

# Bill of Materials

TI DESIGNS  
TIDEP0044

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	BT1	CoinBatte ry3.1V	Coin battery 3.1V lithium	Seiko	MS920SE-FL27E	1P0003	Digikey	
2	121	C1 C7 C15 C16 C17 C18 C19 C20 C23 C24 C25 C27 C28 C29 C30 C31 C32 C34 C35 C36 C41 C42 C43 C45 C46 C47 C48 C50 C52 C53 C56 C61 C62 C63 C64 C66 C67 C68 C69 C70 C73 C74 C76 C77 C78 C79 C80 C82 C83 C87 C89 C90 C92 C93 C94 C96 C98 C111 C115 C116 C125 C126 C136 C137 C138 C139 C140 C155 C156 C161 C162 C163 C164 C165 C166 C167 C168 C169 C170 C174 C175 C181 C183 C186 C188 C189 C195 C202 C203 C208 C213 C215 C216 C217 C218 C219 C220 C221 C222 C223 C224 C225 C226 C227 C313 C314 C315 C316 C317 C318 C319 C321 C322 C323 C324 C325 C327 C328 C329 C331 C381	0.01uF	Capacitor 0.01uF 16V 10% 0402	Kemet	C0402C103K4RACT U	1C0012	Digikey	
3	2	C2 C3	25pF	Capacitor 25pF 100V 5% 0603	AVX	06031A250GAT2A	1C0090	Digikey	



15	1	C171	15pF	Capacitor Ceramic 15pF 50V 10% 0402	Kemet	C0402C150J5GACT U	1C0087	Digikey	
16	2	C172 C311	2.2uF	Capacitor 2.2uF 16V 10% 0805	Kemet	C0805C225K4RACT U	1C0097	Digikey	
17	2	C182 C185	150uF	Capacitor 150uF 10V 10% Tantalum Low ESR	Kemet	T495D157K010ATE 100	1C0110	Digikey	
18	2	C204 C212	22pF	Capacitor 22pF 50V 10% 0402	Yageo	CC0402JRNPO9BN2 20	1C0020	Digikey	
19	0	C205 C206 C207	DNI	DNI	DNI	DNI	DNI	DNI	
20	29	C232 C233 C234 C235 C236 C237 C238 C239 C240 C241 C245 C246 C247 C248 C249 C256 C257 C258 C259 C261 C266 C273 C274 C275 C276 C277 C278 C279 C312	10uF	Capacitor 10uF 16V 10% Ceramic 0805	AVX	0805YD106KAT2A	1C0085	Digikey	
21	0	C242 C243 C244	DNI	DNI	DNI	DNI	DNI	DNI	
22	6	C250 C251 C252 C253 C254 C255	4.7uF	Capacitor 4.7uF Ceramic, 6.3V, X5R, 20%	Taiyo Yuden	JMK107BJ475KA-T	1C0092	Digikey	
23	6	C262 C263 C265 C320 C326 C330	4.7uF	Capacitor Ceramic 4.7uF 16V 10% 0603	Taiyo Yuden	EMK107ABJ475KA- T	1C0103	Digikey	
24	4	C267 C269 C270 C280	22uF	Capacitor 22uF 16V Ceramic 10% 0805	TDK	C2012X5R1C226K	1C0094	Digikey	
25	0	C268	DNI	DNI	DNI	DNI	DNI	DNI	
26	2	C271 C272	0.1uF	Capacitor 0.1uF 50V 10% 0402 X7R	TDK	C1005X7R1H104K	1C0105	Digikey	
27	2	C332 C333	18pF	Capacitor Ceramic 18pF 50V 10% 0402	TDK	CGA2B2C0G1H180J	1C0098	Mouser	
28	1	C337	10pF	Capacitor 10pF 50V 1% Ceramic 0402	AVX	04025U100FAT2A	1C0115	Digikey	
29	0	C358 C359	DNI	DNI	DNI	DNI	DNI	DNI	
30	1	D1	B520C-13- F	Diode Power Rectifier 5A Schottky	Diodes Inc	B520C-13-F	1E0012	Digikey	
31	1	D2	SMCJ15C A	Voltage Surpressor 15.0V	LittleFuse	SMCJ15CA	1E0011	Digikey	

32	2	D3 D11	Green LED	LED Green SMD 20mA 2V 0805	Dialight	598-8170-107F	1F0008	Digikey	
33	0	D4 D5 D6 D7	DNI	DNI	DNI	DNI	DNI	DNI	
34	0	D8	DNI	DNI	DNI	DNI	DNI	DNI	
35	0	D9 D10	DNI	DNI	DNI	DNI	DNI	DNI	
36	1	F1	Fuse 4A	Fuse Block with 4A Fuse	Littelfuse	0154004.DRT	1P0004	Digikey	
37	0	FB1 FB3 FB7 FB11 FB12 FB13 FB21	DNI	DNI	DNI	DNI	DNI	DNI	
38	11	FB2 FB4 FB5 FB6 FB8 FB9 FB10 FB14 FB19 FB20 FB25	150OHM800mA	Ferrite Bead 150 Ohm 800mA	Steward	LI0805H151R-10	1L0010	Digikey	
39	2	FB15 FB16	600mAFB10ohm	Ferrite Bead 600mA 10ohm	TDK	HF70ACB201209	1L0028	Digikey	
40	3	FB22 FB23 FB24	220OHM2A	Ferrite Bead 220 Ohm 2A	TDK	MPZ1608S221A	1L0034	Digikey	
41	1	J1	Power Jack RAPC712	Jack Power Right Angle 2conductor 2.5mm center	Switchcraft	RAPC712X	2J0008	Digikey	
42	1	J2	CTI JTAG	Dual Line Header 10x2pin Tin	Samtec	FTR-110-03-G-D-06	2H0039	Samtec	
43	3	J3 J4 J6	Header_1 4x2	Header Socket 14x2 0.1in pitch throughhole Female	Major League Electronics	LSWSS-114-D-02-T-LF	2H0048	TBD	
44	1	J5	Header_2 0x2	Header Socket 20x2 0.1in pitch throughhole Female	Major League Electronics	LSWSS-120-D-02-T-LF	2H0050	TBD	
45	3	J7 J8 J9	Header_1 0x2	Header Socket 10x2 0.05in pitch throughhole female	Major League Electronics	SSHS-510-D-04-F	2H0052	Major League	
46	0	J10	DNI	DNI	DNI	DNI	DNI	DNI	
47	1	J11	MEC6_10 0pin	Connector MEC6 100pin right angle	Samtec	MEC6-150-02-S-D-RA1	2C0083	Samtec	
48	1	J12	Conn_DB 9M_TH	Connector DB9 Male RA Throughhole	Norcomp	182-009-113R531	2C0098	Digikey	
49	1	J13	MHC-W21-601	Connector SD/MMC	Morethanall	MHC-W21-601-LF	2C0089	Morethanall	



		R2 R3 R5 R8 R10 R30 R45 R51 R58 R59 R60 R63 R64 R73 R74 R75 R112 R113 R157 R159 R161 R163 R165 R167 R169 R171 R173 R175 R176 R177 R178 R179 R180 R181 R182 R183 R184 R186 R187 R189 R191 R196 R197 R198 R200 R201 R202 R204 R205 R206 R207 R209 R210 R212 R213 R214 R215 R216 R217 R219 R223 R226 R227 R230 R233 R234 R240 R241 R242 R243 R244 R245 R246 R247 R248 R249 R251 R252 R253 R254 R255 R256 R257 R258 R259 R260 R261 R262 R263 R264 R265 R266 R267 R268 R269 R270 R271 R272 R273 R327 R328 R335 R336 R337 R338 R339 R340 R341 R342 R343 R344 R345 R346 R347 R348 R349 R350 R351 R352 R353 R354 R355 R356 R357 R358 R361 R363 R379 R380 R385 R389 R396 R397 R398 R399 R400 R401 R402 R423 R424 R425 R427 R428 R430 R456 R457 R458 R459 R460 R485 R486 R487 R488 R489 R490 R491 R550 R551 R556 R560 R562 R575 R576 R577 R578 R579 R580 R581 R582 R583 R590 R592 R593 R632 R635 R638 R639							
66	177		0	Resistor Zero ohm Jumper 0402	Panasonic	ERJ-2GE0R00X	1R0098	Digikey	
67	23	R4 R86 R93 R94 R95 R96 R97 R98 R99 R100 R101 R102 R103 R104 R105 R106 R107 R108 R109 R110 R111 R386 R391	100K	Resistor 100Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT100K	1R0181	Digikey	

		R6 R48 R54 R114 R115 R116 R117 R118 R119 R120 R121 R122 R123 R124 R125 R126 R127 R128 R129 R239 R274 R306 R329 R330 R331 R332 R333 R334 R365 R366 R367 R368 R369 R370 R371 R372 R373 R382 R383 R387 R393 R409 R411 R412 R413 R414 R419 R422 R426 R431 R435 R455 R515 R518 R519 R544 R559 R569 R570 R585 R588 R596 R597 R627 R630 R633 R636							
68	68	R637	10K	Resistor 10Kohm 1/16W 5% 0402	Rohm	MCR01MZPJ103	1R0168	Digikey	
69	1	R7	1M	Resistor 1Mohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT1M00	1R0182	Digikey	

70	0	R9 R53 R55 R56 R57 R61 R62 R65 R66 R67 R68 R76 R77 R78 R84 R85 R87 R88 R89 R90 R91 R92 R133 R134 R135 R136 R137 R138 R139 R140 R141 R142 R143 R144 R145 R146 R147 R148 R149 R150 R151 R152 R153 R154 R155 R156 R193 R194 R199 R203 R208 R211 R218 R220 R221 R222 R224 R225 R228 R229 R232 R236 R250 R278 R279 R280 R281 R282 R283 R284 R285 R286 R287 R288 R289 R290 R291 R293 R294 R295 R296 R297 R298 R299 R300 R301 R302 R303 R305 R307 R308 R311 R312 R313 R314 R315 R316 R317 R318 R319 R320 R321 R322 R323 R324 R325 R362 R364 R384 R388 R404 R405 R410 R436 R437 R438 R439 R440 R441 R442 R443 R444 R445 R446 R447 R448 R449 R450 R451 R452 R478 R479 R492 R509 R510 R511 R512 R516 R561 R566 R571 R595	DNI	DNI	DNI	DNI	DNI	DNI	
71	3	R22 R624 R625	49.9	Resistor 49.9ohm 1/16W 1% 0402	Panasonic	ERA-2AEB49R9X	1R0171	Digikey	
72	0	R23	DNI	DNI	DNI	DNI	DNI	DNI	
73	2	R32 R46	0.05ohm1 % Sense	Resistor 0.05ohm 0.5W Sense 1% 1206	Ohmite	LVK12R050FER	1R0189	Digikey	
74	1	R50	150	Resistor 150ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT150R	1R0179	Digikey	
75	3	R69 R563 R564	1K	Resistor 1Kohm 1/16W 5% 0402	Panasonic	ERJ-2GEJ102X	1R0027	Digikey	





94	9	R493 R494 R495 R496 R498 R508 R513 R545 R546	0.24ohm1 % Sense	Resistor 0.24ohm 0.25W Sense 1% 0805	Susumu	RL1220S-R24-F	1R0193	Digikey	
95	8	R497 R499 R500 R503 R504 R505 R506 R507	2ohm1% Sense	Resistor 2ohm 0.25W Sense 1% 0805	Susumu	RL1220S-2R0-F	1R0192	Digikey	
96	2	R501 R502	1ohm1% Sense	Resistor 1ohm 0.25W Sense 1% 0805	Susumu	RL1220S-1R0-F	1R0191	Digikey	
97	1	R517	100	Resistor 100ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT100R	1R0236	Digikey	
98	1	R520	1.62M	Resistor 1.62Mohm 1/16W 1% 0402	Vishay/Dale	CRCW04021M62FK ED	1R0210	Digikey	
99	1	R521	180K	Resistor 180Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402JT180K	1R0209	Digikey	
100	0	R541 R542	DNI	DNI	DNI	DNI	DNI	DNI	
101	3	R567 R568 R587	2.2K	Resistor 2.2Kohm 1/16W 5% 0402	VishayDale	CRCW04022K20JN ED	1R0169	Digikey	
102	2	R572 R573	240	Resistor 240 ohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT240R	1R0219	Digikey	
103	1	R584	12K, 1%	Resistor 12Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402JT12K0	1R0245	Digikey	
104	0	R594	DNI	DNI	DNI	DNI	DNI	DNI	
105	0	R598	DNI	DNI	DNI	DNI	DNI	DNI	
106	24	R599 R600 R601 R602 R604 R605 R606 R607 R608 R609 R610 R611 R612 R613 R614 R615 R616 R617 R618 R619 R620 R621 R622 R623	47	Resistor 47ohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT47R0	1R0252	Digikey	
107	1	R603	10	Resistor 10ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT10R0	1R0251	Digikey	
108	0	SCKT1	DNI	DNI	DNI	DNI	DNI	DNI	
109	1	SW1	Slide Switch	Switch Slide SPDT 5A 120VAC RA	Eswitch	500ASSP1M6QE	2W0020	Digikey	
110	2	SW2 SW5	B3SL	Switch Push Button tactile	Omron	B3SL-1022P	2W0018	Digikey	

111	2	SW3 SW4	Switch8pos	DIP Switch 8pos smd	CTS Electrocomponents	219-8MST	2W0017	Digikey	
112	0	SW6	DNI	DNI	DNI	DNI	DNI	DNI	
113	22	TP23 TP24 TP31 TP32 TP35 TP36 TP38 TP39 TP40 TP41 TP42 TP43 TP44 TP45 TP46 TP47 TP48 TP49 TP50 TP51 TP52 TP53	TP1mm	Testpoint SMD 1mm circle pad	N/A	N/A	2H0046	N/A	
114	6	TP25 TP26 TP27 TP28 TP29 TP30	TP	Testpoint Miniature Through Hole	Keystone Electronics	5002	2H0026	Digikey	
115	1	U1	SN74AUP1G08	Single AND Logic Gate	TI	SN74AUP1G08DCK	1A0296	Digikey	
116	1	U4	TPS65910A3	Integrated Power Management Unit for DDR3	TI	TPS65910A3A1RSL	1A0303	Digikey	
117	1	U5	TPS71718	Low Dropout 1.8V 150mA Linear Regulator	TI	TPS71718DCK	1A0262	Digikey	
118	1	U7	CAT24C256W	EEPROM 256Kb I2C SOIC8	On Semiconductor	CAT24C256WI-G	1A0225	Digikey	
119	0	U9	DNI	DNI	DNI	DNI	DNI	DNI	
120	0	U10	DNI	DNI	DNI	DNI	DNI	DNI	
121	0	U11	DNI	DNI	DNI	DNI	DNI	DNI	
122	0	U12	DNI	DNI	DNI	DNI	DNI	DNI	
123	4	U13 U14 U15 U16	SN74AVC4T245	Bus Transceiver 4bit Voltage Translator	TI	SN74AVC4T245PW	1A0245	Digikey	
124	1	U17	TPS79501	Power Regulator LDO adjustable 500mA	TI	TPS79501DCQ	1A0161	Avneet	
125	1	U18	MAX3232E	Dual Channel RS-232 Line Driver/Receiver	TI	MAX3232ECD	1A0213	Digikey	
126	2	U19 U20	TPD6E001	ESD Protection Array 6Chan +-15kV	TI	TPD6E001RSE	1A0248	Digikey	
127	2	U21 U57	TPD2E001	ESD Protection Array 2Chan +-15kV	TI	TPD2E001DRL	1A0247	Digikey	



145	1	U64	SN74AVC 1T45	Dual Voltage Translator	TI	SN74AVC1T45DCK	1A0144	Digikey	
146	1	U6	SN74AUP 2G08	Low Power Dual AND Gate	TI	SN74AUP2G08DCU	1A0249	Digikey	
147	1	Y1	32.768KH z MC-306	Crystal 32.768KHz	Epson	MC-30632.7680k-A	1Y0029	Digikey	
148	1	Y2	24MHz	Crystal 24MHz	Suntsu	SCC18B- 24.000MHz TR	1Y0033	Suntsu Inc	
149	1	Y3	25MHz	Crystal 25MHz	Abracon	ABM3-25.000MHz- B2-T	1Y0030	Digikey	
150	1	Y4	12MHz	Crystal 12MHz 30ppm load cap 18pF	Abracon	ABM3-12.000MHz- D2Y-T	1Y0036	Digikey	

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