



ZILOG OTP Selection Guide 2000 # 2

ROM (KB)	PACKAGE	PINS	OPERATING TEMPERATURE	OSCILLATOR	ZILOG PART NUMBER	VOLTAGE RANGE	PROGRAMMING ADAPTER	EMULATOR/ACCESS. KIT	FEATURES	ROM EQUIV.	
0.5K	DIP	18	-40/105	Selectable	Z86E0208PEC1925	4.5V - 5.5V	Not Required	Z86CCP01ZEM**	1 Timer + WDT 2 Comparators 61 RAM + 14 I/O + POR	Z86C02	
			0/70		Z86E0208PSC1925	3.5V - 5.5V					
	SOIC	18	-40/105		Z86E0208SEC1925	4.5V - 5.5V	Z86E0700ZDP				
			0/70		Z86E0208SSC1925	3.5V - 5.5V					
	SSOP	20	-40/105		Z86E0208HEC1925	4.5V - 5.5V	Z86E0800ZDH				
			0/70		Z86E0208HSC1925	3.5V - 5.5V					
	DIP	18	0/70	Selectable	Z86E0308PSC	4.5V - 5.5V	Z86E0601ZDP			1 Timer + Timer Out 2 Comparators + WDT 61 RAM + 14 I/O + POR	Z86C03
					Z86E0308SSC						
	DIP	18	-40/105	XTAL	Z86E0010PEC	4.5V - 5.5V	Not Required	Z8ICE001ZEM		Z8Plus Core 1 Timer WDT + Reset Pin 32 RAM + 13 I/O	None
			0/70		Z86E0010PSC	3.5V - 5.5V					
	SOIC	18	-40/105		Z86E0010SEC	4.5V - 5.5V	Z86E0700ZDP				
			0/70		Z86E0010SSC	3.5V - 5.5V					
SSOP	20	-40/105		Z86E0010HEC	4.5V - 5.5V	Z8E00101ZDH					
		0/70		Z86E0010HSC	3.5V - 5.5V						
DIP	18	-40/105	Selectable	Z8PE002PZ010EC	4.5V - 5.5V	Not Required			Z8Plus Core 3 Timers / PWM 1 Comparator + WDT 64 RAM + 14 I/O + POR		
		0/70		Z8PE002PZ010SC	3.0V - 5.5V						
SOIC	18	-40/105		Z8PE002SZ010EC	4.5V - 5.5V	Z86E0700ZDP					
		0/70		Z8PE002SZ010SC	3.0V - 5.5V						
SSOP	20	-40/105		Z8PE002HZ010EC	4.5V - 5.5V	Z8E00101ZDH					
		0/70		Z8PE002HZ010SC	3.0V - 5.5V						
1K	DIP	18	-40/105	XTAL	Z86E0412PEC	4.5V - 5.5V	Not Required	Z86CCP01ZEM**	2 Timers + WDT 2 Comparators 125 RAM + 14 I/O + POR	Z86C04	
			0/70		Z86E0412PSC1903						
	SOIC	18	-40/105		Z86E0412PSC1866		Z86E0700ZDP				
			0/70		Z86E0412SEC1903						
	SSOP	20	-40/105		Z86E0412SEC1866		Z86E0800ZDH				
			0/70		Z86E0412SSC1903						
	DIP	18	0/70	Selectable	Z86E0612PSC		Z86E0601ZDP			2 Timers + SPI + WDT 2 Comparators + 125 RAM Timer Out + 14 I/O + POR	Z86C06
					Z86E0612SSC						
	DIP	18	-40/105	XTAL	Z8E00110PEC	4.5V - 5.5V	Not Required	Z8ICE001ZEM		Z8Plus Core 3 Timers / PWM 1 Comparator + WDT Reset Pin 64 RAM + 13 I/O	None
			0/70		Z8E00110PSC	3.5V - 5.5V					
	SOIC	18	-40/105		Z8E00110SEC	4.5V - 5.5V	Z86E0700ZDP				
			0/70		Z8E00110SSC	3.5V - 5.5V					
SSOP	20	-40/105		Z8E00110HEC	4.5V - 5.5V	Z8E00101ZDH					
		0/70		Z8E00110HSC	3.5V - 5.5V						
DIP	18	-40/105	Selectable	Z8PE003PZ010EC	4.5V - 5.5V	Not Required			Z8Plus Core 3 Timers / PWM 1 Comparator + WDT Reset Pin 64 RAM + 14 I/O + POR		
		0/70		Z8PE003PZ010SC	3.0V - 5.5V						
SOIC	18	-40/105		Z8PE003SZ010EC	4.5V - 5.5V	Z86E0700ZDP					
		0/70		Z8PE003SZ010SC	3.0V - 5.5V						
SSOP	20	-40/105		Z8PE003HZ010EC	4.5V - 5.5V	Z8E00101ZDH					
		0/70		Z8PE003HZ010SC	3.0V - 5.5V						
2K	DIP	18	-40/105	XTAL	Z86E0812PEC	4.5V - 5.5V	Not Required	Z86CCP01ZEM**	2 Timers + WDT 2 Comparators 125 RAM + 14 I/O + POR	Z86C08	
			0/70		Z86E0812PSC1903						
	SOIC	18	-40/105		Z86E0812PSC1866		Z86E0700ZDP				
			0/70		Z86E0812SEC1903						
	SSOP	20	-40/105		Z86E0812SEC1866		Z86E0800ZDH				
			0/70		Z86E0812SSC1903						
	DIP	28	-40/105	Selectable	Z86E3116PEC	4.5V - 5.5V	Not Required	Z86CCP01ZEM** and Z86CCP00ZAC	2 Timers + WDT 2 Comparators 125 RAM + 24 I/O + POR	Z86C31	
			0/70		Z86E3116PSC	3.5V - 5.5V					
	SOIC	28	-40/105		Z86E3116SEC	4.5V - 5.5V	Z86C3000ZAC				
			0/70		Z86E3116SSC	3.5V - 5.5V					
	PLCC	28	-40/105		Z86E3116VEC	4.5V - 5.5V	Z86E3116VSC				
			0/70		Z86E3116VSC	3.5V - 5.5V					
4K	DIP	28	-40/105	Selectable	Z86E132PZ016EC'	3.0V - 5.5V	ZICSP000100ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 237 RAM, 24 I/O + WDT + POR	Z86C34*** (16K ROM)	
			0/70		Z86E132PZ016SC'						
	SOIC	28	-40/105		Z86E132SZ016EC'		ZICSP000300ZDS	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 236 RAM, 32 I/O + WDT + POR	Z86C44**** (16K ROM)	
			0/70		Z86E132SZ016SC'						
	DIP	40	-40/105	Selectable	Z86E142PZ016EC'		ZICSP000400ZDP	Z86C3600ZEM + ZLGICSP0100ZPR			
			0/70		Z86E142PZ016SC'						
	QFP	44	-40/105		Z86E142FZ016EC'		ZICSP000600ZDF				
			0/70		Z86E142FZ016SC'						
	DIP	28	-40/105	Selectable	Z86E3016PEC	4.5V - 5.5V	Not Required	Z86CCP01ZEM**	2 Timers + WDT 2 Comparators 237 RAM + 24 I/O + POR	Z86C30	
			0/70		Z86E3016PSC	3.5V - 5.5V					
	SOIC	28	0/70		Z86E3016SEC	4.5V - 5.5V	Z86C3000ZAC				
			0/70		Z86E3016SSC	3.5V - 5.5V					
PLCC	28	0/70		Z86E3016VEC	4.5V - 5.5V	Z86E3016VSC					
		0/70		Z86E3016VSC	3.5V - 5.5V						
DIP	28	0/70	Selectable	Z86E3312PSC	3.5V - 5.5V	Z86E3400ZDP	Z86CCP01ZEM** and Z86CCP00ZAC	Clock-free WDT Reset 237 RAM + 2 Comparators 2 Timers + 24 I/O + POR	Z86C33		
				Z86E3312SSC							
SOIC	28	0/70		Z86E3312VSC		Z86E3400ZDS	Z86CCP01ZEM+ and Z86CCP00ZAC				
				Z86E3312VSC							
PLCC	44	0/70	RC	Z86E1505PSC	4.5V - 5.5V	Z86E1500ZDP	Z86CCP01ZEM+ and Z86CCP00ZAC	1 Timer + WDT 188 RAM + 32 I/O	Z86K15/K16 (K16=5K ROM)		
				Z86E4016FEC	4.5V - 5.5V						
QFP	44	-40/105	Selectable	Z86E4016FSC	3.5V - 5.5V	Z86E4001ZDF	Z86CCP01ZEM** and Z86CCP00ZAC	2 Timers + WDT 2 Comparators 236 RAM + 32 I/O + POR	Z86C40		
		0/70		Z86E4016PSC	3.5V - 5.5V						
DIP	40	-40/105		Z86E4016PEC	4.5V - 5.5V	Not Required					
		0/70		Z86E4016PSC	3.5V - 5.5V						
PLCC	44	-40/105		Z86E4016VEC	4.5V - 5.5V	Z86E4001ZDV					
		0/70		Z86E4016VSC	3.5V - 5.5V						
QFP	44	0/70	Selectable	Z86E4312FSC	3.5V - 5.5V	Z86E4400ZDF	Z86CCP01ZEM** and Z86CCP00ZAC	Clock-free WDT Reset 2 Timers + 2 Comparators 236 RAM + 32 I/O	Z86C43		
		0/70		Z86E4312PSC							
DIP	40	-40/105		Z86E4312VSC		Z86E4400ZDV					
		0/70		Z86E4312VSC							
PLCC	44	-40/105		Z86E8316PEC	4.5V - 5.5V	Z86E8300ZDP	Z86C8401ZEM	8 Bit - 8 Channel A/D 2 Timers + WDT 2 Comparators 237 RAM + 21 I/O + POR	Z86C83		
		0/70		Z86E8316PSC	3.5V - 5.5V						
SOIC	28	-40/105		Z86E8316SEC	4.5V - 5.5V	Z86E8300ZDS					
		0/70		Z86E8316SSC	3.5V - 5.5V						
PLCC	28	-40/105		Z86E8316VEC	4.5V - 5.5V	Z86E8300ZDV					
		0/70		Z86E8316VSC	3.5V - 5.5V						

ROM (KB)	PACKAGE	PINS	OPERATING TEMPERATURE	OSCILLATOR	ZILOG PART NUMBER	VOLTAGE RANGE	PROGRAMMING ADAPTER	EMULATOR/ ACCESS. KIT	FEATURES	ROM EQUIV.
8K	DIP	28	-40/105 0/70	Selectable	Z86E133PZ016EC ¹	3.0V - 5.5V	ZICSP000100ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 237 RAM, 24 I/O + WDT + POR	Z86C34*** (16K ROM)
					Z86E133PZ016SC		ZICSP000300ZDS			
					Z86E133SZ016SC		ZICSP000400ZDP			
	SOIC	28	-40/105 0/70	Selectable	Z86E143PZ016EC ¹	3.5V - 5.5V	Z86E3400ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	2 Timers + WDT 2 Comparators 237 RAM + 24 I/O + POR	Z86C44**** (16K ROM)
					Z86E143PZ016SC		Z86E3400ZDS			
					Z86E143FZ016EC		Z86E3400ZDV			
	QFP	44	-40/105 0/70	Selectable	Z86E143FZ016SC	4.5V - 5.5V	Z86E4400ZDF	Z86C1200ZEM	2 Timers + UART + WDT 8 Open Drain Outputs 236 RAM + 32 I/O	Z86C21
					Z86E143FZ016SC		Z86E4400ZDP			
					Z86E143FZ016SC		Z86E4400ZDV			
	DIP	28	0/70	Selectable	Z86E7312PSC	3.5V - 5.5V	Z86E3400ZDP	Z86CCP01ZEM** (Must be modified see website)	2 Timers + WDT 2 Comparators 237 RAM + 24 I/O + POR	Z86C233
					Z86E7312SSC		Z86E3400ZDS			
					Z86E7312VSC		Z86E3400ZDV			
	SOIC	28	0/70	Selectable	Z86E7312SSC	4.5V - 5.5V	Z86E4400ZDF	Z86C5000ZEM	2 Timers + WDT 2 Comparators 236 RAM + 32 I/O + POR	Z86C243
					Z86E7312VSC		Z86E4400ZDP			
					Z86E7312VSC		Z86E4400ZDV			
	PLCC	44	0/70	Selectable	Z86E7312FSC	4.5V - 5.5V	Z86E2101ZDF	Z86C1200ZEM	2 Timers + UART 236 RAM + 32 I/O	Z86C21
Z86E7312PSC					Z86E2301ZDP					
Z86E7312VSC					Z86E2101ZDV					
QFP	44	0/70	XTAL	Z86E2112FSC	3.0V - 5.5V	Z86E2101ZDF	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 237 RAM, 24 I/O + WDT + POR	Z86C34	
				Z86E2112PSC		ZICSP000300ZDS				
				Z86E2112VSC		ZICSP000400ZDP				
DIP	28	-40/105 0/70	Selectable	Z86E134PZ016EC ¹	3.5V - 5.5V	Z86E3400ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 236 RAM, 32 I/O + WDT + POR	Z86C44	
				Z86E134PZ016SC		Z86E3400ZDS				
				Z86E134SZ016SC		Z86E3400ZDV				
SOIC	28	-40/105 0/70	Selectable	Z86E144PZ016EC ¹	4.5V - 5.5V	Z86E4400ZDF	Z86C1200ZEM	2 Timers + UART + WDT 8 Open Drain Outputs 236 RAM + 32 I/O	Z86C21	
				Z86E144PZ016SC		Z86E4400ZDP				
				Z86E144FZ016EC		Z86E4400ZDV				
QFP	44	-40/105 0/70	Selectable	Z86E144FZ016SC	3.5V - 5.5V	Z86E2101ZDF	Z86C5000ZEM	2 Timers + WDT 2 Comparators 236 RAM + 32 I/O + POR	Z86C34	
				Z86E144FZ016SC		Z86E2101ZDS				
				Z86E144FZ016SC		Z86E2101ZDV				
DIP	28	0/70	Selectable	Z86E3412PSC	4.5V - 5.5V	Z86E2101ZDF	Z86C1200ZEM	2 Timers + UART 236 RAM + 32 I/O	Z86C61	
				Z86E3412SSC		Z86E2301ZDP				
				Z86E3412VSC		Z86E2101ZDV				
SOIC	28	0/70	Selectable	Z86E4412FSC	3.5V - 5.5V	Z86E4400ZDF	Z86C5000ZEM	2 Timers + WDT 2 Comparators 236 RAM + 32 I/O + POR	Z86C44	
				Z86E4412PSC		Z86E4400ZDP				
				Z86E4412VSC		Z86E4400ZDV				
PLCC	44	0/70	Selectable	Z86E4412VSC	4.5V - 5.5V	Z86E2101ZDF	Z86C1200ZEM	2 Timers + UART 236 RAM + 32 I/O	Z86C61	
				Z86E6116PSC		Z86E2301ZDP				
				Z86E6116VSC		Z86E2101ZDV				
QFP	44	0/70	XTAL	Z86E6116FSC	3.5V - 5.5V	Z86E2101ZDF	Z86L7103ZEM	2 Adv. Timers + WDT 2 Comparators 738 RAM +31 I/O	Z86C72	
				Z86E6116PSC		Included With Emulator				
				Z86E6116VSC		Included With Emulator				
PLCC	44	0/70	Selectable	Z86E7216FSC	3.0V - 5.5V	Z86E7216PSC	Z86L9900ZEM	2 Adv. Timers + 1GPTimer WDT + 2 Comparators 4 Ch 8-bit ADC 489 RAM + 32 I/O	Z86L990	
				Z86E7216PSC		Included With Emulator				
				Z86E7216VSC		Included With Emulator				
32K	DIP	28	-40/105 0/70	Selectable	Z86E135PZ016EC ¹	3.0V - 5.5V	ZICSP000100ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 237 RAM, 24 I/O + WDT + POR	Z86C35
					Z86E135PZ016SC		ZICSP000300ZDS			
					Z86E135SZ016SC		ZICSP000400ZDP			
	SOIC	28	-40/105 0/70	Selectable	Z86E145PZ016EC ¹	3.5V - 5.5V	Z86E3400ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 236 RAM, 32 I/O + WDT + POR	Z86C45
					Z86E145PZ016SC		Z86E3400ZDS			
					Z86E145FZ016EC		Z86E3400ZDV			
	DIP	40	-40/105 0/70	Selectable	Z86E145FZ016SC	4.5V - 5.5V	Z86E2101ZDF	Z86C1200ZEM	2 Timers + UART 236 RAM + 32 I/O	Z86C63
					Z86E145FZ016SC		Z86E2301ZDP			
					Z86E145FZ016SC		Z86E2101ZDV			
	QFP	44	0/70	XTAL	Z86E6316FSC	3.0V - 5.5V	Z86E2101ZDF	Z86L9900ZEM	2 Adv. Timers + WDT 2 Comparators 236 RAM + 31 I/O	Z86L87 (16K ROM) Z86L89 (24K ROM) Z86L73 (32K ROM)
					Z86E6316PSC		Included With Emulator			
					Z86E6316VSC		Included With Emulator			
	PLCC	44	0/70	Selectable	Z86D7308PSC	2.0V - 3.6V	Z86D7308VSC	Z86L9900ZEM	2 Adv. Timers + WDT 2 Comparators 236 RAM + 23 I/O	Z86L82 (4K ROM) Z86L85 (8K ROM) Z86L88 (16K ROM) Z86L81 (24K ROM) Z86L86 (32K ROM)
					Z86D7308PSC		Included With Emulator			
					Z86D7308VSC		Included With Emulator			
	PDIP	40	0/70	Selectable	Z86D8608PSC	3.0V - 5.5V	Z86D990H2008SC	Z86L9900ZEM	2 Adv. Timers + 1GPTimer WDT + 2 Comparators 4 Ch 8-bit ADC 489 RAM + 32 I/O	Z86L990
Z86D8608PSC					Included With Emulator					
Z86D8608SSC					Included With Emulator					
SOIC	28	0/70	Selectable	Z86D990H2008SC	3.0V - 5.5V	Z86D990P2008SC	Z86L9900ZEM	2 Adv. Timers + 1GPTimer WDT + 2 Comparators 4 Ch 8-bit ADC 489 RAM + 23 I/O	Z86L991 (16K ROM)	
				Z86D990P2008SC		Included With Emulator				
				Z86D991S2008SC		Included With Emulator				
PDIP	28	0/70	Selectable	Z86E7316FSC	4.5V - 5.5V	Z86E7316PSC	Z86L7103ZEM	2 Adv. Timers + WDT 2 Comparators 236 RAM + 31 I/O	Z86C88 (16K ROM)	
				Z86E7316PSC		Included With Emulator				
				Z86E7316VSC		Included With Emulator				
PLCC	44	0/70	Selectable	Z86E7316VSC	3.0V - 5.5V	Z86E136PZ016EC ¹	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 237 RAM, 24 I/O + WDT + POR	Z86C36	
				Z86E136PZ016SC		ZICSP000100ZDP				
				Z86E136SZ016SC		ZICSP000300ZDS				
DIP	28	-40/105 0/70	Selectable	Z86E136SZ016EC ¹	3.5V - 5.5V	Z86E3400ZDP	Z86C3600ZEM + ZLGICSP0100ZPR	UART + 2 Comparators ICSP OTP Programming 2 Timers + 236 RAM, 32 I/O + WDT + POR	Z86C46	
				Z86E136SZ016SC		Z86E3400ZDS				
				Z86E136SZ016SC		Z86E3400ZDV				
SOIC	28	-40/105 0/70	Selectable	Z86E146PZ016EC ¹	4.5V - 5.5V	Z86E4400ZDF	Z86C1200ZEM	2 Timers + UART 236 RAM + 32 I/O	Z86C88	
				Z86E146PZ016SC		Z86E4400ZDP				
				Z86E146FZ016EC		Z86E4400ZDV				
QFP	44	-40/105 0/70	Selectable	Z86E146FZ016SC	3.0V - 5.5V	Z86E2101ZDF	Z86C5000ZEM	2 Adv. Timers + WDT 2 Comparators 236 RAM + 31 I/O	Z86C88 (16K ROM)	
				Z86E146FZ016SC		Z86E2101ZDS				
				Z86E146FZ016SC		Z86E2101ZDV				

¹ Extended Temperature Device will be available in Q4 2000.

* Selectable Oscillator means Crystal or RC can be chosen

** The Z86CCP01ZEM is rated at 12 MHz. For speed above 12 MHz, use the Z86C5000ZEM emulator. For Z86C06 SPI Emulation, use the Z86C5000ZEM

*** ROM device has 16K Internal Program Memory.

**** ROM device has 16K Internal Program Memory. External program & data memory access should start from 16K (address = 4000H)

+ The Z86CCP01ZEM is used only for programming the EPROM version, and the Z86K1500ZEM is used only for emulation of this part.

++ The Z86CCP01ZEM is used only for programming the EPROM version, and the Z86U1800ZEM is used only for emulation of this part

DESCRIPTION OF Z8 ADAPTERS

Z86CCP00ZAC: 28 / 40-Pin DIP Accessory Kit	Z86E2101ZDF: 44-Pin QFP to 40-Pin DIP Adapter	Z86C4001ZDV: 44-Pin PLCC to 40-Pin DIP Adapter
Z86C3000ZAC: 28-Pin SOIC/PLCC Accessory Kit for Z86C	Z86E2101ZDV: 44-Pin PLCC to 40-Pin DIP Adapter	Z86E4001ZDV: 44-Pin PLCC to 40-Pin DIP Adapter
Z86E0601ZDP: 18-Pin SOIC to 18-Pin DIP Adapter	Z86E3400ZDP: 28-Pin DIP to 18-Pin DIP Adapter	Z86E8300ZDP: 28-Pin DIP to 28-Pin DIP Adapter
Z86E0700ZDP: 18-Pin SOIC to 18-Pin DIP Adapter	Z86E3400ZDS: 28-Pin SOIC to 18-Pin DIP Adapter	Z86E8300ZDS: 28-Pin SOIC to 28-Pin DIP Adapter
Z86E0800ZDH: 20-Pin SSOP to 18-Pin DIP Adapter	Z86E3400ZDV: 28-Pin PLCC to 18-Pin DIP Adapter	Z86E8300ZDV: 28-Pin PLCC to 28-Pin DIP Adapter
Z86E1500ZDP: 40-Pin DIP Adapter	Z86E4400ZDF: 44-Pin QFP to 18-Pin DIP Adapter	Z8E00101ZDH: 20-Pin SSOP to 18-Pin DIP (Z8ICE) Adapter
ZLGICSP0100ZF ICSP Programmer for Z8 MUZE Family	Z86E4400ZDP: 40-Pin DIP to 18-Pin DIP Adapter	Z8E003000ZDP: Z8ICE000ZEM & Z8ICE10ZEM Upgrade Kit
ZICSP000100ZD 28-Pin DIP Programming Adapter for ICSP	ZICSP000400ZDP: 40-Pin DIP Programming Adapter for ICSP Programmer	
ZICSP000300ZD 28-Pin SOIC Programming Adapter for ICSP	ZICSP000600ZDF: QFP Programming Adapter for ICSP Programmer	