

010025 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		010025	Any	Printed Circuit Board	
C7	1	2uF	B32774D0205K000	TDK	CAP, Film, 2 uF, 1100 V, +/- 10%, 0.011 ohm, TH	31.5x21.5x12.5mm
C8, C10, C11, C13, C16, C18, C20, C22, C23, C25, C28, C30, C32, C34, C35, C37, C40, C42, C44, C46, C48, C54, C55, C58, C59, C62, C63, C70, C71, C78, C79, C81, C87, C91, C93, C95	36	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C9, C12, C17, C19, C21, C24, C29, C31, C33, C36, C41, C43, C45, C49, C92	15	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206
C53, C56, C57, C60, C61, C64, C94	7	1uF	GRM21BR71C105KA01L	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0805	0805
C65, C66, C67, C73	4	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
D10, D11, D12	3	5.1V	BZX84C5V1-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 300 mW, SOT-23	SOT-23
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J2, J4, J5, J6, J7	5		1902547	Phoenix Contact	Terminal Block, 9.52mm, 2x1, R/A, TH	Terminal Block, 2x1, Pitch 9.52mm
J23, J24, J25, J26	4		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
J27, J28	2		5747846-4	TE Connectivity	Receptacle, D-Sub, 25 Position, R/A, TH	Receptacle, D-Sub, 25 Position, R/A, TH
R1, R13	2	0.001	ERJ-M1WTF1M0U	Panasonic	RES, 0.001, 1%, 1 W, 2512	2512
R2, R5, R7, R8, R9	5	200k	RC1206FR-07200KL	Yageo America	RES, 200 k, 1%, 0.25 W, 1206	1206
R3, R4, R6	3	0.01	CSSH2728FT10L0	Stackpole Electronics Inc	RES, 0.01, 1%, 4 W, AEC-Q200 Grade 0, 2728	2728
R10	1	22.0k	RC0603FR-0722KL	Yageo	RES, 22.0 k, 1%, 0.1 W, 0603	0603
R12	1	2.49k	RC1206FR-072K49L	Yageo America	RES, 2.49 k, 1%, 0.25 W, 1206	1206
R14, R15, R32, R33, R52, R53, R73, R74, R82, R86, R88, R90, R118, R119, R120, R123, R124, R125, R126, R127, R128	21	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603

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R20, R21, R34, R35, R40, R41, R54, R55, R61, R62, R75, R76, R79, R83	14	120	RC0603FR-07120RL	Yageo	RES, 120, 1%, 0.1 W, 0603	0603
R28, R29, R48, R49, R69, R70, R80	7	30.0	RC1206FR-0730RL	Yageo America	RES, 30.0, 1%, 0.25 W, 1206	1206
R30, R31, R50, R51, R71, R72, R81	7	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R85, R87, R89	3	806	RC1206FR-07806RL	Yageo America	RES, 806, 1%, 0.25 W, 1206	1206
R91, R92, R93, R94, R95, R96	6	10.0	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603
R101	1	100	RC0603FR-07100RL	Yageo	RES, 100, 1%, 0.1 W, 0603	0603
R109	1	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R115	1	0	RC1206JR-070RL	Yageo America	RES, 0, 5%, 0.25 W, 1206	1206
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP12, TP13, TP14, TP15, TP20, TP21, TP22, TP23, TP26, TP27, TP28, TP29, TP33, TP34, TP36, TP37, TP38, TP44, TP45, TP50, TP51, TP53, TP54, TP55, TP56, TP57, TP60, TP61	37		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP10, TP11, TP16, TP17, TP18, TP19, TP24, TP25, TP30, TP31, TP32, TP35, TP39, TP40, TP41, TP47, TP52, TP62, TP63	19		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		7MBR25VA120-50	Fuji Electric	IGBT Module 1200V 25A, TH	107.5x45mm
U2, U3, U4, U5, U6, U7, U8	7		UCC23513DWYR	Texas Instruments	5-kVRMS, 3-A Single Channel Isolated Gate Driver with Opto Compatible Input, DWY0006A (SOIC-6)	DWY0006A
U12, U13, U14	3		AMC1300BDWVR	Texas Instruments	Precision Reinforced Isolated Amplifier for Current Sensing, DWV0008A (SOIC-8)	DWV0008A
U17, U20	2		AMC1311DWVR	Texas Instruments	Precision, 2-V Input, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV0008A
U21	1		LP2951-50DR	Texas Instruments	Fixed Regulator with 1 to 30 V Input and 1.2 to 30 V Output, -40 to 125 degC, 8-Pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A
C1, C2, C6	0	0.047uF	B32912A5473M000	TDK	CAP, Film, 0.047 µF, 530 V, +/- 20%, TH	18x8mm
C3, C4, C5	0	3300pF	B32021A3332M289	TDK	CAP, Film, 3300 pF, 1500 V, +/- 20%, AEC-Q200 Grade 2, TH	13x4x9mm

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C14, C15, C26, C27, C38, C39, C47, C72, C75, C80, C83, C86, C88, C90, C108	0	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
C50, C51, C52, C68, C69, C74, C76, C77, C82, C84, C85, C89, C97, C99, C101, C105, C107	0	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C96, C100	0	10uF	GRM21BZ71E106KE15L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 0805	0805
C98	0	1uF	GRM21BR71C105KA01L	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0805	0805
C102	0	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	1206_190
C103, C104, C106	0	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206
D1, D2, D7	0	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA
D3, D4, D5, D6, D8, D9	0	30V	B130LAW-7-F	Diodes Inc.	Diode, Schottky, 30 V, 1 A, SOD-123	SOD-123
D13, D14	0	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
J1, J3	0		1902547	Phoenix Contact	Terminal Block, 9.52mm, 2x1, R/A, TH	Terminal Block, 2x1, Pitch 9.52mm
J8, J9, J10, J11, J12, J13	0		15912120	Molex	Header, 100mil, 6x2, SMT	Header, 6x2, SMT
J22	0		PEC08SAAN	Sullins Connector Solutions	Header, 100mil, 8x1, Tin, TH	Header, 8x1, 100mil, TH
J29, J30	0		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
Q1, Q2, Q3, Q4, Q5, Q6	0	30 V	BC848CLT1G	ON Semiconductor	Transistor, NPN, 30 V, 0.1 A, SOT-23	SOT-23
R11, R36, R37, R56, R57, R77, R78, R84, R105, R114, R121, R122, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139	0	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603
R16, R17, R58	0	1.00	RC1206FR-071RL	Yageo America	RES, 1.00, 1%, 0.25 W, 1206	1206
R18, R19, R38, R39, R59, R60	0	120	RC0603FR-07120RL	Yageo	RES, 120, 1%, 0.1 W, 0603	0603
R22, R23, R42, R43, R63, R64, R116	0	0	RC1206JR-070RL	Yageo America	RES, 0, 5%, 0.25 W, 1206	1206
R24, R26, R44, R46, R65, R67	0	3.01k	RC0603FR-073K01L	Yageo	RES, 3.01 k, 1%, 0.1 W, 0603	0603
R25, R27, R45, R47, R66, R68	0	20.0k	RC0603FR-0720KL	Yageo	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R97, R99, R103, R104, R106, R108, R112, R113	0	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R98, R100, R107, R110	0	10.0	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603

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R102, R111	0	15.0k	RC0603FR-0715KL	Yageo	RES, 15.0 k, 1%, 0.1 W, 0603	0603
R117	0	2.00Meg	RC1206FR-072ML	Yageo America	RES, 2.00 M, 1%, 0.25 W, 1206	1206
T1	0	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
TP42, TP43, TP48, TP49, TP58, TP59	0		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP46	0		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U9, U10, U11, U22	0		TLV76050DBZR	Texas Instruments	100-mA, 30-V, Fixed-Output, Linear-Voltage Regulator, DBZ0003A (SOT-23-3)	DBZ0003A
U15, U18	0		INA381A3DSG	Texas Instruments	26-V, Low Cost, Zero-Drift, Voltage-Output, Current-Shunt Monitor With Integrated Comparator, DSG0008A (WSON-8)	DSG0008A
U16, U19	0		ISO7710DR	Texas Instruments	High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
U23	0		SN6501DBVR	Texas Instruments	Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	DBV0005A