

TIDA-00845 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1	1	22000uF	B41231B5229M	EPCCS (TDK)	CAP, AL, 10000 uF, 6.3 V, +/- 20%, SMD	MN0
2	C2	1	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
3	C3, C11, C17, C22	4	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10 uF, 16 V, +/- 20%, X5R, 0805	0805
4	C4, C5	2	4.7uF	GRM32ER71H476KA88L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1210	1210
5	C6	1	0.22uF	GRM21BR71H224KA01L	MuRata	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0805	0805
6	C7	1	1uF	GRM21BR71E105KA99L	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0805	0805
7	C8, C9	2	47uF	GRM32ER81C476ME15L	MuRata	CAP, CERM, 47 uF, 16 V, +/- 20%, X5R, 1210	1210
8	C10	1	0.022uF	GRM155R71C223KA01D	MuRata	CAP, CERM, 0.022 uF, 16 V, +/- 10%, X7R, 0402	0402
9	C12	1	1uF	GRM155R70J105MA12D	MuRata	CAP, CERM, 1 uF, 6.3 V, +/- 20%, X7R, 0402	0402
10	C13, C14	2	20pF	GRM1555C1H200JA01D	MuRata	CAP, CERM, 20 pF, 50 V, +/- 5%, COG/NP0, 0402	0402
11	C15	1	0.56uF	C1206C564K5RACTUJ	AVX	CAP, CERM, 0.56 uF, 25 V, +/- 10%, X7R, 1206	1206
12	C16, C18	2	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206 190	1206 190
13	C19, C20, C24, C26, C30, C31, C32, C33	8	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0402	0402
14	C21, C23, C25, C27, C34, C35	6	0.1uF	TMK105B7104MV-FR	Taiyo Yuden	CAP, CERM, 0.1 uF, 25 V, +/- 20%, X7R, 0402	0402
15	C28, C29	2	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603
16	C36, C43	2	10uF	CKG57NX7R2A106M500JH	TDK	CAP, CERM, 10 uF, 100 V, +/- 20%, X5R, 6x5x5mm	6x5x5mm
17	C37, C38, C41	3	100uF	C1210C107M8PACTU	Würth Elektronik	CAP, CERM, 100 uF, 10 V, +/- 20%, X5R, 1210	1210
18	C39, C40, C42	3	10uF	C2012X7R0J106M125AB	TDK	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X7R, 0805	0805
19	C47, C49	2	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
20	C48, C50	2	1000pF	885012205044	Würth Elektronik	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0402	0402
21	C51	1	2.2uF	UMK105B1J225MV-F	Taiyo Yuden	CAP, CERM, 2.2 uF, 6.3 V, +/- 20%, X5R, 0402	0402
22	D1, D3	2	Green	LTST-C171GKT	Lite-On	LED, Green, SMD	LED_0805
23	D2	1	80V	PDS560-13	Diodes Inc.	Diode, Schottky, 80 V, 5 A, PowerDi5	PowerDi5
24	D7	1		LTST-C171GKT	Lite-On	LED, Green, SMD	LED_0805
25	D8, D9, D15	3	Super Red	VLMS1500-GS08	Vishay-Semiconductor	LED, Super Red, SMD	LED, 1x.35x5mm
26	D10, D12, D13, D14	4		VLMS1500-GS08	Vishay-Semiconductor	LED, Super Red, SMD	LED, 1x.35x5mm
27	D11	1	15V	1SMA5929BT3G	ON Semiconductor	Diode, Zener, 15 V, 500 mW, SMA	SMA
28	H1, H2, H3, H4	4		29311	Keystone	Screw Pan Head M3	Screw M3
29	H5, H6, H7, H8	4		R30-3000502	Harwin	HEX STANDOFF M3 BRASS 5MM	HEX STANDOFF M3 BRASS 5MM
30	J1	1		PJ-202AH	CLUI Inc.	Connector, DC Jack 2.1X5.5 mm, TH	Conn, DC Jack, pin 2mm Dia
31	J2, J16, J17	3		131-3701-261	Emerson Network Power	Connector, SMB, Vertical RCP 0-4GHz, 50 ohm, TH	236x23x236mil
32	J3, J4, J11, J12	4		131-5031-00	Tektronix	Compact Probe Tip Circuit Board Test Points, TH, 25 per	TH Scope Probe
33	J5	1		292303-4	TE Connectivity	Connector, Receptacle, USB Type A, R/A, Top Mount TH	USB Type A right angle
34	J6	1		67068-8000	Molex	Connector, Receptacle, USB TYPE B, R/A, Top Mount TH	USB Type B Receptacle
35	J7	1		896-43-004-00-000000	Mill-Max	Connector, Receptacle, USB TYPE A, 4POS SMD	USB TYPE A CONNECTOR RECEPTACLE 4POS SMD
36	J8, J10	2		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
37	J13, J14	2		22-23-2021	Molex	Header, 2.54mm, 2x1, Vertical, TH	Header, 2.54mm, 2x1, TH
38	J15, J18	2		61300111121	Würth Elektronik	Header, 2.54 mm, 1x1, Gold, TH	Header, 2.54 mm, 1x1, TH
39	K2, K3	2		DAR70510	Cynergy 3	Inductor, Shielded Drum Core, Superflux, 6.5 uH, 6 A, 0.0225 ohm, SMD	60.0x15.8 mm
40	L1	1	6.5uH	744314650	Würth Elektronik	Inductor, Shielded Drum Core, Superflux, 6.5 uH, 6 A, 0.0225 ohm, SMD	6.9x4.8x6.9mm
41	R1	1	825	CRCW04028255RFFKED	Vishay-Dale	RES, 825, 1%, 0.063 W, 0402	0402
42	R2	1	100k	CRCW0402100K0HEDP	Vishay-Dale	RES, 100 k, 0.5%, 0.063 W, 0402	0402
43	R3, R30	2	255	CRCW04022555RFFKED	Vishay-Dale	RES, 255, 1%, 0.063 W, 0402	0402
44	R4	1	7.5	TEH100M7R50FE	Ohmite	RES, 7.5, 5%, 10 W, RES 48x9.5x9mm	RES 0.620" L x 0.195" W
45	R5	1	17.8k	CRCW0402178K8FKED	Vishay-Dale	RES, 17.8 k, 1%, 0.063 W, 0402	0402
46	R6	1	49.9k	CRCW0402499K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
47	R7	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, 0402	0402
48	R8	1	1.00Meg	CRCW04021M00FKED	Vishay-Dale	RES, 1.00 M, 1%, 0.063 W, 0402	0402
49	R12	1	1.87k	CRCW04021K87FKED	Vishay-Dale	RES, 1.87 k, 1%, 0.063 W, 0402	0402
50	R13, R14	2	30.1	CRCW040230R1FKED	Vishay-Dale	RES, 30.1, 1%, 0.063 W, 0402	0402
51	R15	1	330	CRCW0402330JUNED	Vishay-Dale	RES, 330, 5%, 0.063 W, 0402	0402
52	R16	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
53	R17	1	9.53k	CRCW04029K53FKED	Vishay-Dale	RES, 9.53 k, 1%, 0.063 W, 0402	0402
54	R18	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
55	R19, R20, R21	3	4.7k	CRCW04024K70JNED	Vishay-Dale	RES, 4.7 k, 5%, 0.063 W, 0402	0402
56	R22, R23, R26	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
57	R24	1	90.9k	CRCW040290K9FKED	Vishay-Dale	RES, 90.9 k, 1%, 0.063 W, 0402	0402
58	R25	1	10.0k	CRCW040210K0HEDP	Vishay-Dale	RES, 10.0 k, 0.5%, 0.063 W, 0402	0402
59	R27, R28, R31	3	165	CRCW0402165RFFKED	Vishay-Dale	RES, 165, 1%, 0.063 W, 0402	0402
60	S1	1		GPB527C202BR	CW Industries	SWITCH PUSH SPST-NO 10A 125V	eg: 0603, used in PHP-report
61	S2, S3	2		KSR221GLFS	C&K Components	Switch, Normally open, 2.3N force, 200k operations, SMD	KSR
62	TP1	1	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
63	U1, U2, U3	3		TPD3S714QDBQRQ1	Texas Instruments	AUTOMOTIVE USB 2.0 Interface Protection with Short-to-Battery and Short-to-Ground Protection, DBQ0016A	DBQ0016A
64	U4	1		TUSB4020BIPHP	Texas Instruments	400 Mbps IEEE 1394a One-Port Cable Transceiver / Arbiter, 3.3V, 0 to 70 degC, 48-Pin HTQFP (PHP), Green (RoHS & no Sb/Br)	PHP0048C
65	U5	1		LMR14030SDDAR	Texas Instruments	SIMPLE SWITCHER 40 V 3.5 A, 2.2 MHz Step-Down Converter with 40 uA IQ, DDA0008E	DDA0008E
66	U6	1		TPS7A4533DCQR	Texas Instruments	Single Output Fast Transient Response LDO, 1.5 A, Fixed 3.3 V Output, 2.1 to 20 V Input, 6-pin SOT-223 (DCQ), -40 to 125 degC, Green (RoHS & no Sb/Br)	DCQ0006A
67	U7	1		TPS74801RGW/R	Texas Instruments	Single Output LDO, 1.5 A, Adjustable 0.8 to 3.6 V Output, 0.8 to 5.5 V Input, with Programmable Soft Start, 20-pin VQFN (RGW), -40 to 125 degC, Green (RoHS & no Sb/Br)	RGW0020A
68	U8, U9, U17	3		SN74LVC1G125	Texas Instruments	Single Bus Buffer Gate With 3-State Output, DCK0005A	DCK0005A
69	U11, U12	2		ACS712ELCTR-05B-T	Allegro Microsystems Inc	Fully Integrated, Hall Effect-Based Linear Current Sensor IC with 2.1kV RMS Isolation and a Low-Resistance Current Conductor, SOIC-8	SOIC-8
70	U13, U14, U15, U16	4		TPDI05U06DPYR	Texas Instruments	ESD in 0402 Package with 10 pF Capacitance and 6 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br)	DPY0002A
71	Y1	1		445C25D24M00000	CTS Freq Controls	Crystal, 24.000MHz, 20pF, SMD	Crystal, XTAL_2_SM_197X12.6
72	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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