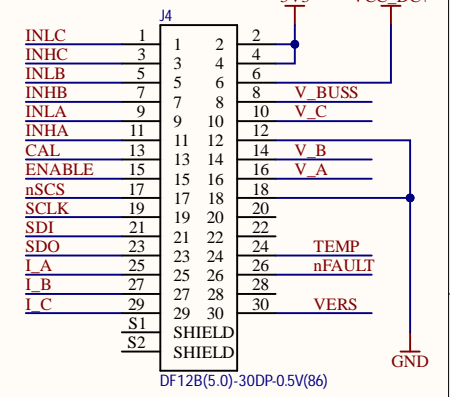
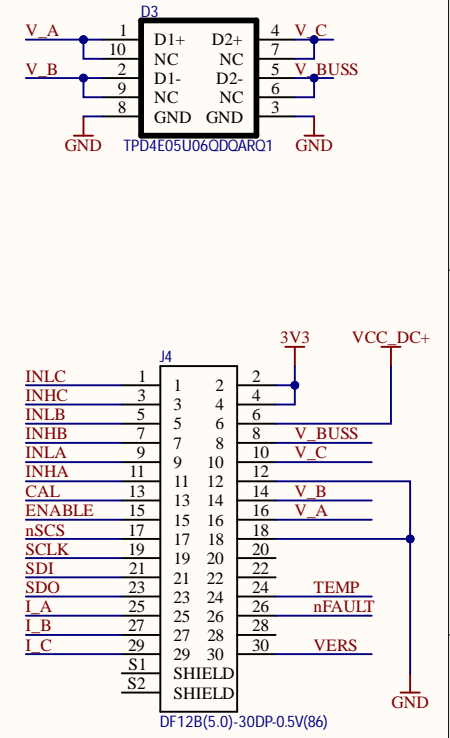
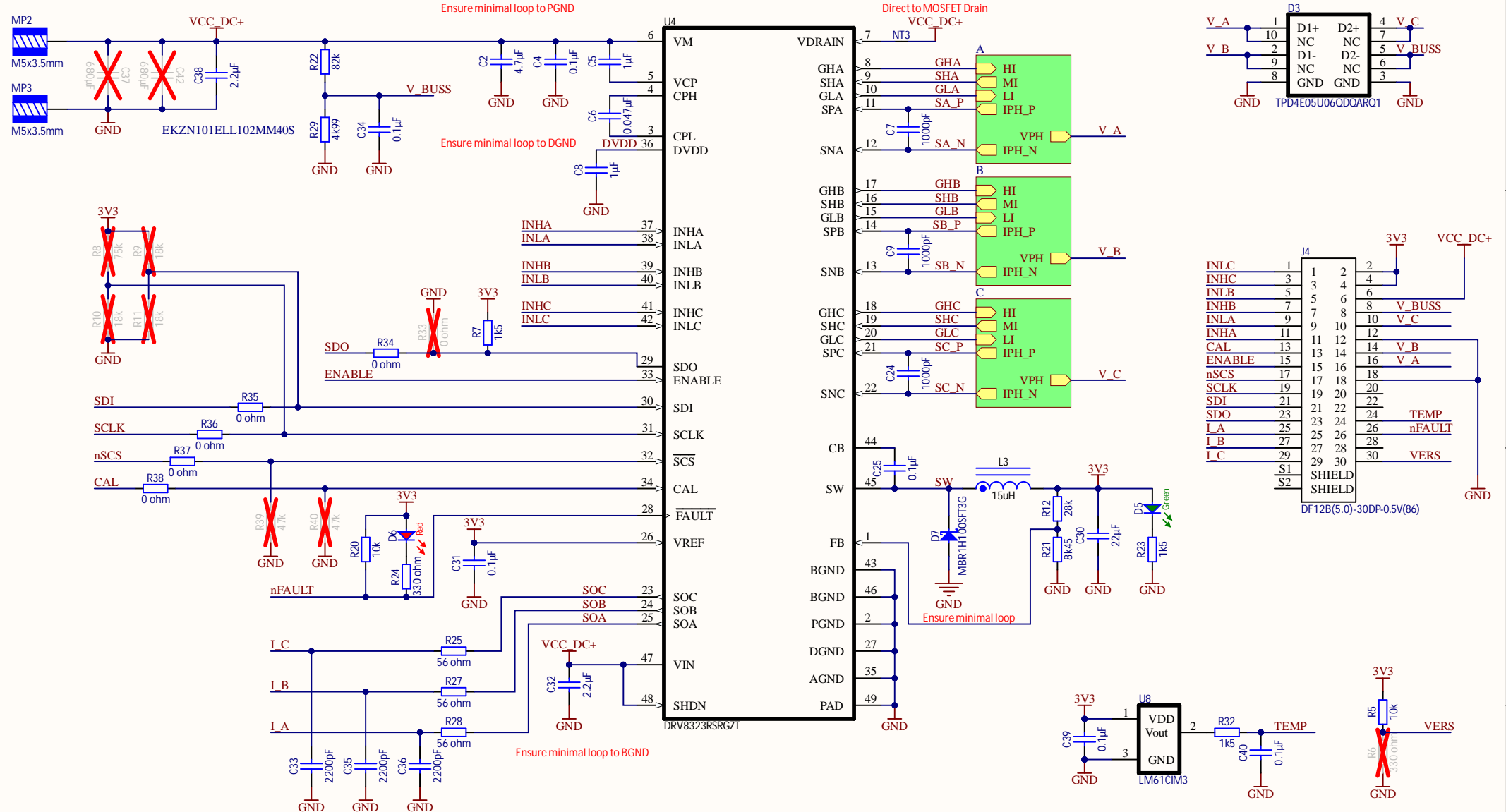
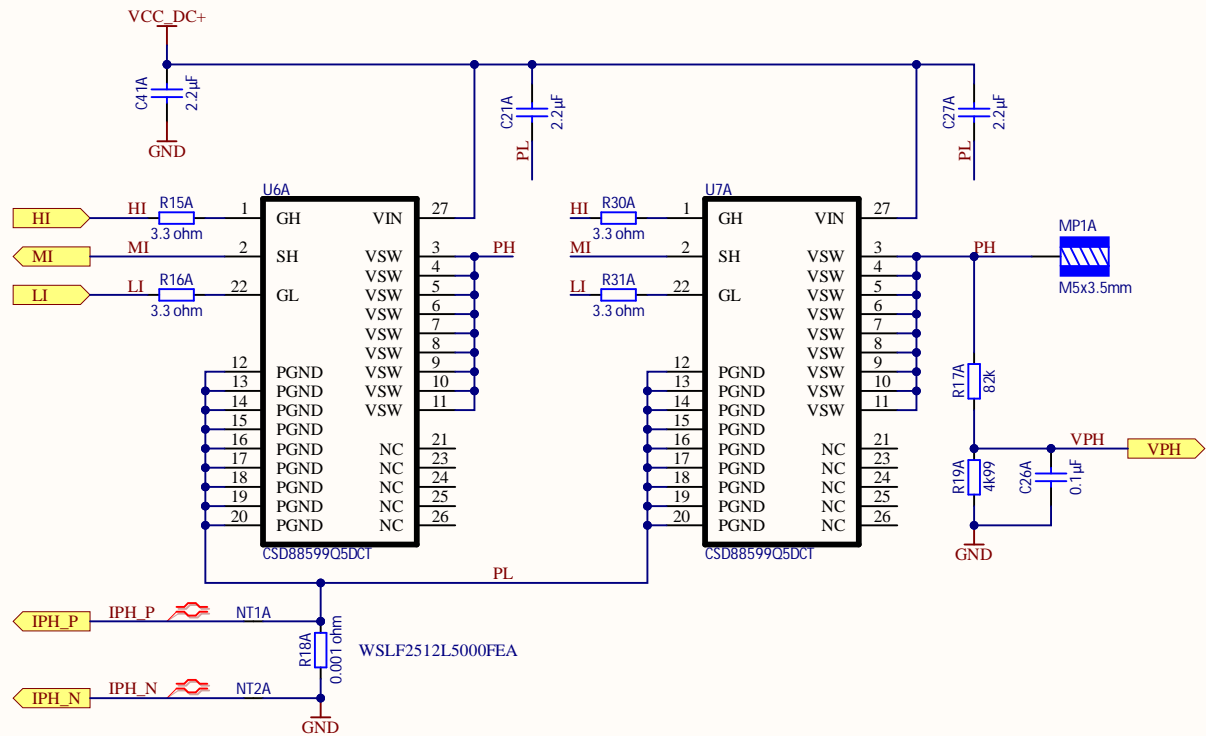


# Gate Drivers

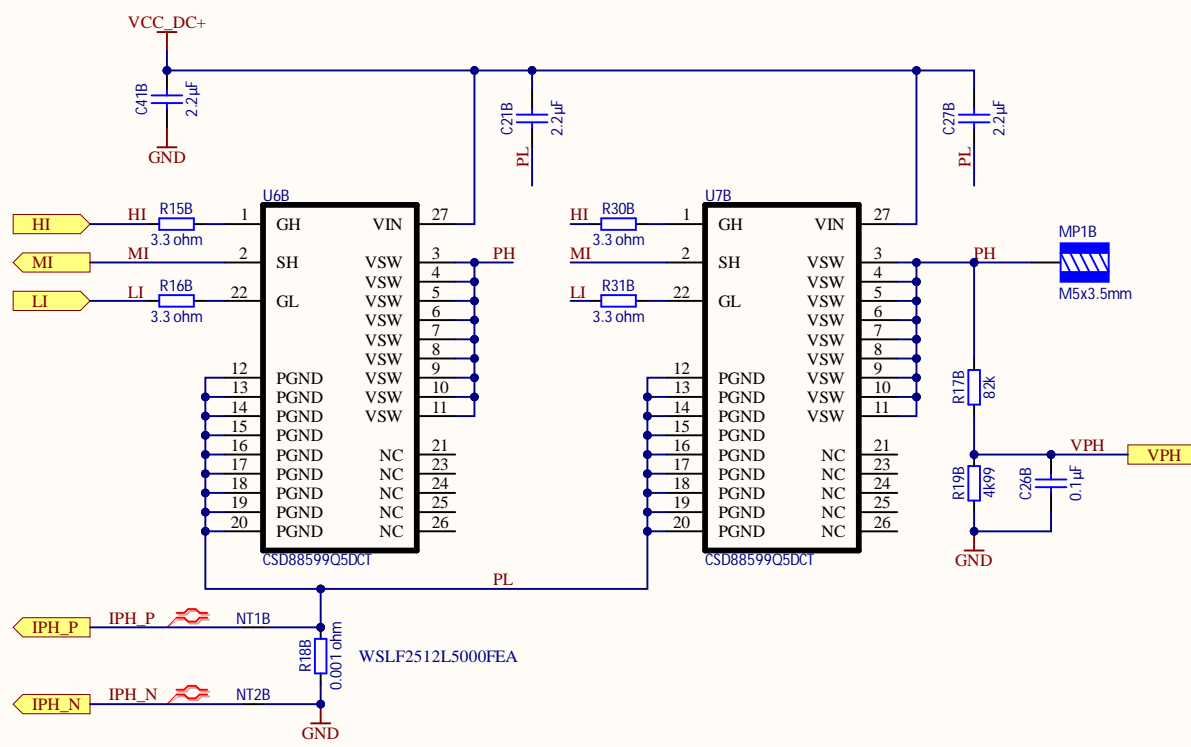


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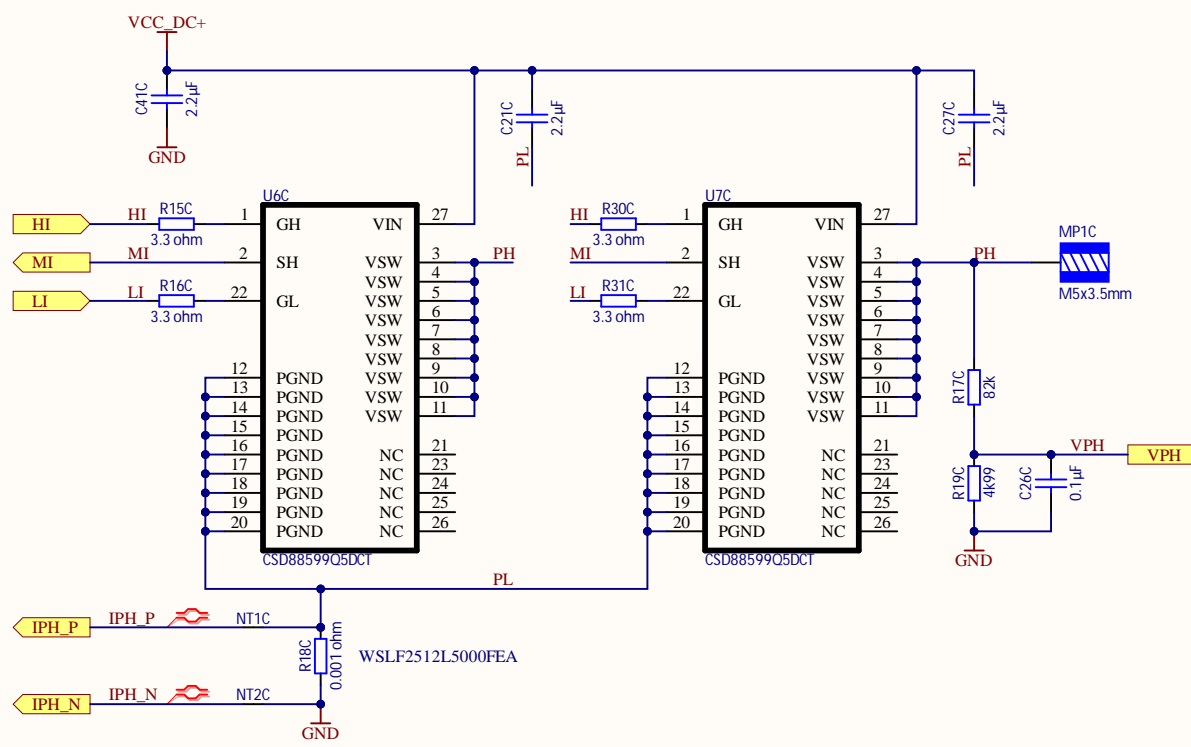




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Size	Number	Revision	
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Title			
HBridge			
Size	Number	Revision	
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1

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A

A

B

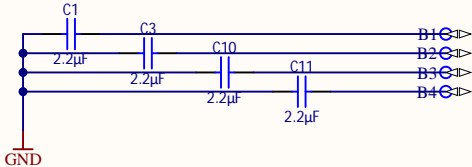
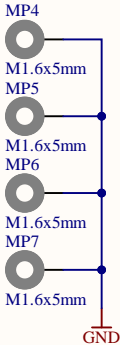
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PCB Number: KA160  
PCB Rev: A

Title			
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Size	Number	Revision	
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Date:	11.29.2022	Sheet of	3
File:	D:\Users\...\Hardware.SchDoc	Drawn By:	AB

1

2

3

4

Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	Printed Circuit Board	Printed Circuit Board	IPC81	1							
	2.2µF	CAP, CERM, 1206, 2.2 µF, 100 V, ± 10%, X7S	C1, C3, C10, C11	4	TDK	C3216X7S2A225K160AB	Volume Production	Farnell	2112717	0.50938	2.55
	4.7µF	CAP, CERM, 2220, 4.7 µF, 100 V, ± 10%, X7R	C2	1	TDK	CGA9N2XR2A475K230KA	Volume Production	Digi-Key	445-7940-1-ND	2.43	2.43
	0.1µF	CAP, CERM, 0603, 0.1 µF, 100 V, ± 10%, X7R	C4	1	Murata	GRM188R72A104KA35D	Volume Production	Digi-Key	490-3285-1-ND	0.28503	0.28503
	1µF	CAP, CERM, 0603, 1 µF, 35 V, ± 10%, X7R	C5, C8	2	TDK	C1608X7R1V105K080AC	Volume Production	Digi-Key	445-7414-1-ND	0.24572	0.49143
	0.047µF	CAP, CERM, 0603, 0.047 µF, 100 V, ± 10%, X7S	C6	1	TDK	CGA3E3X7S2A473K080AB	Volume Production	Digi-Key	445-6936-1-ND	0.17691	0.17691
	1000pF	CAP, CERM, 0402, 1000 pF, 50 V, ± 10%, X7R	C7, C9, C24	3	Murata	GCM155R71H102KA37D	Volume Production	Digi-Key	490-4761-6-ND	0.09829	0.29486
	2.2µF	CAP, CERM, 1210, 2.2 µF, 100 V, ± 10%, X7R	C21A, C21B, C21C, C27A, C27B, C27C, C32, C38, C41A, C41B, C41C	11	Murata	GJC32DR72A225KA01L	Volume Production	Digi-Key	490-5840-1-ND	1.5	16.49
	0.1µF	CAP, CERM, 0603, 0.1 µF, 50 V, ± 10%, X7R	C25	1	KEMET	C0603C104K5RACTU	Volume Production	Digi-Key	399-5089-6-ND	0.11794	0.11794
	0.1µF	CAP, CERM, 0402, 0.1 µF, 16 V, ± 10%, X7R	C26A, C26B, C26C, C31, C34, C39, C40	7	Walsin Technologies	0402B104K160CT	Volume Production	Farnell	2496771	0.02185	0.2185
	22µF	CAP, CERM, 1206, 22 µF, 6.3 V, ± 10%, X7R	C30	1	Murata	GCM31CR70J226KE23L	Volume Production	Digi-Key	490-4843-6-ND	0.73715	0.73715
	2200pF	CAP, CERM, 0402, 2200 pF, 50 V, ± 10%, X7R	C33, C35, C36	3	Murata	GCM155R71H222KA37D	Volume Production	Digi-Key	490-4914-1-ND	0.09829	0.29486
	TPD4E05U06QDQARQ1	TVS DIODE 5.5V 14V 10USON	D3	1				Farnell			
	Green	LED Green 0402 WL-SMCC	D5	1				Farnell	2900755		
	Red	LED Red 0402 WL-SMCC	D6	1	Würth Electronics	150040R573240		Digi-Key	732-11991-1-ND	0.29486	0.29486
	MBR1H100SFT3G	Schottky Diode 1A 100V	D7	1				Farnell	2533229		
	DF12B(5.0)-30DP-0.5V(86)	30 Position Connector Header, PCB to PCB, 5mm	J4	1	Hirose	DF12B(5.0)-30DP-0.5V(86)	Volume Production	Digi-Key	H11731CT-ND	1.29	1.29
	SD53-150-R	Inductor, Shielded Drum Core, 15 µH, 1.1 A, 0.122 ohm, SMD	L3	1	Eaton Cooper	SD53-150-R	Volume Production	Mouser	704-SD53-150-R	1.9	1.9
	M5x3.5mm	WP-THRBU REDCUBE THR Internal through-hole thread, 10x10mm, M5x3.5mm, 8 pins, 85A	MP1A, MP1B, MP1C, MP2, MP3	5	Würth Electronics	74655095R		Digi-Key	732-10903-1-ND	4.16	20.79
	M1.6x5mm	WA-SMSI SMT Steel Spacer, M1.6 Thread Internal, OD 3.3mm, M1.6x5mm	MP4, MP5, MP6, MP7	4	Würth Electronics	97730506334R		Farnell	3105515	0.89313	3.57
	10k	RES, 10 kohm, 50 V, 0402, 63 mW	R5, R20	2	MULTICOMP PRO	MCMR04X1002FTL		Farnell	2072517	0.00847	0.08467
	1k5	RES, 1.5 kohm, 50 V, 0402, 100 mW	R7, R23, R32	3	Panasonic	ERJ-2RKF1501X	Volume Production	Digi-Key	P1.50KLCT-ND	0.02457	0.24572
	28k	RES, 28 kohm, 50 V, 0402, 100 mW	R12	1	Panasonic	ERJ-2RKF2802X	Volume Production	Digi-Key	P28.0KLCT-ND	0.09829	0.09829
	3.3 ohm	RES, 3.3 ohm, 75 V, 0603, 100 mW	R15A, R15B, R15C, R16A, R16B, R16C, R30A, R30B, R30C, R31A, R31B, R31C	12	Yageo	AC0603FR-073R3L	Not Recommended for New Design	Digi-Key	YAG5335CT-ND	0.05701	0.68407
	82k	RES, 82 kohm, 75 V, 0603, 100 mW	R17A, R17B, R17C, R22	4	Yageo	RC0603FR-0782KL	Volume Production	Digi-Key	311-82.0KHRCCT-ND	0.02359	0.23589
	0.001 ohm	RES, 0.001 ohm, 5931, 5 W, ± 1%	R18A, R18B, R18C	3	Vishay Dale	WSL5931L000FEA	Volume Production	Digi-Key	WSLN-.001CT-ND	2.14	6.43
	4k99	RES, 4.99 kohm, 50 V, 0402, 100 mW	R19A, R19B, R19C, R29	4	Panasonic	ERJ-2RKF4991X	Volume Production	Digi-Key	P4.99KLCT-ND	0.02457	0.24572
	8k45	RES, 8.45 kohm, 50 V, 0402, 100 mW	R21	1	Panasonic	ERJ-2RKF8451X	Volume Production	Digi-Key	P8.45KLCT-ND	0.09829	0.09829
	330 ohm	RES, 330 ohm, 50 V, 0402, 100 mW	R24	1	Panasonic	ERJ-2RKF3300X	Volume Production	Digi-Key	P330LCT-ND	0.09829	0.09829
	56 ohm	RES, 56 ohm, 50 V, 0402, 63 mW	R25, R27, R28	3	Panasonic	ERJ-2RKF56R0X	Volume Production	Digi-Key	P56.0LCT-ND	0.02457	0.24572
	0 ohm	RES, 0 ohm, 50 V, 0402, 63 mW	R34, R35, R36, R37, R38	5	Vishay	CRCW04020000Z0ED	Volume Production	Farnell	1469661	0.01502	0.15022
	DRV8323RSRGZT	IC 3PHASE GATE DRIVER 48VOFN	U4	1	Texas Instruments	DRV8323RSRGZT		Digi-Key	296-46943-1-ND	5.32	5.32
	CSD88599Q5DCT	60 V Half-Bridge NexFE Power Block, DMM0022A (LSON-CLIP-27)	U6A, U6B, U6C, U7A, U7B, U7C	6	Texas Instruments	CSD88599Q5DCT		Mouser	595-CSD88599Q5DCT	4.77	28.6
	LM61CIM3	Temperature Sensor IC, Voltage, ± 3°C, -30 °C, +100 °C, SOT-23, 3 Pins	U8	1	TI National Semiconductor	LM61CIM3	Volume Production	Farnell	1197388	0.87537	0.87537