



# Materials

TI DESIGNS

TIDEP0059 (SOMPLC-GEN)

Item Number	Part Number	Quantity	Part Type	Part Reference	Vendor	Vendor PN	Description	Value	PCB Footprint	Tolerance	Voltage	Distributor Part Number	Distributor
1	300-00035		1 CAP	C8	Murata	GRM188R71H104KA93D	Cap Ceramic SMT 0603	100nF	C0603		50V	490-1519-1-ND	digikey
2	300-00057		1 CAP	C10			Cap Ceramic SMT 0402	DNP	C0402		10V		
3	300-00056		2 CAP	C12 C66	MURATA	GRM1555C1H150J01D		15pf	C0402				
4	300-00124		28 CAP	C43 C78 C80 C81 C82 C83 C86 C87 C89 C97 C102 C103 C105 C106 C108 C116 C118 C119 C121 C123 C124 C125 C142 C144 C159 C160 C163 C164	TDK		CAP CER 16V 10% X7R 0402	0.1uF	C0402		16V	445-4952-1-ND	Digikey
5	300-00120		3 CAP	C65 C67 C69	TDK	C1005X7R1H103K050B8	CAP CER 10000PF (10nF) 50V 10% X7R 0402	10nF	C0402		50V	445-6850-1-ND	digikey
6	300-00119		1 CAP	C70	TDK	C1005X5R1H104K050B8	CAP CER 0.1UF (100nF) 50V 10% X5R 0402	0.1uF	C0402		50V	445-5942-1-ND	digikey
7	300-00118		1 CAP	C72	TDK	C3216X5R1H106K160A8	CAP CER 10UF 50V 10% X5R 1206	10uF	C1206		50V	445-5998-1-ND	digikey
8	300-00121		2 CAP	C73 C74	TDK	C5750Y5V1H226Z	CAP CER 22UF 50V Y5V 2220	22uF	C2220		50V	445-3487-1-ND	Digikey
9	300-00039		2 CAP	C76 C139	Taiyo Yuden	GMK316F106ZL-T		10uF	C1206				
10	300-00112		1 CAP	C94	tdk	C1005SL1A222J	CAP CER 2200PF (2.2nF) 10V 5% SL 0402	2200pf	C0402		10V	445-2660-1-ND	digikey
11	300-00111		2 CAP	C95 C96	Taiyo Yuden	LMK105SD472KV-F	CAP CER 4700PF (4.7nF)10V 10% 0402	4700pF	C0402		10V	587-1068-1-ND	digikey
12	300-00017		1 CAP	C128			Cap Ceramic SMT 0402	3n3F	C0402		10V		
13	300-00037		2 CAP	C129 C130	AVX	06035C103KAT2A	Cap Ceramic SMT 0603	10nF	C0603		50V	478-1227-1-ND	digikey
14	300-00013		2 CAP	C131 C136			Cap Ceramic SMT 0402	10nF	C0402		10V		
15	300-00044		4 CAP	C132 C133 C134 C135	MURATA	GRM155R61A104KA01D		0.1uF	C0402				
16			1 CAP	C140	AVX Corp	06035G2232AT2A	CAP CER 0.022UF 50V Y5V 0603	0.022uf	C0603		50V	478-1255-1-ND	digikey
17			1 CAP	C141	Samsung	CL10B333KB85FNC	CAP CER 0.033UF 50V X7R 0603	0.033uF	C0603		50V	1276-2042-1-ND	digikey
18	300-00125		2 CAP	C143 C145			CAP CER 16V 10% X7R 0402	1nF	C0402		16V		
19	300-00126		1 CAP	C146			CAP CER 16V 10% X7R 0402	DNP	C0402		16V		
20	300-00011		1 CAP	C147	Murata	GRM188R60J106ME47D	CAP CERAMIC 10UF 6.3V X5R 0603	10uF	C0603	0.2	6.3V	490-3896-1-ND	Digikey
21	100-00121		1 CAP	C148			CAP CER 22UF 6.3V 20% X5R 0603	22uF	C0603	0.2	6.3V		Digikey
22	300-00127		2 CAP	C150 C154	AVX		CAP CER 10UF 10V 10% X5R 0805	10uF	C0805		10V	478-5167-1-ND	digikey
23	100-00123		3 CAP	C151 C152 C153	PANASONIC	ECJ-2FB0J106M	Capacitor,10UF,6.3 V,20 %, X5R,	10uF	C0805	0.2	6.3V		
24	300-00128		2 CAP	C155 C156	AVX		CAP CER 2.2UF 10V 10% X5R 0805	2.2uF	C0805		10V	478-5327-1-ND	digikey
25	300-00129		2 CAP	C157 C158	TDK		CAP CER 2.2UF 10V 10% X5R 0603	2.2uF	C0603		10V	445-5167-1-ND	digikey
26	300-00130		2 CAP	C161 C162	Taiyo Yuden	EMK212B7225KG-T	CAP CER 2.2UF 16V 10% X7R 0805	2.2uF	C0805		16V	587-1431-1-ND	digikey
27			1 CAP	C166	Samsung	CL10B822KB88NNNC	CAP CER 8200PF 50V X7R 0603	8200pf	C0603		50V	1276-2119-1-ND	digikey
28			1 CAP	C167	Samsung	CL10B153KB85FNC	CAP CER 0.015UF 50V X7R 0603	0.015uF	C0603		50V	1276-1967-1-ND	digikey
29	200-00010		2 FET_DIOD E	D1 D2	PANASONIC	LNJ208R8ARA	LED, RED, 3.0 VR, 0.2 IF,SURF. MOUNT	LED_SMT _RED_SM A	LED0603H 35				
30	200-00039		1 FET_DIOD E	D3	Lite-On Inc	LTST-C190EKT	LED YELLOW CLEAR 0603 SMD	LED_YELL OW	LED0603H 35			160-1437-6-ND	Digikey
31	200-00040		1 FET_DIOD E	D4	Lite-On Inc	LTST-C190EKT	LED RED ORANGE CLEAR 0603 SMD	LED_RED_ ORANGE	LED0603H 35			160-1182-1-ND	Digikey
32	320-00028		1 CONN	J1	Sullins Connector Solutions	SBH31-NBPB-D17-SP-BK	CONN HDR 1.27MM 34POS GOLD SMD	SBH31- NBPB-D17- SP-BK	male			59108-ND	digikey
33	120-00061		1 CONN	J2	SAMTEC	TSM-107-01-S-DV	CONN. 2X7 HEADER, SMT, DSP JTAG, Pin 6 removed	DSP JTAG Header	SAMTSM- 107-01-S- DV				
34	330-00013		1 MAGNETI CS	L1	Taiyo Yuden	LB3218T1R0M		LB 3218T1RO M	IND1207				
35			1 MAGNETI CS	L45	TDK Corporation	NLV32T-181J-EF	FIXED IND 180UH 60MA 17 OHM SMD	180uH	1210		60mA	445-16562-1-ND	digikey
36			1 MAGNETI CS	L46	EPCOS	B82432T1334K	FIXED IND 330UH 120MA 11 OHM SMD	330uH	1812		120mA	495-1762-1-ND	Digikey
37	330-00043		1 MAGNETI CS	L47	MURATA	LQH3NPN1R0NJOL	INDUCTOR POWER 1.0UH 1620MA 1212	1uH	1212		1620mA	490-5342-2-ND	Digikey
38	130-00042		2 MAGNETI CS	L48 L49	Taiyo Yuden	BKP2125H5600-T	Inductor Bead, 600Ohm, 0805, 100MHz	BKP2125H S600-T	IND0805			587-1932-1-ND	Digikey
39	130-00043		2 MAGNETI CS	L50 L51	Murata	BLM21PG221SN1D	Inductor Bead, 220Ohm, 0805, 100MHz	BLM21PG 221SN1D	IND0805			490-1054-1-ND	Digikey
40			1 MAGNETI CS	L52	Murata	LQH32CN471K23L	FIXED IND 470UH 60MA 19 OHM SMD	470uH	1210		60mA	490-2499-1-ND	digikey
41			1 MAGNETI CS	L53	TDK Corporation	NLFV32T-102K-EF	FIXED IND 1MH 20MA 27 OHM SMD	1mH	1210		20mA	445-15760-1-ND	digikey

42	480-00004		MTG_HOL 2 E_TP	MH1 MH2	TI	280-00004	MTG_HOLE,0.213 hole, 0.31 pad, plated	MH_PL_2 13	MH_213					
43	310-00029		3 RES	R2 R3 R97			Resistors, 0R, 5% - SMD, 0402	0R	R0402					
44	310-00042		2 RES	R4 R5			Resistors 5K49 5% - SMD, 0402	5K49	R0402					
45	310-00011		4 RES	R19 R20 R123 R124			Resistors, 680R, 5% - SMD, 0603	680R	R0603	0.05				
46	310-00045		1 RES	R22			Resistors 2K2 5% - SMD, 0402	2K2	R0402					
47	310-00151		2 RES	R39 R46			Resistors 56K 5% - SMD, 0402	56K	R0402					
48	310-00041		2 RES	R45 R84			Resistors 56R, 5% - SMD, 0402	56R	R0402					
49	310-00035		2 RES	R60 R61			Resistors,1K,5%, SMD,0402	1K	R0402					
50	310-00030		6 RES	R71 R72 R73 R74 R77 R78			Resistors, DNP - SMD, 0402 (do not populate)	DNP	R0402					
51	310-00014		1 RES	R85			Resistors 10K, 5% - SMD, 0603	10K	R0603	0.05				
52	110-00230		1 RES	R89			Resistors DNP - SMD, 0603 (Do NOT populate)	DNP	R0603					
53	310-00031		5 RES	R94 R95 R104 R105 R120			Resistors, 10K, 5% - SMD, 0402	10K	R0402					
54	310-00063		1 RES	R96	vishay	CRCW0402330RJNED		330R	R0402					
55			2 RES	R100, R121	Rohm Semiconductor	MCR03ERTF1500	RES SMD 150 OHM 1% 1/10W 0603	150	R0603		0.1W	RHM150CFCT-ND	Digikey	
56	110-00176		1 RES	R101	Panasonic	ERJ-3GEY1102V	RESISTOR,1K, 0.1W, 5%, 0603	1K	R0603	0.05	0.1W			
57	310-00036		1 RES	R106			Resistors,2K2,5%, SMD,0402	2K2	R0402					
58	310-00141		1 RES	R107			RES 1/16W 5% 0402 SMD	510k	R0402					
59	310-00142		1 RES	R108			RES 1/10W 1% 0402 SMD	120k	R0402					
60	310-00143		1 RES	R109			RES 1/10W 1% 0402 SMD	649k	R0402					
61	310-00144		1 RES	R110			RES 1/10W 1% 0402 SMD	422k	R0402					
62	310-00145		1 RES	R111			RES 1/10W 1% 0402 SMD	560k	R0402					
63	310-00146		1 RES	R112			RES 64.9K OHM 1/10W 1% 0603 SMD	64.9k	R0603			P64.9KHCT-ND	digikey	
64	310-00147		1 RES	R113			RES 39.2K OHM 1/10W 1% 0603 SMD	39.2k	R0603			P39.2KHCT-ND	digikey	
65	310-00148		1 RES	R114			RES 178K OHM 1/10W 1% 0402 SMD	178k	R0402			P178KLCT-ND	digikey	
66	310-00150		4 RES	R115 R116 R118 R119	Susumu	RR0816P-104-D	RES 100K OHM 1/16W .5% 0603 SMD	100k	R0603			RR08P100KQTR-ND	digikey	
67	310-00104		1 RES	R122			RES 10K OHM 1/10W 5% 0402 SMD	10k	R0402					
68	280-00005		MTG_HOL 13 E_TP	TP2 TP6 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18	TI		PC TEST POINT MINIATURE SMT	TP_CLIP_ 5015	TP_5015					
69	402-00027		1 IC	U15	Atmel	AT24C1024B-TH-T	IC EEPROM 1MBIT 1MHZ 8TSSOP	DNP	TSSOP8			DNP		
70	402-00067		1 IC	U17	TI	AFE032	AFE032	AFE032	RGZ					
71	400-00003		FET_DIOD 2 E	U24 U25	Diodes Inc	B350A-13-F	DIODE SCHOTTKY 3A 50V SMA	B350A-13- F	DO-214AB			B350A-FDICT-ND	digikey	
72	400-00026		FET_DIOD 1 E	U26	STMicroelectronics	SM15T6V8CA	TRANSIL 1500W 6.8V BIDIR SMC	DNP	DO-214AB			497-6488-2-ND	digikey	
73	400-00007		FET_DIOD 1 E	U27	On Semi	1SMB5931BT3	DIODE ZENER 3W 18V SMB	18V ZENER	DO-214AA			1SMB5931BT3GOSCT-ND	Digikey	
74	402-00078		1 IC	U32	TI	TMS320F28375_100pin	Soprano MCU	TMS320F 28375_10 0pin	PZP-(S- PQFP- G100)					
75	403-00014		2 POWER	U33 U34	TI	TPS3897-ADRYR	IC SUPERVISOR MPU ADJ 6SON	TPS3897	DRY			296-29810-2-ND	Digikey	
76	403-00015		1 POWER	U35	TI	TPS62080DSGT	IC REG BUCK SYNC ADJ 1.2A 8WSON	TPS62080	DSG			296-29645-2-ND	Digikey	
77	405-00009		1 OSC_XTAL	X1	Abracon Corporation	ABM3B-20.000MHZ-10-1-U-T		20Mhz OSC 20ppm	4-SMD (0.197" L x 0.126" W)					

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