

## TIDA-01458 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-01458	Any	Printed Circuit Board	
C1	1	0.47uF	GRM188R61E474KA12D	MuRata	CAP, CERM, 0.47 $\mu$ F, 25 V, +/- 10%, X5R, 0603	0603
C2, C26	2	470uF	35ZL470MEFC10X20	Rubycon	CAP, AL, 470 $\mu$ F, 35 V, +/- 20%, TH	TH, 2-Leads, Body 10x20mm, Pin Spacing 5mm
C3	1	2.2uF	C1608X5R1V225K080AC	TDK	CAP, CERM, 2.2 $\mu$ F, 35 V, +/- 10%, X5R, 0603	0603
C4, C5, C19, C21	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 $\mu$ F, 50 V, +/- 10%, X7R, 1210	1210
C6, C7	2	0.47uF	GRM21BR71H474KA88L	MuRata	CAP, CERM, 0.47 $\mu$ F, 50 V, +/- 10%, X7R, 0805	0805
C8, C9, C10, C33	4	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 $\mu$ F, 25 V, +/- 10%, X7R, 1210	1210
C11, C38, C46, C48, C53, C59, C60, C61	8	1uF	C1608X5R1H105K080AB	TDK	CAP, CERM, 1 $\mu$ F, 50 V, +/- 10%, X5R, 0603	0603
C12, C14, C15, C22, C25, C27, C36, C42, C44, C52, C54, C55	12	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 $\mu$ F, 50 V, +/- 10%, X7R, 0603	0603
C13	1	4.7pF	08055A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0805	0805
C16	1	0.022uF	08055C223KAT2A	AVX	CAP, CERM, 0.022 $\mu$ F, 50 V, +/- 10%, X7R, 0805	0805
C17, C18, C20, C64	4	10uF	C3216X5R1H106K160AB	TDK	CAP, CERM, 10 $\mu$ F, 50 V, +/- 10%, X5R, 1206	1206
C23, C24	2	4.7uF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 $\mu$ F, 50 V, +/- 10%, X7R, 1210	1210
C29, C30, C63	3	1uF	GRM21BR71E105KA99L	MuRata	CAP, CERM, 1 $\mu$ F, 25 V, +/- 10%, X7R, 0805	0805
C31, C35, C41, C50, C57, C62	6	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 $\mu$ F, 25 V, +/- 20%, X5R, 1206_190	1206_190
C32	1	0.027uF	GRM188R71E273KA01D	MuRata	CAP, CERM, 0.027 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
C34, C37, C39, C40, C43, C45, C47, C49, C51, C56, C58	11	10uF	C2012X5R1V106K085AC	TDK	CAP, CERM, 10 $\mu$ F, 35 V, +/- 10%, X5R, 0805	0805
C65	1	22pF	06035A220JAT2A	AVX	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D1, D3, D4	3	3.3V	1SMB5913BT3G	ON Semiconductor	Diode, Zener, 3.3 V, 550 mW, SMB	SMB
D2	1	60V	PDS760-13	Diodes Inc.	Diode, Schottky, 60 V, 7 A, PowerDI5	PowerDI5
D5, D6, D7, D8	4	60V	B260A-13-F	Diodes Inc.	Diode, Schottky, 60 V, 2 A, SMA	SMA
D9	1	100V	1N4148W-TP	Micro Commercial Component	Diode, Switching, 100 V, 0.15 A, SOD-123	SOD-123
H1, H2, H5, H6	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H7, H8, H13, H14	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	4x1 Header
J2, J3	2		1792876	Phoenix Contact	Terminal Block, 5mm, 3x1, R/A, TH	Terminal Block, 5mm, 3x1, R/A, TH
J4	1		1715721	Phoenix Contact	Terminal Block, 5.08 mm, 2x1, TH	2POS Terminal Block
J5, J6, J7, J8	4		901-144-8RFX	Amphenol RF	SMA Straight Jack, Gold, 50 Ohm, TH	SMA Straight Jack, TH
L1	1	10uH	XAL7030-103MEB	Coilcraft	Inductor, Shielded, Composite, 10 $\mu$ H, 5.3 A, 0.057 ohm, SMD	XAL7030
L2	1	33uH	7443551331	Würth Elektronik eiSos	Inductor, Shielded Drum Core, WE-Perm, 33uH, 5.5A, 0.0305 ohm, SMD	WE-HCA1
L3, L4	2	2.2uH	XAL7030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2uH, 12.9A, 0.0137 ohm, SMD	XAL7030

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Q1, Q3	2	45 V	BC847CLT1G	ON Semiconductor	Transistor, NPN, 45 V, 0.1 A, SOT-23	SOT-23
Q2	1	100V	BSS123	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23
Q4, Q5, Q6	3	45 V	BC857C-7-F	Diodes Inc.	Transistor, PNP, 45 V, 0.1 A, SOT-23	SOT-23
R1	1	240k	CRCW0805240KJNEA	Vishay-Dale	RES, 240 k, 5%, 0.125 W, 0805	0805
R2, R31, R59, R60, R61, R62, R63	7	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R3, R67, R68	3	47k	CRCW080547K0JNEA	Vishay-Dale	RES, 47 k, 5%, 0.125 W, 0805	0805
R4	1	68k	CRCW060368K0JNEA	Vishay-Dale	RES, 68 k, 5%, 0.1 W, 0603	0603
R5	1	470	CRCW0603470RJNEA	Vishay-Dale	RES, 470, 5%, 0.1 W, 0603	0603
R6, R65	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R7	1	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R8, R10, R14	3	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R9	1	20k	CRCW060320K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.1 W, 0603	0603
R11, R33, R36, R37, R39, R42, R47, R48, R57	9	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R12, R49, R66	3	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R13	1	2.0k	CRCW08052K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.125 W, 0805	0805
R15, R28	2	3.3k	CRCW06033K30JNEA	Vishay-Dale	RES, 3.3 k, 5%, 0.1 W, 0603	0603
R16	1	2.7k	CRCW06032K70JNEA	Vishay-Dale	RES, 2.7 k, 5%, 0.1 W, 0603	0603
R17, R20	2	10K	TC33X-2-103E	Bourns	TRIMMER 10K OHM 0.1W	3.8x3.6mm
R18, R50, R53	3	180k	CRCW0603180KJNEA	Vishay-Dale	RES, 180 k, 5%, 0.1 W, 0603	0603
R19	1	33k	CRCW060333K0JNEA	Vishay-Dale	RES, 33 k, 5%, 0.1 W, 0603	0603
R21	1	2.2k	CRCW06032K20JNEA	Vishay-Dale	RES, 2.2 k, 5%, 0.1 W, 0603	0603
R22	1	3.6k	CRCW06033K60JNEA	Vishay-Dale	RES, 3.6 k, 5%, 0.1 W, 0603	0603
R23, R26, R32, R35, R38, R41, R44, R45, R46, R55	10	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R24, R56	2	22k	CRCW060322K0JNEA	Vishay-Dale	RES, 22 k, 5%, 0.1 W, 0603	0603
R25	1	59.0k	CRCW060359K0FKEA	Vishay-Dale	RES, 59.0 k, 1%, 0.1 W, 0603	0603
R27	1	442k	CRCW0603442KFKEA	Vishay-Dale	RES, 442 k, 1%, 0.1 W, 0603	0603
R29	1	470	CRCW0805470RJNEA	Vishay-Dale	RES, 470, 5%, 0.125 W, 0805	0805
R30	1	220	CRCW0603220RJNEA	Vishay-Dale	RES, 220, 5%, 0.1 W, 0603	0603
R34, R40	2	330	CRCW0603330RJNEA	Vishay-Dale	RES, 330, 5%, 0.1 W, 0603	0603
R43, R52	2	1.2Meg	CRCW06031M20JNEA	Vishay-Dale	RES, 1.2 M, 5%, 0.1 W, 0603	0603
R51, R54	2	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, 0603	0603
R58	1	93.1k	CRCW060393K1FKEA	Vishay-Dale	RES, 93.1 k, 1%, 0.1 W, 0603	0603
R64	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, 0603	0603
U1	1		LM73605RNPR	Texas Instruments	3.5V to 36V 5A Synchronous Step-Down Voltage Regulator, RNP0030A (WQFN-30)	RNP0030A
U2, U7, U9	3		TLV2171IDR	Texas Instruments	36V, Low Power, RRO, General Purpose Operational Amplifier, D0008A (SOIC-8)	D0008A
U3	1		TL431ACDBZR	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, 0 to 70 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U4	1		LMR14050SDDAR	Texas Instruments	40V, 5A SIMPLE SWITCHER, 2.2MHz Step-Down Regulator with 40uA IQ, DDA0008E (SOIC-8)	DDA0008E
U5, U6	2		TPS7A4701RGWR	Texas Instruments	36-V, 1-A, 4.17-uVRMS, RF LDO Voltage Regulator, RGW0020A (VQFN-20)	RGW0020A
U8, U10	2		TPS7A3301RGWR	Texas Instruments	Single Output High PSRR LDO, 1 A, Adjustable -1.18 to -33 V Output, -3 to -36 V Input, with Ultra-Low Noise, 20-pin VQFN (RGW), -40 to 125 degC, Green (RoHS & no Sb/Br)	RGW0020A

<b>Designator</b>	<b>Quantity</b>	<b>Value</b>	<b>PartNumber</b>	<b>Manufacturer</b>	<b>Description</b>	<b>PackageReference</b>
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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