

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
1	IC1, IC2	2	-	TPS7A1901DRBR	Texas Instruments		SON	3.0 x 3.0	
2	IC3, IC4, IC9, IC10	4	-	UCC27714DR	Texas Instruments		SOIC	3.91 x 8.65	
3	IC5	1	-	UCC28951PWR	Texas Instruments		TSSOP	7.8 x 4.4	
4	IC6, IC7	2	-	TL431BI PK	Texas Instruments		SOT-23	2.9 x 1.3	
5	IC8	1	-	LM5575MHX	Texas Instruments		TSSOP	7.8 x 4.4	
6	Q3, Q4, Q7, Q8	4	-	TPH2R408QM	TOSHIBA	MOSFET	SOP Advance	5.0 x 6.0	
7	Q9, Q10, Q11, Q12, Q13, Q14, Q15, Q16	8	-	TPH1500CNH	TOSHIBA	MOSFET	SOP Advance	5.0 x 6.0	
8	Q17	1	-	SSM3K15AFS	TOSHIBA	MOSFET	CST3	1.0 x 0.6	
9	Q18	1	-	2SC2712-Y	TOSHIBA	Transistor	SC-70	2.1 x 2.0	
10	Q19	1	-	2SA1162-Y	TOSHIBA	Transistor	SC-70	2.1 x 2.0	
11	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D22, D24, D25	15	-	CMH01	TOSHIBA	High Efficiency Diode	M-FLAT	4.7 x 2.4	
12	D13, D14, D15, D16, D17, D18, D19, D20, D21, D23	10	-	CRS01	TOSHIBA	Schottky Barrier Diode	US-FLAT	2.5 x 1.25	
13	DS1 ,DS2	2	-	TLP291(SE	TOSHIBA	Photocoupler	SO4	7.0 x 2.6	
14	DS3, DS4	2	-	TLP2370	TOSHIBA	Photocoupler	SO6	7.0 x 3.7	
15	L1	1	1 $\mu$ H	7443091100	Würth Elektronik	34A, $\pm$ 20 %		13.5 x 14.5	
16	L2, L4	2	1 mH	74404086102	Würth Elektronik	0.48A, $\pm$ 20 %		8.3 x 8.3	
17	L3	1	33 $\mu$ H	7443783533330	Würth Elektronik	22A, $\pm$ 20 %		34.5 x 36	
18	T1	1	4:7:2	750344423	Würth Elektronik			Through hole	
19	T2	1	1:200	750316796	Würth Elektronik			Through hole	
20	CN1	1	-	PSS-410253-02	HIROSUGI	2.54 pitch Pin Header		Through hole	
21	R47, R48, R49, R50, R51, R158, R159, R164, R165, R166	10	1.5 k			3W, $\pm$ 5 %		6.4 x 3.2 (2512)	
22	R149	1	10			1W, $\pm$ 5 %		6.3x3.2 (2512)	
23	R20, R22, R24, R28	4	33			1W, $\pm$ 5 %		6.3x3.2 (2512)	

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24	R46, R53-R55, R58	5	10 k			1W, $\pm 1\%$		6.3 x 3.2 (2512)	
25	R52, R160, R161	3	100 k			1W, $\pm 1\%$		6.3 x 3.2 (2512)	
26	R162, R163	1	4.7 k			1W, $\pm 1\%$		6.3 x 3.2 (2512)	
27	R76, R77	2	2.2			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
28	R92, R94, R96, R98	4	4.7			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
29	R5, R6, R13, R14, R91, R93, R95, R97	8	0			250 mW		3.2 x 1.6 (1206)	
30	R129, R130	2	15 k			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
31	R132	1	56 k			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
32	R70, R71, R150, R151	4	1			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
33	R156, R157	2	2.2			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
34	R26, R27, R31, R32, R35, R36, R41, R42	8	1			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
35	R75	1	10			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
36	R61, R62	2	22			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
37	R64	1	27			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
38	R124	1	33 k			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
39	R125	1	22 k			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
40	R123	1	82 k			125 mW, $\pm 1\%$		2.0 x 1.2 (0805)	
41	R145, R146, R147, R148	4	0			62.5 mW		1.6 x 0.8 (0603)	
42	R63	1	100			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
43	R65	1	470			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
44	R57, R66, R82, R107, R119, R120, R127, R153	8	1 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
45	R40, R138, R140, R154	4	1.5 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
46	R56, R126, R131, R137, R139	5	2.2 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
47	R112	1	2.4 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	

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48	R117, R118, R136	3	3.3 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
49	R143	1	3.9 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
50	R87	1	4.7 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
51	R99, R100, R101, R102, R103, R104	6	6.8 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
52	R7, R8, R17, R18, R29, R30, R33, R34, R37, R38, R44, R45, R59, R60, R73, R74, R83, R84, R89, R90, R113, R114, R115, R116, R122, R152	26	10 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
53	R39, R43, R86, R88, R133, R134	6	22 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
54	R141	1	24 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
55	R85, R135, R142	3	33 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
56	R79, R109	2	47 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
57	R81	1	150 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
58	R108	1	100 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
59	R110, R111	2	220 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
60	R106	1	680 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
61	R80	1	120 k			62.5 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
62	C3, C4, C5, C33, C34, C35	6	22 $\mu$ F	875076161003	Würth Elektronik	Aluminum Polymer, 80 V, $\pm 10\%$		10.0 x 10.3	
63	C1, C2, C25, C26	4	2.2 nF	885342211010	Würth Elektronik	Ceramic, 3000 V, $\pm 10\%$		4.5 x 3.2 (1812)	
64	C28, C31	2	220 pF			Ceramic, 200 V, $\pm 5\%$		3.2 x 1.6 (1206)	
65	C40, C81	2	150 nF			Ceramic, 200 V, $\pm 10\%$		3.2 x 1.6 (1206)	
66	C29, C32	2	10 $\mu$ F			Ceramic, 100 V, $\pm 10\%$		3.2 x 2.5 (1210)	

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67	C6, C8, C10, C11, C12, C13, C14, C15, C17, C18, C19, C20, C21, C22, C36, C38, C39, C58, C60, C64, C66	21	2.2 $\mu$ F			Ceramic, 100 V, $\pm$ 10 %		3.2 x 2.5 (1210)	
68	C51	1	0.15 $\mu$ F			Ceramic, 100 V, $\pm$ 10 %		3.2 x 1.6 (1206)	
69	C7, C9, C41, C42, C63	5	0.1 $\mu$ F			Ceramic, 100 V, $\pm$ 10 %		3.2 x 1.6 (1206)	
70	C52, C69, C70, C72, C79, C80	6	0.1 $\mu$ F			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
71	C62	1	4700 pF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
72	C56	1	2200 pF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
73	C44	1	10 nF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
74	C67	1	33 nF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
75	C57	1	22 nF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
76	C53, C54, C61, C65	4	10 nF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
77	C37, C43	2	22 $\mu$ F			Ceramic, 25 V, $\pm$ 10 %		3.2 x 1.6 (1206)	
78	C45, C46, C47, C50, C71, C74, C75	7	1 $\mu$ F			Ceramic, 25 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
79	C48, C49	2	0.22 $\mu$ F			Ceramic, 25 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
80	C77, C78	2	4.7 $\mu$ F			Ceramic, 25 V, $\pm$ 10 %		2.0 x 1.2 (0805)	
81	C73	1	330 pF			Ceramic, 50 V, $\pm$ 10 %		1.6 x 0.8 (0603)	
82	E1, E2, E5, E6	4	-	OP-486	OSADA	Screw Terminal 50A		11.85 x 15.1	
83	E3, E4	2	-	K302035-01	Ojiya Seiko	Heat Sink			
84	Q1, Q2, Q5, Q6	4	-	TPH2R408QM	TOSHIBA	MOSFET	SOP Advance	5.0 x 6.0	Not Mounted
85	R15, R16, R19, R21, R23, R25	6	-					6.3 x 3.2 (2512)	Not Mounted

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
86	R3, R4, R11, R12, R67, R68, R69, R72, R78, R105, R121, R128, R144, R155	14	-					1.6 x 0.8 (0603)	Not Mounted
87	C23, C24	2	-					4.5 x 3.2 (1812)	Not Mounted
88	C16, C27, C30, C59	4	-					3.2 x 1.6 (1206)	Not Mounted
89	C55, C68, C76	3	-					1.6 x 0.8 (0603)	Not Mounted
90	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24	24	-	HYT-4024BR	HIROSUGI	Test Pin			Not Mounted
91	R1, R2, R9, R10	4	-					3.2 x 1.6 (1206)	Not Mounted

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