

Bill of Materials

TI DESIGNS
TIDA-00020

COUNT	RefDes	Value	DESCRIPTION	SIZE	PART NUMBER	MFR
3	C1, C28, C163	220nF	Capacitor, Ceramic, 24	0603	Std	Std
29	C164, C180, C182,	0.1uF	Capacitor, Ceramic, 24	0603	Std	Std
10	C113, C118, C124,	1nF	Capacitor, Ceramic, 50	0603	Std	Std
0	C123, C159, C178, C179	Not used	Capacitor, Aluminum, 1	7343	EEFSX0D331XR	Panasonic
2	C14, C26	100pF	Capacitor, Ceramic, 50	0603	Std	Std
0	C147, C148, C149, C150	Not used	Capacitor, Ceramic, 6	0805	Std	Std
0	C37, C75, C126, C161,	Not used	Capacitor, Ceramic, 24	0603	Std	Std
1	C16	0.33uF	Capacitor, Ceramic, 24	0603	Std	Std
1	C160	2.2uF	Capacitor, Ceramic, 24	0805	Std	Std
12	C73, C187, C188, C190,	1uF	Capacitor, Ceramic, 24	0603	Std	Std
4	C18, C19, C20, C21	470uF	Capacitor, Aluminum, 1	D2T	2TPLF470M4E	Sanyo
5	C208, C125	0.01uF	Capacitor, Ceramic, 24	0603	Std	Std
2	C197, C198	10pF	Capacitor, Ceramic, 50	0603	Std	Std
6	C162, C184	2.2uF	Capacitor, Ceramic, 24	0603	Std	Std
2	C205, C206	22pF	Capacitor, Ceramic, 50	0603	Std	Std
0	C224, C227	Not used	Capacitor, Ceramic, 24	0402	Std	Std
1	C3	4.7uF	Capacitor, Ceramic, 24	0805	Std	Std
0	C35, C36	Not used	Capacitor, 2.5VDC Ma	D2T	2R5TPL330MFU	Sanyo
40	C43, C44, C45, C47,	22uF	Capacitor, Ceramic, 6	0805	Std	Std
24	C10, C11, C29, C30,	10uF	Capacitor, Ceramic, 24	1206	Std	Std
20	C61, C62, C63, C64,	10uF	Capacitor, Ceramic, 6	0805	Std	Std
0	C79, C80, C91, C92,	Not used	Capacitor, Ceramic, 6	0805	Std	Std
5	C158	330uF	Capacitor, Aluminum, 1	7343	2TPF330M6	Sanyo
0	C103, C104, C105,	Not used	Capacitor, Ceramic, 50	0402	Std	Std
4	C98, C102, C106, C110	33nF	Capacitor, Ceramic, 24	0603	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
7	J30	ED120/2DS	Terminal Block, 2-pin,	0.40 x 0.35 inch	ED120/2DS	OST
0	J13, J15, J33, J35, J44	Not used	Header, Male 2-pin, 1	0.100 inch x 2	PEC02SAAN	Sullins
9	J45, J46, J47, J48	PEC02SAAN	Header, Male 2-pin, 1	0.100 inch x 2	PEC02SAAN	Sullins
6	J22	PEC08DAAN	Header, Male 2x8 pin,	0.100 inch X2X8	PEC08DAAN	Sullins
0	J32, J34	Not used	Header, Male 2x8 pin,	0.100 inch X2X8	PEC08DAAN	Sullins
0	J10, J12, J36, J37, J38,	Not used	Header, Single pin	0.125 x 1 inch	8952-0-05-80-00-00-03-0	Mill-Max
3	J23, J26, J27	PEC03SAAN	Header, Male 3-pin, 10	0.100 inch x 3	PEC03SAAN	Sullins
1	J31	ED555/2DS	Terminal Block, 2-pin,	0.27 x 0.25 inch	ED555/2DS	OST
1	J42	UX60-MB-5S8	Connector, Recpt, US	0.354 X 0.303 Inches	UX60-MB-5S8	Std
0	J43	Not used	Header, 2x7 pin, 100m	0.100 inch x 2X7	PEC14DAAN	Sullins

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4	L1, L2, L3, L4	0.36uH	Inductor, Power Choke	10.0x11.5mm	FCUL1040-H-R36M	Toko
2	L5, L6	0.56uH	Inductor, Power Choke	10.0x11.2mm	FDUE1040J-H-R56M	Toko
6	Q1, Q2, Q3, Q4, Q7, Q9	CSD87350Q5D	MOSFET, Dual N-Ch	QFN-8 POWER	CSD87350Q5D	TI
4	Q10, Q11, Q12, Q13	CSD16407Q5	MOSFET, NChan, 25V	QFN5X6mm	CSD16407Q5	TI
1	Q14	BSS83P	MOSFET, Pch, -60V, -	SOT23	BSS83P	Infineon
6	Q17	BSS123	MOSFET, Nch, 100V,	SOT23	BSS123	Fairchild
1	R1	71.5k	Resistor, Chip, 1/10W	0603	Std	Std
7	R203, R204, R205, R209	180	Resistor, Chip, 1/10W	0603	Std	Std
19	R34, R42, R43, R54,	0	Resistor, Chip, 1/10W	0603	Std	Std
5	R200, R207	1.00k	Resistor, Chip, 1/10W	0603	Std	Std
14	R139, R147, R171,	10.0k	Resistor, Chip, 1/10W	0603	Std	Std
1	R128	10.5k	Resistor, Chip, 1/10W	0603	Std	Std
2	R130, R141	37.4k	Resistor, Chip, 1/10W	0603	Std	Std
1	R14	169k	Resistor, Chip, 1/10W	0603	Std	Std
1	R151	15.0k	Resistor, Chip, 1/10W	0603	Std	Std
4	R153, R223, R224, R225	2.00k	Resistor, Chip, 1/10W	0603	Std	Std
1	R156	51.1k	Resistor, Chip, 1/10W	0603	Std	Std
1	R157	1	Resistor, Chip, 1/10W	0603	Std	Std
3	R158, R159, R160	1	Resistor, Chip, 1/8W,	0805	Std	Std
7	R95, R96, R97	150k	Resistor, Chip, 1/10W	0603	Std	Std
3	R161, R162, R167	0.01	Resistor, Chip, 1W, 1/	2512	WSL2512R0100FEA	Vishay
5	R168, R169	0.05	Resistor, Chip, 1W, 1/	2512	WSL2512R0500FEA	Vishay
1	R165	10.0k	Resistor, Chip Array, 6	1206	TC164-JR-0710KL	Yageo
3	R17, R181, R194	10.0k	Resistor, Chip, 1/16W	0402	Std	Std
1	R170	8.06k	Resistor, Chip, 1/10W	0603	Std	Std
2	R172, R175	0.005	Resistor, Chip, 1W, 1/	2512	WSL25125L000FEA	Vishay
5	R179, R199	330	Resistor, Chip, 1/10W	0603	Std	Std
8	R184, R188, R189,	1M	Resistor, Chip, 1/16W	0402	Std	Std
1	R186	100	Resistor, Chip, 1/10W	0603	Std	Std
2	R192, R193	3.01k	Resistor, Chip, 1/10W	0603	Std	Std
7	R132, R135	10	Resistor, Chip, 1/10W	0603	Std	Std
1	R21	200k	Resistor, Chip, 1/10W	0603	Std	Std
1	R211	75	Resistor, Chip, 1/10W	0603	Std	Std
1	R212	130	Resistor, Chip, 1/10W	0603	Std	Std
1	R213	43.2	Resistor, Chip, 1/10W	0603	Std	Std
1	R214	1.50k	Resistor, Chip, 1/10W	0603	Std	Std
2	R215, R216	33.2	Resistor, Chip, 1/10W	0603	Std	Std
1	R22	4.12k	Resistor, Chip, 1/10W	0603	Std	Std
2	R221, R226	475	Resistor, Chip, 1/10W	0603	Std	Std
1	R222	2.21k	Resistor, Chip, 1/10W	0603	Std	Std
1	R227	2.74k	Resistor, Chip, 1/10W	0603	Std	Std
1	R24	309k	Resistor, Chip, 1/10W	0603	Std	Std
1	R3	54.9	Resistor, Chip, 1/16W	0402	Std	Std
4	R35, R44, R55, R65	17.8k	Resistor, Chip, 1/8W,	0805	Std	Std
12	R56, R64, R66, R70,	0	Resistor, Chip, 1/16W	0402	Std	Std
0	R126, R185, R210, R10,	Not used	Resistor, Chip, 1/10W	0603	Std	Std
4	R38, R50, R62, R68	162k	Resistor, Chip, 1/10W	0603	Std	Std
4	R39, R51, R63, R69	28.7k	Resistor, Chip, 1/10W	0603	Std	Std
1	R4	130	Resistor, Chip, 1/16W	0402	Std	Std

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0	R5, R48, R49, R60, R61	Not used	Resistor, Chip, 1/16W	0402	Std	Std
1	R6	8.45k	Resistor, Chip, 1/10W	0603	Std	Std
1	R7	42.2k	Resistor, Chip, 1/10W	0603	Std	Std
8	R99, R100, R152, R173	100k	Resistor, Chip, 1/10W	0603	Std	Std
6	R102, R103	75.0k	Resistor, Chip, 1/10W	0603	Std	Std
2	R8, R23	15.4k	Resistor, Chip, 1/10W	0603	Std	Std
6	R105, R106	56.2k	Resistor, Chip, 1/10W	0603	Std	Std
6	R108, R109	39.2k	Resistor, Chip, 1/10W	0603	Std	Std
8	R111, R112, R154, R155	30.1k	Resistor, Chip, 1/10W	0603	Std	Std
6	R114, R115	24.3k	Resistor, Chip, 1/10W	0603	Std	Std
12	R28, R31, R33, R124,	2.21	Resistor, Chip, 1/10W	0603	Std	Std
7	R117, R118, R149	20.0k	Resistor, Chip, 1/10W	0603	Std	Std
6	RT5, RT6	100k	NTC Thermistor, 100k	0603	NCP18WF104J03RB	Murata
2	S1, S4	EG1218	Switch, SPDT, Slide, R	0.457 x 0.157 inch	EG1218	E_Switch
2	S2, S3	SD02H0SB	SWITCH, 2 POS, SPST, LOW PROFILE, SMT		SD02H0SB	C & K
47	TP11, TP12, TP13,	5002	Test Point, White, Thr	0.100 x 0.100 inch	5002	Keystone
0	TP41, TP42, TP43,	Not used	Test Point, White, Thr	0.100 x 0.100 inch	5002	Keystone
24	TP20, TP28, TP32,	5000	Test Point, Red, Thru	0.100 x 0.100 inch	5000	Keystone
2	TP27, TP37	131-4244-00	Adaptor, 3.5-mm prob	0.200 inch	131-4244-00	Tektronix
16	TP29, TP36, TP51,	5001	Test Point, Black, Thr	0.100 x 0.100 inch	5001	Keystone
1	U1	TPS59640RSL	IC, 3+1-Phase IMVP-	QFN-48	TPS59640RSL	TI
1	U11	TLC555CDR	IC, Timer, Low-Power	SO8	TLC555CDR	TI
1	U12	TS5A23157DGS	IC, Dual 10 Ohms SPI	DGS_10P	TS5A23157DGS	TI
1	U13	TLV3404IPW	IC, Nano Power, Oper	PW14	TLV3404IPW	TI
1	U14	TUSB3410RHB	IC, USB to Serial Port	QFN-32[RHB]	TUSB3410RHB	TI
1	U15	TMS320F2806PZS	IC, CMOS Prgrammal	QFP-100	TMS320F2806PZQ	TI
2	U16, U18	SN74LVC2G07DCK	IC, Dual Schmitt-Trigg	DCK-6	SN74LVC2G07DCK	TI
1	U17	SN74AVC2T245RSW	IC, DUAL-BIT DUAL-S	RSW-10	SN74AVC2T245RSW	TI
2	U2, U3	TPS51601ADRB	IC, Dual High Voltage,	QFN-8	TPS51601ADRB	TI
1	U4	TPS51219RTE	IC, High Performance,	QFN-16	TPS51219RTE	TI
1	U5	TPS51916RUK	IC, Complete DDR2, D	QFN-20	TPS51916RUK	TI
1	U6	TPS70102PWP	IC, Dual Low DropOut	PWP20	TPS70102PWP	TI
1	U7	TPS71712DCK	IC, 150mA, Low Iq, W	SC70	TPS71712DCK	TI
1	U8	SN74HC08D	IC, Quadruple 2-Input	SO14	SN74HC08D	TI
2	U9, U10	UCC27324D	IC, Dual 4-A High Spe	SO8	UCC27324D	TI
1	X1	ABLS-20.000MHZ-B2-T	Crystal, Controlled Osi	0.150x0.528 inch	ABLS-20.000MHZ-B2-T	ABRACON
1	Y1	ABLS-12.000MHZ-B2-T	Crystal, Controlled Osi	0.150x0.528 inch	ABLS-12.000MHZ-B2-T	ABRACON
0	XU1	Not used	Socket, CPU	BGA-989	rPGA 989	Mollex
1	PCB	HPA751A	PCB: 6.220" x6.895" x0.062"		HPA751A	Any
10	Jumper		0.1", 2 contacts black	0.100"	2-382811-1	Tyco/AMP
4	Bumpon		Rubber bumpon transi	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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