

TIDA-01352 REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB8	1		TIDA-01352	Any	Printed Circuit Board	
/SD1, /SD2, CLK_1V8, CLK_3V3, SYNC, VCON-A1, VCON- A2, VCON-B1, VCON-B2, VCON- C1, VCON-C2, VCON-D1, VCON- D2, VDD_5V3, VREF_5V	15		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
C1, C7, C10, C28, C31, C103	6	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 μ F, 50 V, +/- 10%, X7R, 0603	0603
C2, C3, C66, C79	4	470uF	860080778023	Wurth Elektronik	CAP, AL, 470 μ F, 63 V, +/- 20%, TH	D13xL31.5mm
C4, C5, C18, C19, C21, C22	6	47uF	GRM32ER61C476KE15L	MuRata	CAP, CERM, 47 μ F, 16 V, +/- 10%, X5R, 1210	1210
C6, C23	2	10uF	C3225X5R1H106K250AB	TDK	CAP, CERM, 10 μ F, 50 V, +/- 10%, X5R, 1210	1210
C8, C9, C11, C29, C30, C101, C102, C104	8	10uF	C3216X5R1H106K160AB	TDK	CAP, CERM, 10 μ F, 50 V, +/- 10%, X5R, 1206	1206
C12, C25, C33, C34, C35, C37, C41, C105	8	1uF	C1608X5R1E105K080AC	TDK	CAP, CERM, 1 μ F, 25 V, +/- 10%, X5R, 0603	0603
C13, C26, C38, C106	4	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0603	0603
C14, C15, C16, C92, C93, C94, C95, C96	8	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 μ F, 25 V, +/- 5%, X7R, 0603	0603
C17	1	2.2uF	C2012X5R1H225K125AB	TDK	CAP, CERM, 2.2 μ F, 50 V, +/- 10%, X5R, 0805	0805
C20	1	4.7uF	C3216X5R1H475K085AB	TDK	CAP, CERM, 4.7 μ F, 50 V, +/- 10%, X5R, 1206	1206
C32, C40	2	10uF	GRM188R61E106MA73D	MuRata	CAP, CERM, 10 μ F, 25 V, +/- 20%, X5R, 0603	0603
C42, C54, C67, C80	4	100uF	LLS2G101MELY	Nichicon	CAP, AL, 100 μ F, 400 V, +/- 20%, TH	D20xL32mm
C43, C55, C68, C81	4	1000pF	GRM188R71E102KA01D	MuRata	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
C46, C58, C71, C84, C116, C121, C126, C131	8	22uF	12103D226MAT2A	AVX	CAP, CERM, 22 μ F, 25 V, +/- 20%, X5R, 1210	1210
C49, C61	2	15uF	C2012X5R1V156M125AC	TDK	CAP, CERM, 15 μ F, 35 V, +/- 20%, X5R, 0805	0805
C50, C62, C75, C88	4	1uF	GMK107BJ105KA-T	Taiyo Yuden	CAP, CERM, 1 μ F, 35 V, +/- 10%, X5R, 0603	0603
C51, C63, C76, C89	4	1uF	08055C105KAT2A	AVX	CAP, CERM, 1 μ F, 50 V, +/- 10%, X7R, 0805	0805

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C52, C53, C64, C65, C77, C78, C90, C91, C109, C110, C111, C112, C117, C122, C127, C132	16	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C74, C87	2	6.8uF	C1608X5R1E685K080AC	TDK	CAP, CERM, 6.8 µF, 25 V, +/- 10%, X5R, 0603	0603
C114, C119, C124, C129	4	1uF	GRM55DR72E105KW01L	MuRata	CAP, CERM, 1 µF, 250 V, +/- 10%, X7R, 2220	2220
D2, D3, D5, D10, D14, D16, D20, D22	8	600V	LXA10T600	Power Integrations	Diode, Schottky, 600 V, 10 A, TH	TO-220AC
D4, D9, D15, D21	4	75V	1N4148WT	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
D6, D11, D17, D23	4	11V	1SMA5926BT3G	ON Semiconductor	Diode, Zener, 11 V, 1.5 W, SMA	SMA
D7, D8, D12, D13, D18, D19, D24, D25	8	10V	PMEG1030EJ,115	NXP Semiconductor	Diode, Schottky, 10 V, 3 A, SOD-323F	SOD-323F
F1, F2	2		0678L9150-02	Bel Fuse	Fuse, 15 A, 250 VAC, 72 VDC, SMD	9.8x3.05mm
F3, F4, F5	3		0679L9100-01	Bel Fuse	FUSE BRD MNT 10A 125VAC/VDC	6.1x2.54x2.54mm
H1, H2, H3, H4, H5, H6	6		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H13, H14, H17, H18, H21, H22	8		577202B04000G	Aavid	HEATSINK TO-220 .500" COMPACT	HEATSINK TO-220 .500" COMPACT
H7, H12, H15, H16, H19, H20, H23, H24	8		V6560X	Assman WSW	HEATSINK, ALUM, ANOD, for TO-220	29x12mm
H8, H9, H10, H11, H12, H13	6		1902E	Keystone	Standoff, Hex, 1"L #4-40 Nylon	Standoff
J1	1		OSTT7020150	On-Shore Technology	Terminal Block, 6.35mm, 2x1, TH	On-Shore OSTT7020150
J2, J3, J8, J9	4		1727010	Phoenix Contact	Conn Term Block, 2POS, 3.81mm, TH	2POS Terminal Block
J4, J5, J6	3		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
J7	1		PRPC010DAAN-RC	Sullins Connector Solutions	Header, 2.54mm, 10x2, Gold, TH	Header, 2.54mm, 10x2, TH
L1, L9	2	600 ohm	BLM18EG601SH1	MuRata	Ferrite Bead, 600 ohm @ 100 MHz, 0.5 A, 0603	0603
L2, L3, L6, L7	4	470uH	1447440C	MuRata	Inductor, Wirewound, 470 µH, 4 A, 0.125 ohm, TH	31.7x29.8x23.5mm
L5, L8	2	5 ohm	BLM18BB050SN1D	MuRata	Ferrite Bead, 5 ohm @ 100 MHz, 0.7 A, 0603	0603
LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
Q1, Q2, Q5, Q6, Q9, Q10, Q13, Q14	8	80V	CSD19506KCS	Texas Instruments	MOSFET, N-CH, 80 V, 100 A, KCS0003B (TO-220-3)	KCS0003B
Q3, Q7, Q11, Q15	4	30V	CSD17381F4	Texas Instruments	MOSFET, N-CH, 30 V, 3.1 A, YJC0003A (PICOSTAR-3)	YJC0003A
Q4, Q8, Q12, Q16	4	100 V	FCX493TA	Diodes Inc.	Transistor, NPN, 100 V, 1 A, SOT-89	SOT-89

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R1, R5, R6, R9, R10, R11, R13, R18, R19, R27, R48, R51, R53, R67, R70, R72, R88, R91, R93, R109, R112, R114, R122, R123, R124, R125, R126, R127, R128, R138, R139, R142, R143, R148, R149, R150, R151, R168, R169	39	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R2, R41, R42, R58, R61, R78, R81, R82, R98, R102, R103, R120	12	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R3, R4, R80, R101	4	0	5108	Keystone	RES, 0, 1%, 0.5 W, 1206	1206
R7, R14	2	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
R8	1	8.87k	CRCW06038K87FKEA	Vishay-Dale	RES, 8.87 k, 1%, 0.1 W, 0603	0603
R15	1	52.3k	CRCW080552K3FKEA	Vishay-Dale	RES, 52.3 k, 1%, 0.125 W, 0805	0805
R16	1	93.1k	CRCW080593K1FKEA	Vishay-Dale	RES, 93.1 k, 1%, 0.125 W, 0805	0805
R17	1	5.11k	CRCW06035K11FKEA	Vishay-Dale	RES, 5.11 k, 1%, 0.1 W, 0603	0603
R20	1	348k	CRCW0603348KFKEA	Vishay-Dale	RES, 348 k, 1%, 0.1 W, 0603	0603
R26, R130, R141	3	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R28, R29, R30, R36, R37, R38, R39, R40	8	1K	3224X-1-102E	Bourns	Trimmer, 1 K, 0.25 W, SMD	3.5x5.3x4.8mm
R43, R62	2	4.02	CRCW08054R02FKEA	Vishay-Dale	RES, 4.02, 1%, 0.125 W, 0805	0805
R44, R63, R84, R105	4	300	RC0603FR-07300RL	Yageo America	RES, 300, 1%, 0.1 W, 0603	0603
R49, R50, R68, R69, R89, R90, R110, R111	8	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R52, R71, R92, R113	4	26.7k	CRCW060326K7FKEA	Vishay-Dale	RES, 26.7 k, 1%, 0.1 W, 0603	0603
R55, R75, R95, R117	4	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R56, R74	2	300k	RC1206FR-07300KL	Yageo America	RES, 300 k, 1%, 0.25 W, 1206	1206
R57, R60, R76, R79, R97, R100, R118, R121	8	47.0k	RC0603FR-0747KL	Yageo America	RES, 47.0 k, 1%, 0.1 W, 0603	0603
R59, R77, R99, R119, R170	5	10.0k	CRCW120610K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.25 W, 1206	1206
R83, R104	2	4.99	CRCW08054R99FKEA	Vishay-Dale	RES, 4.99, 1%, 0.125 W, 0805	0805
R96	1	110k	CRCW1206110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.25 W, 1206	1206
R116	1	100k	CRCW1206100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.25 W, 1206	1206
R129	1	51.7k	RT0603DRE0751K7L	Yageo America	RES, 51.7 k, 0.5%, 0.1 W, 0603	0603
R140	1	178k	CRCW0603178KFKEA	Vishay-Dale	RES, 178 k, 1%, 0.1 W, 0603	0603
R144, R145	2	10k	RC0603JR-0710KL	Yageo America	RES, 10 k, 5%, 0.1 W, 0603	0603

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R146	1	174k	CRCW0805174KFKEA	Vishay-Dale	RES, 174 k, 1%, 0.125 W, 0805	0805
R147	1	63.4k	CRCW080563K4FKEA	Vishay-Dale	RES, 63.4 k, 1%, 0.125 W, 0805	0805
T1, T2	2	100uH	750343547	Würth Elektronik	Transformer, 100 uH, TH	29.21x27.94mm
T3, T7	2	100uH	750343548	Würth Elektronik	Transformer, 100 uH, TH	29.21x27.94mm
T4, T5, T6, T8	4	2mH	750340744	Würth Elektronik	Transformer, TH	6.13x7.37mm
U1, U4, U14, U17	4		LM5030MM/NOPB	Texas Instruments	100V Push-Pull Current Mode PWM Controller, 10-pin MSOP, Pb-Free	MUB10A
U2, U15	2		TLV1711DBVR	Texas Instruments	36-V, Single-Supply, Low-Power Operational Amplifiers for Cost-Sensitive Systems, DBV0005A (SOT-5)	DBV0005A
U3, U6, U10	3		TPS7A4901DGNR	Texas Instruments	Single Output High PSRR LDO, 150 mA, Adjustable 1.2 to 33 V Output, 3 to 36 V Input, with Ultra-Low Noise, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	DGN0008D
U5, U18	2		TLV2171IDR	Texas Instruments	36-V, Single-Supply, Low-Power Operational Amplifier for Cost-Sensitive Systems, D0008A (SOIC-8)	D0008A
U7, U8	2		LMZ34202RVQ	Texas Instruments	SIMPLE SWITCHER 4.5-V to 42-V Input, 2-A Power Module, RVQ00043A (B3QFN-43)	RVQ0043A
U9	1		LMZ34002RKGR	Texas Instruments	4.5-V to 40-V Input, 15-W, Negative Output, Integrated Power Solution, RKG0041A (B1QFN-41)	RKG0041A
U11, U12	2		DAC60004IPW14	Texas Instruments	QUAD 12-BIT, 1LSB INL, BUFFERED, VOLTAGE-OUTPUT DIGITAL-to-ANALOG CONVERTERS, PW0014A (TSSOP-14)	PW0014A
U13	1		REF5050AID	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A
U16	1		CDCE937PWR	Texas Instruments	Programmable 3-PLL VCXO Clock Synthesizer With 1.8-V, 2.5-V and 3.3-V LVCMOS Outputs, PW0020A (TSSOP-20)	PW0020A
C24, C36	0	10uF	GRM188R61E106MA73D	MuRata	CAP, CERM, 10 µF, 25 V, +/- 20%, X5R, 0603	0603
C27, C39	0	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
C44, C45, C56, C57, C69, C70, C82, C83	0	1000pF	GRM188R71E102KA01D	MuRata	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
C47, C59, C72, C85	0	1uF	08055C105KAT2A	AVX	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0805	0805
C48, C60, C73, C86	0	100pF	06035A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
C97, C98, C99, C100	0	22uF	EEE-FC1H220P	Panasonic	CAP, AL, 22 µF, 50 V, +/- 20%, 0.7 ohm, SMD	SMT Radial E
C107, C108	0	10pF	C0603C100F5GAC7867	Kemet	CAP, CERM, 10 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
C113, C115, C118, C120, C123, C125, C128, C130	0	470pF	VJ1206Y471KBEAT4X	Vishay-Vitramon	CAP, CERM, 470 pF, 500 V, +/- 10%, X7R, 1206	1206
C133	0	470pF	06035A471JAT2A	AVX	CAP, CERM, 470 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
D26	0	100V	BAV99,215	Nexperia	Diode, Switching, 100 V, 0.215 A, SOT-23	SOT-23
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R12	0	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603

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R21, R22, R23, R24, R25, R31, R32, R33, R34, R35, R45, R46, R47, R54, R64, R65, R66, R73, R85, R86, R87, R94, R106, R107, R108, R115, R131, R132, R133, R134, R135, R136, R137	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167	0	1.1k	PR01000101101JR500	Vishay-Bccomponents	RES, 1.1 k, 5%, 1 W, AEC-Q200 Grade 0, D2.5xL6.5mm	D2.5xL6.5mm
Y1	0		406I35D08M00000	CTS Electrocomponents	Crystal, 8 MHz, 18 pF, SMD	SMD, 4-Leads, Body 6.2x3.7mm

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