Maximum Allowable Current into an Open-Drain Pin	-600	+600	µA	2
Maximum Allowable Output Current Linked by any I/O Pin		20	mA	
Maximum Allowable Output Current Sourced by any I/O Pin		20 mA		

1. Applies to all pins except where otherwise noted. Maximum current into or out of pin must be ±600 µA.
2. Device pin is not at an output Low state.
3. There is no input protection diode from pin to V_{DD}.
4. This excludes XTAL1 and XTAL2.

Standard Test Conditions

The characteristics listed below apply for standard test conditions as noted. All voltages are referenced to Ground. Positive current flows into the referenced pin See Figure 7.

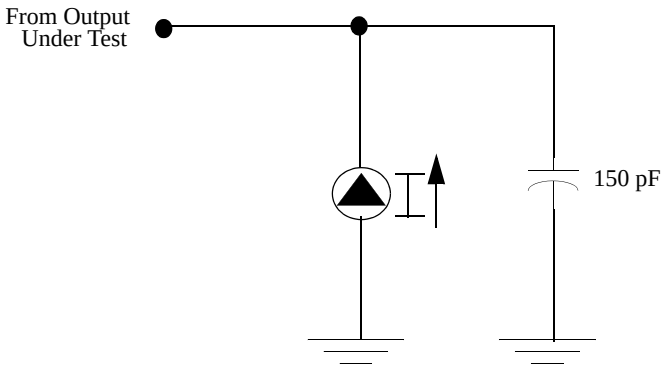


Figure 7. Test Load Diagram

Capacitance

T_A = 25°C, V_{CC} = GND = OV, f = 1.0 MHz, unmeasured pins returned to GND. See Table 7.

Table 7. Capacitance

Parameter	Min	Max
Input capacitance	0	10 pF
Output capacitance	0	20 pF
I/O capacitance	0	25 pF

DC Electrical Characteristics

Standard Temperature Range

Table 8 provides Direct Current characteristics for the Z86E02 SL1925 microcontroller, at a standard ambient temperature range of 0°C to 70°C.

Table 8. DC Characteristics, Standard Temperature Range

TA = 0°C to +70°C							
Sym	**Parameter**	**V_{CC}**	**Min**	**Max**	**Typical @ 25°C[1] Units**	**Conditions**	**Notes**
V_{INMAX}	Max Input Voltage	3.5V	-12	12	V	I_{IN} < 250 µA	2
		5.5V	-12	12	V	I_{IN} < 250 µA	2

Table 9. DC Characteristics, Extended Temperature Range (Continued)

			TA = -40°C to +105°C					
Sym	**Parameter**	**V_{CC}**	**Min**	**Max**	**Typical @ 25°C[1]**	**Units**	**Conditions**	**Notes**
I_{CC}	Supply Current	4.5V		7.0	6.8	mA	@ 2 MHz	3,6
		5.5V		7.0	6.8	mA	@ 2 MHz	3,6
		4.5V		11.0	8.2	mA	@ 8 MHz	3,6
		5.5V		11.0	8.2	mA	@ 8 MHz	3,6
I_{CC1}	Standby Current (HALT Mode)	4.5V		3.0	2.5	mA	@ 2 MHz	3,6
		5.5V		3.0	2.5	mA	@ 2 MHz	3,6
		4.5V		5.0	3.0	mA	@ 8 MHz	3,6
		5.5V		5.0	3.0	mA	@ 8 MHz	3,6
I_{CC}	Supply Current (Low EMI Mode)	4.5V		7.0	6.8	mA	@ 1 MHz	6,10
		5.5V		7.0	6.8	mA	@ 1 MHz	6,10
		4.5V		9.0	7.5	mA	@ 2 MHz	6,10
		5.5V		9.0	7.5	mA	@ 2 MHz	6,10
		4.5V		11.0	8.2	mA	@ 4 MHz	6,10
		5.5V		11.0	8.2	mA	@ 4 MHz	6,10
I_{CC1}	Standby Current (HALT and Low EMI Mode)	4.5V		1.6	0.9	mA	@ 1 MHz	6,10
		5.5V		1.6	0.9	mA	@ 1 MHz	6,10
		4.5V		1.9	1.0	mA	@ 2 MHz	6,10
		5,5V		1.9	1.0	mA	@ 2 MHz	6,10
		4.5V		2.4	3.0	mA	@ 4 MHz	6,10
		5.5V		2.4	3.0	mA	@ 4 MHz	6,10
I_{CC2}	Standby Current (Stop mode)	4.5V		20	1.0	µA	WDT is not Running	6,7,8
		5.5V		20	1.0	µA	WDT is not Running	6,7,8
I_{ALL}	Auto Latch Low Current	4.5V		40	16	µA	$0V < V_{IN} < V_{CC}$	9
		5.5V		40	16	µA	$0V < V_{IN} < V_{CC}$	9

Table 9. DC Characteristics, Extended Temperature Range (Continued)

			TA = -40°C to +105°C					
Sym	**Parameter**	**V_{CC}**	**Min**	**Max**	**Typical @ 25°C[1]**	**Units**	**Conditions**	**Notes**
I_{ALH}	Auto Latch High Current	4.5V		-20.0	-8.0	µA	$0V < V_{IN} < V_{CC}$	9
		5.5V		-20.0	-8.0	µA	$0V < V_{IN} < V_{CC}$	9

1. Typical values are read at a V_{CC} of 5.0V
2. Port 2, Port 3, and Port 0 only.
3. STANDARD mode (not Low EMI mode).
4. These values apply while operating in RUN mode or HALT mode
5. These values apply while operating in STOP mode
6. All outputs are unloaded and all inputs are at the V_{CC}or V_{SS} level.
7. If the analog comparator is selected, then the comparator inputs must be at the V_{CC} level.
8. A 10-MΩ pull-up resistor is required in the circuit between the XTAL1 pin to the V_{CC} pin.
9. Auto latches are enabled.
10. Low EMI Mode (not Standard Mode)

AC Electrical Timing Characteristics

Figure 8 illustrates Alternating Current timing for the Z86E02 SL1925 microcontroller.

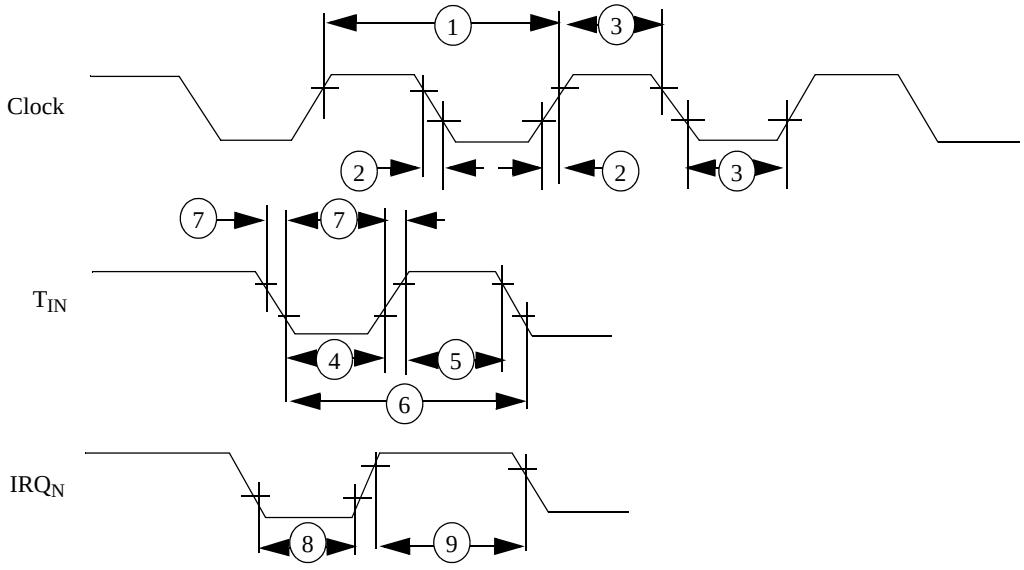


Figure 8. AC Electrical Timing

STANDARD Mode at Standard Temperature

Table 10 describes timing characteristics in STANDARD mode at standard temperature for the timing diagram noted in Figure 8.

Table 10. AC Electrical Characteristics, Standard Mode and Temperature

			TA = 0°C to +70°C				
			8MHz				
No	**Symbol**	**Parameter**	**V_{CC}**	**Min**	**Max**	**Units**	**Notes**
1	T_PC	Input Clock Period	3.5V	125	DC	ns	1
			5.5V	125	DC	ns	1
2	T_RC,T_FC	Clock Input Rise and Fall Times	3.5V		25	ns	1
			5.5V		25	ns	1
3	T_WC	Input Clock Width	3.5V	62		ns	1
			5.5V	62		ns	1

STANDARD Mode at Extended Temperature

Table 11 describes timing characteristics in STANDARD mode at extended temperature for the timing diagram noted in Figure 8.

Table 11. AC Electrical Timing, Standard Mode at Extended Temperature

			TA = -40°C to +105°C				
				8MHz			
No	Symbol	Parameter	V_{CC}	Min	Max	Units	Notes
1	T_PC	Input Clock Period	4.5V	125	DC	ns	1
			5.5V	125	DC	ns	1
2	T_RC,T_FC	Clock Input Rise and Fall Times	4.5V		25	ns	1
			5.5V		25	ns	1
3	T_WC	Input Clock Width	4.5V		62	ns	1
			5.5V		62	ns	1
4	$T_WT_{IN}L$	Timer Input Low Width	4.5V	70		ns	1
			5.5V	70		ns	1
5	$T_WT_{IN}H$	Timer Input High Width	4.5V	5TpC			1
			5.5V	5TpC			1
6	T_PT_{IN}	Timer Input Period	4.5V	8TpC			1
			5.5V	8TpC			1
7	T_RT_{IN}, T_TT_{IN}	Timer Input Rise and Fall Time	4.5V		100	ns	1
			5.5V		100	ns	1
8	T_WIL	Interrupt Request Input Low Time	4.5V	70		ns	1,2
			5.5V	70		ns	1,2
9	T_WIH	Interrupt Request Input High Time	4.5V	5TpC			1,2
			5.5V	5TpC			1,2
10	T_{WDT}	Watch-Dog Timer Delay Time before Time-out	4.5V	5		ms	
			5.5V	5		ms	
11	T_{POR}	Power-On Reset Time	4.5V	1	20	ms	
			5.5V	1	20	ms	

1. Timing reference is 0.7 V_{CC} for a logic 1 and 0.2 V_{CC} for a logic 0
2. Interrupt request through Port 3 (P33-P31)

Pin Functions

EPROM Mode

D7–D0 Data Bus. Data can be read from, or written to, the EPROM through this data bus.

V_{CC} Power Supply. It is typically 5V during all EPROM Read Mode and typically 6.4V during other modes (PROGRAM, PROGRAM VERIFY, etc.).

$\overline{CE}$ Chip Enable (active Low). This pin is active during EPROM READ mode, PROGRAM mode, and PROGRAM VERIFY mode.

$\overline{OE}$ Output Enable (active Low). This pin drives the Data Bus direction. When this pin is Low, the data bus is output. When High, the data bus is input.This pin must toggle for each data output read.

EPM EPROM Program Mode. This pin controls the selection of EPROM operation modes by applying different voltages.

V_{PP} Program Voltage. This pin supplies the program voltage.

Clear (active High). This pin resets the internal address counter at the High level.

Clock Address Clock. This pin is a clock input. The internal address counter increases by one count with one clock cycle.

$\overline{PGM}$ Program Mode (active Low). A Low level at this pin programs the data to the EPROM through the data bus.

Pin Function Changes in EPROM Mode

With the exception of V_{CC} and GND, the Z8® changes all of its pin functions in EPROM mode. X_{OUT} offers no function; X_{IN} functions as $\overline{CE}$, P31 functions as $\overline{OE}$, P32 functions as EPM, P33 functions as V_{PP} P00 functions as CLEAR, P01 functions as CLOCK, and P02 functions as $\overline{PGM}$. Please refer to Program Memory for additional EPROM mode descriptions.

Application Precaution

The production test-mode environment may be enabled accidentally during normal operation if excessive noise surges above V_{CC} occur on the XTAL1 pin ($\overline{OE}$).

In addition, processor operation of Z8® OTP devices maybe affected by excessive noise surges on the P33 (V_{PP}), XTAL1 ($\overline{CE}$), P32 (EPM), P31 ($\overline{OE}$) pins while the microcontroller is in Standard Mode.

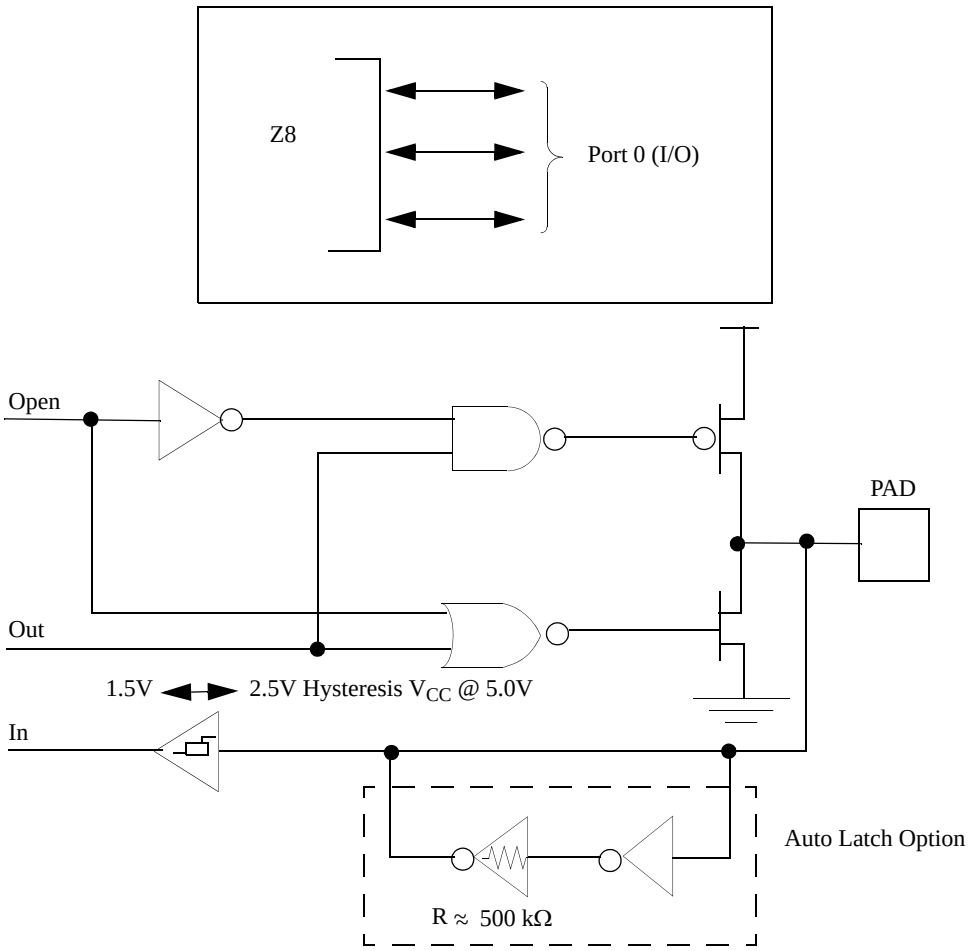


Figure 9. Port 0 Configuration

Port 2, P27–P20. Port 2 is an 8-bit, bit programmable, bidirectional, Schmitt-triggered CMOS-compatible I/O port. These eight I/O lines can be configured under software control to be inputs or outputs, independently. Bits programmed as outputs can be globally programmed as either push-pull or open-drain (Figure 10).

Table 15. Interrupt Types, Sources, and Vectors

Name	Source	Vector Location	Comments
IRQ0	AN2(P32)	0,1	External (F) Edge
IRQ1	REF(P33)	2,3	External (F) Edge
IRQ2	AN1 (P31)	4,5	External (F) Edge
IRQ3	AN2 (P32)	6,7	External (R) Edge
IRQ4	Software	8,9	Internal
IRQ5	T1	10,11	Internal
Note: Note: F = Falling edge triggered: R = Rising edge triggered			

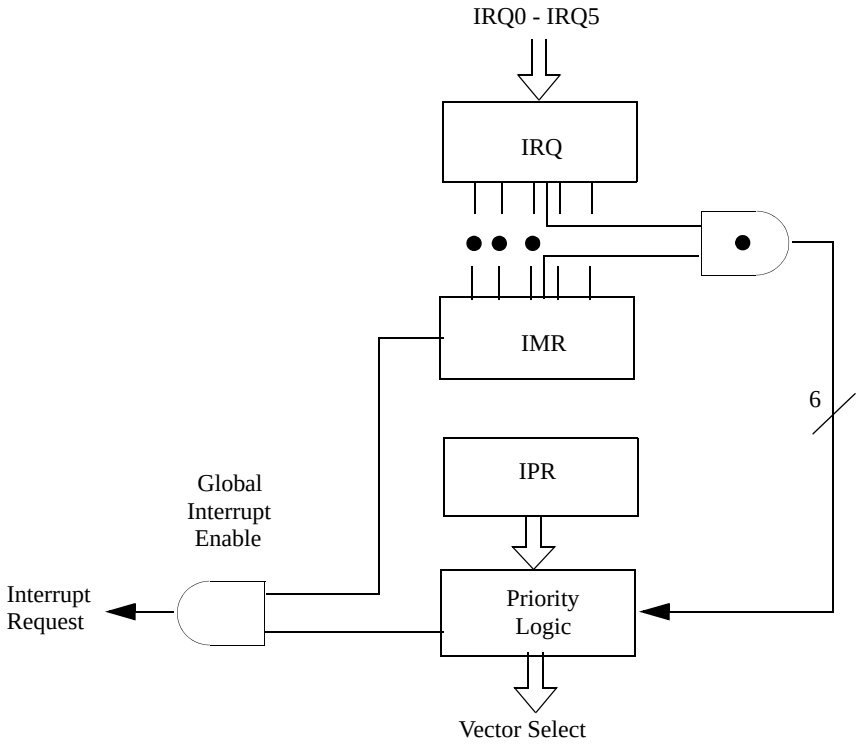


Figure 17. Interrupt Block Diagram

Clock

The Z8® on-chip oscillator features a high-gain, parallel-resonant amplifier for connection to an external crystal, LC, RC, ceramic resonator, or any suitable external clock source (XTAL1 = INPUT, XTAL2 = OUTPUT). The crystal should be AT-cut, up to 8 MHz max., with a series resistance (RS) of less than or equal to 100 Ohms.

The crystal should be connected across XTAL1 and XTAL2 using the vendor's crystal recommended capacitor values from each pin directly to device ground pin 14 on DIP and SOIC packages or pins 5 and 6 on SSOP package (Figure 18).

Note: The crystal capacitor loads should be connected directly to the Z8® GND pin to reduce Ground noise injection. They should not connect to system Ground.

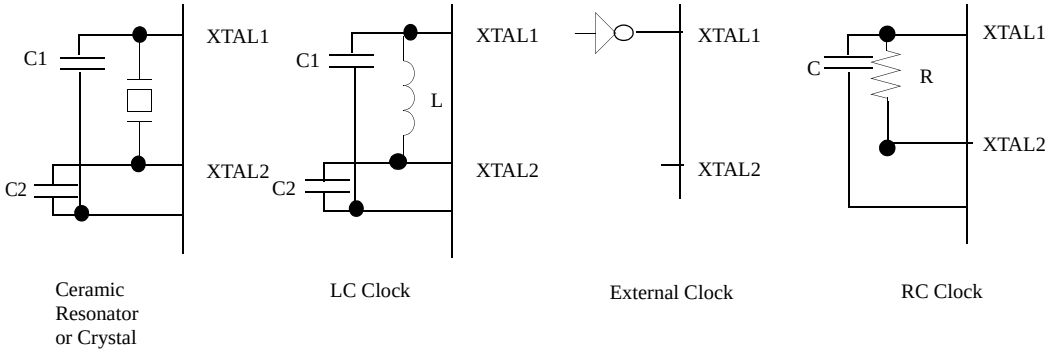


Figure 18. Oscillator Configuration

Table 16. Typical Frequency (MHz) vs. RC Values V_{CC} = 5.0 V @ 25°C

	Load Capacitor							
	33 pF		56 pF		100 pF		0.001 µF	
Resistor (R)	A	B	A	B	A	B	A	B
1.0 MΩ	0.05	0.03	0.03	0.02	0.02	0.01	0.001	0.001
560 KΩ	0.09	0.04	0.05	0.025	0.03	0.02	0.003	0.002
220 KΩ	0.23	0.11	0.12	0.07	0.07	0.043	0.007	0.005
100 KΩ	0.5	0.19	0.28	0.13	0.15	0.086	0.014	0.01
56 KΩ	0.93	0.28	0.48	0.2	0.27	0.13	0.026	0.02
20 KΩ	2.2	0.57	1.1	0.41	0.71	0.28	0.07	0.05
10 KΩ	3.5	1.0	2.1	0.64	1.4	0.45	0.14	0.08

Table 16. Typical Frequency (MHz) vs. RC Values V_{CC} = 5.0 V @ 25°C (Continued)

	Load Capacitor							
	33 pF		56 pF		100 pF		0.001 µF	
Resistor (R)	A	B	A	B	A	B	A	B
5 KΩ	7.6	1.6	3.6	1.0	2.3	0.7	0.28	0.14
2 KΩ	12.5	2.3	8.5	1.7	4.1	1.3	0.66	0.27
1 KΩ	17	3.1	13	2.5	9.5	1.8	1.2	0.42

1. A = Standard mode frequency
2. B = Low EMI mode frequency

HALT Mode

This instruction turns off the internal CPU clock but not the crystal oscillation. The counter/timers and external interrupts IRQ0, IRQ1, IRQ2 and IRQ3 remain active. The device is recovered by interrupts, either externally or internally generated. An interrupt request must be executed (enabled) to exit HALT mode. After the interrupt service routine, the program continues from the instruction after the HALT.

Note: On the C12 ICEBOX, the IRQ3 does not wake the device out of HALT Mode.

Note: The device can be recovered by a WDT timeout. The WDT reset in HALT Mode generates a full reset similar to the Normal run mode (not STOP Mode).

STOP Mode

This instruction turns off the internal clock and external crystal oscillation and reduces the standby current to 10 A. The STOP mode is released by a RESET through a Stop-Mode Recovery (pin P27). A LOW INPUT condition on P27 releases the STOP mode. Program execution begins at location 000C (Hex). Refer to the Watch Dog Timer (WDT) section for information relating to WDT wakeup out of Stop Mode. However, when P27 is used to release STOP mode, the I/O port mode registers are not reconfigured to their default POWER-ON conditions. Thus the I/O, configured as output when the STOP instruction was executed, is prevented from glitching to an unknown state. To use the P27 release approach with STOP mode, use the following instruction:

```
LD      P2M, #1XXX XXXXB
NOP
STOP
```

Note: X = Dependent on user's application.

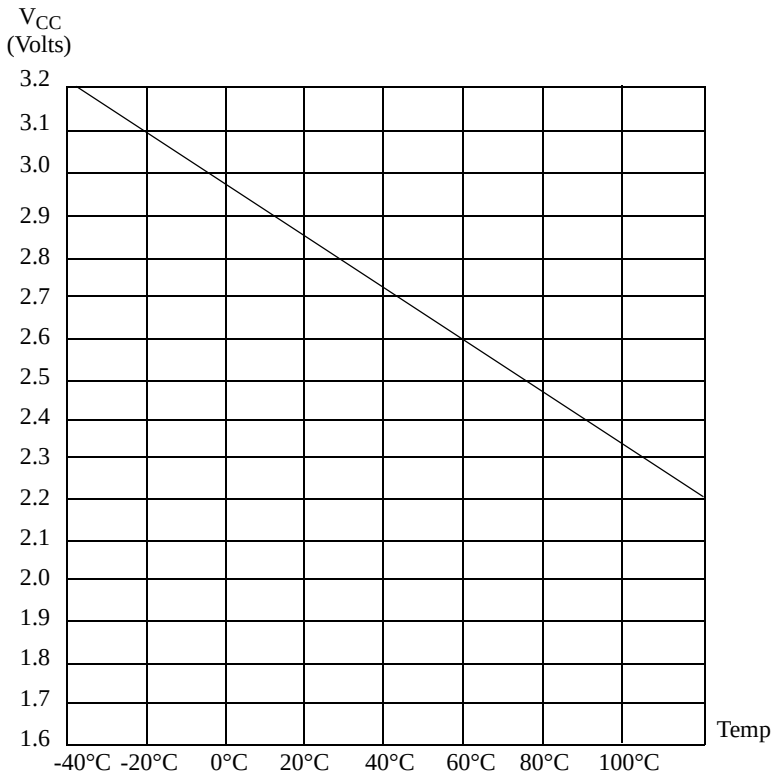


Figure 19. Typical Auto Reset Voltage (V_{LV}) vs. Temperature

OTP Option Bit Description

One-Time Programmable EPROM option bits for the device are described in this section. The Z86E02 SL1925 must be power-cycled to fully implement the selected option after programming.

Low-EMI Emission. The Low EMI option bit, when programmed, enables the Z8 to operate in a low-EMI emission (low-noise) mode. Use of this feature results in:

- All pre-driver slew rates are typically reduced to 10 ns
- Internal SCLK /TCLK operation limited to a maximum of 4 MHz–250 ns cycle time
- Output drivers typically exhibit resistances of 200 ohms
- Oscillator divide-by-two circuitry eliminated

RC Oscillator. The RC Oscillator option bit, when programmed, enables the internal RC oscillator to connect to the XTAL2 and XTAL1 pins while disabling the internal crystal oscillator to XTAL2 and XTAL1.

Table 21. Port 3 Mode Register, R247 P3M F7h Bank 0h: WRITE ONLY

Bit	7	6	5	4	3	2	1	0
R/W	W	W	W	W	W	W	W	W
Reset	X	X	X	X	X	X	X	X
Note: W = Write, X = Indeterminate								

Bit Position	Bit Field	R/W	Reset Value	Description
7-2	Reserved	W	X	Reserved-must be 0
1	Port 3	W	0	**Port 3 Outputs** 0: DIGITAL Mode 1: ANALOG Mode
0	Port 2	W	0	**Port 2 Outputs** 0: Open-Drain 1: Push-Pull

Table 22. Port 0 and 1 Mode Register, R248 P01 F8h Bank 0h: WRITE ONLY

Bit	7	6	5	4	3	2	1	0
R/W	W	W	W	W	W	W	W	W
Reset	X	X	X	0	X	1	0	1
Note: W = Write, X = Indeterminate								

Bit Position	Bit Field	R/W	Reset Value	Description
7-5, 3	Reserved	W	X	Reserved-must be 0
4	Reserved	W	0	Reserved-must be 0
2	Reserved	W	X	Reserved-must be 1
1-0	P02-P00	W	01	**P02-P00 Mode** 0: Output 1: Input

Table 23. Interrupt Priority Register, R249 IPR F9h Bank 0h: WRITE ONLY

Bit	7	6	5	4	3	2	1	0
R/W	W	W	W	W	W	W	W	W
Reset	X	X	X	X	X	X	X	X

Note: W = Write, X = Indeterminate

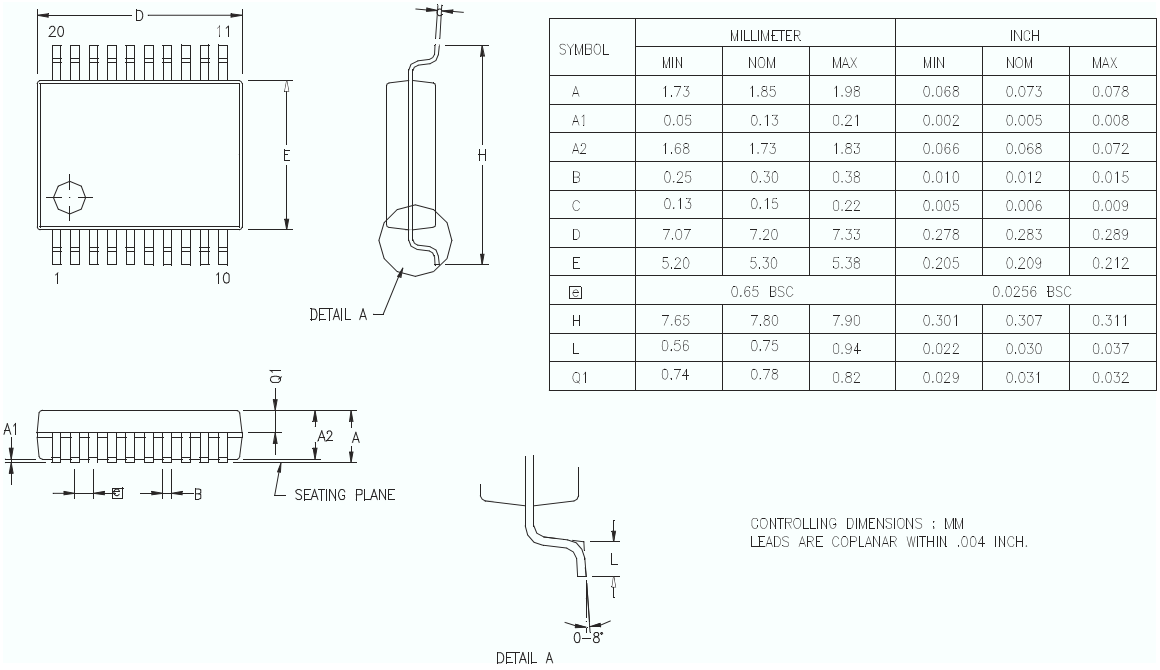
Bit Position	Bit Field	R/W	Reset Value	Description
7-6	Reserved	W	X	Reserved-must be 0
5	IRQ3, IRQ5	W	X	**IRQ3, IRQ5 Priority (Group A)** 0: IRQ5 > IRQ3 1: IRQ3 < IRQ5
4, 3, 0	Interrupt	W	X	**Interrupt Group Priority** 000: Reserved* 001: C>A>B 010: A>B>C 011: A>C>B 100: B>C>A 101: C>B>A 110: B>A>C 111: Reserved
2	IRQ0, IRQ2	W	X	**IRQ0, IRQ2 Priority (Group B)** 0: IRQ2 > IRQ0 1: IRQ0 < IRQ2
1	IRQ1, IRQ4	W	X	**IRQ1, IRQ4 Priority (Group C)** 0: IRQ1 > IRQ4 1: IRQ4 < IRQ1

Note: *Selecting a Reserved mode causes an undefined operation.

Table 24. Interrupt Request Register, R250 IPR FAh Bank 0h: READ/WRITE

Bit	7	6	5	4	3	2	1	0
R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W
Reset	0	0	0	0	0	0	0	0
Note: R = Read, W = Write								

Bit Position	Bit Field	R/W	Reset Value	Description
7-6	Reserved	R/W	00	Reserved-must be 0
5	IRQ5	R/W	0	**Interrupt** IRQ5 = T1 0: No interrupt pending 1: Interrupt pending
4	IRQ4	R/W	**0**	**Interrupt** RQ4 = Software generated 0: No interrupt pending 1: Interrupt pending
3	IRQ3	R/W	**0**	**Interrupt** RQ3 = P32 Input (rising edge) 0: No interrupt pending 1: Interrupt pending
2	IRQ2	R/W	**0**	**Interrupt** RQ2 = P31 Input 0: No interrupt pending 1: Interrupt pending
1	IRQ1,	R/W	**0**	**Interrupt** RQ1 = P33 Input 0: No interrupt pending 1: Interrupt pending
0	IRQ0	R/W	**0**	**Interrupt** RQ0 = P32 Input 0: No interrupt pending 1: Interrupt pending
Note: *Selecting a Reserved mode causes an undefined operation.				



SYMBOL	MILLIMETER			INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.73	1.85	1.98	0.068	0.073	0.078
A1	0.05	0.13	0.21	0.002	0.005	0.008
A2	1.68	1.73	1.83	0.066	0.068	0.072
B	0.25	0.30	0.38	0.010	0.012	0.015
C	0.13	0.15	0.22	0.005	0.006	0.009
D	7.07	7.20	7.33	0.278	0.283	0.289
E	5.20	5.30	5.38	0.205	0.209	0.212
e	0.65 BSC			0.0256 BSC		
H	7.65	7.80	7.90	0.301	0.307	0.311
L	0.56	0.75	0.94	0.022	0.030	0.037
Q1	0.74	0.78	0.82	0.029	0.031	0.032

Figure 22. 20-Pin SSOP Package Diagram

Ordering Information

Table 30. Ordering Information

Pin Count	Package	Size (KB)	Description
18	DIP	0.5	Z86E0208PSC1925
			Z86E0208PEC1925
	SOIC	0.5	Z86E0208SSC1925
			Z86E0208SEC1925
20	SSOP	0.5	Z86E0208HSC1925
			Z86E0208HEC1925

Note: The Standard temperature range is 0°C to 70°C. For parts that operate in the Extended temperature range of -40°C to 105°C, substitute the letter E for the letter S. For example, the PSI number for an 18-pin DIP operating at 8 MHz in the extended temperature range is Z86E0208PEC

Customer Feedback Form

Z86E02 SL1925 Product Specification

If you experience any problems while operating this product, or if you note any inaccuracies while reading this Product Specification, please copy and complete this form, then mail or fax it to ZiLOG (see Return Information, below). We also welcome your suggestions!

Customer Information

Name	Country
Company	Phone
Address	Fax
City/State/Zip	E-Mail

Product Information

Serial # or Board Fab #/Rev. #
Software Version
Document Number
Host Computer Description/Type

Return Information

ZiLOG
532 Race Street
Campbell, CA 95126-3432
Fax: (408) 558-8536
www.zilog.com

Problem Description or Suggestion

Please provide a complete description of the problem or suggestion. If you are reporting a specific problem, include all steps leading up to the occurrence of the problem. Attach additional pages as necessary.