

TIDA-010011-E1_Processor_Power REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	47uF	EEE-FK1H470XP	Panasonic	CAP, AL, 47 µF, 50 V, +/- 20%, 0.68 ohm, SMD	SMT Radial D8
C2, C161, C188	3	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
C3, C26, C29, C37, C38, C39, C43, C147, C155, C159, C191	11	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C4, C8, C11, C13, C16, C84, C87, C192	8	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
C5, C6, C7, C12	4	47uF	GRM31CR61A476KE15L	MuRata	CAP, CERM, 47 µF, 10 V, +/- 10%, X5R, 1206	1206
C9	1	16pF	GRM1885C1H160JA01D	MuRata	CAP, CERM, 16 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C10, C15	2	22uF	GRM31CR71A226KE15L	MuRata	CAP, CERM, 22 µF, 10 V, +/- 10%, X7R, 1206	1206
C14	1	20pF	GRM1885C1H200JA01D	MuRata	CAP, CERM, 20 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C17	1	0.47uF	GCM188R71E474KA64D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C18, C22, C23, C56, C172	5	0.1uF	C2012X7R2A104K125AA	TDK	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C19, C57	2	4.7uF	C3216X7R1V475K085AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, 1206	1206
C20, C21	2	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 µF, 25 V, +/- 10%, X7R, 1206	1206
C24, C25	2	22uF	CGA6P1X7R1C226M250AC	TDK	CAP, CERM, 22 µF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210
C27, C28, C110	3	22uF	JMK212BJ226KG-T	Taiyo Yuden	CAP, CERM, 22 µF, 6.3 V, +/- 10%, X5R, 0805	0805
C30	1	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C31	1	1uF	CL10B105KQ8NNNC	Samsung Electro-Mechanics	CAP, CERM, 1 µF, 6.3 V, +/- 10%, X7R, 0603	0603
C32	1	0.1uF	0603ZC104KAT2A	AVX	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0603	0603
C33	1	0.047uF	08055C473KAT2A	AVX	CAP, CERM, 0.047 µF, 50 V, +/- 10%, X7R, 0805	0805
C34, C35, C36, C40, C41, C62, C63, C70, C71, C73, C74, C75, C78, C80, C81, C82, C170, C171	18	10uF	C1608X5R1E106M080AC	TDK	CAP, CERM, 10 µF, 25 V, +/- 20%, X5R, 0603	0603
C42, C177	2	4.7uF	GRM188R61C475KAAJ	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603
C44	1	1000pF	C0603C102K3GACTU	Kemet	CAP, CERM, 1000 pF, 25 V, +/- 10%, C0G/NP0, 0603	0603
C45	1	47uF	EKZN101ELL470MH15D	Chemi-Con	CAP, AL, 47 µF, 100 V, +/- 20%, 0.14 ohm, TH	D8xL15mm
C46, C47	2	4.7uF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1210	1210
C48, C49	2	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V, +/- 10%, X7R, 1210	1210
C50	1	22uF	JMK212BJ226MG-T	Taiyo Yuden	CAP, CERM, 22 µF, 6.3 V, +/- 20%, X5R, 0805	0805
C51, C59	2	22uF	JMK212BJ226KG-T	Taiyo Yuden	CAP, CERM, 22 µF, 6.3 V, +/- 10%, X5R, 0805	0805
C52, C61, C126	3	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	0805
C53	1	470pF	GRM1555C1H471JA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C54	1	10uF	C3216X7R1E106M160AE	TDK	CAP, CERM, 10 µF, 25 V, +/- 20%, X7R, 1206_190	1206_190
C55	1	3300pF	GRM1885C1H332JA01D	MuRata	CAP, CERM, 3300 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C58	1	10uF	CL31B106KBHNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1206	1206
C60	1	47uF	C3216X5R1C476M160AB	TDK	CAP, CERM, 47 µF, 16 V, +/- 15%, X5R, 1206	1206
C64	1	470pF	GRM188R71H471KA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	0603
C65, C187	2	1uF	08053D105KAT2A	AVX	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0805	0805
C66	1	22uF	C4532X5R1E226M250KA	TDK	CAP, CERM, 22 µF, 25 V, +/- 20%, X5R, 1812	1812

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C67, C148	2	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, 0603	0603
C68, C109, C123	3	0.01uF	GRM188R71E103KA01D	MuRata	CAP, CERM, 0.01 µF, 25 V,+/- 10%, X7R, 0603	0603
C69	1	100uF	293D107X9020E2TE3	Vishay-Sprague	CAP, TA, 100 µF, 20 V, +/- 10%, 0.5 ohm, SMD	7343-43
C72, C76, C77, C79, C83, C85, C86	7	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 µF, 16 V,+/- 10%, X7R, 0603	0603
C88, C89, C90, C91	4	22uF	GRM188R61A226ME15D	MuRata	CAP, CERM, 22 µF, 10 V,+/- 20%, X5R, 0603	0603
C92, C93, C94, C95, C96, C97, C163	7	22uF	GRM21BR61E226ME44L	MuRata	CAP, CERM, 22 µF, 25 V,+/- 20%, X5R, 0805	0805
C98, C99	2	47uF	CKG57NX7S1E476M500JH	TDK	CAP, CERM, 47 µF, 25 V,+/- 20%, X7S, 6x5x5mm	6x5x5mm
C100	1	3300pF	GRM188R71H332KA01D	MuRata	CAP, CERM, 3300 pF, 50 V,+/- 10%, X7R, 0603	0603
C101, C105	2	220uF	10TPE220ML	Panasonic	CAP, Tantalum Polymer, 220 µF, 10 V,+/- 20%, 0.025 ohm, 7343-30 SMD	7343-30
C102, C103, C108, C162, C164	5	0.1uF	C1206C104J5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V,+/- 5%, X7R, 1206	1206
C104	1	47uF	GRM32ER61A476KE20L	MuRata	CAP, CERM, 47 µF, 10 V,+/- 10%, X5R, 1210	1210
C106, C115, C120, C124	4	100uF	6TPE100MI	Panasonic	CAP, Tantalum Polymer, 100 µF, 6.3 V,+/- 20%, 0.018 ohm, 7343-20 SMD	7343-20
C107	1	47uF	GRM32ER60J476ME20L	MuRata	CAP, CERM, 47 µF, 6.3 V,+/- 20%, X5R, 1210	1210
C111	1	0.022uF	C0603C223K4RACTU	Kemet	CAP, CERM, 0.022 µF, 16 V,+/- 10%, X7R, 0603	0603
C112, C113, C145, C146, C167	5	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 µF, 50 V,+/- 10%, X7R, 0603	0603
C114, C122	2	10uF	CGA4J1X7S1C106K125AC	TDK	CAP, CERM, 10 µF, 16 V,+/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
C116, C117	2	0.1uF	C0603C104Z4VACTU	Kemet	CAP, CERM, 0.1 µF, 16 V,+80/-20%, Y5V, 0603	0603
C118, C165	2	1uF	GRM185C80J105KE26D	MuRata	CAP, CERM, 1 µF, 6.3 V,+/- 10%, X6S, 0603	0603
C119, C121	2	1500pF	GRM188R71H152KA01D	MuRata	CAP, CERM, 1500 pF, 50 V,+/- 10%, X7R, 0603	0603
C125	1	10pF	C0603C100F5GAC7867	Kemet	CAP, CERM, 10 pF, 50 V,+/- 1%, C0G/NP0, 0603	0603
C127, C139	2	680uF	EKZE250ELL681MJ20S	Chemi-Con	CAP, AL, 680 µF, 25 V, +/- 20%, TH	D10xL20mm
C128, C140	2	1uF	GRM188R61H105KAALD	MuRata	CAP, CERM, 1 µF, 50 V, +/- 10%, X5R, 0603	0603
C129, C141	2	1uF	C3216X7R1H105K	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1206	1206
C130, C142	2	0.1uF	C1206C104J5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 5%, X7R, 1206	1206
C131, C132	2	22uF	C3225X7R1C226K250AC	TDK	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210
C133	1	10uF	C3216X7R1E106M160AE	TDK	CAP, CERM, 10 uF, 25 V, +/- 20%, X7R, 1206_190	1206_190
C134, C135	2	22uF	C2012X7S1A226M125AC	TDK	CAP, CERM, 22 uF, 10 V, +/- 20%, X7S, 0805	0805
C136, C137	2	47uF	GRM32ER71A476KE15L	MuRata	CAP, CERM, 47 uF, 10 V, +/- 10%, X7R, 1210	1210
C138	1	22pF	GCM1555C1H220JA16D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
C143, C144	2	33uF	C2012X5R1A336M125AC	TDK	CAP, CERM, 33 µF, 10 V,+/- 20%, X5R, 0805	0805
C149, C151	2	0.47uF	C1608X7R1H474K080AC	TDK	CAP, CERM, 0.47 µF, 50 V,+/- 10%, X7R, 0603	0603
C150	1	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V,+/- 10%, X7R, 1210	1210
C152	1	2.2uF	C0603C225M8PACTU	Kemet	CAP, CERM, 2.2 µF, 10 V,+/- 20%, X5R, 0603	0603
C153	1	47uF	GRM21BR61A476ME15	MuRata	CAP, CERM, 47 µF, 10 V,+/- 20%, X5R, 0805	0805
C154	1	47pF	CGA3E2C0G1H470J080AA	TDK	CAP, CERM, 47 pF, 50 V,+/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C156, C158, C175, C182	4	0.1uF	06033D104KAT2A	AVX	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X5R, 0603	0603
C157, C193	2	0.1uF	GMK107BJ104KAHT	Taiyo Yuden	0.1µF ±10% 35V Ceramic Capacitor X5R 0603	0603
C160, C189, C190	3	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, 0603	0603
C166, C168	2	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603

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C169	1	150pF	06035A151JAT2A	AVX	CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C173	1	0.01uF	0603ZC103KAT2A	AVX	CAP, CERM, 0.01 µF, 10 V, +/- 10%, X7R, 0603	0603
C174	1	22uF	GRM31CR71A226KE15L	MuRata	CAP, CERM, 22 µF, 10 V, +/- 10%, X7R, 1206	1206
C176	1	330uF	EEF-GX0D331R	Panasonic	CAP, Aluminum Polymer, 330 µF, 2 V, +/- 20%, 0.003 ohm, SMD_7.3x1.9x4.3mm SMD	SMD_7.3x1.9x4.3mm
C178, C181	2	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	0603
C179, C180	2	22uF	GRM188R61A226ME15D	MuRata	CAP, CERM, 22 µF, 10 V, +/- 20%, X5R, 0603	0603
C183	1	120pF	GRM033R71E121KA01D	MuRata	CAP, CERM, 120 pF, 25 V, +/- 10%, X7R, 0201	0201
C184	1	4.7uF	C2012X7R1V475K125AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, 0805	0805
C185	1	22uF	EMK316BB7226ML-T	Taiyo Yuden	CAP, CERM, 22 uF, 16 V, +/- 20%, X7R, 1206_190	1206_190
C186	1	4.7uF	GRM155R60J475ME47D	MuRata	CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0402	0402
CVCC1	1	4.7uF	CGB3B1X5R1A475K055AC	TDK	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0603	0603
D1	1	20V	SS32-E3/57T	Vishay-Semiconductor	Diode, Schottky, 20 V, 3 A, SMC	SMC
D2	1	20V	MBRM120ET1G	ON Semiconductor	Diode, Schottky, 20 V, 1 A, POWERMITE	POWERMITE
D3, D4	2	4.7V	BZT52C4V7T-7	Diodes Inc.	Diode, Zener, 4.7 V, 300 mW, SOD-523	SOD-523
D5	1	Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	Red 0805 LED
D6, D7, D10, D16	4	Green	LTST-C190KGKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D9, D17	2	Green	LG M67K-G1J2-24-Z	OSRAM	LED, Green, SMD	2x1.4mm
D11, D12, D13, D14	4	40V	MBR0540T1G	ON Semiconductor	Diode, Schottky, 40 V, 0.5 A, SOD-123	SOD-123
D15	1	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED_0603
H1, H2, H3, H4, H5, H6, H7, H8	8		NSP-4-3-01	Essentra Components	MACHINE SCREW PAN PHILLIPS 4-40	Machine Screw, 4-40, 1/4"
H9, H10, H11, H12, H13, H14, H15, H16	8		1902E	Keystone	Standoff, Hex, 1" L #4-40 Nylon	Standoff
J1, J2, J3, J4, J5, J16, J18, J19, J20, J21	10		1751248	Phoenix Contact	Conn Term Block, 2POS, 3.5mm, TH	11x8.5x7.3mm
J6, J10	2		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
J11, J12, J13, J14	4		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
L1, L4, L6	3	3.3uH	NR3015T3R3M	Taiyo Yuden	Inductor, Wirewound, Ferrite, 3.3 µH, 1.21 A, 0.096 ohm, AEC-Q200 Grade 2, SMD	3x3mm
L2	1	6.8uH	744025006	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 6.8 µH, 1.1 A, 0.142 ohm, SMD	Inductor, 2.8x2.8x2.8mm
L3	1	470nH	VLS2012ET-R47N	TDK	Inductor, Shielded Drum Core, Ferrite, 470 nH, 2 A, 0.059 ohm, SMD	Inductor, 2x1.2x2mm
L5	1	1000 ohm	BLM41PG102SN1L	MuRata	Ferrite Bead, 1000 ohm @ 100 MHz, 1.5 A, 1806	1806
L7, L17	2	600 ohm	MPZ2012S601A	TDK	Ferrite Bead, 600 ohm @ 100MHz, 2A, 0805	0805
L8	1	15uH	74456115	Würth Elektronik eiSos	Inductor, Drum Core, Ferrite, 15uH, 2.9A, 0.0432 ohm, SMD	WE-PD4-L
L9	1	5uH	744052005	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 5uH, 1.65A, 0.047 ohm, SMD	WE-TPC-L
L10	1	1uH	7447730	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 1 µH, 4 A, 0.049 ohm, SMD	4.5x3.2x4.0mm
L11	1	1.5uH	74437324015	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Powdered Iron, 1.5uH, 3.8A, 0.0348 ohm, SMD	Inductor, 4.06x2x4.06mm
L12, L13	2	2.2uH	VLCF4020T-2R2N1R7	TDK	Inductor, Shielded, Ferrite, 2.2 µH, 1.72 A, 0.059 ohm, SMD	4.0x2.0x4.0mm
L14	1	3.3uH	VLCF4020T-3R3N1R5	TDK	Inductor, Shielded, Ferrite, 3.3 µH, 1.52 A, 0.078 ohm, SMD	4.0x2.0x4.0mm
L15	1	1uH	74437324010	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Powdered Iron, 1uH, 5A, 0.022 ohm, SMD	Inductor, 4.06x2x4.06mm
L16	1	2.2uH	7447789002	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 2.2 uH, 4.02 A, 0.019 ohm, SMD	SMD
L18	1	470nH	XFL4015-471MEC	Coilcraft	Inductor, Shielded, Composite, 470 nH, 3.5 A, 0.0076 ohm, SMD	SMD, 4x4x1.5mm
L19	1	2.2uH	74438343022	Würth Elektronik	Inductor, Shielded, 2.2 µH, 1.1 A, 0.27 ohm, SMD	1.6x2.0mm

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Q1, Q2	2	-20V	SI2323DS	Vishay-Siliconix	MOSFET, P-CH, -20 V, -3.7 A, SOT-23	SOT-23
Q3, Q4	2	40V	CSD18504Q5A	Texas Instruments	MOSFET, N-CH, 40 V, 15 A, DQJ0008A (VSONP-8)	DQJ0008A
Q5, Q6	2	30V	CSD17571Q2	Texas Instruments	MOSFET, N-CH, 30 V, 22 A, DQK0006C (WSON-6)	DQK0006C
R1	1	80.6k	CRCW060380K6FKEA	Vishay-Dale	RES, 80.6 k, 1%, 0.1 W, 0603	0603
R2	1	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2 k, 1%, 0.1 W, 0603	0603
R3	1	97.6k	CRCW060397K6FKEA	Vishay-Dale	RES, 97.6 k, 1%, 0.1 W, 0603	0603
R5, R45	2	240k	RC0603FR-07240KL	Yageo America	RES, 240 k, 1%, 0.1 W, 0603	0603
R6	1	53.6k	RC0603FR-0753K6L	Yageo America	RES, 53.6 k, 1%, 0.1 W, 0603	0603
R7	1	487k	CRCW0402487KFKED	Vishay-Dale	RES, 487 k, 1%, 0.063 W, 0402	0402
R8	1	1.00Meg	RC0402FR-071ML	Yageo America	RES, 1.00 M, 1%, 0.063 W, 0402	0402
R9	1	22.6k	CRCW040222K6FKED	Vishay-Dale	RES, 22.6 k, 1%, 0.063 W, 0402	0402
R10, R17, R26, R54	4	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R11, R30, R37	3	162k	RC0603FR-07162KL	Yageo America	RES, 162 k, 1%, 0.1 W, 0603	0603
R12, R13, R14	3	100k	ERJ-6ENF1003V	Panasonic	RES, 100 k, 1%, 0.125 W, 0805	0805
R15, R16	2	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R18	1	5.11k	RC0603FR-075K11L	Yageo America	RES, 5.11 k, 1%, 0.1 W, 0603	0603
R19, R22, R24	3	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R20, R38, R56, R74, R103, R106	6	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R21, R23	2	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R25	1	80.6k	RC0603FR-0780K6L	Yageo America	RES, 80.6 k, 1%, 0.1 W, 0603	0603
R28	1	59.0k	CRCW040259K0FKED	Vishay-Dale	RES, 59.0 k, 1%, 0.063 W, 0402	0402
R29, R36	2	499k	ERJ-3EKF4993V	Panasonic	RES, 499 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R31	1	11.3k	CRCW040211K3FKED	Vishay-Dale	RES, 11.3 k, 1%, 0.063 W, 0402	0402
R32	1	110k	RC0603FR-07110KL	Yageo America	RES, 110 k, 1%, 0.1 W, 0603	0603
R33, R34	2	44.2k	CRCW060344K2FKEA	Vishay-Dale	RES, 44.2 k, 1%, 0.1 W, 0603	0603
R35	1	200k	RC0603FR-07200KL	Yageo America	RES, 200 k, 1%, 0.1 W, 0603	0603
R39	1	118k	CRCW0402118KFKED	Vishay-Dale	RES, 118 k, 1%, 0.063 W, 0402	0402
R40	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, 0402	0402
R41	1	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R42	1	487	CRCW0603487RFKEA	Vishay-Dale	RES, 487, 1%, 0.1 W, 0603	0603
R46, R47	2	470k	RC0603FR-07470KL	Yageo America	RES, 470 k, 1%, 0.1 W, 0603	0603
R48	1	205k	CRCW0603205KFKED	Vishay-Dale	RES, 205 k, 1%, 0.1 W, 0603	0603
R49	1	120k	RC0603FR-07120KL	Yageo America	RES, 120 k, 1%, 0.1 W, 0603	0603
R52, R53	2	1.00k	RC0603FR-071KL	Yageo America	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R55, R71, R73, R75, R105, R143, R144, R145, R154	9	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
R58	1	2.87k	CRCW06032K87FKEA	Vishay-Dale	RES, 2.87 k, 1%, 0.1 W, 0603	0603
R61	1	464	CRCW0603464RFKEA	Vishay-Dale	RES, 464, 1%, 0.1 W, 0603	0603
R64	1	348k	CRCW0603348KFKED	Vishay-Dale	RES, 348 k, 1%, 0.1 W, 0603	0603
R68	1	360k	CRCW0402360KFKED	Vishay-Dale	RES, 360 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R69	1	182k	CRCW0402182KFKED	Vishay-Dale	RES, 182 k, 1%, 0.063 W, 0402	0402
R70, R76	2	0.033	ERJ-8CWFR033V	Panasonic	RES, 0.033, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206
R77, R81, R83, R84, R89, R93, R94, R98, R102	9	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R78	1	165k	CRCW0402165KFKED	Vishay-Dale	RES, 165 k, 1%, 0.063 W, 0402	0402
R79, R86, R97, R100	4	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, 0402	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R80	1	2.0	CRCW06032R00JNEA	Vishay-Dale	RES, 2.0, 5%, 0.1 W, 0603	0603
R82	1	301k	CRCW0402301KFKED	Vishay-Dale	RES, 301 k, 1%, 0.063 W, 0402	0402
R85	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R87, R91	2	2.00k	CRCW04022K00FKED	Vishay-Dale	RES, 2.00 k, 1%, 0.063 W, 0402	0402
R88, R95	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R90	1	432k	CRCW0402432KFKED	Vishay-Dale	RES, 432 k, 1%, 0.063 W, 0402	0402
R92	1	95.3k	CRCW040295K3FKED	Vishay-Dale	RES, 95.3 k, 1%, 0.063 W, 0402	0402
R96, R99	2	162k	CRCW0402162KFKED	Vishay-Dale	RES, 162 k, 1%, 0.063 W, 0402	0402
R101, R113	2	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, 0402	0402
R107, R109	2	61.9k	CRCW060361K9FKEA	Vishay-Dale	RES, 61.9 k, 1%, 0.1 W, 0603	0603
R108	1	36.5k	CRCW060336K5FKEA	Vishay-Dale	RES, 36.5 k, 1%, 0.1 W, 0603	0603
R110, R115, R121	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R111	1	15.4k	CRCW060315K4FKEA	Vishay-Dale	RES, 15.4 k, 1%, 0.1 W, 0603	0603
R112	1	22.0k	ERJ-3EKF2202V	Panasonic	RES, 22.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R116, R117, R138	3	47.0k	RG1608P-473-B-T5	Susumu Co Ltd	RES, 47.0 k, 0.1%, 0.1 W, 0603	0603
R118	1	0.1	ERJ-6RSJR10V	Panasonic	RES, 0.1, 5%, 0.125 W, 0805	0805
R119	1	37.4k	CRCW060337K4FKEA	Vishay-Dale	RES, 37.4 k, 1%, 0.1 W, 0603	0603
R120	1	1.00k	ERJ-3EKF1001V	Panasonic	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R122, R127, RES1	3	100k	RG1608P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.1 W, 0603	0603
R123	1	19.1k	RC0603FR-0719K1L	Yageo America	RES, 19.1 k, 1%, 0.1 W, 0603	0603
R124	1	24.3k	RC0603FR-0724K3L	Yageo America	RES, 24.3 k, 1%, 0.1 W, 0603	0603
R125	1	64.2k	RT0603BRD0764K2L	Yageo America	RES, 64.2 k, 0.1%, 0.1 W, 0603	0603
R126, R129, R131, R155, R169	5	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R128	1	28.7k	CRCW060328K7FKEA	Vishay-Dale	RES, 28.7 k, 1%, 0.1 W, 0603	0603
R130, R139, R141	3	47.0k	RC0603FR-0747KL	Yageo America	RES, 47.0 k, 1%, 0.1 W, 0603	0603
R132, R133, R134, R140, R142	5	2.0k	CRCW06032K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.1 W, 0603	0603
R135, R136, R188, R189	4	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300, 5%, 0.1 W, 0603	0603
R137, R190	2	0	RMCF0603ZT0R00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R146, R147, R149, R150	4	4.7k	CR0603-JW-472GLF	Bourns	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R153	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R156	1	13.7k	RC0603FR-0713K7L	Yageo America	RES, 13.7 k, 1%, 0.1 W, 0603	0603
R157, R158	2	100k	ERA-3ARW104V	Panasonic	RES, 100 k, 0.05%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R160, R162, R163, R164	4	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
R161, R165	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R166, R167, R170, R176, R177, R179, R180, R181, R182, R187	10	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805
R168	1	30.9k	RC0603FR-0730K9L	Yageo America	RES, 30.9 k, 1%, 0.1 W, 0603	0603
R171	1	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R172, R173, R174, R175	4	100k	ERA-3AEB104V	Panasonic	RES, 100 k, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R178	1	3.3k	CRCW04023K30JNED	Vishay-Dale	RES, 3.3 k, 5%, 0.063 W, 0402	0402
R183	1	47.5k	RT0603DRE07976RL	Yageo America	RES, 976 ohm, 0.5%, 0.1W, 0603	0603
R184	1	536k	RT0603DRE07976RL	Yageo America	RES, 976 ohm, 0.5%, 0.1W, 0603	0603
R185	1	120k	RT0603DRE07976RL	Yageo America	RES, 976 ohm, 0.5%, 0.1W, 0603	0603
R186	1	10.0	CRCW060310R0FKEAHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, 0603	0603
RB1	1	30.1	CRCW040230R1FKED	Vishay-Dale	RES, 30.1, 1%, 0.063 W, 0402	0402
S1	1		B3U-1100P	Omron Electronic Components	Switch, SPST-NO, Off-Mom, 12 V, SMD	SMD, 3-Leads, Body 3x2.5mm
SH-J1, SH-J2, SH-J3, SH-J4	4		881545-2	TE Connectivity	Shunt, 100mil, Gold plated, Black	Shunt 2 pos. 100 mil
TP1, TP2, TP3, TP5, TP6, TP8, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP18, TP19, TP20, TP22, TP23, TP28, TP29, TP35, TP52, TP57, TP60, TP68, TP71, TP75, TP76, TP77, TP80, TP81, TP82, TP83, TP84, TP85, TP87, TP99, TP102, TP104, TP107, TP108, TP111	42		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP4, TP7, TP9, TP17, TP21, TP44, TP45, TP46, TP53, TP58, TP59, TP61, TP69, TP78, TP86, TP101, TP106	17		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP24, TP25, TP26, TP27, TP30, TP31, TP32, TP33, TP34, TP54, TP70, TP79, TP97, TP103, TP105	15		5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
TP36, TP38, TP40, TP41, TP55, TP91, TP95, TP109	8	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP37, TP39, TP42, TP43, TP56, TP93, TP96	7	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP47, TP48, TP49, TP50, TP51, TP62, TP63, TP64, TP65, TP66, TP67, TP72, TP73, TP74, TP88, TP89, TP90, TP92, TP94, TP98, TP100, TP110	22		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
U1	1		LMZ34202RVQ	Texas Instruments	SIMPLE SWITCHER 4.5-V to 42-V Input, 2-A Power Module, RVQ00043A, RVQ0043A (B3QFN-43)	RVQ0043A
U2	1		LMZ20502SILR	Texas Instruments	2A Buck Simple Switcher Nano Module, SIL0008F	SIL0008F
U3	1		LMZ20501SILR	Texas Instruments	SIMPLE SWITCHER(R) 2.7V to 5.5V, 1A High Density Nano Module, SIL0008F (uSIP-8)	SIL0008F
U4	1		LM53635AQRNLTQ1	Texas Instruments	C REG BUCK ADJ 3.5A SYNC 22VQFN	RNL0022A
U5	1		TPS62085RLTR	Texas Instruments	3-A Step-Down Converter with Hiccup Short Circuit Protection in 2x2 QFN Package, RLT0007A	RLT0007A
U6, U9, U15	3		TVS3300DRVR	Texas Instruments	33-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
U7	1		LP2998MRX/NOPB	Texas Instruments	IC CONV DDR DDR2 DDR3 8SOPWRPAD	DDA0008A
U8	1		LM3881MM/NOPB	Texas Instruments	Power Sequencer, 8-pin MSOP, Pb-Free	MUA008A
U10	1		TPS62821DLCR	Texas Instruments	1A Step-Down Converter With 1% Accuracy, DLC0008A (VSON-HR-8)	DLC0008A
U11	1		TPS51200DRCR	Texas Instruments	Single Output LDO, 3 A, 2.375 to 3.5 V Input, with DDR Termination, 10- pin SON (DRC), -40 to 85 degC, Green (RoHS & no Sb/Br)	DRC0010J
U12	1		LMZM33602RLR	Texas Instruments	LMZM33602, RLR0018A (B2QFN-18)	RLR0018A
U13	1		TPS82130SILR	Texas Instruments	3-A 17V Step-down Converter Module with Integrated Inductor, SIL0008D (uSIP-8)	SIL0008D
U14	1		TPS82084SILR	Texas Instruments	2A, High Efficiency Step Down Converter Module with Integrated Inductor, SIL0008C	SIL0008C
U16	1		TLV62565DBVR	Texas Instruments	1.5A Buck Converter in SOT23 Package, DBV0005A (SOT-23-5)	DBV0005A
U17	1		LMZM23601V5SILR	Texas Instruments	36-V 1-A Step-Down DC-DC Nano Module, SIL0010A (uSIP-10)	SIL0010A
U18	1		TPS82085SILR	Texas Instruments	3A, High-Efficiency Step-Down Converter Module with Integrated Inductor, SIL0008C (uSIP-8)	SIL0008C
U19	1		TPS767D318PWPR	Texas Instruments	Dual Output LDO, 1 A, Fixed 1.8, 3.3 V Output, 2.7 to 10 V Input, 28-pin HTSSOP (PWP), -40 to 125 degC, Green (RoHS & no Sb/Br)	PWP0028D
U20	1		INA381A1IDSGR	Texas Instruments	26-V, Low Cost, Zero-Drift, Voltage-Output, Current-Shunt Monitor With Integrated Comparator, DSG0008A (WSON-8)	DSG0008A
U21	1		LMZ10501SIL	Texas Instruments	1A SIMPLE SWITCHER® Nano Module with 5.5V Maximum Input Voltage, SIL0008A	SIL0008A
U22	1		TPS259531DSGR	Texas Instruments	12V eFuse with Over Voltage Protection, DSG0008A (WSON-8)	DSG0008A
U23	1		TVS1400DRVR	Texas Instruments	14-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
U24	1		TPSM82480MOPR	Texas Instruments	5.5-V Input, 6-A, Step-Down Converter with Integrated Inductor, MOP0024A (QFM-24)	MOP0024A
U25	1		LMZ30604RKGGR	Texas Instruments	SIMPLE SWITCHER(R) 2.95V to 6V, 4A Power Module in Small QFN package, RKG0039A (B1QFN-39)	RKG0039A
U26	1		TPS3705-33DR	Texas Instruments	Processor Supervisory Circuit with Power-Fail, 2 Supply Monitored, -40 to 85 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U27	1		TPS75003RHRLR	Texas Instruments	Integrated Triple Supply Power Management IC for Xilinx (R) Spartan (TM) 3 FPGAs, 2.2 to 6.5 V, -40 to 85 degC, 20-pin QFN (RHL), Green (RoHS & no Sb/Br)	RHL0020A
U28, U30	2		LM5050-2	Texas Instruments	HIGH SIDE OR-ING FET CONTROLLER	eg: 0603, used in PnP report
U29	1		TPS62067DSGR	Texas Instruments	Buck Step Down Regulator with 2.9 to 6 V Input and 0.8 to 6 V Output, -40 to 85 degC, 8-Pin WSON (DSG), Green (RoHS & no Sb/Br)	DSG0008A
U31	1		TPS650250RHBR	Texas Instruments	Power Management IC for Li-Ion Powered Systems, RHB0032E	RHB0032E
U32	1		LM73605RNPR	Texas Instruments	3.5V to 36V 5A Synchronous Step-Down Voltage Regulator, RNP0030A (WQFN-30)	RNP0030A
U33	1		TPS386596L33DGKT	Texas Instruments	Quad Voltage Supervisor with Manual Reset Input, DGK0008A (VSSOP-8)	DGK0008A
U34, U36	2		SN74LVC2G34DRLR	Texas Instruments	Dual Buffer Gate, DRL0006A, LARGE T&R	DRL0006A
U35	1		SN74LVC1G14DCKR	Texas Instruments	Single Schmitt-Trigger Inverter, DCK0005A (SOT-SC70-5)	DCK0005A
U37	1		INA250A3PWR	Texas Instruments	36-V Low-/High-Side Bi-Directional Zero-Drift Current Sense Amp w/Precision Int Shunt Resistor, PW0016A (TSSOP-16)	PW0016A
U38	1		TMP75BIDR	Texas Instruments	1.4V-Capable Temperature Sensor with I2C/SMBus Interface in LM75 Form Factor & Pinout, D0008A (SOIC-8)	D0008A
U39	1		TPS54325PWPR	Texas Instruments	IC REG BUCK ADJ 3A SYNC 14HTSSOP	PWP0014E
U40	1		TPS27081ADDCR	Texas Instruments	1.2V - 8V, 3A PFET High Side Load Switch w/ Level Shift & Adj Slew Rate Control, DDC0006A (SOT-23-T-6)	DDC0006A
U41	1		TPS3808G01DBVR	Texas Instruments	Low Quiescent Current, Programmable-Delay Supervisory Circuit, DBV0006A (SOT-6)	DBV0006A
U42	1		TPS7A8001DRBR	Texas Instruments	Low-Noise, High-Bandwidth PSRR, 1A Low-Dropout Linear Regulator, DRB0008A (VSON-8)	DRB0008A
U43	1		TMP235A4DBZR	Texas Instruments	TMP235DBZ, DBZ0003A (SOP-3)	DBZ0003A
U44	1		SN74LVC1G17DCKR	Texas Instruments	Single Schmitt-Trigger Buffer, DCK0005A, LARGE T&R	DCK0005A
D8	0	Green	LTST-C190KGKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
R4	0	8.87k	CRCW06038K87FKEA	Vishay-Dale	RES, 8.87 k, 1%, 0.1 W, 0603	0603
R27	0	34.8k	CRCW060334K8FKEA	Vishay-Dale	RES, 34.8 k, 1%, 0.1 W, 0603	0603
R43	0	1.02k	RC0603FR-071K02L	Yageo America	RES, 1.02 k, 1%, 0.1 W, 0603	0603
R44	0	4.42k	CRCW06034K42FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, 0603	0603
R50, R51	0	470k	RC0603FR-07470KL	Yageo America	RES, 470 k, 1%, 0.1 W, 0603	0603
R57, R67	0	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R59	0	1.15k	CRCW06031K15FKEA	Vishay-Dale	RES, 1.15 k, 1%, 0.1 W, 0603	0603
R60	0	681	CRCW0603681RFKEA	Vishay-Dale	RES, 681, 1%, 0.1 W, 0603	0603
R62	0	113k	CRCW0603113KFKEA	Vishay-Dale	RES, 113 k, 1%, 0.1 W, 0603	0603
R63	0	174k	CRCW0603174KFKEA	Vishay-Dale	RES, 174 k, 1%, 0.1 W, 0603	0603
R65	0	715k	CRCW0603715KFKEA	Vishay-Dale	RES, 715 k, 1%, 0.1 W, 0603	0603
R66	0	1.21Meg	CRCW06031M21FKEA	Vishay-Dale	RES, 1.21 M, 1%, 0.1 W, 0603	0603
R72, R104, R159	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
R114	0	47.0k	RG1608P-473-B-T5	Susumu Co Ltd	RES, 47.0 k, 0.1%, 0.1 W, 0603	0603
R148	0	4.7k	CR0603-JW-472GLF	Bourns	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R151, R152	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603

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