

TIDA-01420 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-01420	Any	Printed Circuit Board	
C1, C4, C7, C26, C33, C35, C41, C47, C58, C59, C61, C62, C64, C67, C80, C85, C95, C96	18	4.7uF	C2012X7R1V475K125AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, 0805	0805
C2, C6, C8, C14, C17, C21, C25, C27, C30, C36, C42, C63, C65, C66, C68, C70, C71, C79, C82, C87, C89, C91, C97	23	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C3, C23, C32, C34, C40, C46	6	0.47uF	C1608X7R1H474K080AC	TDK	CAP, CERM, 0.47 µF, 50 V, +/- 10%, X7R, 0603	0603
C5	1	10uF	UMK325AB7106KM-T	Taiyo Yuden	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
C24	1	100uF	C1210C107M4PAC7800	Kemet	CAP, CERM, 100 µF, 16 V, +/- 20%, X5R, 1210	1210
C101, C102, C103, C104, C105, C106	6	12pF	GRM1885C1H120JA01D	MuRata	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C111, C112	2	3uF	B32774D1305K000	TDK	CAP, Film, 3 µF, 1300 V, +/- 10%, 0.016 ohm, TH	31.5x18mm
C162, C163, C164, C165, C166, C167	6	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0603	0603
D1	1	30V	B0530W-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.5 A, SOD-123	SOD-123
D12, D13, D14	3	1300V	BYG23T-M3/TR	Vishay-Semiconductor	Diode, Ultrafast, 1300 V, 1 A, SMA	SMA
FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
H1, H2, H3, H4	4		N/A	N/A	Mountin hole, NPTH Drill 3.2mm	
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1		5747461-1	AMP	Connector, TH, DB25 parallel port, plastic, right angle	Amp_DB25
J2	1		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
J4	1		1904150	Phoenix Contact	Terminal Block, 9.52mm, 3x1, R/A, TH	Terminal Block, 3x1, Pitch 9.52mm
J7	1		800-10-003-10-001000	Mill-Max	Header, 100mil, 3x1, TH	Header, 3x1, 100mil, TH
J8	1		1902547	Phoenix Contact	Terminal Block, 9.52mm, 2x1, R/A, TH	Terminal Block, 2x1, Pitch 9.52mm
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
R1, R3, R6, R9, R15, R23, R29, R35, R44	9	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206

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R4, R10, R16, R24, R30, R36, R79, R80, R82, R83, R85, R86, R91, R92, R93, R110	16	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R7, R46, R47, R52, R53, R55, R56, R58, R59	9	22	CRCW060322R0JNEA	Vishay-Dale	RES, 22, 5%, 0.1 W, 0603	0603
R12, R20, R26, R32, R38, R112	6	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R13, R19, R21, R27, R33, R39	6	12.0	RC1206FR-0712RL	Yageo America	RES, 12.0, 1%, 0.25 W, 1206	1206
R41, R42, R43	3	1.00	CRCW12061R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.25 W, 1206	1206
R45, R48, R49, R50, R51, R54, R57	7	100k	CRCW1206100KJNEAHP	Vishay	RES, 100 k, 5%, 0.75 W, 1206	1206
R98, R108, R122, R125, R127, R128, R129	7	820k	RC1206FR-07820KL	Yageo America	RES, 820 k, 1%, 0.25 W, 1206	1206
R106	1	160k	CRCW0603160KFKEA	Vishay-Dale	RES, 160 k, 1%, 0.1 W, 0603	0603
R107, R109	2	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R118, R120	2	0.004	PU5931FKMP70R004L	Yageo America	RES, 0.004, 1%, 7 W, AEC-Q200 Grade 0, 15x7.75mm	15x7.75mm
R139, R140, R141, R142, R143, R144	6	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
R150, R151, R154, R155, R158, R159	6	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
R162, R163, R164, R165, R166, R167	6	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP10, TP11, TP15, TP29, TP31, TP32, TP36, TP37	15		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
U1, U2, U5, U6, U7, U8	6		UCC5350MCD	Texas Instruments	Isolated Gate Drivers With High CMTI and Scalable Drive Strength, D0008B (SOIC-8)	D0008B
U3	1		TLV1117-33IDRJR	Texas Instruments	LDO with 4.7 to 15 V Input and 3.3 V Output, -40 to 125 degC, 8-Pin SON (DRJ), Green (RoHS & no Sb/Br)	DRJ0008A
U4	1		SN74LVC1G17DCKR	Texas Instruments	SINGLE SCHMITT-TRIGGER BUFFER, DCK0005A (SOT-5)	DCK0005A
U9	1		TLV521	Texas Instruments	Nanopower 400nA, 1.8V, R-R I/O CMOS Op Amp, DCK0005A	DCK0005A
U12, U13, U14, U15	4		AMC1306E25DWVR	Texas Instruments	Small, High-Precision, Reinforced Isolated Delta-Sigma Modulator with Manchester Coded Output, DWV0008A	DWV0008A
U20, U22	2		LM3480IM3-5.0/NOPB	Texas Instruments	100 mA, Quasi Low-Dropout Linear Voltage Regulator, 3-pin SOT-23, Pb-Free	MF03A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U23	1		TLV70433DBVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 3.3 V Output, 2.5 to 24 V Input, with Ultra-Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U24	1		CM100TX-24S1	Mitsubishi	IGBT Module,High Power Switching Use Insulated Type, TH	121.7x62mm
XF1, XF2	2	5AG	3566	Keystone	Fuse Holder, 5AG, TH	11.07x19x12.29mm
C9, C12, C15, C18, C19, C22, C28, C29, C37, C38, C43, C44, C49, C57	0	4.7uF	C2012X7R1V475K125AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, 0805	0805
C10	0	12pF	GRM1885C1H120JA01D	MuRata	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C11, C94	0	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C13, C16, C20, C31, C39, C45, C48, C50, C51, C52, C53, C54, C56	0	0.47uF	C1608X7R1H474K080AC	TDK	CAP, CERM, 0.47 µF, 50 V, +/- 10%, X7R, 0603	0603
C72, C73, C74, C75, C76, C77, C78	0	0.01uF	CGA3E2C0G1H103J080AA	TDK	CAP, CERM, 0.01 µF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C81, C83, C84, C92	0	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D2, D3, D4, D5, D6, D7	0	30V	MSS2P3-M3/89A	Vishay-Semiconductor	Diode, Schottky, 30 V, 2 A, AEC-Q101, MicroSMP	MicroSMP
D9	0	1200V	RHRG30120	Fairchild Semiconductor	Diode, Ultrafast, 1200 V, 30 A, TH	TO-247-2
D10, D11	0	200V	1SMB5956BT3G	ON Semiconductor	Diode, Zener, 200 V, 550 mW, SMB	SMB
J3	0		1902547	Phoenix Contact	Terminal Block, 9.52mm, 2x1, R/A, TH	Terminal Block, 2x1, Pitch 9.52mm
J5, J6, J13	0		800-10-003-10-001000	Mill-Max	Header, 100mil, 3x1, TH	Header, 3x1, 100mil, TH
Q1	0	1200 V	NGTB25N120IHLWG	Infineon Technologies	Transistor, IGBT, 1200 V, 9.9 A, TO-247	TO-247
R2, R5, R14, R22, R28, R34, R40, R99, R100, R101, R102, R103, R105	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R8	0	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
R11, R17, R18, R25, R31, R37	0	12.0	RC1206FR-0712RL	Yageo America	RES, 12.0, 1%, 0.25 W, 1206	1206
R71, R94	0	16.5	CRCW120616R5FKEA	Vishay-Dale	RES, 16.5, 1%, 0.25 W, 1206	1206
R81	0	12.1k	CRCW060312K1FKEA	Vishay-Dale	RES, 12.1 k, 1%, 0.1 W, 0603	0603
R90	0	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R96	0	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R168, R169, R170, R171, R172, R173	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
U10	0		UCC5350MCD	Texas Instruments	Isolated Gate Drivers With High CMTI and Scalable Drive Strength, D0008B (SOIC-8)	D0008B

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