

Item	Quantity	Reference	Value	Tolerance	Rating	Description	Manufacturer	PN	PCB Footprint
1	1	C1	10uF	20%	6.3V	10uF, 20%, 6.3V, Tant. Cap	Panasonic	ECS-T0JY106R	3216
2	26	C2,C5,C6,C7,C8,C9,C10, C11,C13,C14,C17,C18,C21, C23,C24,C26,C27,C30,C32, C33,C42,C47,C48,C57,C61, C63	0.1uF	10%	16V	Multilayer X7R cap	Panasonic	ECJ-1VB1C104K	0603
3	2	C4,C3	TBD	20%	TBD	Unused	Do Not Stuff	Do Not Stuff	0603
4	7	C12,C25,C40,C45,C55,C60, C62	0.1uF	10%	25V	Multilayer X7R cap	Panasonic	ECJ-2VB1E104K	0805
5	2	C15,C28	0.33uF	20%	35V	0.33uF, 20%, 35V, Tant. Cap	Panasonic	ECS-T1VY334R	3216
6	4	C16,C19,C22,C29	4.7uF	20%	6.3V	4.7uF, 20%, 6.3V, Tant. Cap	Panasonic	ECS-T0JY475R	3216
7	1	C20	0.01uF	10%	16V	0.01uF, 10%, 16V, X7R Cap.	Panasonic	ECJ-1VB1C103K	0603
8	6	C31,C34,C44,C46,C49,C59	1nF	10%	50V	Multiayer X7R cap	Panasonic	ECJ-1VB1H102K	0603
9	10	C35,C36,C37,C38,C39,C50, C51,C52,C53,C54	0.33uF	10%	16V	Multilayer X7R cap	Panasonic	ECJ-2YB1C334K	0805
10	2	C56,C41	33uF	20%	25V	33uF, 25V, Tant, thru-hole	Panasonic	ECS-F1EE336	CAP-TANT-7.5MM
11	2	C58,C43	22uF	20%	6.3V	22uF, 20%, 6.3V, Tant. Cap	Panasonic	ECS-T0JX226R	3528
12	3	C64,C65,C66	TBD	20%	TBD	Serial Bus Terminators	Do Not Stuff	Do Not Stuff	0603
13	2	D1,D2	5350T1	-	-	T3/4 Rt. LED, Red	Chicago M.L.	5350T1	LED-CML5350
14	6	D3,D4,D24,D35,D38,D39	5350T7	-	-	T3/4 Rt. LED, Yellow	Chicago M.L.	5350T7	LED-CML5350
15	5	D5,D9,D14,D26,D37	5350T5	-	-	T3/4 Rt LED, Green	Chicago M.L.	5350T5	LED-CML5350
16	14	D6,D8,D10,D11,D13,D15, D16,D17,D22,D23,D27,D28, D33,D34	MMBD4148	-	100V	SMD Switching Diode	Diodes Inc.	MMBD4148	SOT23
17	2	D7,D12	ZMM5245B	-	0.5W	15V SMD Zener Diode	Diodes Inc.	ZMM5245B	MELF3
18	8	D18,D19,D20,D21,D29,D30, D31,D32	MMBZ15VDLT1	-	15V	ZTVS 15V 40w	Motorola	MMBZ15VDLT1	SOT23
19	2	D36,D25	1N5817M	-	1.0A	1.0A SM Schottky Barrier Rectifier	Diodes Inc.	1N5817M	MELF1
20	2	D40,D41	1N5229	-	0.5W	4.3V Zener diode	Diodes Inc.	ZMM5229	MELF3
21	2	FAST6,FAST5	Nut	-	-	4-40 Nylon Nut	-	-	
22	2	FAST7,FAST8	Screw	-	-	4-40 X 1/2" Nylon Pan head Screw	-	-	
23	2	FAST10,FAST9	Screw	-	-	2-56 X 1/2" SS Pan head Screw	-	-	
24	2	FAST11,FAST12	Nut	-	-	2-56 SS Nut	-	-	
25	2	FAST13,FAST14	Washer	-	-	2-56 SS Lock washer	-	-	
26	2	FAST15,FAST16	Washer	-	-	2-56 SS washer	-	-	
27	2	F2,F1	12A SLO-BLO	-	15A	5mm PCB clip 2 required	Keystone	3518P	FUSE/5MMB
28	2	HSP1,HSP2	SP900S-54	-	-	TO-220 Silicon heatsink pad	Bergquist	SP900S-54	
29	1	HS1	578622	-	-	Dual TO-220 Heatsink	Aavid	578622B03200	HS-AAVID578622
30	1	JP1	HEADER 7	-	UL94V-0	7pin 0.1 header	Molex	22-03-2071	SIP-7P
31	1	JP2	HEADER 3	-	UL94V-0	3 pin 0.1 header	Molex	22-28-4033	SIP-3P
32	1	JP3	HEADER 3	-	UL94V-0	3 pin 0.1 header	Molex	22-28-4033	SIP-3P
33	1	J1	DIN 41612 Type M	-	207	DIN 41612 Type M	ERNI	593815	CON/DINM-ERNI-593815
34	2	K3,K1	DSP2A-L2-DC12V	-	5A	5A DPDT Latching relay (Install for Low-Current)	NAiS	DSP2A-L2-DC12V	RELAY-NAIS-DSP2A
35	2	K2,K4	JL-A1B	-	12A	12Amp 2-Coil Latching 2-Form-C (Install for High-Current)	Leach	JL-A1B	RELAY-LEACH-JLA1B
36	4	K5,K6,K7,K8	TQ2-L2-12V	-	1A	1Amp 2-coil Lathing 2-Form-C	NAIS	TQ2-L2-12V	RELAY-NAIS-TQ2
37	6	P1,P2,P3,P4,P5,P6	High-Current PIN	-	40A	High-Current contact	ERNI	594-169	
38	14	Q1,Q4,Q5,Q6,Q10,Q12,Q13, Q14,Q16,Q17,Q19,Q20,Q22, Q23	IRLML2402	-	20V	N-ch Logic-Level MOSFET	IRF	IRLML2402	SOT23
39	2	Q8,Q2	IRF3205	-	55V	N-Ch. Enh. Mode HEXFET	IR	IRF3205	TO-220-UP
40	8	Q3,Q7,Q9,Q11,Q15,Q18,Q21, Q24	SST4392	-	35V	N-JFET,35V SMD	Motorola	MMBF4393LT1	SOT23
41	9	R1,R2,R3,R4,R10,R43,R61, R66,R67	90	10%	1/16W	90, 10%, 1/16W SMD	-	-	0603
42	1	R5	TBD	1%	1/16W	TBD, 1%, 1/16W SMD	Do Not Stuff	Do Not Stuff	0603
43	1	R6	9.31M	1%	1/10W	9.31M, 1%, 1/10W SMD	-	-	0805
44	1	R7	VT90N1	-	100VAC	Photoresistor, 25-60K	Perkin Elmers	VT90N1	PHOTOCELL-LUMEXOED
45	1	R8	16K	1%	1/16W	16K, 1%, 1/16W SMD	-	-	0603
46	3	R9,R76,R78	10K	10%	1/16W	10K, 10%, 1/16W, SMD	-	-	0603
47	2	R11,R20	0.01	5%	16W	0.01 Low Resistance Metal	Caddock	MP916-0.01-5%	TO-220-2
48	2	R12,R21	2.05K	1%	1/16W	2.05K, 10%, 1/16W SMD	-	-	0603
49	6	R13,R14,R15,R23,R24,R25	100K	10%	1/16W	100K, 10%, 1/16W SMD	-	-	0603
50	2	R16,R26	1M	1%	1/16W	1M, 1%, 1/16W, SMD	-	-	0603
51	2	R17,R27	200K	1%	1/16W	200K, 1%, 1/16W, SMD	-	-	0603
52	6	R18,R22,R28,R29,R42,R47	200	1%	1/16W	200, 1%, 1/16W SMD	-	-	0603
53	1	R19	5	10%	1/16W	5, 10%, 1/16W SMD	-	-	0603
54	4	R30,R31,R48,R49	120	1%	1/16W	120, 1%, 1/16W SMD	-	-	0603
55	10	R32,R35,R36,R38,R40,R50, R53,R54,R56,R58	14K	10%	1/16W	14K, 10%, 1/16W SMD	-	-	0603
56	10	R33,R34,R37,R39,R41,R51, R52,R55,R57,R59	33K	10%	1/16W	33K, 10%, 1/16W SMD	-	-	0603
57	2	R62,R44	9.09K	1%	1/16W	9.09K, 1%, 1/16W, SMD	-	-	0603
58	2	R63,R45	3.01K	1%	1/16W	3.01K, 1%, 1/16W SMD	-	-	0603
59	2	R64,R46	15K	1%	1/16W	15K, 1%, 1/16W, SMD	-	-	0603
60	2	R65,R60	620	1%	1/16W	620, 1%, 1/16W SMD	-	-	0603
61	1	R68	1.2M	1%	1/16W	1.2M, 10%, 1/16W SMD	-	-	0603
62	1	R69	250K	1%	1/16W	250K, 10%, 1/16W SMD	-	-	0603
63	3	R70,R71,R72	TBD	10%	1/16W	Serial Bus terminators	Do Not Stuff	Do Not Stuff	0603
64	2	R73,R74	100	10%	1/16W	100,10%,1/16W,SMD	-	-	0603
65	2	R82,R83	TBD	10%	1/16W		Do Not Stuff	Do Not Stuff	0603
66	2	T2,T1	PM3602-15	-	0.73A	15uH Transformer	J.W. Miller	PM3602-15	IND/JWM-PM3602
67	1	U1	XCR3256XL-XTQ144	-	-	CoolRunner 256 macro cell CPLD	Xilinx	XCR3256XL-7TQ144C	TQFP144
68	1	U2	HA7210	-	-	10K - 10MHz, Low-Power Crystal Osc.	Intersil	HA7210IB	SO8NB
69	1	U3	MAX917	-	-	Nanopower Comparator and Reference	Maxim	MAX917ESA	SO8NB
70	2	U4,U10	MAX4372ESA	-	-	High side current sense amplifier	Maxim	MAX4372TESA	SO8NB
71	2	U12,U5	LTC1154	-	-	High Side N-ch. MOSFET Driver	Linear Tech	LTC1154CS8	SO8NB
72	2	U6,U13	MAX919ESA	-	-	Nanopower Comparator	Maxim	MAX919ESA	SO8NB
73	2	U14,U7	X9317	-	-	50K Digital EPOT	Xicor	X9317US8-2.7	SO8NB
74	2	U20,U8	AQW212A	-	60V, 350mA	PhotoMOS Relay DPST	NAiS	AQW212A	SO8-AQW212
75	1	U9	MAX1291	-	-	250Ksps +3V 12-Bit ADC	Maxim	MAX1291ACEI	QSOP28
76	1	U11	LM61	-	-	2.7V TO-92 Temperature Sensor	National Semi.	LM61CIZ	TO92
77	2	U22,U15	ISO150AU	-	-	Dual Digital Isolator	Burr-Brown	ISO150AU	SO28U-ISO150
78	6	U16,U18,U19,U24,U25,U27	HCPL-X730	-	-	Very Low Power High Gain Optocoupler	HP	HCPL-0730A	SO8NB
79	2	U23,U17	MAX3160	-	-	Multiprotocol Transceiver (RS-232/485)	Maxim	MAX3160CAP	SSOP20
80	2	U26,U21	LT1425	-	-	Flyback DC-DC	Linear Tech.	LT1425CS	SO16NB
81	1	U28	TPS3825	-	-	Processor Supervisor	TI	TPS3825-33DBV	SOT23-5
82	1	Y1	MC-405	-	-	32768Hz Crystal	Epson	MC-405 32.768K-A2	XTAL/MC-405