

Bill of Materials

TI DESIGNS

TIDA-00874

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	1	C1	0.047uF	CAP, CERM, 0.047 µF, 25 V, +/- 10%, X7R, 0402	MuRata	GRM155R71E473KA88D	0402
2	8	C2, C11, C13, C14, C18, C39, C62, C64	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	Kemet	C0603C104K5RACTU	0603
3	1	C3	2.2uF	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X5R, 0805	TDK	C2012X5R1H225K125AB	0805
4	1	C4	1uF	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0805	MuRata	GRM21BR71H105KA12L	0805
5	5	C5, C21, C32, C38, C51	0.01uF	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H103KA01D	0603
6	1	C6	47uF	CAP, AL, 47 µF, 50 V, +/- 20%, 0.3 ohm, SMD	Panasonic	EEE-FC1H470P	SMT Radial G
7	1	C7	47uF	CAP, AL, 47 µF, 16 V, +/- 20%, 0.36 ohm, SMD	Panasonic	EEE-FK1C470P	SMT Radial D
8	1	C8	5600pF	CAP, CERM, 5600 pF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H562KA01D	0603
9	1	C9	4.7uF	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X7R, 1206	MuRata	GRM31CR71E475KA88L	1206
10	1	C10	0.47uF	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E474KA12D	0603
11	1	C12	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X5R, 0603	MuRata	GRM188R61H472KA01D	0603
12	4	C15, C22, C45, C52	10uF	CAP, AL, 10 µF, 16 V, +/- 20%, 1.35 ohm, SMD	Panasonic	EEE-FK1C100R	SMT Radial B
13	4	C16, C25, C48, C53	100pF	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	MuRata	GRM1885C1H101JA01D	0603
14	4	C19, C30, C36, C49	0.68uF	CAP, Film, 0.68 µF, 250 V, +/- 5%, TH	EPCOS Inc	B32652A3684J	18x9x17.5mm
15	4	C20, C31, C37, C50	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 1206	MuRata	GRM3195C1H102JA01D	1206
16	4	C23, C24, C44, C46	0.033uF	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H333KA61D	0603
17	2	C26, C41	1000uF	CAP, AL, 1000 µF, 50 V, +/- 20%, 0.034 ohm, TH	Panasonic	EEU-FC1H102	D16xL25
18	8	C27, C28, C42, C43, C55, C56, C57, C58	1uF	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1206	MuRata	GRM31MR71H105KA88L	1206
19	2	C33, C40	1uF	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	MuRata	GRM188R71C105KA12D	0603
20	1	C34	1uF	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	MuRata	GRM188R71C105KA12D	0603
21	13	C61, C103, C109, C110, C111, C112, C113, C114, C115, C116, C117, C213, C311	0.1uF	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0402	MuRata	GRM155R71C104KA88D	0402
22	1	C100	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H101JA01D	0402
23	3	C101, C306, C307	1000pF	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H102JA01D	0402
24	2	C102, C107	10uF	CAP, CERM, 10uF, 10V, +/-20%, X5R, 0603	TDK	C1608X5R1A106M	0603
25	1	C104	0.01uF	CAP, CERM, 0.01uF, 16V, +/-10%, X7R, 0402	TDK	C1005X7R1C103K	0402
26	2	C105, C106	47pF	CAP, CERM, 47pF, 25V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1E470JA01D	0402
27	1	C108	1uF	CAP, CERM, 1uF, 6.3V, +/-20%, X5R, 0402	TDK	C1005X5R0J105M	0402
28	15	C200, C201, C205, C206, C207, C211, C212, C214, C215, C216, C217, C301, C303, C305, C309	0.1uF	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402	MuRata	GRM155R71A104KA01D	0402
29	2	C202, C203	0.1uF	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	MuRata	GRM188R71C104KA01D	0603
30	5	C204, C210, C300, C302, C304	10uF	CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0603	MuRata	GRM188R61A106ME69	0603
31	3	C208, C308, C310	2.2uF	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X5R, 0402	TDK	C1005X5R1A225K050BC	0402
32	1	C209	0.01uF	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X7R, 0402	MuRata	GRM155R71C103KA01D	0402
33	1	D1	100V	Diode, Schottky, 100 V, 1 A, SMA	Diodes Inc.	B1100-13-F	SMA

34	1	D2	Orange	LED, Orange, SMD	Lite-On	LTST-C170KFKT	LED_0805
35	1	D4	Red	LED, Red, SMD	Lite-On	LTST-C170KRKT	LED_0805
36	3	D100, D200, D201	Green	LED, Green, SMD	Lite-On	LTST-C171GKT	LED_0805
37	1	D101	Blue	LED, Blue, SMD	Rohm	SMLP12BC7TT86	Blue LED
38	2	FB100, FB101	220 ohm	2.2A Ferrite Bead, 220 ohm @ 100MHz, SMD	TDK	MPZ1608S221A	0603
39	5	H1, H2, H3, H4, H5		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	Screw
40	5	H6, H7, H8, H9, H10		Standoff, Hex, 0.5"L #4-40 Nylon	Keystone	1902C	Standoff
41	1	HEATSINK1		Heat Sink, Vertical	Advanced Thermal Solutions	ATS-TI1OP-519-C1-R3	Heatsink
42	3	J1, J6, J13		Binding Post, RED, TH	Keystone	7006	11.4x27.2mm
43	3	J2, J9, J17		Binding Post, BLACK, TH	Keystone	7007	11.4x27.2mm
44	7	J3, J4, J200, J201, J202, J204, J205	1x3	Header, 100mil, 3x1, Gold, TH	Sullins Connector Solutions	PBC03SAAN	PBC03SAAN
45	1	J10		Header, 100mil, 4x2, Tin, TH	Sullins Connector Solutions	PEC04DAAN	Header, 4x2, 100mil, Tin
46	1	J11		Header (friction lock), 100mil, 4x1, Gold, TH	Molex	0022112042	Header 4x1 keyed
47	1	J14		Header, 100mil, 2x1, Gold, TH	Sullins Connector Solutions	PBC02SAAN	Sullins 100mil, 1x2, 230 mil above insulator
48	1	J100		Connector, Receptacle, Micro-USB Type AB, R/A, Bottom Mount SMT	JAE Electronics	DX4R205JJAR1800	Connector, USB Micro AB
49	1	J203		RCA Jack, Red, R/A, TH	Keystone	971	PC Mount Phono Jack-Red, TH
50	1	J206		Header (shrouded), 2.54 mm, 17x2, Gold, TH	3M	N2534-6002-RB	Header (shrouded), 2.54 mm, 17x2, TH
51	1	L1	100uH	Inductor, Shielded Drum Core, Ferrite, 100 µH, 1.5 A, 0.165 ohm, SMD	Würth Elektronik eiSos	7447714101	10x5x10mm
52	4	L2, L3, L4, L5	7uH	Inductor, Toroid, Powdered Iron, 7 µH, 6.5 A, 0.0215 ohm, TH	Coilcraft	MA5173-AE	28.6x12.3mm
53	1	L200	120 ohm	Ferrite Bead, 120 ohm @ 100 MHz, 0.4 A, 0402	TDK	MMZ1005Y121C	0402
54	2	Q1, Q3	60V	MOSFET, N-CH, 60 V, 0.17 A, SOT-23	Diodes Inc.	2N7002-7-F	SOT-23
55	1	Q100	0.3V	Transistor, NPN, 40V, 0.15A, SOT-23	Fairchild Semiconductor	MMBT2222A	SOT-23
56	1	R1	182k	RES, 182 k, 1%, 0.125 W, 0805	Panasonic	ERJ-6ENF1823V	0805
57	4	R2, R207, R305, R306	4.99k	RES, 4.99 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04024K99FKED	0402
58	2	R3, R205	1.00k	RES, 1.00 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021K00FKED	0402
59	1	R4	0.002	RES, 0.002, 1%, 1 W, 1206	Stackpole Electronics Inc	CSNL1206FT2L00	1206
60	8	R5, R6, R9, R18, R21, R41, R42, R101	0	RES, 0, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06030000Z0EA	0603
61	6	R7, R10, R19, R22, R37, R39	100	RES, 100, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603100RFKEA	0603
62	5	R8, R11, R13, R17, R20	3.3	RES, 3.3, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06033R30JNEA	0603
63	1	R12	22.0k	RES, 22.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0722KL	0603
64	1	R14	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0FKEA	0603
65	1	R15	20.0k	RES, 20.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0720KL	0603
66	1	R16	30.0k	RES, 30.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0730KL	0603
67	4	R24, R25, R26, R27	3.3	RES, 3.3, 5%, 1 W, 2010	Bourns	CRM2010-JW-3R3ELF	2010
68	2	R29, R33	10.0k	RES, 10.0 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD0710KL	0603
69	4	R30, R100, R116, R209	100k	RES, 100k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW0402100KFKED	0402
70	2	R34, R36	1.00k	RES, 1.00 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031K00FKEA	0603
71	2	R102, R103	4.99k	RES, 4.99k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW04024K99FKED	0402
72	22	R104, R105, R107, R108, R201, R202, R203, R204, R210, R211, R212, R213, R214, R215, R216, R217, R218, R219, R220, R221, R222, R223	49.9	RES, 49.9 ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040249R9FKED	0402
73	1	R106	3.09k	RES, 3.09k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW04023K09FKED	0402
74	1	R109	15.0k	RES, 15.0k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040215K0FKED	0402
75	1	R110	1.50k	RES, 1.50k ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW04021K50FKED	0402
76	2	R111, R112	27.4	RES, 27.4 ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW040227R4FKED	0402

77	2	R113, R114	360	RES, 360 ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW0402360RJNED	0402
78	1	R115	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040210K0FKED	0402
79	1	R200	33.0	RES, 33.0, 1%, 0.1 W, 0402	Panasonic	ERJ-2RKF33R0X	0402
80	2	R206, R208	360	RES, 360, 5%, 0.063 W, 0402	Vishay-Dale	CRCW0402360RJNED	0402
81	1	R300	10	RES, 10, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060310R0JNEA	0603
82	4	R301, R302, R303, R304	499	RES, 499, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603499RFKEA	0603
83	1	R307	10.0k	RES, 10.0 k, 1%, 0.1 W, 0402	Panasonic	ERJ-2RKF1002X	0402
84	4	S1, S100, S200, S300		Switch, Tactile, SPST-NO, 0.05A, 12V, SMT	E-Switch	TL1015AF160QG	Switch, 4.4x2x2.9 mm
85	9	SH1, SH2, SH3, SH4, SH5, SH6, SH7, SH8, SH9	1x2	Shunt, 100mil, Gold plated, Black	3M	969102-0000-DA	Shunt
86	1	U1		High Voltage 1A Step Down Switching Regulator, 10-pin LLP, Pb-Free	Texas Instruments	LM5010ASD/NOPB	SDC10A
87	1	U2		1A Low Dropout Regulator, 4-pin SOT-223, Pb-Free	Texas Instruments	LM2940IMP-12/NOPB	MP04A
88	1	U3		150W Stereo/300W MONO PurePath HD Analog-input Power Stage, DDV0044D	Texas Instruments	TPA3251D2DDVR	DDV0044D
89	1	U100		EEPROM, 256KBIT, 400KHZ, MSOP8	Microchip	24LC256-I/MS	MSOP-8
90	1	U101		Cap-Free, NMOS, 400mA Low-Dropout Regulator with Reverse Current Protection, DBV0005A	Texas Instruments	TPS73633DBV	DBV0005A
91	1	U102	TAS1020BPFB	IC, USB Streaming Controller	TI	TAS1020BPFB	PQFP48
92	1	U200		Photolink- Fiber Optic Receiver, TH	Everlight	PLR135/T10	13.5x10x9.7mm
93	4	U201, U202, U204, U205		Low-power buffer gate; 3-state, SOT553	NXP Semiconductor	SN74AUP1G125DRLR	SOT553
94	1	U203		216 SPS High-end Combo Sample Rate Converter, 144dB, 1.8 / 3.3V, -40 to 85 degC, 48-Pin TQFP (PFB), Green (RoHS & no Sb/Br)	Texas Instruments	SRC4392IPFBR	PFB0048A
95	1	U206		Single Output Low Noise LDO, 400 mA, Fixed 1.8 V Output, 1.7 to 5.5 V Input, with Reverse Current Protection, 5-pin SOT-23 (DBV), -40 to 85 degC, Green (RoHS & no Sb/Br)	Texas Instruments	TPS73618DBVR	DBV0005A
96	1	U300		4.2VRMS DirectPath™, 114dB Audio Stereo Differential-Output DAC with 32-bit, 384kHz PCM Interface, RHB0032E	Texas Instruments	PCM5242RHBR	RHB0032E
97	1	Y100		Oscillator, 6MHz, 3.3V, SMD	CTS Electrocomponents	625L3I006M00000	2.5x1x2.5mm
98	0	C54, C59, C60, C63	22pF	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	MuRata	GRM1885C1H220JA01D	0603
99	0	CLIP_OTW, FAULT, LRCLK, MCLK, OUTA, OUTB, OUTC, OUTD, RESET, SCL, SCLK, SDA, SDOOUT	Orange	Test Point, Miniature, Orange, TH	Keystone	5003	Orange Miniature Testpoint
100	0	FID1, FID2, FID3, FID4, FID5, FID6		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial
101	0	PVDD-AB, PVDD-CD	Red	Test Point, Multipurpose, Red, TH	Keystone	5010	Red Multipurpose Testpoint
102	0	R23, R28, R32, R40	10.0k	RES, 10.0 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD0710KL	0603

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