

Bill of Materials

TI DESIGNS
TIDA-00021

COUNT	RefDes	Value	DESCRIPTION	SIZE	PART NUMBER	MFR
11	C124, C159, C121,	1nF	Capacitor, Ceramic, 50	0603	Std	Std
0	C116, C117, C119,	Not used	Capacitor, Ceramic, 50	0402	Std	Std
5	C115, C118	33nF	Capacitor, Ceramic, 20	0603	Std	Std
29	C199, C201, C127,	0.1uF	Capacitor, Ceramic, 20	0603	Std	Std
3	C129, C133, C168	330uF	Capacitor, Aluminum, 7	7343	2TPF330M6	Sanyo
2	C13, C26	100pF	Capacitor, Ceramic, 50	0603	Std	Std
3	C131, C239, C246	10nF	Capacitor, Ceramic, 50	0603	Std	Std
0	C132, C167, C186, C187	Not used	Capacitor, Aluminum, 7	7343	2TPF330M6	Sanyo
0	C35, C78, C81, C134,	Not used	Capacitor, Ceramic, 50	0603	Std	Std
6	C76, C77	470uF	Capacitor, Aluminum, 2	D2T	2TPLF470M4E	Sanyo
0	C155, C156, C157, C158	Not used	Capacitor, Ceramic, 60	0805	Std	Std
1	C166	2.2uF	Capacitor, Ceramic, 60	0805	Std	Std
1	C17	0.33uF	Capacitor, Ceramic, 60	0603	Std	Std
1	C171	0.22uF	Capacitor, Ceramic, 50	0603	Std	Std
15	C80, C196, C202, C208,	1uF	Capacitor, Ceramic, 20	0603	Std	Std
7	C7, C135, C170	2.2 uF	Capacitor, Ceramic, 60	0603	Std	Std
3	C194, C197, C215	0.01uF	Capacitor, Ceramic, 50	0603	Std	Std
28	C10, C11, C27, C28,	10uF	Capacitor, Ceramic, 20	1206	Std	Std
2	C205, C206	10pF	Capacitor, Ceramic, 50	0603	Std	Std
0	C211, C212	Not used	Capacitor, Ceramic, 60	0603	Std	Std
2	C213, C214	22pF	Capacitor, Ceramic, 50	0603	Std	Std
2	C240, C248	0.22uF	Capacitor, Ceramic, 20	0402	Std	Std
2	C241, C249	220pF	Capacitor, Ceramic, 20	0402	Std	Std
2	C243, C251	680pF	Capacitor, Ceramic, 20	0402	Std	Std
2	C244, C252	100pF	Capacitor, Ceramic, 20	0402	Std	Std
2	C245, C253	1.8nF	Capacitor, Ceramic, 20	0402	Std	Std
2	C247, C254	2200pF	Capacitor, Ceramic, 20	0402	Std	Std
0	C32, C34	Not used	Capacitor, Aluminum, 2	D2T	2TPLF470M4E	Sanyo
44	C41, C42, C43, C45,	22uF	Capacitor, Ceramic, 60	0805	Std	Std
20	C59, C60, C61, C62,	10uF	Capacitor, Ceramic, 60	0805	Std	Std
0	C139, C142, C144,	Not used	Capacitor, Ceramic, 60	0805	Std	Std
1	C6	4.7uF	Capacitor, Ceramic, 60	0805	Std	Std
0	C96, C97, C98, C99	Not used	Capacitor, Ceramic, 60	0805	Std	Std
8	D12, D13, D14	GREEN	Diode, LED, Green Cle	0.079 X 0.049	LTST-C170GKT	Lite On
5	D4, D5, D7, D8, D11	RED	Diode, LED, Red Clea	0.079 X 0.049	LTST-C170CKT	Lite On
1	D6	BAT54	Diode, Schottky, 200-	SOT23	BAT54-V-GS08	Vishay-Liteon
1	FB1	74279266A	Bead, SMD Ferrite, 10	0603	74279266A	WE
9	J19, J21, J41	ED120/2DS	Terminal Block, 2-pin,	0.40 x 0.35 inch	ED120/2DS	OST
6	J31	PEC08DAAN	Header, Male 2x8 pin,	0.100 inch X2X8	PEC08DAAN	Sullins

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3	J14, J17, J18	PEC03SAAN	Header, Male 3-pin, 10	0.100 inch x 3	PEC03SAAN	Sullins
1	J22	ED555/2DS	Terminal Block, 2-pin,	0.27 x 0.25 inch	ED555/2DS	OST
0	J25, J26, J27, J28, J29	Not used	Header, Single pin	0.125 x 1 inch	8952-0-05-80-00-00-03-0	Mill-Max
1	J34	UX60-MB-5S8	Connector, Recept, US	0.354 X 0.303 Inches	UX60-MB-5S8	Std
1	J35	PEC14DAAN	Header, 2x7 pin, 100m	0.100 inch x 2X7	PEC14DAAN	Sullins
17	J23, J30, J32, J33, J36,	PEC02SAAN	Header, Male 2-pin, 1	0.100 inch x 2	PEC02SAAN	Sullins
5	L1, L2, L3, L4, L5	0.36uH	Inductor, Power Choke	10.0x11.5mm	FCUL1040-H-R36M	Toko
1	L6	0.42uH	Inductor, 17A, 1.5 mill	8.7x7.0mm	ETQP4LR42AFM	Panasonic
0	L8, L9	0.42uH	Inductor, 17A, 1.5 mill	8.7x7.0mm	ETQP4LR42AFM	Panasonic
1	L7	1.0uH	Inductor, 8.1A, 6.9 mil	7.3x6.6mm	ETQP3W1R0WFN	Panasonic
7	Q10	CSD87350Q5D	MOSFET, Dual N-Ch	QFN-8 POWER	CSD87350Q5D	TI
4	Q11, Q12, Q13, Q14	CSD16407Q5	MOSFET, Nch, 25V, 3	TDSON-8	CSD16407Q5	TI
1	Q15	BSS83P	MOSFET, Pch, -60V, -	SOT23	BSS83P	Infineon
6	Q18	BSS123	MOSFET, Nch, 100V,	SOT23	BSS123	Fairchild
1	R1	42.2k	Resistor, Chip, 1/16W	0603	Std	Std
0	R30, R35, R40, R128,	Not used	Resistor, Chip, 1/16W	0603	Std	Std
4	R101, R102, R118, R119	56.2k	Resistor, Chip, 1/16W	0603	Std	Std
1	R104	2.43k	Resistor, Chip, 1/16W	0603	Std	Std
7	R123, R141, R165, R166	30.1k	Resistor, Chip, 1/16W	0603	Std	Std
4	R108, R109, R124, R125	24.3k	Resistor, Chip, 1/16W	0603	Std	Std
22	R36, R41, R54, R58,	0	Resistor, Chip, 1/16W	0603	Std	Std
7	R215, R216, R217, R222	180	Resistor, Chip, 1/16W	0603	Std	Std
14	R150, R158, R183,	10.0k	Resistor, Chip, 1/16W	0603	Std	Std
5	R213, R218	1.00k	Resistor, Chip, 1/16W	0603	Std	Std
1	R139	10.5k	Resistor, Chip, 1/16W	0603	Std	Std
1	R152	22.1k	Resistor, Chip, 1/16W	0603	Std	Std
6	R127, R160	20.0k	Resistor, Chip, 1/16W	0603	Std	Std
1	R163	15.0k	Resistor, Chip, 1/16W	0603	Std	Std
4	R164, R237, R238, R239	2.00k	Resistor, Chip, 1/16W	0603	Std	Std
1	R167	51.1k	Resistor, Chip, 1/16W	0603	Std	Std
1	R168	1	Resistor, Chip, 1/16W	0603	Std	Std
3	R169, R170, R171	1	Resistor, Chip, 1/10W	0805	Std	Std
3	R172, R173, R178	0.01	Resistor, Chip, 1W, 1	2512	WSL2512R0100FEA	Vishay
5	R179, R180	0.05	Resistor, Chip, 1W, 1	2512	WSL2512R0500FEA	Vishay
1	R176	10.0k	Resistor, Chip Array, 6	1206	TC164-JR-0710KL	Yageo
7	R248, R260, R262	10.0k	Resistor, Chip, 1/16W	0402	Std	Std
2	R181, R189	0.005	Resistor, Chip, 1W, 1	2512	WSL25125L000FEA	Vishay
1	R182	8.06k	Resistor, Chip, 1/16W	0603	Std	Std
5	R190, R212	330	Resistor, Chip, 1/16W	0603	Std	Std
1	R192	100	Resistor, Chip, 1/16W	0603	Std	Std
10	R197, R198, R199,	1M	Resistor, Chip, 1/16W	0402	Std	Std
1	R2	130	Resistor, Chip, 1/16W	0402	Std	Std
20	R65, R71, R75, R85,	0	Resistor, Chip, 1/16W	0402	Std	Std
1	R21	200k	Resistor, Chip, 1/16W	0603	Std	Std
2	R210, R211	3.01k	Resistor, Chip, 1/16W	0603	Std	Std
1	R224	75	Resistor, Chip, 1/16W	0603	Std	Std
1	R225	130	Resistor, Chip, 1/16W	0603	Std	Std
1	R226	43.2	Resistor, Chip, 1/16W	0603	Std	Std
1	R227	1.50k	Resistor, Chip, 1/16W	0603	Std	Std

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2	R228, R229	33.2	Resistor, Chip, 1/16W	0603	Std	Std
1	R23	4.02k	Resistor, Chip, 1/16W	0603	Std	Std
2	R234, R236	470	Resistor, Chip, 1/16W	0603	Std	Std
1	R235	2.21k	Resistor, Chip, 1/16W	0603	Std	Std
2	R240, R241	2.74k	Resistor, Chip, 1/16W	0603	Std	Std
2	R242, R251	2.21	Resistor, Chip, 1/16W	0402	Std	Std
2	R244, R255	475k	Resistor, Chip, 1/16W	0402	Std	Std
2	R245, R257	5.62k	Resistor, Chip, 1/16W	0402	Std	Std
2	R252, R264	2.00k	Resistor, Chip, 1/16W	0402	Std	Std
1	R258	3.09k	Resistor, Chip, 1/16W	0402	Std	Std
1	R259	20.0k	Resistor, Chip, 1/16W	0402	Std	Std
7	R115, R162, R184	100k	Resistor, Chip, 1/16W	0603	Std	Std
1	R267	1.37k	Resistor, Chip, 1/16W	0402	Std	Std
0	R256, R266	Not used	Resistor, Chip, 1/16W	0402	Std	Std
1	R4	54.9	Resistor, Chip, 1/16W	0402	Std	Std
5	R42, R50, R64, R74, R86	17.8k	Resistor, Chip, 1/10W	0805	Std	Std
0	R66, R67, R77, R78,	Not used	Resistor, Chip, 1/16W	0402	Std	Std
5	R46, R56, R68, R79, R91	162k	Resistor, Chip, 1/16W	0603	Std	Std
0	R89, R137, R191, R223	Not used	Resistor, Chip, 1/16W	0603	Std	Std
5	R48, R59, R70, R84, R92	28.7k	Resistor, Chip, 1/16W	0603	Std	Std
7	R143, R146	10	Resistor, Chip, 1/16W	0603	Std	Std
1	R6	8.25k	Resistor, Chip, 1/16W	0603	Std	Std
2	R7, R22	15.4k	Resistor, Chip, 1/16W	0603	Std	Std
14	R29, R32, R34, R37,	2.21	Resistor, Chip, 1/16W	0603	Std	Std
0	R9, R19, R27, R33, R38	Not used	Resistor, Power 1W, 1	612	Std	Std
5	R121	39.2k	Resistor, Chip, 1/16W	0603	Std	Std
4	R95, R96, R112, R113	150k	Resistor, Chip, 1/16W	0603	Std	Std
4	R99, R100, R116, R117	75.0k	Resistor, Chip, 1/16W	0603	Std	Std
7	RT5, RT6, RT7	100k	NTC Thermistor, 100k	0603	NCP18WF104J03RB	Murata
2	S1, S4	EG1218	Switch, SPDT, Slide, F	0.457 x 0.157 inch	EG1218	E_Switch
2	S2, S3	SD02H0SB	SWITCH, 2 POS, SPST, LOW PROFILE, SMT		SD02H0SB	C & K
22	TP23, TP31, TP35,	5000	Test Point, Red, Thru	0.100 x 0.100 inch	5000	Keystone
73	TP10, TP11, TP13,	5002	Test Point, White, Thr	0.100 x 0.100 inch	5002	Keystone
2	TP30, TP46	131-4244-00	Adaptor, 3.5-mm prob	0.200 inch	131-4244-00	Tektronix
15	TP32, TP40, TP60,	5001	Test Point, Black, Thr	0.100 x 0.100 inch	5001	Keystone
1	U1	TPS59650RSL	7 VCORE CPU and	QFN-48	TPS59650RSL	TI
1	U12	TLC555CDR	CMOS	SO8	TLC555CDR	TI
1	U13	TS5A23157DGS	SPDT Analog Switch	DGS_10P	TS5A23157DGS	TI
1	U14	TLV3404IPW	Open Output	PW14	TLV3404IPW	TI
1	U15	TUSB3410RHB	Controller	QFN-32[RHB]	TUSB3410RHB	TI
1	U16	TMS320F2808PZS	Prgrammable	QFP-100	TMS320F2808PZS	TI
3	U17, U19, U20	SN74LVC2G07DCK	Trigger Inverter	DCK-6	SN74LVC2G07DCK	TI
1	U18	SN74AVC2T245RSW	SUPPLY BUS	RSW-10	SN74AVC2T245RSW	TI
3	U2, U3, U4	TPS51601ADRB	Voltage, Efficient	QFN-8	TPS51601ADRB	TI
1	U5	TPS51219RTE	Performance, Single	QFN-16	TPS51219RTE	TI
1	U6	TPS51916RUK	DDR3 and DDR3L	QFN-20	TPS51916RUK	TI
1	U7	TPS70102PWP	Regulator, 500-mA	PWP20	TPS70102PWP	TI
1	U8	TPS71712DCK	Wide Bandwidth, LDO	SC70	TPS71712DCK	TI
1	U9	SN74HC08D	Positive-And gates	SO14	SN74HC08D	TI

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2	U10, U11	UCC27324D	Speed Low-Side	SO8	UCC27324D	TI
0	U21, U22					
1	X1	ABLS-20.000MHZ-B2-T	Oscillators	0.150x0.528 inch	ABLS-20.000MHZ-B2-T	ABRACON
1	Y1	ABLS-12.000MHZ-B2-T	Oscillators	0.150x0.528 inch	ABLS-12.000MHZ-B2-T	ABRACON
1	XU1	rPGA 989	Socket, CPU	BGA-989	rPGA 989	Molex
1	PCB	HPA753A	x0.062"		HPA753A	Any
8	Jumper		for J10, J11, J12,	0.100"	2-382811-1	Tyco/AMP
4	Bumpon		transient	0.44"x0.2"	SJ5303	3M

Notes:

1. These assemblies are ESD sensitive, ESD precautions shall be observed.
2. These assemblies must be clean and free from flux and all contaminants.
Use of no clean flux is not acceptable.
3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
4. Ref designators marked with an asterisk (***) cannot be substituted.
All other components can be substituted with equivalent MFG's components.

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