

FIGURE 17-8: TIMER0 AND TIMER1 EXTERNAL CLOCK TIMINGS

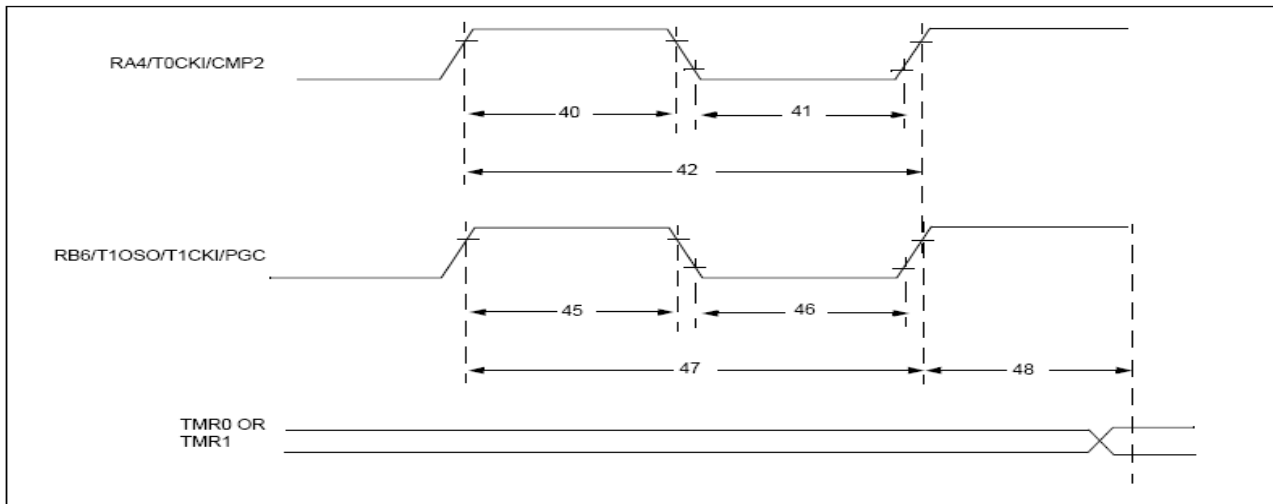


TABLE 17-8: TIMER0 AND TIMER1 EXTERNAL CLOCK REQUIREMENTS

Param No.	Sym	Characteristic		Min	Typ†	Max	Units	Conditions	
40	Tt0H	T0CKI High Pulse Width	No Prescaler	$0.5T_{CY} + 20^*$	—	—	ns		
			With Prescaler	10^*	—	—	ns		
41	Tt0L	T0CKI Low Pulse Width	No Prescaler	$0.5T_{CY} + 20^*$	—	—	ns		
			With Prescaler	10^*	—	—	ns		
42	Tt0P	T0CKI Period		Greater of: 20 or $\frac{T_{CY} + 40^*}{N}$	—	—	ns	N = prescale value (2, 4, ..., 256)	
45	Tt1H	T1CKI High Time	Synchronous, No Prescaler	$0.5T_{CY} + 20^*$	—	—	ns		
			Synchronous, with Prescaler	PIC18F82XA	15^*	—	—	ns	
				PIC18LF62XA	25^*	—	—	ns	
			Asynchronous	PIC18F82XA	30^*	—	—	ns	
PIC18LF62XA	50^*	—		—	ns				
48	Tt1L	T1CKI Low Time	Synchronous, No Prescaler	$0.5T_{CY} + 20^*$	—	—	ns		
			Synchronous, with Prescaler	PIC18F82XA	15^*	—	—	ns	
				PIC18LF62XA	25^*	—	—	ns	
			Asynchronous	PIC18F82XA	30^*	—	—	ns	
PIC18LF62XA	50^*	—		—	ns				
47	Tt1P	T1CKI input period	Synchronous	PIC18F82XA	Greater of: 20 or $\frac{T_{CY} + 40^*}{N}$	—	—	ns	N = prescale value (1, 2, 4, 8)
				PIC18LF62XA	Greater of: 20 or $\frac{T_{CY} + 40^*}{N}$	—	—	—	
			Asynchronous	PIC18F82XA	80^*	—	—	ns	
				PIC18LF62XA	100^*	—	—	ns	
FT1	Timer1 oscillator input frequency range (oscillator enabled by setting bit T1OSCEN)		—	$32.7^{(1)}$	—	kHz			
48	TCKEZTMR1	Delay from external clock edge to timer increment		$2T_{OSC}$	—	$7T_{OSC}$	—		

* These parameters are characterized but not tested.

† Data in "Typ" column is at 5V, 25°C unless otherwise stated. These parameters are for design guidance only and are not tested.

Note 1: This oscillator is intended to work only with 32.768 kHz watch crystals and their manufactured tolerances. Higher value crystal frequencies may not be compatible with this crystal driver.