

**Appendix B. Bill of Materials (BOM)**

**TABLE B-1: BILL OF MATERIALS (BOM)**

Qty.	Reference	Description	Manufacturer	Part Number
3	C1, C10, C19	1206 size cap <b>DO NOT POPULATE</b>		
6	C2, C5, C7, C9, C11, C12	1 $\mu$ F/630V	TDK Corporation	CKG57NX7T2J105M500JH
2	C4, C20	10 $\mu$ F/25V	TDK Corporation	C2012X5R1E106K085AC
5	C6, C15, C23, C24, C32	1 $\mu$ F/25V	TDK Corporation	C1608X7R1E105K080AB
7	C8, C14, C18, C28, C29, C30, C31	1nF/50V	TDK Corporation	C1608X7R1H102K080AE
1	C17	10 $\mu$ F/450V Al. El	Panasonic® - ECG	EEU-EE2W100
1	U1	600V, 3-phase Driver	Microchip Technology, Inc	<b>MIC4609YWM</b>
3	R3, R16, R29	1206 size res <b>DO NOT POPULATE</b>		
1	R4	100K, 1%, 1/4W	Panasonic- ECG	ERJ-3EKF1003V
10	R1, R2, R13, R14, R15, R22, R23, R26, R27, R28	10, 1%, 1/10W	Panasonic- ECG	ERJ-3EKF10R0V
5	R9, R38, R41, R42, R43	1k, 1%, 1/10W	Panasonic- ECG	ERJ-3EKF1001V
3	R25, R30, R31	10K, 1%, 1/10W	Panasonic- ECG	ERJ-3EKF1002V
8	R5, R8, R44, R45, R46, R48, R56, R57	75K, 1%, 1/4W	Panasonic- ECG	ERJ-8ENF7502V
21	R6, R7, R10, R19, R20, R24, R32, R33, R34, R36, R37, R39, R40, R47, R49, R50, R51, R52, R53, R54, R55	0, 1%, 1/10W	Panasonic- ECG	ERJ-3GEY0R00V
3	R11, R12, R17	332 $\Omega$ , 1%, 1/10W	Panasonic- ECG	ERJ-3EKF3320V
4	R18, R21, R35, R58	0.05 $\Omega$ , 1W 1%	Panasonic- ECG	ERJ-M1WSF50MU
6	R59, R60, R61, R62, R63, R64	20K, 1%, 1/10W	Panasonic- ECG	ERJ-3EKF2002V

**Note 1:** The components listed in this Bill of Materials are representative of the PCB assembly. The released BOM used in manufacturing uses all RoHS-compliant components.

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**TABLE B-2: BILL OF MATERIALS (BOM) - MECHANICAL PARTS**

Qty	Reference	Description	Manufacturer	Part Number
3	D1, D2, D3	Diode Schottky Dual AK 40V/200mA	Diodes® Incorporated	BAS40-04
6	D7, D8, D9, D10, D11, D12	Schottky, 1A/40V	Diodes® Incorporated	1N5819HW
6	D13, D14, D15, D16, D17, D19	100V/1A Ultra fast diode	Diodes® Incorporated	US1M-TP
1	J1	Header, 12-Pin, dual row, right angle	FCI	68021-224HLF
8	J2, J3, J5, J6, J8, J10, J11, J16	Header 3 pin	FCI	68000-103HLF
1	J9	5 position terminal block	On-Shore Technology, Inc.	ED2612
6	Q1, Q2, Q3, Q4, Q5, Q6 (Note 2)	IGBT	Infineon Technologies AG	IRG4BC20KD
		IGBT	Infineon Technologies AG	IKB06N60T
		IGBT	Fairchild Semiconductor®	SGW10N60RUF
		IGBT	STMicroelectronics	STGB10NC60KD

**Note 1:** The components listed in this Bill of Materials are representative of the PCB assembly. The released BOM used in manufacturing uses all RoHS-compliant components.

**2:** Note that only one set of 6 IGBTs are used at a time. You can choose the IGBT produced by one of the listed 4 manufacturers.