

BOM for Single High Voltage Supply PCB

SCH Ref Part Name	Value or Part Number	Part Description	Mouser or Alt Link	Qty
PCB1 - HV Supply	Printed Circuit Board	High Voltage Power Supply PCB	JLPCB.com	1
IC1	MC34063AP	Boost Converter IC	595-MC34063AP	1
IC1-SOCKET	DIP-8 Connector	DIP-8 Socket for Boost Conv.	Amazon Link	1
IC2	LD1117V50	5V Voltage Regulator	511-LD1117V50	1
Q1	IRF630	N-MOSFET 200V	511-IRF630	1
Q2	MPSA55	PNP BJT 200V	610-MPSA55	1
L1	150uH	Inductor	652-6100-151K-RC	1
R1, R2	0.5Ω	1/4W Resistor	660-CF1/4CR50J	2
R3	1kΩ	1/4W Resistor	660-MF1/4LCT52R102J	1
R4	13.7kΩ	1/4W Resistor	660-MF1/4DC1372F	1
R5	475kΩ	1/4W Resistor	660-MF1/4DC4753F	1
R6	4.02kΩ	1/4W Resistor	660-MF1/4DC4021F	1
RX-POT	50kΩ	1/4W TrimPOT	652-3362P-1-503LF	1
C1	220uF	Capacitor (Polarized Elec.)	140-REA221M1H8K1016P	1
C2	680pF	Capacitor	810-FG18C0G1H681JNTO	1
C3	0.01uF	Capacitor	810-FG18C0G2A103JRT6	1
C4	2.2uF	Capacitor (Polarized Elec.)	710-860021373003	1
C5	0.1uF	Capacitor	810-FK18X7R1E104K	1
C6	10uF	Capacitor	810-FK16X7R1C106K	1
D1	BAV21	Ultra Fast Rectifier Diode	771-BAV21113	1
D2	1N914	Small Signal Diode	512-1N914T50A	1
J1, J2	2-Pole Connector	Screw Terminals (4 pairs total)	Amazon Link	4

BOM for Single Nixie Clock PCB

SCH Ref Part Name	Value or Part Number	Part Description	Mouser or Alt Link	Qty
PCB2 - Nixie Clock	Printed Circuit Board	Nixie 12-Hour Clock PCB	JLPCB.com	1
NX1, NX2, NX3, NX4, NX5, NX6	IN-12A	Nixie Tubes	Amazon Link	6
NB1, NB2	IN-3	Nixie Bulbs (lamps)	Amazon Link	2
IC1, IC2, IC3, IC4, IC5, IC6	TPIC6595N	8-Bit Shift Registers	595-TPIC6595N	6
IC1-6-SOCKET	DIP-20 Connector	DIP-20 Socket for Shift Regs	571-1-2199298-6	6
IC7	Microcontroller	PIC16F15325	579-PIC16F15325-I/P	1
IC7-SOCKET	DIP-14 Connector	DIP-14 Socket for PIC16	571-1-2199298-3	1
IC8, IC9, IC10, IC11, IC12, IC13	RGB	SMD LED Package	941-CLY6DFKCKK1N1D1B	6
Q1	12.288MHz	Crystal for PIC16	815-ABL-12.288-B1U	1
R1, R2, R3, R4, R5, R6	14kΩ	1/2W Resistor	71-CMF5514K000DHR6	6
R7, R8	162kΩ	1/2W Resistor	660-MF1/2CC1623F	2
R9, R10, R11, R12, R13, R14	10kΩ	1/4W Resistor	660-CF1/4C103J	6
R15, R18	300Ω	1/4W Resistor	660-MF1/4DC3000F	2
R16, R19	390Ω	1/4W Resistor	660-MF1/4DC3900F	2
R17, R20	570Ω	1/4W Resistor	660-MF1/4DC5760F	2
C1, C2, C3, C4, C5, C6, C11, C12	0.1uF	Capacitor	594-K104K15X7RF53L2	8
C7, C8	18pF	Capacitor	810-FK18C0G1H180J	2
C9, C10	0.01uF	Capacitor	810-FG18C0G2A103JRT6	2
POT1	5kΩ	Potentiometer	Amazon Link	1
S1	SPST	Push Button Switch (PIC MCLR)	Amazon Link	1
S2	SPST	Latching Push Button Switch (Nixie Power)	Amazon Link	1
S3, S4, S5	SPST	Latching Push Button Switch (LEDs)	Amazon Link	3
ENC1	15mm Encoder	Rotary Encoder (with switch)	652-PEC11R-4015F-S24	1
J1, J2, J3	2-Pole Connector	Screw Terminals (7 pairs total)	Amazon Link	7
J4	5-Pole Connector	Pin Header Row (5 pins)	Amazon Link	1