

Item	Ref	Qty	Description	Mfg	Part Number
1	C1, C11	2	Capacitor, 10uF, 25V, 10%, 0805 X5R	Murata	GRM21BR61E106KA73L
2	C2	1	Capacitor, 22uF, 16V, 20%, 0805 X5R	Samsung	CL21A226MOCLRNC
3	C3	1	Capacitor, 1uF, 16V, 10%, 0805 X7R	Yageo	CC0805KKX7R7BB105
4	C4, C5, C8, C9, C10	5	Capacitor, 0.1uF, 50V, 10%, 0805 X7R	Yageo	CC0805KRX7R9BB104
5	C6, C7	2	Capacitor, 22pF, 50V, 5%, 0805	Yageo	CC0805JRNPO9BN220
6	D1	1	TVS Diode, 1-channel Unidirectional, 24V, SOD323	NXP	PESD24VL1BA,115
7	D2	1	Zener Diode, 7.5V, 2%, 200mW, SOD-323	ON Semiconductor	MM3Z7V5ST1G
8	D3	1	LED 2.1V/10mA, 0603	Lite-On Inc.	LTST-C129GKT
9	D4, D5, D6, D7	4	Connector, 0.600" DIP, 2x9, Right-Angle	Mill-Max	299-43-618-10-002000
10	D4, D5, D6, D7	4	LED, 7-segment + DP Display, 2.1V/20mA, DIP-18 0.600"	Broadcom	HDSP-5523
11	D8	1	Diode, 1V, 1206	Bourns	CD1206-S01575
12	D9	1	Diode, 1N4148, 1V, Through-Hole	Fairchild	1N4148
13	DC1	1	DC/DC Converter, Non-Isolated, 7-18Vin/5Vout, 10W, SIP-3 Right Angle	CUI Inc	V7805-2000R
14	F1	1	PTC Fuse, 24V, 500mA/1A, 1206	Bel Fuse Inc	OZCJ0050AF2E
15	IC1	1	IC, MCU, AVR, 20MHz, 32KB, DIP-28	Atmel	ATMEGA328P-PN
16	IC2	1	IC, Inverter, 6-Channel Schmitt Trigger, DIP-14	Texas Instruments	SN74HC14N
17	IC3	1	IC, Display Driver, 7-Segment + DP, 8-digit, SPI, DIP-24	Maxim Integrated	MAX7219CNG+
18	J1	1	Connector, DC Power Jack, 2.10mm, Right-Angle Through Hole	MPD	EJ508A
19	J2	1	Connector, Breakaway, 0.100", 3x2, Through-Hole	TE Connectivity	5-5176264-8
20	OK1	1	Optocoupler, 1-channel, 15MBd, DIP-8	Lite-On Inc.	6N137
21	Q1	1	MOSFET, P-channel, 30V, 65mOhm, SOT-23	Diodes Incorporated	DMP3099L-7
22	R1, R3, R4	3	Resistor, 10K, 0.125W, 5%, 0805	Stackpole	RMCF0805JT10K0
23	R2	1	Resistor, 470, 0.1W, 1%, 0805	Stackpole	RMCF0805FT470R
24	R5, R6, R7, R8, R9, R10, R11	7	Resistor, 220, 0.125W, 5%, 0805	Stackpole	RMCF0805JT220R
25	R12	1	Resistor, 20K, 0.125W, 1%, 0805	Yageo	RC0805FR-0720KL
26	X1, X2, X3, X4	4	Connector, DIN, 5-position, Female, Right-Angle PCB	CUI Inc	SDS-50J
27	Y1	1	Crystal, 16MHz, 10ppm, 18pF, HC49/US	TXC	9B-16.000MEEJ-B
PCB Do Not Populate (User-Discretion)					
Item	Ref	Qty	Description	Mfg	Part Number
28	IC1	1	Connector, IC Socket, DIP-28 0.300"	On Shore Technology	ED28DT
29	IC2	1	Connector, IC Socket, DIP-14 0.300"	On Shore Technology	ED14DT

30	IC3	1	Connector, IC Socket, DIP-24 0.300"	On Shore Technology	ED24DT
31	OK1	1	Connector, IC Socket, DIP-8 0.300"	On Shore Technology	ED08DT

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