

TIDA-00705 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
B1, B2, B3	3				Test Point, SM, 2x3mm	0.118 x 0.079 inch
C1, C19, C25	3	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603	0603
C2, C20	2	1uF	GRM188R61E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0603	0603
C4, C18, C21, C22	4	2.2uF	C2012X7R1V225K085AC	TDK	CAP, CERM, 2.2 µF, 35 V, +/- 10%, X7R, 0805	0805
C5, C6, C7, C8	4	4.7uF	C3216X7R1E475M	TDK	CAP, CERM, 4.7 µF, 25 V, +/- 20%, X7R, 1206	1206
C9, C10, C11, C14, C15, C16, C30, C35	8	22uF	GRM32ER71E226KE15L	Murata	CAP, CERM, 22 µF, 25 V, +/- 10%, X7R, 1210	1210
C17, C23, C26	3	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0603	0603
C27	1	0.1uF	TMK105B7104MV-FR	Taiyo Yuden	CAP, CERM, 0.1 µF, 25 V, +/- 20%, X7R, 0402	0402
J1, J3	2		LPPB031NFFN-RC	Sullins Connector Solutions	Header, 50mil, 3x1, Gold, TH	Header, 3x1, 50mil, TH
J2	1		LPPB051NFFN-RC	Sullins Connector Solutions	Header, 50mil, 5x1, Gold, TH	Header, 50mil, 5x1, TH
L1, L4	2	230nH	FP1107R1-R23-R	Coiltronics	Inductor, Wirewound, Ferrite, 230nH, 45A, 0.00029 ohm, SMD	11x7.2x7.2mm
Q1, Q2, Q3, Q4	4	25V	CSD16325Q5C	Texas Instruments	MOSFET, N-CH, 25 V, 100 A, DualCool SON 5x6mm	DualCool SON 5x6mm
R1, R6, R21, R24	4	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R3, R4, R15, R18	4	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R5, R17, R20, R23	4	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R7, R8, R13, R16	4	5.49K	ERA-2AEB5491X	Panasonic Electronic Corporat	RES, 5.49 k, 0.1%, 0.063 W, 0402	0402
R9, R10, R11, R12	4	1.0k	RT0402BRD071KL	Vishay-Dale	RES, 1.0 k, 0.1%, 0.063 W, 0402	0402
R19, R22	2	0.0005	CST0612-FC-R0005-E	Bourns	RES, 0.0005, 1%, 1 W, 1.5x3.15mm	1.5x3.15mm
U1, U3	2		UCC27211D	Texas Instruments	120-V Boot, 4-A Peak, High Frequency High-Side and Low-Side Driver, D0008A	D0008A
U2	1		OPA2192IDGKR	Texas Instruments	36-V, Precision, Rail-to-Rail Input/Output, Low Offset Voltage, Low Input Bias Current Op Amp with e-trim, DGK0008A	DGK0008A
C3, C12	0	220pF	C1005X7R1H221K	TDK	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0402	0402
C13, C24	0	DNM	06031C222KAT2A	AVX	CAP, CERM, 2200 pF, 100 V, +/- 10%, X7R, 0603	0603
R2, R14	0	DNM	RR1220Q-100-D	Susumu Co Ltd	RES, 10.0, 0.5%, 0.1 W, 0805	0805

TIDA-00705 REV RevA Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C3, C6, C18, C29	6	4.7uF	CC0603KRX5R7BB475	Yageo	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603
C4, C17	2	1uF	C1005JB1V105K050BC	TDK	CAP, CERM, 1 µF, 35 V, +/- 10%, JB, 0402	0402
C5, C7, C8, C10, C25, C26	6	0.1uF	C0603C104K4RACTU	Kemet	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	0603
C9	1	1uF	C0603C105K4PACTU	Kemet	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0603	0603
C11, C12	2	33pF	885012005043	Wurth Elektronik	CAP, CERM, 33 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402
C13, C20, C24, C28	4	100pF	GRM1535C1H101JDD5D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C14, C15	2	220pF	C1005X7R1H221K	TDK	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0402	0402
C16, C19, C22	3	0.022uF	C1005X7R1E223K	TDK	CAP, CERM, 0.022 µF, 25 V, +/- 10%, X7R, 0402	0402
C21, C23	2	1000pF	C1005X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
C27	1	0.1uF	C1005X7R1H104M	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 20%, X7R, 0402	0402
D1, D2	2	40V	SDM20N40A-7-F	Diodes Inc.	Diode, Schottky, 40 V, 0.2 A, SOT-23	SOT-23
D4	1		LM4041B12IDBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 0.2% accuracy, 1.2 V, 15 ppm / degC, 12 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
J1, J3	2		GRPB031VWVN-RC	Sullins Connector Solutions	Header, 50mil, 3x1, Gold, TH	Header, 3x1, 50mil, TH
J2	1		GRPB051VWVN-RC	Sullins Connector Solutions	Header, 50mil, 5x1, Gold, TH	Header, 50mil, 5x1, TH
J4, J6	2		PEC01SAAN	Sullins Connector Solutions	Header, 1x1, Tin, TH	Header, 1x1
J5	1		GRPB032VWVN-RC	Sullins Connector Solutions	Header, 50mil, 3x2, Gold, TH	Header, 3x2, 1.27mm, TH
J7	1		GRPB041VWVN-RC	Sullins Connector Solutions	Header, 50mil, 4x1, Gold, TH	TH, Header, 1.27 mm, 4x1, Straight
L1	1	22uH	74404024220	Wurth Elektronik	Inductor, Wirewound, Ferrite, 22 µH, 0.45 A, 0.91 ohm, SMD	SMD, 2.5x2mm
L2	1	10uH	74404024100	Wurth Elektronik	Inductor, Wirewound, Ferrite, 10 µH, 0.47 A, 0.435 ohm, SMD	SMD, 2.5x2mm
Q1	1	45 V	BC847CLT1G	ON Semiconductor	Transistor, NPN, 45 V, 0.1 A, SOT-23	SOT-23
R1, R2, R36	3	1.0	CRCW04021R00JNED	Vishay-Dale	RES, 1.0, 5%, 0.063 W, 0402	0402
R3	1	33.2k	CRCW040233K2FKED	Vishay-Dale	RES, 33.2 k, 1%, 0.063 W, 0402	0402
R4	1	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
R5, R6	2	1.50k	CRCW04021K50FKED	Vishay-Dale	RES, 1.50 k, 1%, 0.063 W, 0402	0402
R7, R8, R13, R16	4	5.49K	ERA-2AEB5491X	Panasonic Electronic Corporat	RES, 5.49 k, 0.1%, 0.063 W, 0402	0402
R9, R10, R11, R12, R15, R18, R27, R28, R29, R30, R37	11	1.0k	RT0402BRD071KL	Vishay-Dale	RES, 1.0 k, 0.1%, 0.063 W, 0402	0402
R14, R17, R23, R24, R43, R44, R45, R46	8	100	RC0402FR-07100RL	Vishay-Dale	RES, 100 1%, 0.063 W, 0402	0402
R19, R20	2	6.2k	RG1005P-622-B-T5	Susumu	RES, 6.2 k, 0.1%, 0.063 W, 0402	0402
R21, R22	2	10K	ERA-2AEB103X	Panasonic Electronic Compon	RES, 10 k, 1%, 0.063 W, 0402	0402
R25	1	8.06k	CRCW04021K65FKED	Vishay-Dale	RES, 8.06 k, 0.1%, 0.063 W, 0402	0402
R26	1	11k	RG1005P-113-B-T5	susumu	RES, 11 k, 1%, 0.063 W, 0402	0402
R31, R32, R38	3	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R33, R35, R42	3	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R34, R40	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R41	1	9.76k	CRCW04029K76FKED	Vishay-Dale	RES, 9.76 k, 1%, 0.063 W, 0402	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U1, U5	2		TPS62125DSGR	Texas Instruments	3V-17V, 300mA Step Down Converter With Adjustable Enable Threshold And Hysteresis, DSG0008A	DSG0008A
U2	1		OPA2192IDGKR	Texas Instruments	36-V, Precision, Rail-to-Rail Input/Output, Low Offset Voltage, Low Input Bias Current Op Amp with e-trim, DGK0008A	DGK0008A
U3	1		UCD3138RMHR	Texas Instruments	Highly Integrated Digital Controller for Isolated Power, RMH0040A	RMH0040A
U4	1		ISO7321CDR	Texas Instruments	Robust EMC, Low Power, Dual-Channel Digital Isolators, D0008B	D0008B
R39	0	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402

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