

TIDA-01552 REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C3, C4, C5, C6, C7, C21, C22, C23, C24, C31, C42, C43, C44, C45, C46, C63	18	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	0603
C8	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
C25, C29	2	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C26	1	0.022uF	C0603C223K5RACTU	Kemet	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	0603
C27, C41	2	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	1206_190
C28, C61, C62, C64, C65, C67, C68, C70, C71, C95	10	1uF	C2012X7S2A105K125AB	TDK	CAP, CERM, 1 µF, 100 V,+/- 10%, X7S, 0805	0805
C30	1	4.7uF	GRM21BR71A475KA73L	MuRata	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X7R, 0805	0805
C47, C69	2	1000pF	GRM188R71E102KA01D	MuRata	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
C66	1	0.01uF	CGA3E2X7R2A103K080AA	TDK	CAP, CERM, 0.01 µF, 100 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C81, C82, C83, C84, C85, C86, C87, C88	8	0.022uF	C1608X7R2A223K080AA	TDK	CAP, CERM, 0.022 µF, 100 V,+/- 10%, X7R, 0603	0603
C89, C90, C92, C93	4	4700pF	1812GC472KA1	AVX	CAP, CERM, 4700 pF, 2000 V, +/- 10%, X7R, 1812	1812
C91	1	4700pF	08051C472KAT2A	AVX	CAP, CERM, 4700 pF, 100 V,+/- 10%, X7R, 0805	0805
C94	1	10uF	C5750X7S2A106M230KB	TDK	CAP, CERM, 10 µF, 100 V,+/- 20%, X7S, 2220	2220
C96, C97, C99	3	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603	0603
C98	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	0603
C100	1	4.7uF	C3225X7S2A475K200AB	TDK	CAP, CERM, 4.7 µF, 100 V,+/- 10%, X7S, 1210	1210
D1, D24, D44, D91, D95	5	Green	LTST-C190KGKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D2, D3, D4, D5, D6, D7, D8, D9	8	Orange	LTST-C190KFKT	Lite-On	LED, Orange, SMD	1.6x0.8x0.8mm
D10, D11, D12, D13, D14, D15, D16, D17, D43	9	Red	LTST-C190CKT	Lite-On	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm
D21, D92, D93	3	100V	CD0603-S01575	Bourns	Diode, Switching, 100 V, 0.15 A, 0603 Diode	0603 Diode
D22	1	70V	BAV70-E3-08	Vishay-Semiconductor	Diode, Switching, 70 V, 0.25 A, SOT-23	SOT-23
D25	1	30V	BAT54C-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
D41, D42	2	3V	MMBZ5225BLT1G	ON Semiconductor	Diode, Zener, 3 V, 225 mW, SOT-23	SOT-23
D81, D82, D83, D84, D85, D86, D87, D88	8	Blue	LB Q39G-L2N2-35-1	OSRAM	LED, Blue, SMD	BLUE 0603 LED
D89, D94	2	33V	5.0SMDJ33A	Littelfuse	Diode, TVS, Uni, 33 V, 5000 W, SMC	SMC
D90	1	33V	SMCJ33CA	Bourns	Diode, TVS, Bi, 33V, 1500W, SMC	SMC

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FID1, FID2, FID3, FID4, FID5	5		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
H1, H2	2		1841161	Phoenix Contact	Fiber optics - MC 1,5/10-LWL 1,5-3,5 for Phoenix connectors	
J1, J2	2		SSHQ-123-D-08-F-LF	Major League Electronics	Female Connector, 2.54mm, 23x2, TH	Female Connector, 2.54mm, 23x2, TH
J41	1		SBH11-PBPC-D07-RA-BK	Sullins Connector Solutions	Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH	Header (Shrouded), 2.54 mm, 7x2, R/A, TH
J81, J82	2		1844265	Phoenix Contact	Header (Shrouded), 3.5 mm, 7x1, R/A, TH	TH, 7-Leads, Body 9.2x25.9, Pitch 3.5mm
L21	1	600 ohm	BLM18KG601SN1D	MuRata	Ferrite Bead, 600 ohm @ 100 MHz, 1.3 A, 0603	0603
L22	1	68uH	SRN4026-680M	Bourns	Inductor, Wirewound, Ferrite, 68 uH, 0.35 A, 0.852 ohm, SMD	SMD, 2-Leads, Body 4.2x4.2mm
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
Q81, Q82	2	60V	CSD18532Q5B	Texas Instruments	MOSFET, N-CH, 60 V, 172 A, DNK0008A (VSON-CLIP-8)	DNK0008A
R1, R2, R17, R35, R44	5	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R3, R5, R6, R7, R16, R18, R23, R24, R25, R26	10	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R4, R32	2	453	CRCW0603453RFKEA	Vishay-Dale	RES, 453, 1%, 0.1 W, 0603	0603
R8, R9, R10, R11, R12, R13, R14, R21, R22	9	5.62k	CRCW06035K62FKEA	Vishay-Dale	RES, 5.62 k, 1%, 0.1 W, 0603	0603
R15	1	21.0k	CRCW060321K0FKEA	Vishay-Dale	RES, 21.0 k, 1%, 0.1 W, 0603	0603
R27	1	649	CRCW0603649RFKEA	Vishay-Dale	RES, 649, 1%, 0.1 W, 0603	0603
R28, R29	2	66.5k	CRCW060366K5FKEA	Vishay-Dale	RES, 66.5 k, 1%, 0.1 W, 0603	0603
R30	1	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
R31	1	86.6k	CRCW060386K6FKEA	Vishay-Dale	RES, 86.6 k, 1%, 0.1 W, 0603	0603
R33	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
R34	1	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R41, R42, R45, R48	4	499	CRCW0603499RFKEA	Vishay-Dale	RES, 499, 1%, 0.1 W, 0603	0603
R43, R65	2	33.2	CRCW060333R2FKEA	Vishay-Dale	RES, 33.2, 1%, 0.1 W, 0603	0603
R46, R47	2	47.5k	CRCW060347K5FKEA	Vishay-Dale	RES, 47.5 k, 1%, 0.1 W, 0603	0603
R61, R62, R66, R67, R70, R71, R76, R77	8	806	CRCW0603806RFKEA	Vishay-Dale	RES, 806, 1%, 0.1 W, 0603	0603
R63, R64, R68, R69, R73, R74, R78, R79, R81	9	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R72	1	316k	CRCW0603316KFKEA	Vishay-Dale	RES, 316 k, 1%, 0.1 W, 0603	0603
R75	1	16.5k	CRCW060316K5FKEA	Vishay-Dale	RES, 16.5 k, 1%, 0.1 W, 0603	0603
R80, R82	2	249	CRCW0603249RFKEA	Vishay-Dale	RES, 249, 1%, 0.1 W, 0603	0603

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R83, R84, R85, R86, R87, R88, R89, R90, R91, R100	10	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R92	1	95.3k	CRCW060395K3FKEA	Vishay-Dale	RES, 95.3k ohm, 1%, 0.1W, 0603	0603
R93	1	8.06k	CRCW06038K06FKEA	Vishay-Dale	RES, 8.06k ohm, 1%, 0.1W, 0603	0603
R94	1	47.5k	CRCW060347K5FKEA	Vishay-Dale	RES, 47.5k ohm, 1%, 0.1W, 0603	0603
R95	1	14.0k	CRCW060314K0FKEA	Vishay-Dale	RES, 14.0k ohm, 1%, 0.1W, 0603	0603
R96	1	57.6k	CRCW060357K6FKEA	Vishay-Dale	RES, 57.6k ohm, 1%, 0.1W, 0603	0603
R97	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100 ohm, 1%, 0.1W, 0603	0603
R98, R99	2	0.01	WSLP1206R0100FEA	Vishay-Dale	RES, 0.01 ohm, 1%, 1W, 1206	1206
S1	1		219-4LPST	CTS Electrocomponents	Switch, SPST 4 Pos, Top Actuated, SMT	SMD, 8-Leads, Body 11.93x6.95mm, Pitch 2.54mm
S21	1		219-2LPST	CTS Electrocomponents	Switch, Slide, SPST 2 poles, SMT	2 poles SPST Switch
T21	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
TP41	1	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		SN74LVC2G86DCTR	Texas Instruments	Dual 2-Input Exclusive-OR Gate, DCT0008A	DCT0008A
U2	1		SN74LVC1G332DCKR	Texas Instruments	Single 3-Input Positive-OR Gate, DCK0006A	DCK0006A
U3	1		SN74LVC1G19DCKR	Texas Instruments	1-OF-2 DECODER/DEMULTIPLEXER, DCK0006A	DCK0006A
U4	1		SN74LVC1G58DCKR	Texas Instruments	Configurable Multiple-Function Gate, DCK0006A	DCK0006A
U5	1		TLC5928DBQ	Texas Instruments	16-Channel Constant Current LED Driver with LED Open Detection, 3 to 5.5 V, -40 to 85 degC, 24-pin SOP (DBQ24), Green (RoHS & no Sb/Br)	DBQ0024A
U6	1		CAT24C256WI-G	ON Semiconductor	256 kb I2C CMOS Serial EEPROM, SOIC-8	SOIC-8
U7, U8	2		SN74LVC1G125DCKR	Texas Instruments	Single Bus Buffer Gate With 3-State Output, DCK0005A	DCK0005A
U21	1		ISO7421DR	Texas Instruments	1 Mbps Dual Channels, 1 / 1, Digital Isolator, 3.3 V / 5 V, -40 to +105 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A
U22, U41	2		ISO7141CCDBQR	Texas Instruments	4242-VPK Small-Footprint and Low-Power Quad Channels Digital Isolators, DBQ0016A	DBQ0016A
U23	1		LM5009MM/NOPB	Texas Instruments	150 mA, 100V Step-Down Switching Regulator, 8-pin MSOP, Pb-Free	MUA08A
U25	1		SN6501DBVR	Texas Instruments	Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	DBV0005A
U26, U42, U45	3		SN74LVC1G07DCKR	Texas Instruments	SINGLE BUFFER/DRIVER WITH OPEN-DRAIN OUTPUT, DCK0005A (SOT-SC70-5)	DCK0005A
U43	1		ISO7141FCCDBQR	Texas Instruments	4242-VPK Small-Footprint and Low-Power Quad Channels Digital Isolators, DBQ0016A	DBQ0016A
U44	1		MSP430F2112TRHBR	Texas Instruments	16 MHz Mixed Signal Microcontroller with 2 KB Flash, 256 B SRAM and 24 GPIOs, -40 to 105 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br)	RHB0032E
U61, U62, U64, U65, U66, U67, U68, U69	8		TPS27S100BPWPR	Texas Instruments	40 V, 80 mOhm Single-Channel High-Side Switch, PWP0014C (TSSOP-14)	PWP0014C
U63	1		SN74LV164APWR	Texas Instruments	8-BIT PARALLEL-OUT SERIAL SHIFT REGISTERS, PW0014A	PW0014A
U81, U82, U83, U84	4	70V	SR70-02CTG	Littelfuse	ESD Suppressor Diode Arrays, 70V, SMD	3.04X1.22X1.4
U85	1		LM5050MK-1/NOPB	Texas Instruments	LM5050-1 High Side OR-ing FET Controller, DDC0006A	DDC0006A

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U86	1		LM5069MM-2/NOPB	Texas Instruments	Positive High Voltage Hot Swap / Inrush Current Controller with Power Limiting, 10-pin MSOP, Pb-Free	MUB10A

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