TIDA-01323 REV E1.0 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-01323	Any	Printed Circuit Board	
C1, C3, C5, C7, C15, C17, C19, C21, C70, C77, C97	11	0.1uF	C1005X7R1H104K050BB	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	0402
C2, C4, C6, C8, C16, C18, C20, C22	8	10uF	C1608X5R1E106M080AC	TDK	CAP, CERM, 10 µF, 25 V, +/- 20%, X5R, 0603	0603
C9, C10, C23, C24	4	0.033uF	CGA2B3X7R1H333K050BB	TDK	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C11, C12, C25, C26	4	0.015uF	CGA2B3X7R1H153K050BB	TDK	CAP, CERM, 0.015 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C29, C31	2	0.1uF	CGA2B3X7R1H104M050BB	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0402	0402
C30	1	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
C32, C33, C34, C35	4	4.7uF	C3216X7R1E475M160AC	TDK	CAP, CERM, 4.7 µF, 25 V, +/- 20%, X7R, 1206_190	1206_190
C36, C109	2		GRM155R70J104KA01D	MuRata	Cap, Cer-X7R, 0.1uF, 6.3V, 10%, 0402	0402
C37, C38, C39	3	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 µF, 25 V, +/- 10%, X7R, 1206	1206
C40	1		GRM155R70J473KA01D	MuRata	Cap, Cer-X7R, 0.047uF, 6.3V, 10%, 0402	0402
C41	1	100pF	CC0402KRX7R9BB101	Yageo America	Cap, Cer-X7R, 100pF, 50V, 10%, 0402	0402
C42	1		GRM155R71C103KA01D	MuRata	Cap, Cer-X7R, 10000pF, 16V, 10%, 0402	0402
C43, C48, C52	3	10uF	GRM31CR71C106KAC7L	MuRata	CAP, CERM, 10 µF, 16 V, +/- 10%, X7R, 1206	1206
C44, C45, C49, C50, C53, C54	6	22uF	GRM31CR61C226KE15L	MuRata	CAP, CERM, 22 µF, 16 V, +/- 10%, X5R, 1206	1206
C47, C51, C55, C57, C61, C67, C81, C85, C88, C92	10	1uF	C1005JB1V105K050BC	TDK	CAP, CERM, 1 µF, 35 V, +/- 10%, JB, 0402	0402
C56, C60, C80, C96	4	10uF	CL21A106KAFN3NE	Samsung	CAP, CERM, 10 µF, 25 V, +/- 10%, X5R, 0805	0805
C58, C62, C68, C71, C75, C78, C82, C86, C89, C93	10	0.1uF	CGA2B3X7R1H104K050BB	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0402	0402
C59, C63, C64, C65, C66, C69, C72, C76, C79, C83, C84, C87, C90, C91, C94, C95	16	0.01uF	GCM155R71H103KA55D	MuRata	CAP, CERM, 0.01uF, 50V, +/-10%, C0G/NP0, 0402	0402
C73, C74	2	0.033uF	CGA2B3X7R1H333K050BB	TDK	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0402	0402
C106, C110, C112	3	0.1uF	0603YC104JAT2A	AVX	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
C107, C111	2	2200pF	UMK105B7222KV-F	Taiyo Yuden	Cap, Cer-X7R, 2200pF, 50V, 10%, 0402	0402 (1005 Metric)
C108	1	4.7uF	LMK212B7475KG-T	Taiyo Yuden	Cap, Cer-X7R, 4.7uF, 10V, 10%, 0805	0805
D1	1	26V	SMBJ26A-13-F	Diodes Inc.	Diode, TVS, Uni, 26 V, 600 W, SMB	SMB
D2	1	Red	SML-P12UTT86	Rohm	LED, Red, SMD	LED, 1x.2x.6mm
D3	1	14V	SMBJ14A-13-F	Diodes Inc.	Diode, TVS, Uni, 14 V, 600 W, SMB	SMB
D4	1		B360-13-F	Diodes Inc.	Diode, Schottky, 3A, 60V, SMC	SMC

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D5, D8, D13	3	Green	SML-P12PTT86	Rohm	LED, Green, SMD	LED, 1x.2x.6mm
D6	1	Yellow/green	SML-P12MTT86	Rohm	LED, Yellow/green, SMD	0402 LED
D7, D12	2	Yellow	SML-P12YTT86	Rohm	LED, Yellow, SMD	Yellow LED
D9	1	Red	SML-P12VTT86	Rohm	LED, Red, SMD	LED, 1x.2x.6mm
D10	1	Blue	SMLP13BC8TT86	Rohm	LED, Blue, SMD	1x0.6mm
D14	1	Orange	SML-P12DTT86	Rohm	LED, Orange, SMD	Orange LED
H1, H2, H3, H4	4		29341	Keystone Electronics	MACHINE SCREW PAN SLOTTED M3	
H9, H10, H11, H12	4		CBTS140A	Essentra Components	HEX STANDOFF M3 NYLON 40MM	
J1, J2, J3, J4	4		59S20X-400L5-Y	Rosenberger	RIGHT ANGLE PLUG FOR PCB	16.6x11.6x8.5mm
J5	1	2x1	1727010	Phoenix Contact	Conn Term Block, 2POS, 3.81mm, TH	2POS Terminal Block
J8	1		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
J9, J10, J11, J13, J21, J26	6		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
J15, J29, J30	3		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
J17	1		TSW-104-07-G-D	Samtec	Header, 100mil, 4x2, Gold, TH	4x2 Header
J18	1		QTH-020-04-L-D-DP-A	Samtec	Male, Differential, 0.5mm, 10 pair x2, Gold, SMT	Male, Differential, 0.5mm, 10x2, SMT
J20	1		TSW-105-07-G-D	Samtec	Header, 100mil, 5x2, Gold, TH	5x2 Header
J27	1		TSM-108-01-L-DV	Samtec	Header, 2.54mm, 8x2, Gold, SMT	Header, 2.54mm, 8x2, SMT
J28	1		TSM-102-01-L-SV	Samtec	Header, 100mil, 2x1, Gold with Tin Tail, SMT	2x1 Header
J31	1		851-43-006-20-001000	Mill-Max	Receptacle, 50mil, 6x1, Gold, R/A, TH	Receptacle, 6x1, 50mil pitch, R/A
J32, J36	2		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	4x1 Header
L1, L2, L9, L10	4	1000 ohm	BLM18AG102SN1D	MuRata	Ferrite Bead, 1000 ohm @ 100 MHz, 0.4 A, 0603	0603
L3, L5, L7, L8, L11, L13, L15, L16, L27, L28, L29, L30	12	1500 ohm	BLM18HE152SN1D	MuRata	Ferrite Bead, 1500 ohm @ 100 MHz, 0.5 A, 0603	0603
L4, L6, L12, L14	4	10uH	LQH3NPN100NG0	MuRata	Inductor, Wirewound, Ferrite, 10 µH, 0.5 A, 0.57 ohm, SMD	3.0x0.9x3.0mm
L17	1		DRQ127-2R2-R	Coiltronics	Ind, Dual, 2.2uH, 20%, 6.23A, 8.05mE, Shielded, SMD	12.5x8.0x12.5mm
L18, L19, L20	3	2.2uH	VLS201610HBX-2R2M	TDK	Inductor, Shielded, Ferrite, 2.2 µH, 1.45 A, 0.170 ohm, SMD	2.0x0.95x1.6mm
L21	1	120 ohm	BLM18SG121TN1D	MuRata	Ferrite Bead, 120 ohm @ 100 MHz, 3 A, 0603	0603
L22, L23, L24, L25, L26	5	120 ohm	BLM18SG121TN1D	MuRata	1.5A Ferrite Bead, 330 ohm @ 100MHz, SMD	0603
Q1	1	60V	SQ4850EY	Vishay-Siliconix	MOSFET, N-CH, 60 V, 12 A, SOIC-8	SOIC-8
R2, R4, R10, R12	4	4.02k	CRCW06034K02FKEA	Vishay-Dale	RES, 4.02 k, 1%, 0.1 W, 0603	0603
R5, R6, R13, R14	4	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
R17	1	0	CRCW20100000Z0EF	Vishay-Dale	RES, 0, 5%, 0.75 W, 2010	2010
R18, R22, R76	3	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2 k, 5%, 0.063 W, 0402	0402
R19	1	0	CRCW08050000Z0EA	Vishay-Dale	Res, Chip, 0E, 1/8W, JUMP, 0805	0805
R21, R91, R92, R110	4	10K	CRCW040210K0JNED	Vishay-Dale	Res, Chip, 10K, 1/16W, 5%, 0402	0402
R23	1	2.32k	CRCW04022K32FKED	Vishay-Dale	RES, 2.32k ohm, 1%, 0.063W, 0402	0402
R24	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9 ohm, 1%, 0.063W, 0402	0402
R25	1	18.2k	CRCW040218K2FKED	Vishay-Dale	RES, 18.2k ohm, 1%, 0.063W, 0402	0402
R26	1	75k	CRCW040275K0FKED	Vishay-Dale	RES, 75.0 k, 1%, 0.063 W, 0402	0402
R27	1	86.6k	CRCW040286K6FKED	Vishay-Dale	RES, 86.6 k, 1%, 0.063 W, 0402	0402
R28	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R29, R34, R37, R39, R42	5	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603

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R31, R36, R41	3	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R33	1	360	CRCW0402360RJNED	Vishay-Dale	RES, 360, 5%, 0.063 W, 0402	0402
R35	1	124k	CRCW0603124KFKEA	Vishay-Dale	RES, 124 k, 1%, 0.1 W, 0603	0603
R38	1	470	CRCW0402470RJNED	Vishay-Dale	RES, 470, 5%, 0.063 W, 0402	0402
R40	1	37.4k	CRCW060337K4FKEA	Vishay-Dale	RES, 37.4 k, 1%, 0.1 W, 0603	0603
R43, R59, R111, R115	4	220	CRCW0402220RJNED	Vishay-Dale	RES, 220, 5%, 0.063 W, 0402	0402
R44, R54	2	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10k ohm, 5%, 0.063W, 0402	0402
R46, R56, R57, R58	4	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R47	1	13.3k	CRCW040213K3FKED	Vishay-Dale	RES, 13.3 k, 1%, 0.063 W, 0402	0402
R49	1	4.12k	CRCW04024K12FKED	Vishay-Dale	RES, 4.12 k, 1%, 0.063 W, 0402	0402
R50	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100 ohm, 1%, 0.063W, 0402	0402
R51	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R52	1	0	ERJ-2GE0R00X	Panasonic	RES, 0 ohm, 5%, 0.063W, 0402	0402
R53	1	82.5k	CRCW040282K5FKED	Vishay-Dale	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R55	1	102k	CRCW0402102KFKED	Vishay-Dale	RES, 102 k, 1%, 0.063 W, 0402	0402
R64, R66, R78, R80, R103	5	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R70, R93, R94, R95, R96	5	4.7K	CRCW04024K70JNED	Vishay-Dale	Res, Chip, 4.7K, 1/16W, 5%, 0402	0402
R71	1	1.30k	CRCW04021K30FKED	Vishay-Dale	RES, 1.30 k, 1%, 0.063 W, 0402	0402
R74	1	1.2k	CRCW04021K20JNED	Vishay-Dale	RES, 1.2 k, 5%, 0.063 W, 0402	0402
R97, R98, R99, R100, R101, R102	6	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R104, R109, R113, R114, R116	5	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7k ohm, 5%, 0.1W, 0603	0603
R105, R107, R108	3	200	CRCW0402200RJNED	Vishay-Dale	RES, 200, 5%, 0.063 W, 0402	0402
R112, R117	2	487	CRCW0402487RFKED	Vishay-Dale	RES, 487 ohm, 1%, 0.063W, 0402	0402
S1, S2	2		SKRKAEE010	Alps	Switch, Tactile, 12v, 50mA, Vertical, SMD	2.9x2x3.9mm SMD
TP5, TP6, TP7, TP8, TP9, TP10, TP21, TP22, TP23, TP24	10	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP11, TP12, TP14, TP15, TP16, TP18	6	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		DS90UB960TRGCRQ1	Texas Instruments	FPD-Link III Camera Hub Deserializer, RGC0064G	RGC0064G
U2	1		LM74700QDDCRQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DDC0006A (SOT-23-T-6)	DDC0006A
U3	1		TPS55340QRTERQ1	Texas Instruments	Integrated 5-A 40-V Wide Input Range Boost/SEPIC/Flyback DC-DC Regulator, RTE0016C	RTE0016C
U4	1		TPS62162QDSGRQ1	Texas Instruments	3V-17V 1A Automotive Step-Down Converters in 2x2SON, DSG0008A (WSON-8)	DSG0008A
U5, U7, U9	3		SN74LVC1G125DCKR	Texas Instruments	Single Bus Buffer Gate With 3-State Output, DCK0005A	DCK0005A
U6, U8	2		TPS62160QDSGRQ1	Texas Instruments	3-V to 17-V 1-A Step-Down Converter with DCS-Control™, DSG0008A	DSG0008A
U10	1		TPS4H160BQPWPRQ1	Texas Instruments	40-V/160-mΩ Quad Channels Smart High-Side Switch, PWP0028C (TSSOP-28)	PWP0028C
U12	1		MSP430F2272TDAQ1	Texas Instruments	16 MHz Mixed Signal Microcontroller with 32 KB Flash, 1024 B SARM and 32 GPIOs, -40 to 105 degC, 38-pin SOP (DA)	DA0038A
U13	1		TS3USB221AQRSERQ1	Texas Instruments	IC, TS3USB221A-Q1, Dual USB Switch, UQFN-10	RSE0010A

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U14, U15	2		TS3USB221AQRSERQ1	Texas Instruments	Automotive Catalog ESD Protected, High-Speed USB 2.0 (480-Mbps) 1:2 Multiplexer / Demultiplexer Switch, 16 ohm RON, 2.5 to 3.3V, -40 to 125 degC, 10-Pin UQFN (RSE), Green (RoHS & no Sb/Br)	RSE0010A
Y1	1		7C-25.000MCB-T	TXC Corporation	XO, 25.000MHz, 2.5V, SMD	5.0x1.2x3.2mm
C46	0	47uF	EEE-FK1E470P	Panasonic	CAP, AL, 47 µF, 25 V, +/- 20%, 0.36 ohm, SMD	SMT Radial D
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J35	0		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
R20	0	100K	CRCW1206100KJNEA	Vishay-Dale	Res, Chip, 100K, 1/4W, 5%, 1206	1206
R45	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R106	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
TP19, TP20	0	STD	STD	STD	Test Point, O.025"	

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265