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"[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	Z8
Core Size	8-Bit
Speed	10MHz
Connectivity	-
Peripherals	PWM, WDT
Number of I/O	13
Program Memory Size	1KB (1K x 8)
Program Memory Type	OTP
EEPROM Size	-
RAM Size	64 x 8
Voltage - Supply (Vcc/Vdd)	4.5V ~ 5.5V
Data Converters	-
Oscillator Type	Internal
Operating Temperature	-40°C ~ 105°C (TA)
Mounting Type	Surface Mount
Package / Case	20-SSOP (0.209", 5.30mm Width)
Supplier Device Package	-
Purchase URL	https://www.e-xfl.com/product-detail/zilog/z8e00110heg

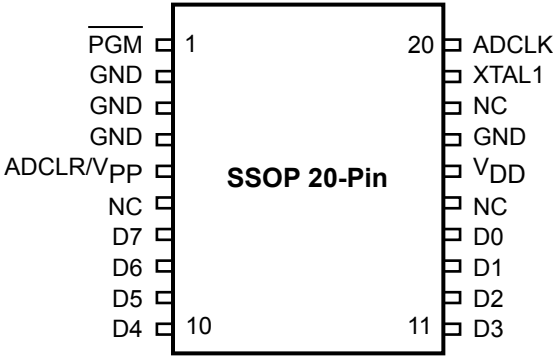


Figure 6. 20-Pin SSOP Pin Identification/EPROM Programming Mode

EPROM Programming Mode			
Pin #	Symbol	Function	Direction
1	PGM	Prog Mode	Input
2–4	GND	Ground	
5	ADCLR/V _{PP}	Clear Clk./Prog Volt.	Input
6	NC	No Connection	
7–10	D7–D4	Data 7,6,5,4	Input/Output
11–14	D3–D0	Data 3,2,1,0	Input/Output
15	NC	No Connection	
16	V _{DD}	Power Supply	
17	GND	Ground	
18	NC	No Connection	
19	XTAL1	1MHz Clock	Input
20	ADCLK	Address Clock	Input

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}	−0.6	+7	V	1
Voltage on V_{DD} Pin with Respect to V_{SS}	−0.3	+7	V	
Voltage on RESET Pin with Respect to V_{SS}	−0.6	$V_{DD}+1$	V	2
Total Power Dissipation		880	mW	
Maximum Allowable Current out of V_{SS}		80	mA	
Maximum Allowable Current into V_{DD}		80	mA	
Maximum Allowable Current into an Input Pin	−600	+600	mA	3
Maximum Allowable Current into an Open-Drain Pin	−600	+600	mA	4
Maximum Allowable Output Current Sunk by Any I/O Pin		25	mA	
Maximum Allowable Output Current Sourced by Any I/O Pin		25	mA	
Maximum Allowable Output Current Sunk by Port A		40	mA	
Maximum Allowable Output Current Sourced by Port A		40	mA	
Maximum Allowable Output Current Sunk by Port B		40	mA	
Maximum Allowable Output Current Sourced by Port B		40	mA	

Notes:

1. Applies to all pins except the RESET pin and where otherwise noted.
2. There is no input protection diode from pin to V_{DD} .
3. Excludes XTAL pins.
4. Device pin is not at an output Low state.

Stresses greater than those listed under Absolute Maximum Ratings can 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 can affect device reliability. Total power dissipation should

not exceed 880 mW for the package. Power dissipation is calculated as follows:

$$\begin{aligned} \text{Total Power Dissipation} = & V_{DD} \times [I_{DD} - (\text{sum of } I_{OH})] \\ & + \text{sum of } [(V_{DD} - V_{OH}) \times I_{OH}] \\ & + \text{sum of } (V_{OL} \times I_{OL}) \end{aligned}$$

Table 1. DC Electrical Characteristics (Continued)

pF $T_A = 0^{\circ}\text{C}$ to $+70^{\circ}\text{C}$ Standard Temperatures								
Sym	Parameter	V_{CC}^1	Min	Max	Typical ² @ 25°C	Units	Conditions	Notes
I_{CC}	Supply Current	3.5V		2.5	2.0	mA	@ 10 MHz	4,5
		5.5V		6.0	3.5	mA	@ 10 MHz	4,5
I_{CC1}	Standby Current	3.5V		2.0	1.0	mA	HALT Mode $V_{IN} = 0V$, V_{CC} @ 10 MHz	4,5
		5.5V		4.0	2.5	mA	HALT Mode $V_{IN} = 0V$, V_{CC} @ 10 MHz	4,5
I_{CC2}	Standby Current	3.5V		500	150	nA	STOP Mode $V_{IN} = 0V$, V_{CC}	6

Notes:

1. The V_{CC} voltage specification of 3.5V guarantees 3.5V and the V_{CC} voltage specification of 5.5 V guarantees 5.0 V ± 0.5 V.
2. Typical values are measured at $V_{CC} = 3.3V$ and $V_{CC} = 5.0V$; $V_{SS} = 0V = GND$.
3. For analog comparator input when analog comparator is enabled.
4. All outputs unloaded and all inputs are at V_{CC} or V_{SS} level.
5. $CL1 = CL2 = 22$ pF.
6. Same as note 4 except inputs at V_{CC} .

AC ELECTRICAL CHARACTERISTICS

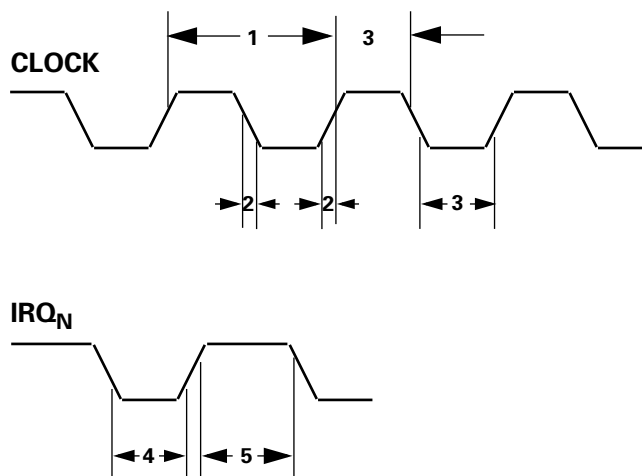


Figure 8. AC Electrical Timing Diagram

Table 3. Additional Timing

$T_A = 0^\circ\text{C to } +70^\circ\text{C}$ $T_A = -40^\circ\text{C to } +105^\circ\text{C}$ @ 10 MHz							
No	Symbol	Parameter	V_{CC}^1	Min	Max	Units	Notes
1	TpC	Input Clock Period	3.5V	100	DC	ns	2
			5.5V	100	DC	ns	2
2	TrC,TfC	Clock Input Rise and Fall Times	3.5V		15	ns	2
			5.5V		15	ns	2
3	TwC	Input Clock Width	3.5V	50		ns	2
			5.5V	50		ns	2
4	TwIL	Int. Request Input Low Time	3.5V	70		ns	2
			5.5V	70		ns	2
5	TwIH	Int. Request Input High Time	3.5V	5TpC			2
			5.5V	5TpC			2
6	Twsm	STOP Mode Recovery Width Spec.	3.5V	12		ns	
			5.5V	12		ns	
7	Tost	Oscillator Start-Up Time	3.5V		5TpC		
			5.5V		5TpC		

Notes:

1. The V_{DD} voltage specification of 3.5V guarantees 3.5V. The V_{DD} voltage specification of 5.5V guarantees $5.0V \pm 0.5V$.
2. Timing Reference uses $0.7 V_{CC}$ for a logic 1 and $0.2 V_{CC}$ for a logic 0.

RESET PIN OPERATION (Continued)

Table 4. Control and Peripheral Registers (Continued)

Register (HEX)	Register Name	Bits								Comments
		7	6	5	4	3	2	1	0	
D7	Port B Special Function	0	0	0	0	0	0	0	0	Deactivates all port special functions after RESET
D6	Port B Directional Control	0	0	0	0	0	0	0	0	Defines all bits as inputs in PortB after RESET
D5	Port B Output	U	U	U	U	U	U	U	U	Output register not affected by RESET
D4	Port B Input	U	U	U	U	U	U	U	U	Current sample of the input pin following RESET
D3	Port A Special Function	0	0	0	0	0	0	0	0	Deactivates all port special functions after RESET
D2	Port A Directional Control	0	0	0	0	0	0	0	0	Defines all bits as inputs in PortA after RESET
D1	Port A Output	U	U	U	U	U	U	U	U	Output register not affected by RESET
D0	Port A Input	U	U	U	U	U	U	U	U	Current sample of the input pin following RESET
CF	Reserved									
CE	Reserved									
CD	T1VAL	U	U	U	U	U	U	U	U	
CC	T0VAL	U	U	U	U	U	U	U	U	
CB	T3VAL	U	U	U	U	U	U	U	U	
CA	T2VAL	U	U	U	U	U	U	U	U	
C9	T3AR	U	U	U	U	U	U	U	U	
C8	T2AR	U	U	U	U	U	U	U	U	
C7	T1ARHI	U	U	U	U	U	U	U	U	
C6	T0ARHI	U	U	U	U	U	U	U	U	
C5	T1ARLO	U	U	U	U	U	U	U	U	
C4	T0ARLO	U	U	U	U	U	U	U	U	
C3	WDTHI	1	1	1	1	1	1	1	1	
C2	WDTLO	1	1	1	1	1	1	1	1	
C1	TCTLHI	1	1	1	1	1	0	0	0	WDT Enabled in HALT Mode, WDT timeout at maximum value, STOP Mode disabled
C0	TCTLLO	0	0	0	0	0	0	0	0	All standard timers are disabled

Note: *The SMR and WDT flags are set indicating the source of the RESET.

Table 5. Flag Register Bit D1, D0

D1	D0	Reset Source
0	0	RESET Pin
0	1	SMR Recovery
1	0	WDT Reset
1	1	Reserved

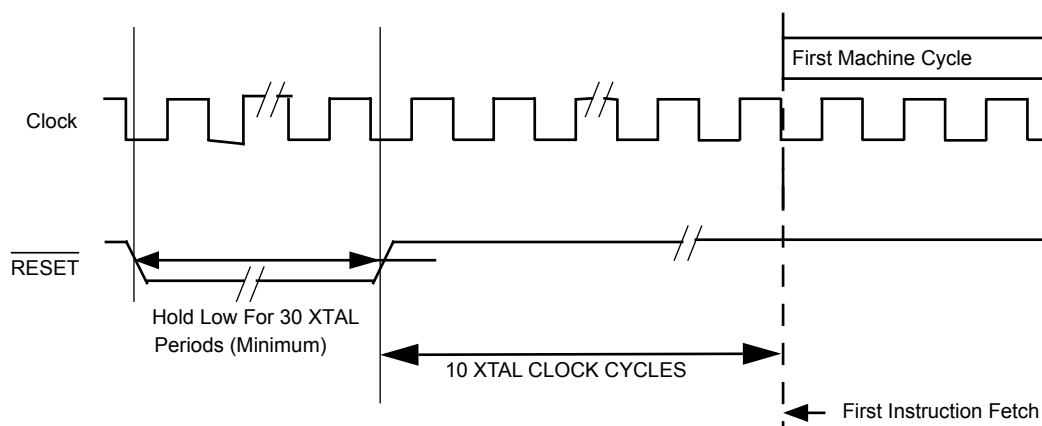


Figure 9. Reset Timing

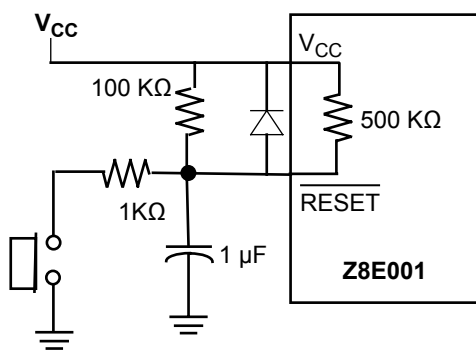


Figure 10. Example of External Power-On Reset (POR) Circuit

Z8E001 WATCH-DOG TIMER (WDT)

The WDT is a retriggerable one-shot 16-bit timer that resets the Z8E001 if it reaches its terminal count. The WDT is driven by the XTAL2 clock pin. To provide the longer timeout periods required in applications, the watchdog timer is only updated every 64th clock cycle. When operating in the RUN or HALT Modes, a WDT timeout reset is functionally equivalent to an interrupt vectoring the PC to 0020H and setting the WDT flag to a one state. Coming out of RESET, the WDT is fully enabled with its timeout value set at the maximum value, unless otherwise programmed during the first instruction. Subsequent executions of the WDT instruction, reinitialize the watchdog timer registers (C2H and C3H), to their initial values as defined by bits D6, D5, and D4 of the TCTLHI register. The WDT cannot be disabled except on the first cycle after RESET, and if the device enters Stop mode.

The WDT instruction should be executed often enough to provide some margin before allowing the WDT registers to

get near 0. Because the WDT timeout periods are relatively long, a WDT reset will occur in the unlikely event that the WDT times out on exactly the same cycle that the WDT instruction is executed.

The WDT and SMR flags are the only flags that are affected by the external RESET pin. RESET clears both the WDT and SMR flags. A WDT timeout sets the WDT flag. The STOP instruction sets the SMR flag. This behavior enables software to determine whether a pin RESET occurred, or whether a WDT timeout occurred, or whether a return from STOP Mode occurred. Reading the WDT and SMR flags does not reset it to zero, the user must clear it via software.

Note: Failure to clear the SMR flag can result in undefined behavior.

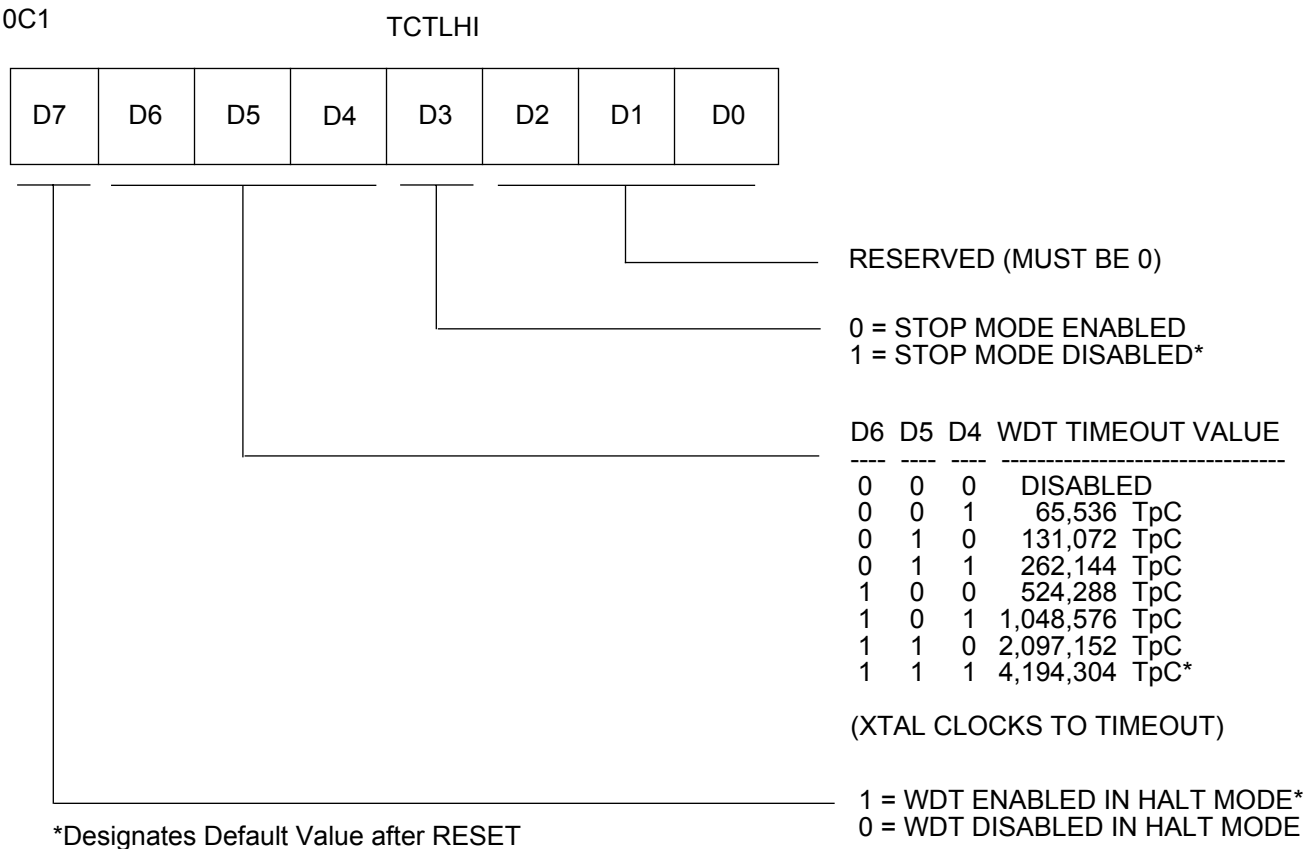


Figure 12. Z8E001 TCTLHI Register for Control of WDT

STOP MODE OPERATION

The STOP Mode provides the lowest possible device standby current. This instruction turns off the on-chip oscillator and internal system clock.

To enter the STOP Mode, the Z8E001 only requires a STOP instruction. It is NOT necessary to execute a NOP instruction immediately before the STOP instruction.

```
6F  STOP    ;enter STOP Mode
```

The STOP Mode is exited by any one of the following resets: RESET pin or a STOP-Mode Recovery source. Upon reset generation, the processor always restarts the application program at address 0020H, and the STOP Mode Flag is set. Reading the STOP Mode Flag does not clear it. The user must clear the STOP Mode Flag with software.

Note: Failure to clear the STOP Mode Flag can result in undefined behavior.

The Z8E001 provides a dedicated STOP-Mode Recovery (SMR) circuit. In this case, a low-level applied to input pin PB0 triggers an SMR. To use this mode, pin PB0 (I/O Port B, bit 0) must be configured as an input before the STOP Mode is entered. The Low level on PB0 must be held for a minimum pulse width T_{WSM} plus any oscillator startup time. Program execution starts at address 20Hex after PB0 is raised back to a high level.

Notes: Use of the PB0 input for the stop mode recovery does not initialize the control registers.

The STOP Mode current (I_{CC2}) is minimized when:

- V_{CC} is at the low end of the devices operating range.
- Output current sourcing is minimized.
- All inputs (digital and analog) are at the Low or High rail voltages.

CLOCK

The Z8E001 MCU derives its timing from on-board clock circuitry connected to pins XTAL1 and XTAL2. The clock circuitry consists of an oscillator, a glitch filter, a divide-by-two shaping circuit, a divide-by-four shaping circuit, and a divide-by-eight shaping circuit. Figure 13 illustrates the clock circuitry. The oscillator's input is XTAL1 and its output is XTAL2. The clock can be driven by a crystal, a ceramic resonator, LC clock, or an external clock source.

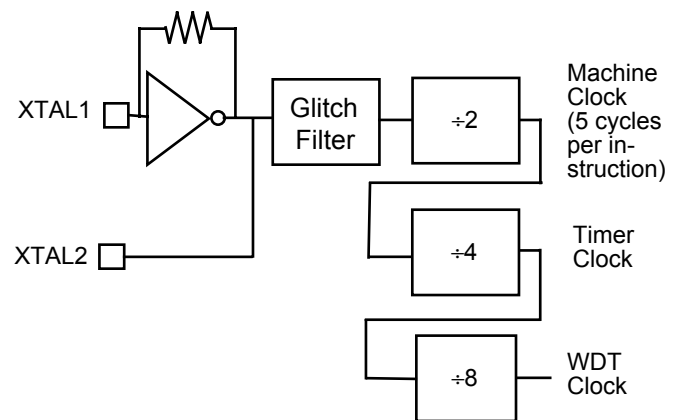
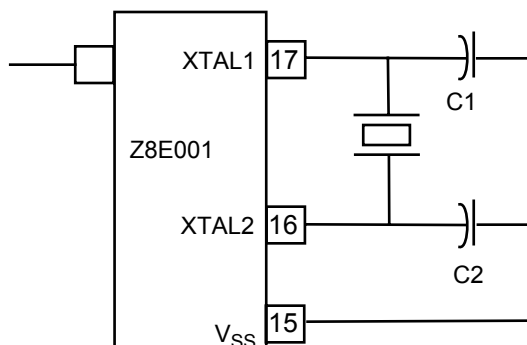


Figure 13. Z8E001 Clock Circuit

- V_{CC} power lines should be separated from the clock oscillator input circuitry.
- Resistivity between XTAL1 or XTAL2 (and the other pins) should be greater than 10 M Ω .



Clock Generator Circuit

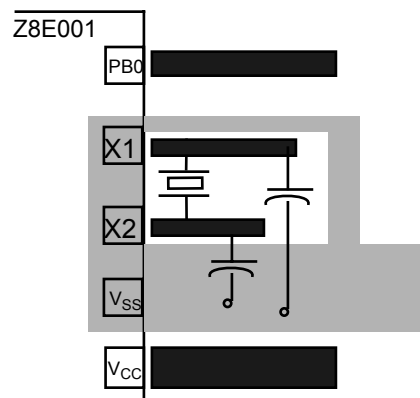
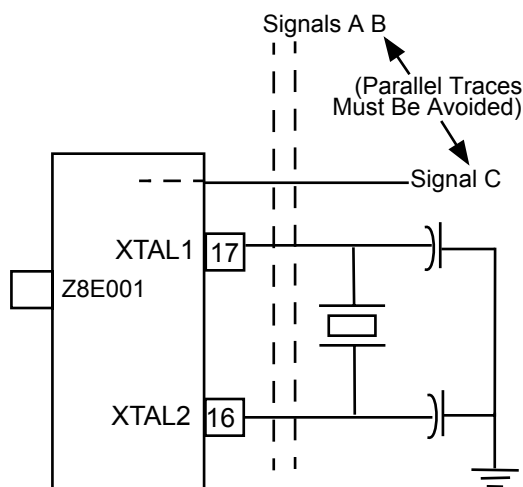
Board Design Example
(Top View)

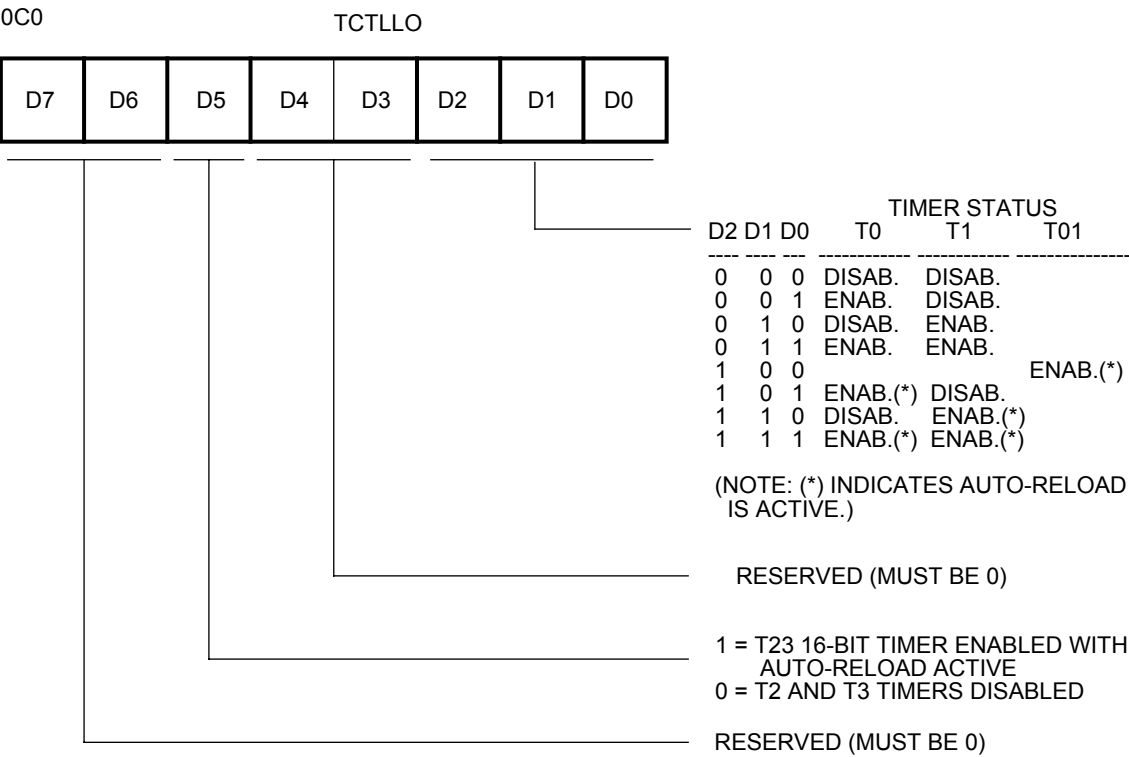
Figure 15. Circuit Board Design Rules

Crystals and Resonators

Crystals and ceramic resonators (Figure 16) should have the following characteristics to ensure proper oscillation:

Crystal Cut	AT (crystal only)
Mode	Parallel, Fundamental Mode
Crystal Capacitance	<7pF
Load Capacitance	10pF < CL < 220 pF, 15 typical
Resistance	100 ohms max

Depending on the operation frequency, the oscillator can require additional capacitors, C1 and C2, as shown in Figure 16 and Figure 17. The capacitance values are dependent on the manufacturer's crystal specifications.



Note: Timer T01 is a 16-bit PWM Timer formed by cascading 8-bit timers T1 (MSB) and T0 (LSB). T23 is a standard 16-bit timer formed by cascading 8-bit timers T3 (MSB) and T2 (LSB).

Figure 22. TCTLLO Register

Each 8-bit timer is provided a pair of registers, which are both readable and writable. One of the registers is defined to contain the auto-initialization value for the timer, while the second register contains the current value for the timer. When a timer is enabled, the timer decrements whatever value is currently held in its count register, and then continues decrementing until it reaches 0. At this time, an interrupt is generated and the contents of the auto-initialization register optionally copy into the count value register. If auto-initialization is not enabled, the timer stops counting upon reaching 0, and control logic clears the appropriate control register bit to disable the timer. This operation is referred to as “single-shot”. If auto-initialization is enabled, the timer continues counting from the initialization value. Software should not attempt to use registers that are defined as having timer functionality.

Software is allowed to write to any register at any time, but care should be taken if timer registers are updated while the timer is enabled. If software updates the count value while the timer is in operation, the timer continues counting based upon the software-updated value.

Note: Strange behavior can result if the software update occurred at exactly the point that the timer was reaching 0 to trigger an interrupt and/or reload.

Similarly, if software updates the initialization value register while the timer is active, the next time that the timer reaches 0, it initializes using the updated value.

Note: Strange behavior could result if the initialization value register is being written while the timer is in the process of being initialized.

Whether initialization is done with the new or old value is a function of the exact timing of the write operation. In all cases, the Z8E001 prioritizes the software write above that of a decremter writeback; however, when hardware clears a control register bit for a timer that is configured for single-shot operation, the clearing of the control bit overrides a software write. Reading either register can be done

TIMERS (Continued)

at any time, and will have no effect on the functionality of the timer.

If a timer pair is defined to operate as a single 16-bit entity, the entire 16-bit value must reach 0 before an interrupt is generated. In this case, a single interrupt is generated, and the interrupt corresponds to the even 8-bit timer.

Example: Timers T2 and T3 are cascaded to form a single 16-bit timer, so the interrupt for the combined timer is defined to be that of timer T2 rather than T3. When a timer pair is specified to act as a single 16-bit timer, the even timer registers in the pair (timer T0 or T2) is defined to hold the timer's least significant byte. In contrast, the odd timer in the pair holds the timer's most significant byte.

In parallel with the posting of the interrupt request, the interrupting timer's count value is initialized by copying the contents of the auto-initialization value register to the count value register. It should be noted that any time that a timer pair is defined to act as a single 16-bit timer, that the auto-reload function is performed automatically. All 16-bit timers continue counting while their interrupt requests are active, and each operates in a free-running manner.

If interrupts are disabled for a long period of time, it is possible for the timer to decrement to 0 again before its initial interrupt has been responded to. This condition is termed a degenerate case, and hardware is not required to detect it.

When the timer control register is written, all timers that are enabled by the write begins counting using the value that is held in the count register. In this case, an auto-initialization is not performed. All timers can receive an internal clock source only. Each timer that is enabled is updated every 8th XTAL clock cycle.

If T0 and T1 are defined to work independently, then each works as an 8-bit timer with a single auto-initialization register (T0ARLO for T0, and T1ARLO for T1). Each timer asserts its predefined interrupt when it times out, optionally performing the auto-initialization function. If T0 and T1 are cascaded to form a single 16-bit timer, then the single 16-bit timer is capable of performing as a Pulse-Width Modulator (PWM). This timer is referred to as T01 to distinguish it as having special functionality that is not available when T0 and T1 act independently.

When T01 is enabled, it can use a pair of 16-bit auto-initialization registers. In this mode, one 16-bit auto-initialization value is composed of the concatenation of T1ARLO and T0ARLO. The second auto-initialization value is composed of the concatenation of T1ARHI and T0ARHI. When

T01 times out, it alternately initializes its count value using the LO auto-init pair, followed by the HI auto-init pair. This functionality corresponds to a PWM, where the T1 interrupt defines the end of the HI section of the waveform, and the T0 interrupt marks the end of the LO portion of the PWM waveform.

To use the cascaded timers as a PWM, one must initialize the T0 and T1 count registers to work in conjunction with the port pin. The user should initialize the T0 and T1 count registers to the PWM_HI auto-init value to obtain the required PWM behavior. The PWM is arbitrarily defined to use the LO autoreload registers first, implying that it had just timed out after beginning in the HI portion of the PWM waveform. As such, the PWM is defined to assert the T1 interrupt after the first timeout interval.

After the auto-initialization has been completed, decrementing occurs for the number of counts defined by the PWM_LO registers. When decrementing again reaches 0, the T0 interrupt is asserted; and auto-init using the PWM_HI registers occurs. Decrementing occurs for the number of counts defined by the PWM_HI registers until reaching 0. From there, the T1 interrupt is asserted, and the cycle begins again.

The internal timers can be used to trigger external events by toggling the PB1 output when generating an interrupt. This functionality can only be achieved in conjunction with the port unit defining the appropriate pin as an output signal with the timer output special function enabled. In this mode, the appropriate port output is toggled when the timer count reaches 0, and continues toggling each time that the timer times out.

T_{OUT} Mode

The PortB special function register PTBSFR (0D7H) (Figure 23) is used in conjunction with the Port B directional control register PTBDIR (0D6) (Figure 24) to configure PB1 for T_{OUT} operation for timer0. In order for T_{OUT} to function, PB1 must be defined as an output line by setting PTBDIR bit 1 to 1. Configured in this way, PB1 has the capability of being a clock output for timer0, toggling the PB1 output pin on each timer0 timeout.

At end-of-count, the interrupt request line IRQ0, clocks a toggle flip-flop. The output of this flip-flop drives the T_{OUT} line, PB1. In all cases, when timer0 reaches its end-of-count, T_{OUT} toggles to its opposite state (Figure 25). If, for example, timer0 is in Continuous Counting Mode, T_{OUT} has a 50 percent duty cycle output. This duty cycle can easily be controlled by varying the initial values after each end-of-count.

Note: The preceding result does not necessarily reflect the actual output value. If an external error is holding an output pin either High or Low against the output driver, the software read returns the *required* value, not the actual state caused by the contention. When a bit is defined as an output, the Schmitt-trigger on the input is disabled to save power.

Updates to the output register takes effect based upon the timing of the internal instruction pipeline, but is referenced to the rising edge of the clock. The output register can be read at any time, and returns the current output value that is held. No restrictions are placed on the timing of reads and/or writes to any of the port registers with respect to the

others; however, care should be taken when updating the directional control and special function registers.

When updating a Directional Control Register, the Special Function Register should first be disabled. If this precaution is not taken, spurious events could take place as a result of the change in port I/O status. This precaution is especially important when defining changes in Port B, as the spurious event referred to above could be one or more interrupts. Clearing of the SFR register should be the first step in configuring the port, while setting the SFR register should be the final step in the port configuration process. To ensure deterministic behavior, the SFR register should not be written until the pins are being driven appropriately, and all initialization has been completed.

PORT A

Port A is a general-purpose port. Figure 26 features a block diagram of Port A. Each of its lines can be independently programmed as input or output via the Port A Directional Control Register (PTADIR at 0D2H) as seen in Figure 27. A bit set to a 1 in PTADIR configures the corresponding bit in Port A as an output, while a bit cleared to 0 configures the corresponding bit in Port A as an input.

The input buffers are Schmitt-triggered. Bits programmed as outputs can be individually programmed as either push-pull or open drain by setting the corresponding bit in the Special Function Register (PTASFR, Figure 27).

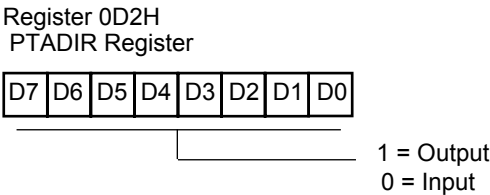


Figure 26. Port A Directional Control Register

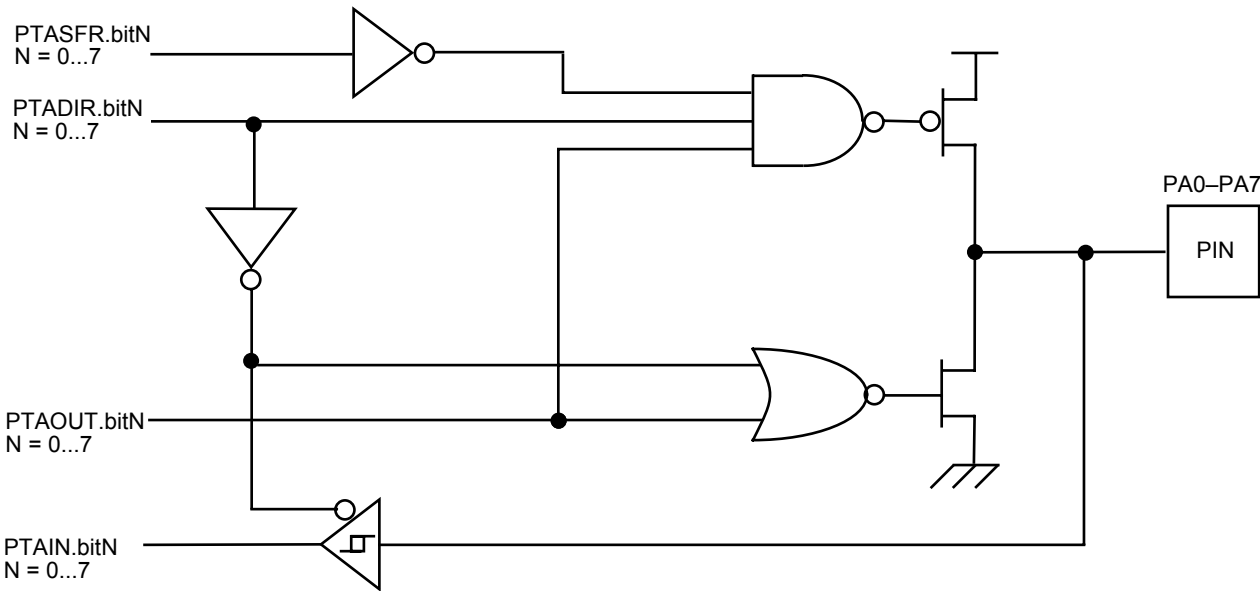


Figure 27. Port A Configuration with Open-Drain Capability and Schmitt-Trigger

PORT B—PIN 0 CONFIGURATION

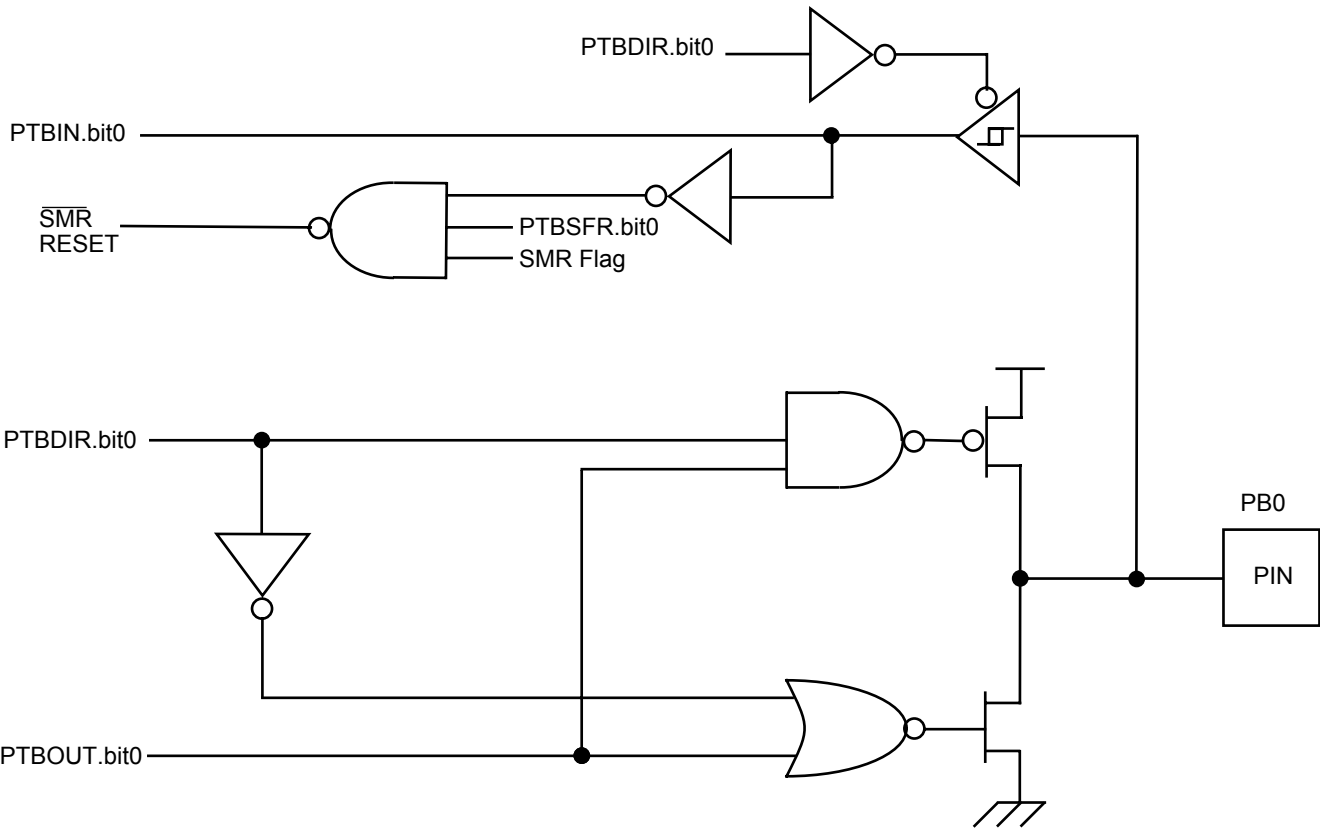


Figure 33. Port B Pin 0 Diagram

PORT B—PINS 3 AND 4 CONFIGURATION

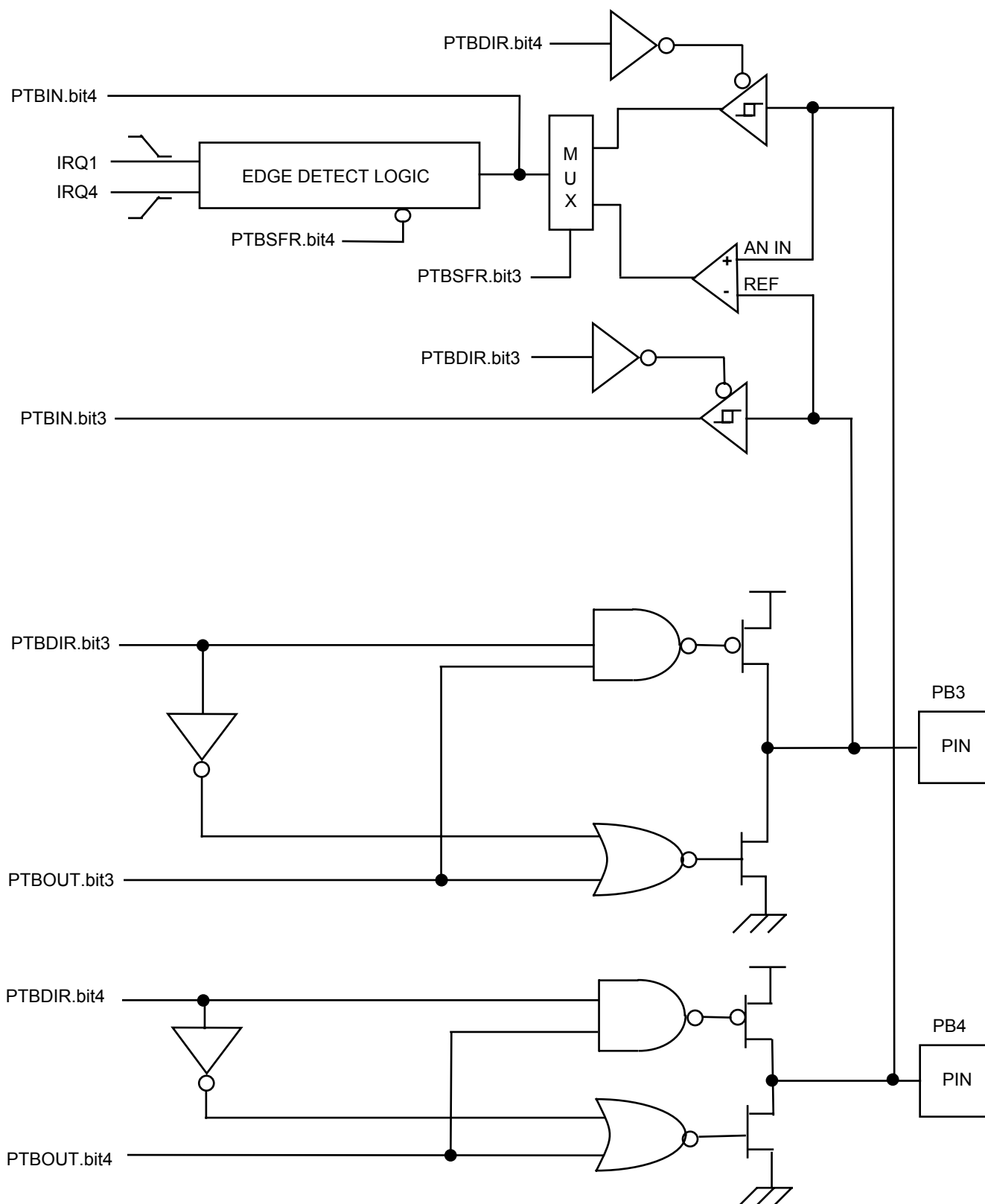


Figure 36. Port B Pins 3 and 4 Diagram

PORT B CONTROL REGISTERS

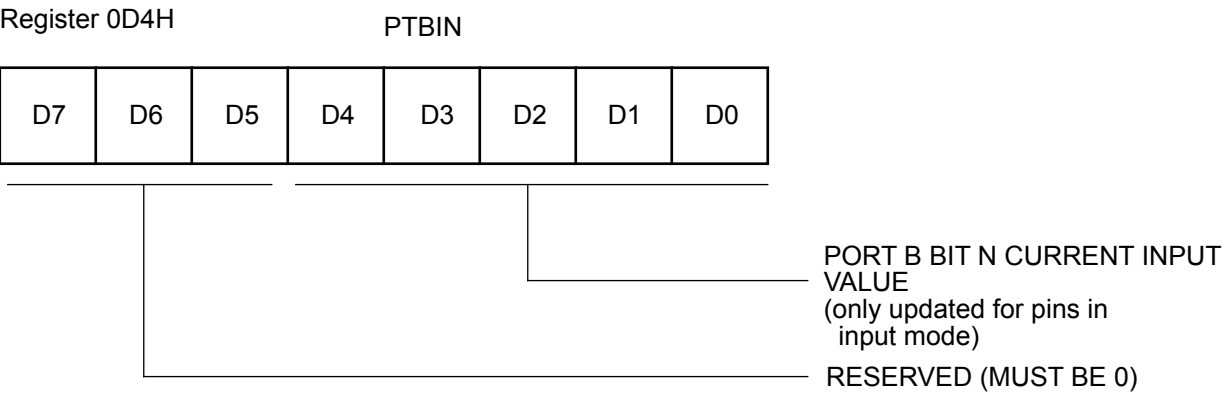


Figure 37. Port B Input Value Register

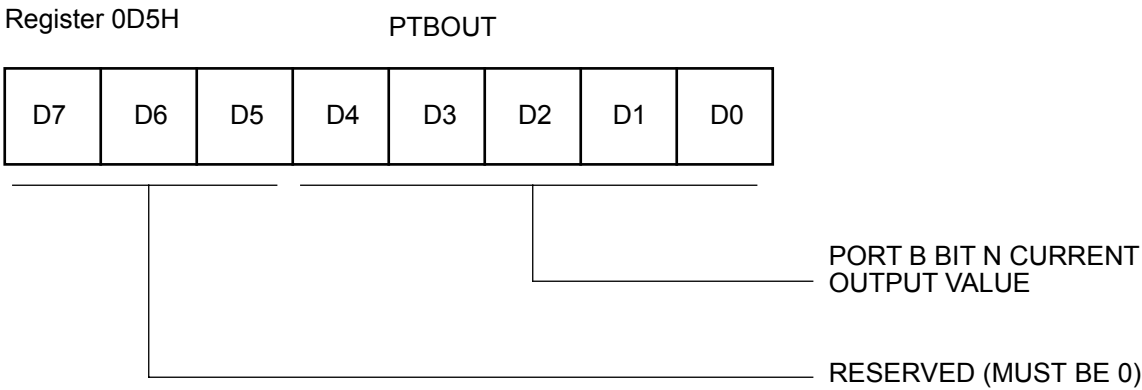


Figure 38. Port B Output Value Register

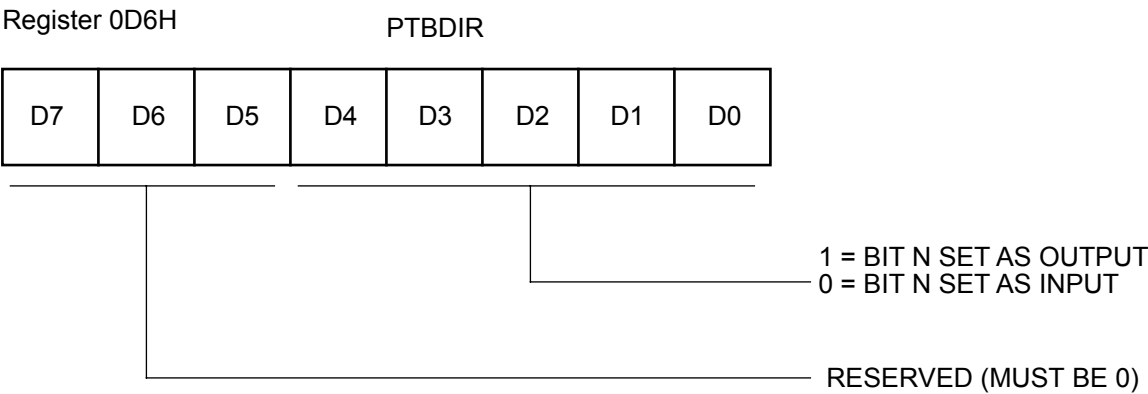


Figure 39. Port B Directional Control Register

PORT B CONTROL REGISTERS (Continued)

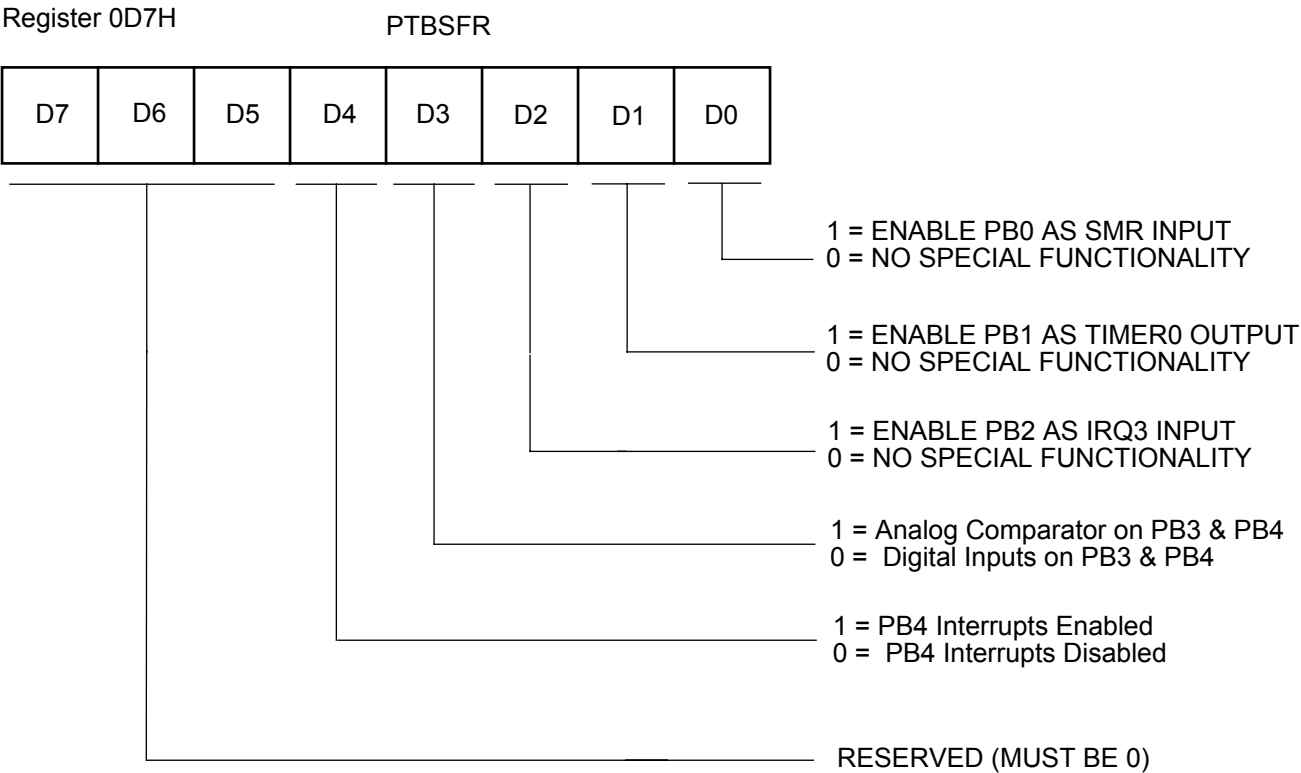
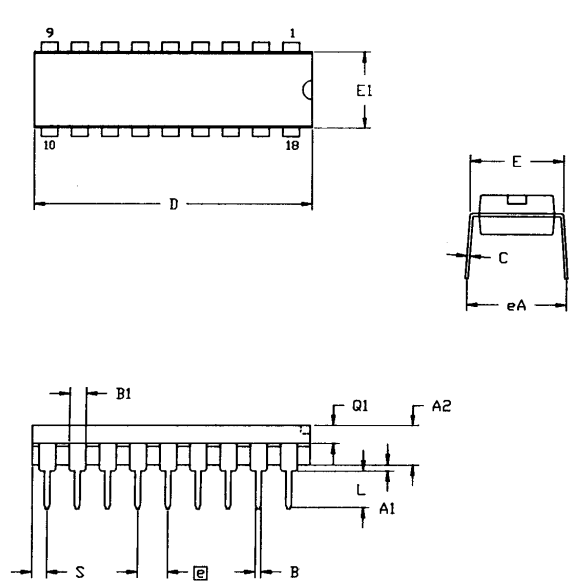


Figure 40. Port B Special Function Register

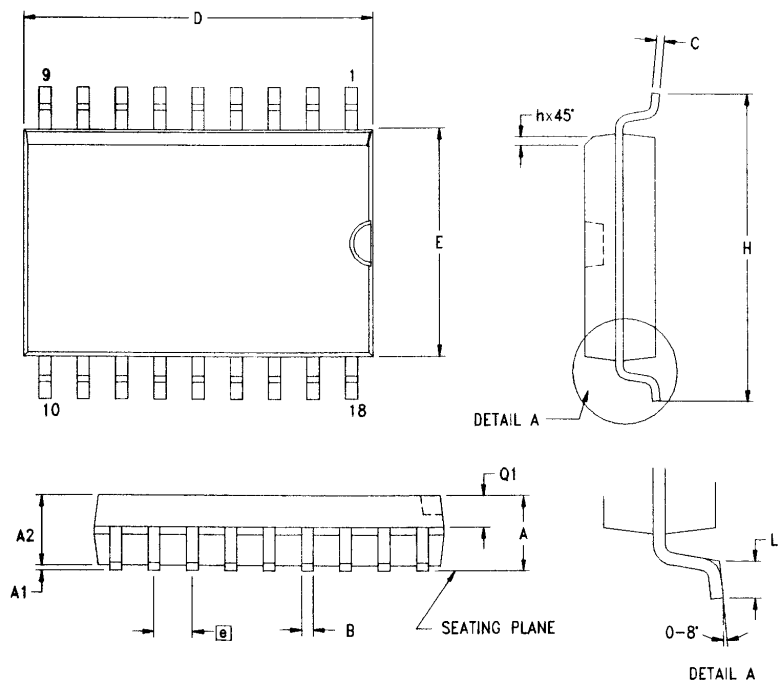
PACKAGE INFORMATION



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.51	0.81	.020	.032
A2	3.25	3.43	.128	.135
B	0.38	0.53	.015	.021
B1	1.14	1.65	.045	.065
C	0.23	0.38	.009	.015
D	22.35	23.37	.880	.920
E	7.62	8.13	.300	.320
E1	6.22	6.48	.245	.255
⌀	2.54 TYP		.100 TYP	
eA	7.87	8.89	.310	.350
L	3.18	3.81	.125	.150
Q1	1.52	1.65	.060	.065
S	0.89	1.65	.035	.065

CONTROLLING DIMENSIONS : INCH

Figure 43. 18-Pin DIP Package Diagram

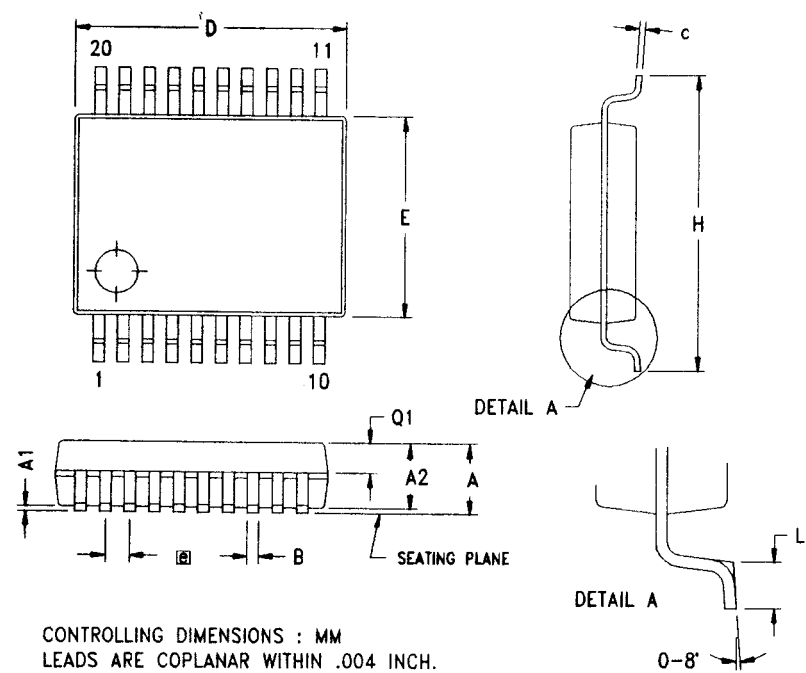


SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.40	2.65	0.094	0.104
A1	0.10	0.30	0.004	0.012
A2	2.24	2.44	0.088	0.096
B	0.36	0.46	0.014	0.018
C	0.23	0.30	0.009	0.012
D	11.40	11.75	0.449	0.463
E	7.40	7.60	0.291	0.299
⌀	1.27 TYP		0.050 TYP	
H	10.00	10.65	0.394	0.419
h	0.30	0.50	0.012	0.020
L	0.60	1.00	0.024	0.039
Q1	0.97	1.07	0.038	0.042

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

Figure 44. 18-Pin SOIC Package Diagram

PACKAGE INFORMATION (Continued)



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
ⓐ	0.65 TYP			0.0256 TYP		
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 45. 20-Pin SSOP Package Diagram

ORDERING INFORMATION**Standard Temperature**

18-Pin DIP	Z8E00110SSC
18-Pin SOIC	Z8E00110HSC
20-Pin SSOP	Z8E00110PSC

Extended Temperature

18-Pin DIP	Z8E00110PEC
18-Pin SOIC	Z8E00110SEC
20-Pin SSOP	Z8E00110HEC

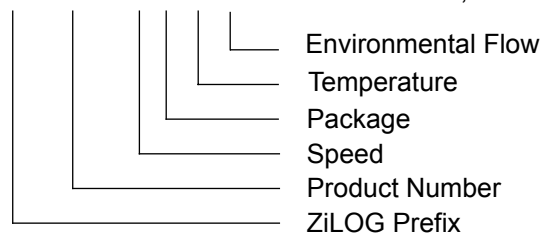
For fast results, contact your local ZiLOG sales office for assistance in ordering the part(s) required.

Codes

Preferred Package	P = Plastic DIP
Longer Lead Time	S = SOIC H = SSOP
Preferred Temperature	S = 0°C to +70°C E = -40°C to +105°C
Speed	10 = 10 MHz
Environmental	C = Plastic Standard

Example:

Z 8E001 10 P S C is a Z86E001, 10 MHz, DIP, 0° to +70°C, Plastic Standard Flow



Pre-Characterization Product:

The product represented by this document is newly introduced and ZiLOG has not completed the full characterization of the product. The document states what ZiLOG knows about this product at this time, but additional features or non-conformance

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