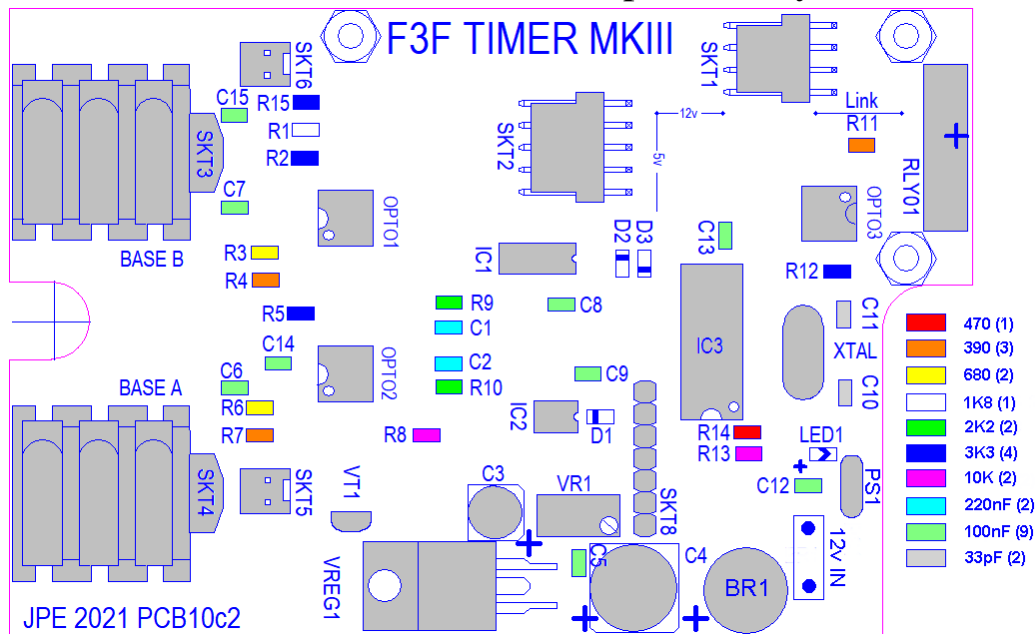


# Timer Main Board PCB10c2 – Component Layout



Ref	Value	SMD Size	Ref	Value	SMD Size
R1	1K8	1206	R8	10K	1206
R2	3K3	1206	R9	2K2	1206
R3	680R	1206	R10	2K2	1206
R4	390R	1206	R11	390R	1206
R5	3K3	1206	R12	3K3	1206
R6	680R	1206	R13	10K	1206
R7	390R	1206	R14	470R	1206
VR1	100K	Thro Hole	R15	3K3	1206

Ref	Value	SMD Size	Remarks
C1	220nF x 16v Cer X5R	1206	
C2	220nF x 16v Cer X5R	1206	
C3	10uF x 16v Electrolytic	Case A	10uF x 16v Axial Thro Hole Alternative
C4	220uF x 25v Electrolytic	Case G	220uF x 25v Radial Thro Hole Alternative
C5	100nF x 16v Cer X5R	1206	
C6	100nF x 16v Cer X5R	1206	
C7	100nF x 16v Cer X5R	1206	
C8	100nF x 16v Cer X5R	1206	
C9	100nF x 16v Cer X5R	1206	
C10	33pF x 16v Cer NPO	1206	} Based on a Xtal Load Cap $C_L$ of 20pf, Stray Cap 5pf ( est )
C11	33pF x 16v Cer NPO	1206	} $C10 / C11 = 2 * ( 20 - 5 ) = 30$ pf. Nearest value 33pf
C12	100nF x 16v Cer X5R	1206	
C13	100nF x 16v Cer X5R	1206	
C14	100nF x 16v Cer X5R	1206	
C15	100nF x 16v Cer X5R	1206	
IC1	4001	14 pin SOIC	Quad NOR Gate
IC2	NE555	8 pin SOIC	Buzzer Timer
IC3	PIC18F2420	28 pin SOIC	Alternative PIC16F886A Processor
BR1	W005	WOG	Bridge Rectifier
D1 / D2 / D3	1N5819	SOD123	Schottky Diodes
LED	3mm RED 5V	3mm ( T1 )	LED
OPTO1, 2, 3	4N25	6 pin DIP	Alternative FODM121 Opto Isolators
PS1	RXEF060	-	PolySwitch
VREG1	L7805	TO220	Voltage Regulator
VT1	ZVN4306A	E Line	Buzzer Driver
XTAL	4mHz $C_L=20$ pf	HC49 SMD	Note Load Capacitance $C_L$ for actual xtal purchased. See C10 / C11 calculations above.