

Item	Reference Designator	Qty Per Board	Description	Manufacturer Name	Manufacturer Part Number
1	C5,C6	2	CAP CER 330PF 50V X7R 0402	Murata	GCM155R71H331KA37D
2	C42	1	CAP CER 1000PF 50V COG/NPO 0603	Murata	GRM1885C1H102JA01J
3	C41	1	CAP CER 0.022UF 25V X7R 0603	TDK	CGJ3E2X7R1E223K080AA
4	C1,C8,C9,C10,C11,C20,C21,C43,C93,C127,C128	11	CAP CER 0.1UF 50V X7R 0402	Murata	GRM155R71H104KE14D
5	C35,C39,C28,C37	4	CAP CER 0.47UF 50V X7R 0603	TDK	C1608X7R1H474K080AC
6	C2,C3	2	CAP CER 1UF 50V X5R 0603	Murata	GRT188R61H105KE13D
7	C38,C45,C94,C131	4	CAP CER 2.2UF 35V X5R 0603	Murata	GRM188R6YA225MA12D
8	C4,C26,C27,C34,C44	5	CAP CER 4.7UF 35V X5R 0603	Murata	GRM188R6YA475KE15D
9	C22,C23,C24,C25,C30,C31,C46,C132	8	CAP CER 10UF 50V X5R 0805	Murata	GRM21BR61H106KE43L
10	C14,C15,C17,C18	4	CAP CER 22UF 25V X5R 0805	Murata	GRM21BR61E226ME44K
11	C50,C51	2	CAP TANT POLY 47UF 35V 2917	Vishay	T52E5476M035C0070
12	RS1,RS2b,RS2a	3	RES 0.01 OHM 1% 1W 1206	Vishay Dale	WSLP1206R0100FEA
13	SH1	1	RES 0 OHM JUMPER 1206	KOA Speer	TLR22BTTD
14	RT1	1	THERM NTC 100KOHM 4250K 0402	Murata	NCP15WF104F03RC
15	R46,R48,R54,R56,R141	5	RES 0 OHM JUMPER 1/4W 0603	Stackpole	HCJ0603ZT0R00
16	R33,R34,R36,R37,R86	5	RES 2 OHM 1% 1/10W 0603	Yageo	RC0603FR-072RL
17	R53	1	RES SMD 4.7 OHM 5% 1/3W 0603	Panasonic	ERJ-PA3J4R7V
18	R55	1	RES SMD 10 OHM 5% 0.4W 0805	Rohm	ESR10EZPJ100
19	R132	1	RES 100 OHM 1% 1/10W 0603	Yageo	RC0603FR-07100RL
20	R32	1	RES SMD 220 OHM 5% 1/2W 0805	Panasonic	ERJ-P06J221V
21	R13,R134,R138,R140	4	RES 1K OHM 1% 1/10W 0603	Yageo	RC0603FR-131KL
22	R119	1	RES 1.8K OHM 1% 1/10W 0603	Yageo	RC0603FR-131K8L
23	R47	1	RES 3.09K OHM 1% 1/10W 0603	Yageo	RC0603FR-133K09L
24	R118,R120	2	RES 3.3K OHM 1% 1/10W 0603	Yageo	RC0603FR-133K3L
25	R12,R23,R24,R25,R94,R95,R97,R129	8	RES 4.7K OHM 1% 1/10W 0603	Yageo	RC0603FR-134K7L
26	R3,R5	2	RES 5.1K OHM 1% 1/16W 0402	Yageo	RC0402FR-135K1L
27	R117	1	RES 6.8K OHM 1% 1/10W 0603	Yageo	RC0603FR-076K8L
28	R116	1	RES 8.2K OHM 1% 1/10W 0603	Yageo	RC0603FR-078K2L
29	R1,R2,R4,R51,R85,R96,R135	7	RES 10K OHM 1% 1/16W 0402	Yageo	RC0402FR-1310KL
30	R26	1	RES 15K OHM 1% 1/10W 0603	Yageo	RC0603FR-0715KL
31	R17	1	RES 16.2K OHM 1% 1/10W 0603	Yageo	RC0603FR-0716K2L
32	R137	1	RES 18.7K OHM 1% 1/10W 0603	Yageo	RC0603FR-0718K7L
33	R10,R21,R128	3	RES 47K OHM 1% 1/10W 0603	Yageo	RC0603FR-0747KL
34	R16,R22,R28,R38,R49,R52,R130	7	RES 100K OHM 1% 1/16W 0402	Yageo	RC0402FR-13100KL
35	R48f	1	RES 61.9K OHM 1% 1/10W 0603	Yageo	RC0603FR-1361K9L
36	R48e	1	RES 93.1K OHM 1% 1/10W 0603	Yageo	RC0603FR-0793K1L
37	R48d	1	RES 133K OHM 1% 1/10W 0603	Yageo	RC0603FR-07133KL
38	R48c	1	RES 178K OHM 1% 1/10W 0603	Yageo	RC0603FR-07178KL
39	R48b	1	RES 237K OHM 1% 1/10W 0603	Yageo	RC0603FR-07237KL
40	R48a	1	RES 316K OHM 1% 1/10W 0603	Yageo	RC0603FR-07316KL
41	R11,R15,R50	3	RES 536K OHM 1% 1/16W 0402	Yageo	RC0402FR-07536KL
42	L1a	1	FIXED IND 3.3UH 8A 21 mOHM SMD	Delta/Cyntec	CMLE063T-3R3MS
43	Q1,Q4	2	MOSFET 2P-CH 20V 0.88A SC88/SOT363	OnSemi	NTJD4152PT1G
44	Q2,Q3,Q5,Q10,Q17,Q20	6	MOSFET N-CH 60V 250MA EMT3F	Rohm	RE1L002SNTL
45	Q7	1	MOSFET 2N-CH 30V 28.1A PWRPAIR	Vishay Siliconix	SIZF5302DT-T1-RE3
46	Q8	1	MOSFET 2N-CH 40V 15A/60A 12WQFN	OnSemi	NTTFD4D0N04HLTWG
47	Q15,Q16	2	MOSFET P-CH 30V 35A 7 mOhm PPAK1212-8	Vishay Siliconix	SI7625DN-T1-GE3
48	D2	1	DIODE ARRAY SCHOTTKY 30V SOT363	Diodes Inc	BAT54BRW-7-F
49	D3	1	DUAL Schottky Com Cathode 40V 0.5A SOT23	Panjit	SBA0540CA_AU
50	D17,D18,D19	3	LED GREEN DIFFUSED 0603 SMD	Rohm	SML-512MWT86
51	CN1	1	CONN RCP USB3.1 TYPEC 24P SMD RA	JAE	DX075024JJ2R1300
52	CN14	1	CONN HEADER SMD R/A 4POS 1MM	JST	SM04B-SRSS-TB
53	JP30,JP48	2	CONN HEADER VERT 3POS 2.54MM	Würth	61300311121

54	JP31	1	CONN HEADER R/A 4POS 2.54MM	Molex	0022053041
55	JP271	1	CONN HEADER VERT 5POS 2.54MM	TE/AMP	826926-5
56	J5	1	CONN BIND POST KNURLED RED	Johnson Components	111-0702-001
57	J6	1	CONN BIND POST KNURLED BLACK	Johnson Components	111-0703-001
58	J17	1	CONN HEADER VERT 9POS 2.54MM	TE/AMP	5-103735-8
59	SW1	1	SWITCH ROTARY DIP SP6T 100MA 5V	Nidec	SS-10-16NP-LE
60	SW2	1	SWITCH ROTARY DIP OCTAL 100MA 5V	Nidec	S-8010
61	TB1	1	TERM BLK 2POS SIDE ENTRY 5MM PCB	Phoenix	1729018
62	TP8,TP16,TP23,TP24,TP25,TP26,TP27, TP28,TP29,TP30,TP31,TP32,TP33,TP3 8,TP39,TP40,TP41,TP42,TP43,TP44,TP 45,TP46,TP47	23	PC TEST POINT MINIATURE WHITE	Keystone	5002
63	TP21,TP34,TP35,TP36,TP37	5	TERM TURRET SINGLE L=5.56MM TIN	Keystone	1502-2
64	U1	1	Power Delivery Controller	Renesas	R9A02G011GNP#ACO
65	U3	1	IC BATT CHG LI-ION 2-7CEL 32TQFN	Renesas	RAA489118
66	U41	1	LDO CMOS LOWCURR SOT89 T&R 2.5K	Diodes Inc	AP7375-33Y-13
67	Corners	4	STANDOFF, 4-40 X 3/4in, F/F, HEX, ALUMINUM, 0.250D	HW	Keystone 2204
68	Corners	4	SCREW,4-40 X 1/4in, PHILLIPS, PANHEAD,S TAINLESS	HW	Keystone 9900

**Total Components**                      **181**  
**Unique Components**                      **68**