

TIDA-010008_DCinput_Protection REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	0.1uF	GRM21BR71H104KA01L	MuRata	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0805	0805
C2, C7, C28, C29, C31	5	10uF	GRT31CR61H106KE01L	MuRata	CAP, CERM, 10 μ F, 50 V, +/- 10%, X5R, AEC-Q200 Grade 1, 1206	1206
C3	1	1uF	C1206C105K3RACTU	Kemet	CAP, CERM, 1 μ F, 25 V, +/- 10%, X7R, 1206	1206
C4, C15	2	47uF	860020472006	Würth Electronics Inc.	CAP ALUM 47UF 20% 25V RADIAL	D5xL11.5mm
C5	1	1uF	GRM188R61H105KAALD	MuRata	CAP, CERM, 1 μ F, 50 V, +/- 10%, X5R, 0603	0603
C6	1	1000pF	GRM155R61C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X5R, 0402	0402
C8	1	4.7uF	C2012X7R1V475K125AC	TDK	CAP, CERM, 4.7 μ F, 35 V, +/- 10%, X7R, 0805	0805
C9	1	0.1uF	GRM21BR72A104KAC4L	MuRata	CAP, CERM, 0.1 μ F, 100 V, +/- 10%, X7R, 0805	0805
C10	1	0.1uF	C1608X7R1E104K080AA	TDK	CAP, CERM, 0.1 μ F, 25 V, +/- 10%, X7R, 0603	0603
C11	1	2.2uF	GRM31CR72A225KA73L	MuRata	CAP, CERM, 2.2 μ F, 100 V, +/- 10%, X7R, 1206_190	1206_190
C12	1	1uF	C3216X7R2A105M160AA	TDK	CAP, CERM, 1 μ F, 100 V, +/- 20%, X7R, 1206	1206
C13	1	0.022uF	GRM188R71C223KA01D	MuRata	CAP, CERM, 0.022 μ F, 16 V, +/- 10%, X7R, 0603	0603
C14, C18	2	1uF	CL10B105KP8NNNC	Samsung	CAP, CERM, 1 μ F, 10 V, +/- 10%, X7R, 0603	0603
C16, C22	2	4.7uF	CGB3B1X5R1A475K055AC	TDK	CAP, CERM, 4.7 μ F, 10 V, +/- 10%, X5R, 0603	0603
C17, C23	2	0.1uF	GCM188R71C104KA37J	MuRata	CAP, CERM, 0.1 μ F, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C19	1	0.47uF	C2012X6S1H474K125AB	TDK	CAP, CERM, 0.47 μ F, 50 V, +/- 10%, X6S, 0805	0805
C20	1	1000pF	GRM1885C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C21	1	0.1uF	C0805C104M5RACTU	Kemet	CAP, CERM, 0.1 μ F, 50 V, +/- 20%, X7R, 0805	0805
C24, C26	2	0.1uF	GRM033R60J104KE19D	MuRata	CAP, CERM, 0.1 μ F, 6.3 V, +/- 10%, X5R, 0201	0201
C25	1	0.01uF	0603ZC103KAT2A	AVX	CAP, CERM, 0.01 μ F, 10 V, +/- 10%, X7R, 0603	0603
C27	1	0.01uF	GRM033R60J103KA01D	MuRata	CAP, CERM, 0.01 μ F, 6.3 V, +/- 10%, X5R, 0201	0201
C30	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 μ F, 16 V, +/- 10%, X7R, 0805	0805
D1	1	RED	150060RS75000	Würth Elektronik Inc	LED RED CLEAR 0603 SMD	LED_0603
D2	1	20V	B320A-13-F	Diodes Inc.	Diode, Schottky, 20 V, 3 A, SMA	SMA
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
H1, H2, H3, H4	4		TCBS-6-01	Richco Plastics	HEX STANDOFF SPACER, 9.53 mm	7.9x9.5 mm
J1, J2, J3	3		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
L1	1	2.2uH	DFE252012F-2R2M=P2	MuRata Toko	Inductor, Shielded, Powdered Iron, 2.2 μ H, 2.3 A, 0.082 ohm, SMD	2.5x1.2x2mm
Q1	1	60V	CSD18543Q3A	Texas Instruments	MOSFET, N-CH, 60 V, 35 A, DNH0008A (VSONP-8)	DNH0008A
Q2	1	30V	CSD17577Q3A	Texas Instruments	MOSFET, N-CH, 30 V, 19 A, DNH0008A (VSONP-8)	DNH0008A
R1	1	27.4k	CRCW040227K4FKED	Vishay-Dale	RES, 27.4 k, 1%, 0.063 W, 0402	0402
R2, R8	2	68.1k	CRCW040268K1FKED	Vishay-Dale	RES, 68.1 k, 1%, 0.063 W, 0402	0402
R3	1	464k	CRCW0402464KFKED	Vishay-Dale	RES, 464 k, 1%, 0.063 W, 0402	0402
R4	1	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R5	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R6, R13	2	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R7, R10	2	49.9k	ERJ-2RKF4992X	Panasonic	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R9	1	825	CRCW0402825RFKED	Vishay-Dale	RES, 825, 1%, 0.063 W, 0402	0402
R11	1	4.87k	CRCW04024K87FKED	Vishay-Dale	RES, 4.87 k, 1%, 0.063 W, 0402	0402
R12	1	91k	CRCW060391K0JNEA	Vishay-Dale	RES, 91 k, 5%, 0.1 W, 0603	0603
R14, R15	2	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R16	1	715k	RC0603FR-07715KL	Yageo America	RES, 715 k, 1%, 0.1 W, 0603	0603
R17	1	20.0k	RT0603DRE0720KL	Yageo America	RES, 20.0 k, 0.5%, 0.1 W, 0603	0603
R18	1	402k	CRCW0603402KFKEA	Vishay-Dale	RES, 402 k, 1%, 0.1 W, 0603	0603

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R19	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R20	1	6.04k	CRCW06036K04FKEA	Vishay-Dale	RES, 6.04 k, 1%, 0.1 W, 0603	0603
R21	1	30.1k	CRCW060330K1FKEA	Vishay-Dale	RES, 30.1 k, 1%, 0.1 W, 0603	0603
R22, R31, R35, R36	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R23	1	100k	RC1005F104CS	Samsung Electro-Mechanics	RES, 100 k, 1%, 0.063 W, 0402	0402
R24	1	430k	RC0402FR-07430KL	Yageo America	RES, 430 k, 1%, 0.063 W, 0402	0402
R25, R26	2	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
R27	1	75.0k	CRCW040275K0FKED	Vishay-Dale	RES, 75.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R28	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R30	1	160k	CRCW0402160KFKED	Vishay-Dale	RES, 160 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R32, R33	2	100k	RC0201JR-07100KL	Yageo America	RES, 100 k, 5%, 0.05 W, 0201	0201
R34	1	536	RC0201FR-07536RL	Yageo America	RES, 536, 1%, 0.05 W, 0201	0201
TP1, TP2, TP3, TP4, TP5, TP6, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18	16		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP7, TP8	2		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		TPS2121RUXR	Texas Instruments	2.7V-22V, 4A, 50mohm Priority Power MUX, RUX0012A (VQFN-HR-12)	RUX0012A
U2	1		TVS1400DRVR	Texas Instruments	14-V Precision Surge Protection Clamp, DRV0006A (WSO-6)	DRV0006A
U3	1		TPS259631DDAR	Texas Instruments	2.7- 19V, 0.15-2A, 80mΩ eFuse with accurate current limiting, DDA0008E (HSOIC-8)	DDA0008E
U4	1		LM74700QDBVTQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A
U5	1		TPS26600PWPR	Texas Instruments	4.5V-55V, 0.15A-2A, 150mΩ Industrial eFuse, PWP0016D	PWP0016D
U6, U7	2		TVS3300DRVR	Texas Instruments	33V Precision Surge Protection Clamp, DRV0006A (WSO-6)	DRV0006A
U8	1		TPS25921LDR	Texas Instruments	18V, 1.6A, 90mΩ eFuse with Adjustable +/-2% Accurate Current Limit, D0008A (SOIC-8)	D0008A
U9	1		TPS22946YZPR	Texas Instruments	Ultra-Low Power, Low Input Voltage, Current Limited Load Switch, 300 mΩ rDS(On), -40 to 85 degC, 6-pin DSBGA (YZP), Green (RoHS & no Sb/Br)	YZP0006ADAD
U10	1		TVS0500DRVR	Texas Instruments	5-V Precision Surge Protection Clamp, DRV0006A (WSO-6)	DRV0006A
U11	1		LM74610QDGKRQ1	Texas Instruments	Zero Iq Reverse Polarity Protection Smart Diode Controller, DGK0008A (VSSOP-8)	DGK0008A
U12	1		TPS259521DSGR	Texas Instruments	12V eFuse with Over Voltage Protection, DSG0008A (WSO-8)	DSG0008A
U13	1		TPS22965NDSGR	Texas Instruments	5.7V, 6A, 16mΩ Load Switch With Adjustable Rise Time and Optional Quick Output Discharge, DSG0008A (WSO-8)	DSG0008A
U14	1		TPS7B6933QDBVRQ1	Texas Instruments	High Voltage Ultra Low Iq - Low Drop Out Regulator, DBV0005A (SOT-23-5)	DBV0005A
R29	0	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402