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TIDA-01412 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB	1		TIDA-01412	Any	Printed Circuit Board	
2	C1, C4	2	4.7uF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1210	1210
3	C2, C3, C5, C7	4	1uF	GRM31MR71H105KA88L	MuRata	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1206	1206
4	C6	1	56uF	35ZL56MEFCTA6.3X11	Rubycon	CAP, AL, 56 µF, 35 V, +/- 20%, 0.13 ohm, TH	6.3x11mm, TH
5	C8	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	0603
6	C9, C20, C21, C22, C23, C24, C25	7	22uF	GCM31CR71A226KE02	MuRata	CAP, CERM, 22 µF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
7	C10, C13	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
8	C11	1	4.7uF	GRM21BR71A475KA73L	MuRata	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X7R, 0805	0805
9	C12	1	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
10	C14, C15, C18	3	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
11	C16	1	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603
12	C17	1	0.01uF	C0603X103K5RACTU	Kemet	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	0603
13	C19	1	39pF	GRM1885C1H390JA01D	MuRata	CAP, CERM, 39 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
14	C26, C27, C28	3	3300pF	GRM188R71H332KA01D	MuRata	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
15	D1	1	40V	BAS40-05-7-F	Diodes Inc.	Diode, Schottky, 40 V, 0.2 A, SOT-23	SOT-23
16	D2	1	60V	PDS560-13	Diodes Inc.	Diode, Schottky, 60 V, 5 A, PowerDI5	PowerDI5
17	D3	1	8.2V	BZX84B8V2LT1G	ON Semiconductor	Diode, Zener, 8.2 V, 225 mW, SOT-23	SOT-23
18	J1	1		ED555/2DS	On-Shore Technology	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm
19	J2, J3, J4, J5, J6, J7	6		61300211121	Würth Elektronik	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
20	J8	1		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
21	L1	1	4.7uH	B82464-G4472-M	TDK	Inductor, Shielded, Ferrite, 4.7 µH, 4.9 A, 0.015 ohm, SMD	10.4x10.4mm
22	L2	1	8.2uH	XAL6060-822MEB	Coilcraft	Inductor, Shielded, Composite, 8.2 µH, 8.4 A, 0.02 ohm, SMD	IND_6.4x6.1x6.6
23	L3	1	2.2uH	B82464-G4222-M	TDK	Inductor, Shielded, Ferrite, 2.2 µH, 6.5 A, 0.01 ohm, SMD	10.4x10.4mm
24	L4, L5, L6	3	2.2uH	VLF302510MT-2R2M	TDK	Inductor, Shielded, Ferrite, 2.2 µH, 1.23 A, 0.084 ohm, SMD	IND_3x1x2.5mm
25	Q1	1	30V	SiSA04DN-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 30 V, 40 A, PowerPAK 1212	PowerPAK 1212
26	R1, R12, R16	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
27	R2, R5, R15	3	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
28	R3	1	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
29	R4	1	82.5k	CRCW060382K5FKEA	Vishay-Dale	RES, 82.5 k, 1%, 0.1 W, 0603	0603
30	R6	1	3.01	CRCW06033R01FKEA	Vishay-Dale	RES, 3.01, 1%, 0.1 W, 0603	0603
31	R7	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
32	R8	1	221k	CRCW0603221KFKEA	Vishay-Dale	RES, 221 k, 1%, 0.1 W, 0603	0603
33	R9	1	0.02	WSL2010R0200FEA18	Vishay-Dale	RES, 0.02, 1%, 1 W, 2010	2010
34	R10	1	16.5k	CRCW060316K5FKEA	Vishay-Dale	RES, 16.5 k, 1%, 0.1 W, 0603	0603
35	R11	1	33.2k	CRCW060333K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.1 W, 0603	0603
36	R13	1	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
37	R14	1	16.9k	CRCW060316K9FKEA	Vishay-Dale	RES, 16.9 k, 1%, 0.1 W, 0603	0603
38	R17	1	73.2k	CRCW060373K2FKEA	Vishay-Dale	RES, 73.2 k, 1%, 0.1 W, 0603	0603
39	R19	1	23.2k	CRCW060323K2FKEA	Vishay-Dale	RES, 23.2 k, 1%, 0.1 W, 0603	0603
40	U1	1		LM53603AQPWPQRQ1	Texas Instruments	5V/3.3V/ADJ, 3A, Buck Regulator For Automotive Applications, PWP0016H	PWP0016H
41	U2	1		TPS40210QDQGRQ1	Texas Instruments	4.5-V TO 52-V INPUT CURRENT MODE BOOST CONTROLLER, DGQ0010D	DGQ0010D
42	U3	1		TPS62133AQRGTRQ1	Texas Instruments	3V to 17-V 3A Step-Down Converter with DCS-Control™, RGT0016C	RGT0016C
43	U4	1		TPS62130AQRGTRQ1	Texas Instruments	3V to 17-V 3A Step-Down Converter with DCS-Control™, RGT0016C	RGT0016C
44	U5	1		TPS6213013AQRGTRQ1	Texas Instruments	3V-17V 3A Step-Down Converter With DCS-Control, RGT0016C (VQFN-16)	RGT0016C
45	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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