

Bill of Materials

TI DESIGNS

TIDA-00325 Main Board (2513854)

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	5	C1,C2,C40,C41,C63	100uF	CAP CER 100UF 16V 20% X5R 1210	Taiyo Yuden	EMK325ABJ107MM-T		1210	
2	59	C3,C7,C8,C9,C10,C12,C14,C16,C17,C18,C20,C22,C23,C24,C25,C26,C27,C28,C29,C30,C33,C34,C35,C37,C43,C44,C47,C48,C54,C55,C57,C64,C65,C66,C67,C68,C69,C72,C73,C74,C75,C76,C77,C78,C79,C80,C81,C82,C83,C84,C85,C86,C87,C88,C89,C90,C91,C92,C93	0.1uF	CAP CER .1UF 16V X7R 0402	TDK	C1005X7R1C104K050BC		0402_AVXA	
3	3	C4,C52,C53	4.7uF	CAP CER 4.7UF 6.3V 20% X5R 0402	TDK	C1005X5R0J475M		402	
4	9	C5,C6,C13,C15,C19,C50,C51,C59,C62	10uF	CAP CERAMIC 10UF 6.3V X5R 0603	TDK	C1608X5R0J106M080AB		603	
5	4	C11,C21,C31,C32	1000pF	CAP CERAMIC .001UF 16V X7R 0402	Yageo	CC0402KRX7R7BB102		402	
6	3	C36,C39,C58	2.2uF	CAP CER 2.2UF 6.3V X5R 0402	TDK	C1005X5R0J225M		402	
7	4	C38,C42,C49,C70	1uF	CAP CER 1.0UF 10V X5R 0402	TDK	C1005X5R1A105M		402	
8	1	C45	2200pF	CAP CER 2200PF 25V X7R 0402	Murata	GRM155R71E222KA01D		402	
9	1	C56	0.22uF	CAP CER 0.22UF 25V 10% X5R 0402	TDK	C1005X5R1E224K050BC		402	
10	2	C61,C71	18pF	CAP CER 18PF 50V COG 5% 0402	TDK	C1005C0G1H180J		402	
11	1	D1	BAS70-05	DIODE SCHOTTKY 70V 70MA SOT23	Diodes Incorporated	BAS70-05-7-F		SOT-23	
12	2	D2,D3	RCLAMP0502B.TCT	TVS DIODE 5VWM 15VC 10SLP	Semtech	RCLAMP0502B.TCT		Semtech_SLP2510P8_10_pin	
13	1	D4	PMEG4002EL	SCHOTTKY RECT 40V 0.2A SOD882	NXP Semiconductors	PMEG4002EL,315		SOD882	
14	6	D5,D6,D7,D9,D15,D16	green	LED 565NM WTR CLR GREEN 1206 SMD	Lumex	SML-LX1206GC-TR		1206	
15	4	D8,D10,D12,D14	blue	LED INGAN/SIC U-BLUE CLR 1206SMD	Lumex	SML-LX1206USBC-TR		1206	
16	6	F1,F2,F3,F4,F5,F6	MMZ1608S601A	FERRITE CHIP 600 OHM 500MA 0603	TDK	MMZ1608S601A		603	
17	1	J1	HDR,14P,2R	CONN HEADER 14POS .100in DL GOLD	Samtec	TSW-107-14-G-D		HDR14P_2R_100mil	
18	1	J2	SJ-43516-SMT-TR	CONN AUDIO JACK 3.5MM 4COND SMD	CUI Stack	SJ-43516-SMT-TR		CUI_SJ-43516-SMT	
19	1	J3	HDR,3P,1R	PLUG	Samtec	TSW-103-07-G-S		TSW-103-07-G-S	
20	1	J4	HDMI	CONN RCPT 19POS HDMI RT ANG SMD	Molex	47151-0001		Molex_47151-0001	
21	1	J5	HDR,4P,1R	PLUG	Samtec	TSW-104-14-G-S		HDR4P_1R	
22	1	J6	QTH-030-02-L-D-A	CONN HEADER HS .5MM 60POS DL AU (stacking ht 8mm)	Samsung	QTH-030-02-L-D-A		Samtec_QTH-030-xx-x-D-A	
23	1	J7	USB,Type-B	CONN RECEIPT USB TYPE B PCB	mill-max	897-43-004-90-000000		USB_B	
24	2	J10,J11	HDR,2P,1R	CONN HEADER 2POS .100 VERT GOLD	Molex	22112022		22Series_2P	
25	1	J12	Pwr Jack, 2.5mm pin	CONN POWERJACK MINI RA HYBRID	Switchcraft	RAPC712X		SWITCHCRAFT_RAPC712X	
26	1	J13	S4B-EH(LF)(SN)	CONN HEADER EH SIDE 4POS 2.5MM	JST	S4B-EH(LF)(SN)		CONN4-S4B-EH_JST	
27	3	L1,L2,L3	2.2uH	INDUCTOR 2.2UH 20% 1300MA 1008	Murata	LQM2HPN2R2MGOL		1008_2p5mmx2mm	
28	5	PB_UP1,PB_SEL1,PB_RIGHT1,PB_LEFT1,PB_DOWN1	KT11B1SM	SWITCH TACT 0.64MM SILV GWING	C&K	KT11B1SM34LFS		KT11B1SM	
29	1	Q1	DMN26D0UT	MOSFET N-CH 20V 230MA SOT523	Diodes Incorporated	DMN26D0UT		SOT_523	
30	3	RA1,RA2,RA3	22	RES ARRAY 22 OHM 8 RES 1506	Panasonic	EXB-2HV220JV		EXB-2HV	
31	3	R2,R3,R36	180k	RES 180K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07180KL		402	
32	1	R4	3k	RES 3K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF3001X		402	
33	1	R5	1.5k	RES 1.50K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1501X		402	
34	12	R6,R12,R62,R63,R64,R65,R66,R73,R74,R75,R76,R77	22	RES 22.0 OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-0722RL		402	

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
35	2	R7,R51	4.7k	RES 4.7K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF4701X		402	
36	2	R8,R14	47k	RES 47.0K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF4702X		402	
37	19	R9,R10,R13,R22,R25,R29,R31,R34,R40,R44,R49,R50,R55,R80,R81,R84,R85,R89,R90	0	RES 0.0 OHM 1/16W 0402 SMD	Panasonic	ERJ-2GE0R00X		402	
38	18	R11,R18,R23,R37,R38,R42,R43,R46,R52,R53,R54,R58,R72,R86,R91,R93,R95,R98	10k		Panasonic	ERJ-2RKF1002X		402	
39	9	R15,R16,R17,R19,R20,R21,R26,R27,R28	30.1	RES 30.1 OHM 1/16W 1% 0402 SMD	Panasonic	ERJ-2RKF30R1X		402	
40	2	R24,R30	100k	RES 100K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1003X		402	
41	1	R32	442k	RES 442K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF4423X		402	
42	1	R33	887k	RES 887K OHM 1/16W 1% 0402 SMD	Panasonic	ERJ-2RKF8873X		402	
43	2	R35,R47	360k	RES 360K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07360KL		402	
44	3	R39,R41,R45	1k	RES 1.00K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1001X		402	
45	1	R48	78.7k	RES 78.7K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF7872X		402	
46	3	R57,R60,R61	33.2	RES 33.2 OHM 1/16W 1% 0402 SMD	Panasonic	ERJ-2RKF33R2X		402	
47	1	R59	300k	RES 300K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-07300KL		402	
48	5	R67,R68,R71,R78,R97	100	RES 100 OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1000X		402	
49	1	R69	2M	RES 2M OHM 1/10W 5% 0402 SMD	Panasonic	ERJ-2GEJ205X		402	
50	1	R70	1M	RES 1M OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1004X		402	
51	1	R82	200	RES 200 OHM 1/8W 5% 0805 SMD	Panasonic	ERJ-6GEVJ201V		805	
52	5	R87,R92,R94,R96,R99	470k	RES 470K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF4703X		402	
53	1	R88	270	RES 270 OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF2700X		402	
54	1	SW1	GT11MSCBE	SWITCH TOGGLE SPDT ULTRAMINI SMD	C&K	GT11MSCBE		GT11MSCBE	
55	9	TPGND1,TPGND2,TPGND3,TPGND4,TPGND5,TPGND6,TPGND7,TPGND8,TPGND9	TP_BLK	TEST POINT PC MINI .040inD BLACK	Keystone	5001		KEYSTONE_TP_MINIATURE	
56	3	U1,U12,U17	TPS62260DDCT	IC REG BUCK SYNC ADJ TSOT23-5	Texas Instruments	TPS62260DDCT		TSOT-23_DDC_R-PDSO-G5	
57	1	U2	TLV320DAC3101	IC STEREO AUD DAC CLASS-D LP 32QFN	Texas Instruments	TLV320DAC3101RHBR		QFN-32_RHB_S-PVQFN-N32	
58	2	U3,U4	NC7SZ66P5X	IC BUS SWITCH SPST SGL LV SC70-5	Fairchild	NC7SZ66P5X		SC70-5	
59	4	U5,U6,U7,U8	SN74AVC4T245RSV	IC BUS TRANSCVR 4BIT 16-UQFN	Texas Instruments	SN74AVC4T245RSVR		UQFN16_RSV_R-PQFP-N16	
60	1	U9	TPS2061CDBVT	IC PWR DIST SWITCH SGL SOT23-5	Texas Instruments	TPS2061CDBVT		SOT_23_5_DBV_R-PDSO-G5	
61	1	U10	TPS71501DCK	IC LDO REG ADJ 50MA MCPWR SC70-5	Texas Instruments	TPS71501DCKR		SC70_5_DCK_R-PDSO-G5	
62	1	U11	CY7C65215-32LTXI	IC USB TO UART BRIDGE DUAL 32QFN	Cypress	CY7C65215-32LTXI		CY7C65215_32pin_QFN	
63	7	U13,U15,U16,U20,U25,U28,U29	SN74AUP1G07DCK	IC INVERTER SINGLE 1INPUT SC705, open drain	Texas Instruments	SN74AUP1G06DCKR		U_5_DCK	
64	1	U14	TXS0102	IC VOLT-LEVEL TRANSLATOR 8-US8	Texas Instruments	TXS0102DCU		VSSOP-8_DCU	
65	1	U18	TPD2E001DRY	IC ESD-PROT ARRAY 2CH 6-SON	Texas Instruments	TPD2E001DRYR		U_6_DRY	
66	1	U19	M24C02-WMN6TP	IC EEPROM 2KBIT 400KHZ 8SOIC	Stmicroelectronics	M24C02-WMN6TP		SOIC-8_3p90mm_wide	
67	4	U21,U26,U32,U33	SN74AUP1G07DCK	IC BUFF/DVR LOW PWR N-INV SC705, open drain	Texas Instruments	SN74AUP1G07DCKR		U_5_DCK	
68	2	U22,U23	TPD45009DBVR	IC 4CH ESD SOLUTION SOT23-6	Texas Instruments	TPD45009DBVR		SOT23-6_DBV_R-PDSO-G6	
69	1	U24	ITE6801	HDMI Rcvr	ITE Tech Inc	ITE6801FN		ITE6801_76pin_QFN	
70	1	U30	MSP430F2274IDAR	IC MCU 16BIT 32KB FLASH 38TSSOP	Texas Instruments	MSP430F2274IDAR		TSSOP_38_DA_R-PDSO-G	
71	1	X1	27.000MHz	CRYSTAL 27MHZ 18PF SMD	Abracon	ABM8-27.000MHZ-B2-T		Abracon_ABM8	

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. **TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.** TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have **not** been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.