

Bill of Materials

i1 DESIGNS

TIDA-080002

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	0	C1,C17	0.1uF	CAP CER 10UF 16V X7R 0402	TDK	C1005X7R1C104K050BC		0402_AVXA	
2	30	C2,C3,C4,C9,C10,C20,C22,C23,C24,C25,C27,C28,C29,C30,C31,C32,C33,C35,C36,C39,C49	0.1uF	0.10uF 50V Ceramic Capacitor X7R 0402	TDK	C0A2B3X7R1H104K050BB		402	
3	2	C5,C55	10uF	CAP CERAMIC 10UF 6.3V X5R 0603	TDK	C1608X5R0J106M080AB		603	
4	5	C6,C11,C12,C13,C16	22uF	22uF +20% 35V J8 1206	Murata	C3216JB1V22BM160AC		1206	
5	14	C7,C14,C18,C45,C46,C47,C59,C60,C61,C62,C64,C68,C77,C79	0.1uF	CAP CER 10UF 16V X7R 0402	TDK	C1005X7R1C104K050BC		0402_AVXA	
6	2	C8,C15	10uF	10uF 35V Ceramic Capacitor X5R 0805	Murata	GRM21BRMYA108KE43L		805	
7	1	C19	0.22uF	CAP CER 22UF 6.3V X7R 10% 0402	Taiyo Yuden	JMK106B7224KVJ-F		402	
8	8	C21,C26,C34,C43,C48,C50,C71,C74	2.2uF	2.2uF 25V Ceramic Capacitor X5R 0603	Taiyo Yuden	TMK107ABJ225KA-T		603	
9	1	C37	680pF	680pF 50V Ceramic Capacitor X7R 0402	Yageo	CC0402KRX7R9BB661		402	
10	1	C38	39.0nF	0.039uF 10V Ceramic Capacitor X5R 0402	Murata	GRM155R61A393KA01D		402	
11	3	C40,C56,C57	47uF	47uF 10V Ceramic Capacitor X5R 1206	Murata	GRM31CR61A476KE15L		1206	
12	1	C41	56pF	56pF 50V Ceramic Capacitor C0G, NP0 0805	Yageo	C0805J1RNP0805N60		805	
13	1	C42	3300pF	3300pF 25V Ceramic Capacitor X7R 0805	Murata	GRM21BR71E332KA01D		805	
14	1	C44	0.47uF	CAP CER 0.47UF 35V 10% X5R 0402	TDK	C1005X5R1V47K050BC		402	
15	0	C52	47uF	47uF 10V Ceramic Capacitor X5R 1206	Murata	GRM31CR61A476KE15L		1206	
16	1	C53	100uF	100uF 6.3V Ceramic Capacitor X5R 1206	Murata	GRM31CR60J107ME39L		1206	
17	1	C54	4.7uF	CAP CER 4.7UF 6.3V 20% X5R 0402	TDK	C1005X5R0J475M		402	
18	1	C69	10nF	10000pF 25V Ceramic Capacitor X7R 0402	Murata	GRM155R71E103KA01D		402	
19	2	C72,C73	180pF	180pF 50V Ceramic Capacitor C0G, NP0 0402	Murata	GRM1555C1H180JA01D		402	
20	1	C78	1uF	CAP CER 1.0UF 10V X5R 0402	TDK	C1005X5R1A105M		402	
21	1	DN1	BAT54C	Diode Array 1 Pair Common Cathode Schottky 30V 200mA	Diodes Inc.	BAT54C-7-F		SOT-23-3	
22	1	D1	green	LED S65NM WTR CLR GREEN 1206 SMD	Lumex	SML-LX1206CG-TR		1206	
23	8	D2,D3,D4,D6,D7,D8,D9,D10	blue	LED INGAN/5IC U-BLUE CLR 1206SMD	Lumex	SML-LX1206USBC-TR		1206	
24	1	D5	blue	LED INGAN/5IC U-BLUE CLR 1206SMD	Lumex	SML-LX1206USBC-TR		1206	
25	5	F81,F82,F83,F84,F85	BKP1005EM121-T	120 Ohm 1/2 Power Line Ferrite Bead 0402	Taiyo Yuden	BKP1005EM121-T		402	
26	1	F1	5A	FUSE BRD MNT 5A 32VAC 35VDC 1206	Littlefuse	0437005.WR		1206	
27	1	J1	HDR,14P,2R	CONN HEADER 14POS .100in DL GOLD	Samtec	TSW-107-14-G-D		HDR14	
28	0	J2	FX6A-40S-0.85V2	CONN RECEPT 40POS .8MM W/O BOSS +2mm stacking height	Hirose	FX6A-40S-0.85V2(T71)		conn40_FX6A-40S-0p85V2_hrs	
29	1	J3	HDMI Type C (Mini) Receptacle /w MHL	HDMI - Mini Receptacle Connector	CNC Tech	20011-1-2-21-00-BK		conn19_hdmi_c_20011-2-21-00-BK_CnC	
30	1	J4	QTH-030-02-L-D-A	CONN HEADER HS .5MM 60POS DL AU (stacking ht 8mm)	Samsumg	QTH-030-02-L-D-A		Samtec_QTH-030-xx-x-D-A	
31	0	J5	HDR,2P,1R	CONN HEADER 2POS .100 VERT GOLD	Molex	22112022		22Series_2P	
32	0	J6A	M20-8770246	2 Positions Header, Unshrouded	Harwin	M20-9990245		HDR2P_1R	
33	1	J6	PJ-082BH	CONN PWR JACK 2.5X5.5MM SOLDER	CUI Inc	PJ-082BH		jack2_pj-082bh_cui	
34	0	J7	S4B-EH(LF)(SN)	CONN HEADER EH SIDE 4POS 2.5MM	JST	S4B-EH(LF)(SN)		CONN4-S4B-EH_JST	
35	1	J8	CONN HEADER 2POS .100 VERT GOLD	CONN HEADER 2POS .100 VERT GOLD	Molex	22112022		22Series_2P	
36	1	J10	USB - mini B USB 2.0 OTG Receptacle Connector 5 Pos, SMT,	USB-mini B USB 2.0 OTG	Molex	675031020		conn5_usb_b_mini MOLEX	
37	1	L1	33uH	Inductor 33 uH 20 % 2.6 A	Coilcraft	MSS1246-333MLB		IND02_MSS1246_COIL	
38	1	L2	10uH	Inductor 15 uH 6 A 20% SMD	Coilcraft	XAL8080-103MEB		IND02_XAL8080_COILCRAFT	
39	1	L3	2.2uH	INDUCTOR 2.2UH 20% 1300MA 1008	Murata	LQM2HPN2R2MG0L		1008_2p5mmx2mm	
40	1	Q1	DMN26D0UT-7	MOSETF N-CH 20V 230MA SOT523	Diodes Inc	DMN26D0UT-7		SOT_523	
41	6	RP1,RP2,RP3,RP4,RP5,RP6	22	RES ARRAY 4 RES 22 OHM 0804	Panasonic	EXB-NRV220X		rres18-exb8rv_pan	
42	0	R1,R17,R18,R17,R44,R48,R88,R89,R90,R91	0	RES 0 OHM 1/16W 0402 SMD	Panasonic	ERJ-2GE0R00X		402	
43	16	R2,R4,R9,R14,R29,R34,R39,R42,R43,R45,R53,R62,R63,R70,R71,R78	0	RES 0 OHM 1/16W 0402 SMD	Panasonic	ERJ-2GE0R00X		402	
		R3,R7,R16,R19,R20,R21,R23,R24,R26,R27,R36,R48,R50,R56,R67,R74,R76,R77,R79,R87,R	0	RES 0 OHM 1/16W 0402 SMD	Panasonic	ERJ-2GE0R00X		402	
44	21	93	10k	RES SMD 10K OHM 1% 1/10W 0402	Panasonic	ERJ-2RKF1002X		402	
45	8	R5,R25,R64,R65,R66,R69,R82,R83	22	RES SMD 22 OHM 1% 1/10W 0402	Panasonic	ERJ-2RKF22R0X		402	
46	2	R6,R84	1M	RES 1M OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1004X		402	
47	0	R8	10k	RES SMD 10K OHM 1% 1/10W 0402	Panasonic	ERJ-2RKF1002X		402	
48	2	R10,R13	274k	RES SMD 274K OHM 1% 1/16W 0402	Vishay Dale	CRCW0402274RPFKEED		402	
49	2	R11,R15	30.9k	RES SMD 30.9K OHM 1% 1/16W 0402	Vishay Dale	CRCW0402309KPFKEED		402	
50	1	R12	95.3k	RES SMD 95.3K OHM 1% 1/16W 0402	Vishay Dale	CRCW040295KPFKEED		402	
51	2	R22,R55	47k	RES 47.0K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF4702X		402	
52	2	R28,R31	100k	RES SMD 100K OHM 1% 1/16W 0402	Vishay Dale	CRCW0402100KPFKEED		402	
53	1	R30	2.15k	RES SMD 2.15K OHM 1% 1/16W 0402	Vishay Dale	CRCW04022K15PFKEED		402	
54	1	R32	97.6k	RES SMD 97.6K OHM 1% 1/16W 0402	Vishay Dale	CRCW0402976KPFKEED		402	
55	1	R33	10.7k	RES SMD 10.7K OHM 1% 1/16W 0402	Vishay Dale	CRCW040210KPFKEED		402	
56	1	R35	19.1k	RES SMD 19.1K OHM 1% 1/8W 0805	Panasonic	ERJ-6ENF1912V		805	
57	6	R38,R40,R41,R51,R52,R54	30.1	RES 30.1 OHM 1/16W 1% 0402 SMD	Panasonic	ERJ-2RKF30R1X		402	
58	2	R46,R47	180k	RES 180K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07180KL		402	
59	2	R49,R59	100k	RES 100K OHM 1/10W 1% 0402 SMD	Vishay/Dale	CRCW0402100KPFKEED		402	
60	8	R57,R58,R72,R73,R75,R85,R86,R94	10	RES 10.0 OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF10R0X		402	
61	1	R60	1k	RES SMD 1K OHM 1% 1/16W 0402	Yageo	RC0402FR-071KL		402	
62	1	R61	100	RES 100 OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1000X		402	
63	1	R80	3.16k	RES SMD 3.16K OHM 1% 1/10W 0603	Panasonic	ERJ-3EKF3161V		603	
64	1	R81	1.5k	RES 1.50K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1501X		402	
65	1	R92	32.4k	RES SMD 32.4K OHM 1% 1/10W 0402	Panasonic	ERJ-2RKF3242X		402	
66	1	R95	150	150 Ohm ±1% 0.1W 1/10W Surface Mount Resistor Thick Film ±100ppm/°C 0402	Panasonic	ERJ-2RKF1500X		402	
67	0	SW1	TL110SF100Q	Tactile Switch SPST NO Top Actuated Through Hole	E-Switch	TL110SF100Q		SW4-TL11055P_ESWITCH	
68	1	SW2	GT11MSCBE	SWITCH TOGGLE SPDT ULTRAMINI SMD	C&K	GT11MSCBE		GT11MSCBE	
69	6	TPGND1,TPGND2,TPGND3,TPGND4,TPGND5,TPGND6	TP- BLK	TEST POINT PC MINI 040inD BLACK	Keystone	5001		keystone to miniatur	
70	0	TP1,TP2,TP4,TP5,TP6,TP7,TP8,TP9,TP10,TP11,TP12,TP13,TP27,TP31,TP83,TP84	TP,12mil Drill,32mil Pad		— NOT A PART —			tp-30rd12	
71	0	TP3,TP26,TP29,TP30,TP48,TP51,TP52,TP53,TP54,TP68,TP69,TP70,TP71,TP82	TP,40mil Drill,60mil Pad		— NOT A PART —			HOLE PLATED 40MIL DRILL 60MIL PAD	
		TP14,TP15,TP16,TP17,TP18,TP19,TP20,TP21,TP22,TP23,TP24,TP25,TP26,TP32,TP33,TP							
		34,TP35,TP36,TP37,TP38,TP39,TP40,TP41,TP42,TP43,TP44,TP45,TP46,TP47,TP48,TP50							
		TP58,TP59,TP60,TP61,TP62,TP63,TP64,TP65,TP66,TP67,TP72,TP73,TP74,TP75,TP76,T							
72	0	P77,TP78,TP79,TP80,TP81	TP,20mil PAD		— NOT A PART —			tp20rd	
73	0	TP55,TP56,TP57,TP85,TP86,TP87,TP88	TP40		— NOT A PART —			tp40	
74	4	U1,U22,U23,U24	SN74AUP1G07DCK	IC BUFF/DVR LOW PWR N-INV SC705, open drain	Texas Instruments	SN74AUP1G07DCKR		U_5_DCK	
75	2	U2,U3	TPD4E05U06DQAR	TVS DIODE 5.5VWM 14VC 10SON	Texas Instruments	TPD4E05U06DQAR		SOIC10-2510P8_SEM	

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
76	1	U4	TPS2061CDBVT	IC PWR DIST SWITCH 5GL SOT23-5	Texas Instruments	TPS2061CDBVT		SOICS-DBV_T1	
77	3	U5,U13,U17	TPD2E001DRY	IC ESD-PROT ARRAY 2CH 6-SON	Texas Instruments	TPD2E001DRYR		U_6_DRY	
78	1	U6	TC7WB66CFR	Bus Switch 2 x 1:1 MPB	Toshiba	TC7WB66CFR LF		8-VF50P	
79	1	U7	TPS54335ADDAR	IC REG BCK ADJ 3A SYNC 8SOPWRPAD	Texas Instruments	TPS54335ADDAR		HSOIC8_DDA_R-PDSO-G8	
80	1	U8	TPS54335ADDAR	IC REG BCK ADJ 3A SYNC 8SOPWRPAD	Texas Instruments	TPS54335ADDAR		8-SO-PWRPAD_DDA_R-PDSO-G8	
81	0	U9	SN74AUP1G07DCK	IC BUFF/DVDR LOW PWR N-INV SC705, open drain	Texas Instruments	SN74AUP1G07DCKR		U_5_DCK	
82	2	U10,U15	SN74AVC4T245RSV	IC BUS TRANSCVR 4BIT 16-UQFN	Texas Instruments	SN74AVC4T245RSVR		UQFN16_RSV_R-PQFP-N16	
83	5	U11,U18,U19,U26,U27	SN74AUP1G06DCK	IC INVERTER SINGLE 1INPUT SC705, open drain	Texas Instruments	SN74AUP1G06DCKR		U_5_DCK	
84	1	U12	CY7C65215-32LTXI	IC USB TO UART BRIDGE DUAL 32QFN	Cypress	CY7C65215-32LTXI		CY7C65215_32pin_QFN	
85	1	U14	TPS62260DDCT	IC REG BUCK SYNC ADJ TSOT23-5	Texas Instruments	TPS62260DDCT		TSOT-23_DDC_R-PDSO-G5	
86	1	U16	TPD2E2U06	TVS DIODE 5.5VWM 12.4VC SSOT	Texas Instruments	TPD2E2U06DRLR		SOICS-DRL_T1	
87	1	U20	M24C02-WMN	IC EEPROM 2KBIT 400KHZ 8SO	STMicroelectronics	M24C02-WMN6TP		S08	
88	1	U21	ITE6801FN	Single-port MHL2.1/HDMI1.4 Receiver	ITE	ITE6801FN		ITE6801_76pin_QFN	
89	1	U25	MSP430F5529IPN	IC MCU 16BIT 128KB FLASH 80LQFP	Texas Instruments	MSP430F5529IPN		PQFP80-PN_T1	
90	1	X1	27MHz	27MHz ±30ppm Crystal 18pF 60 Ohm	CTS	403C36D27M00000		osc4_model403_CTS	