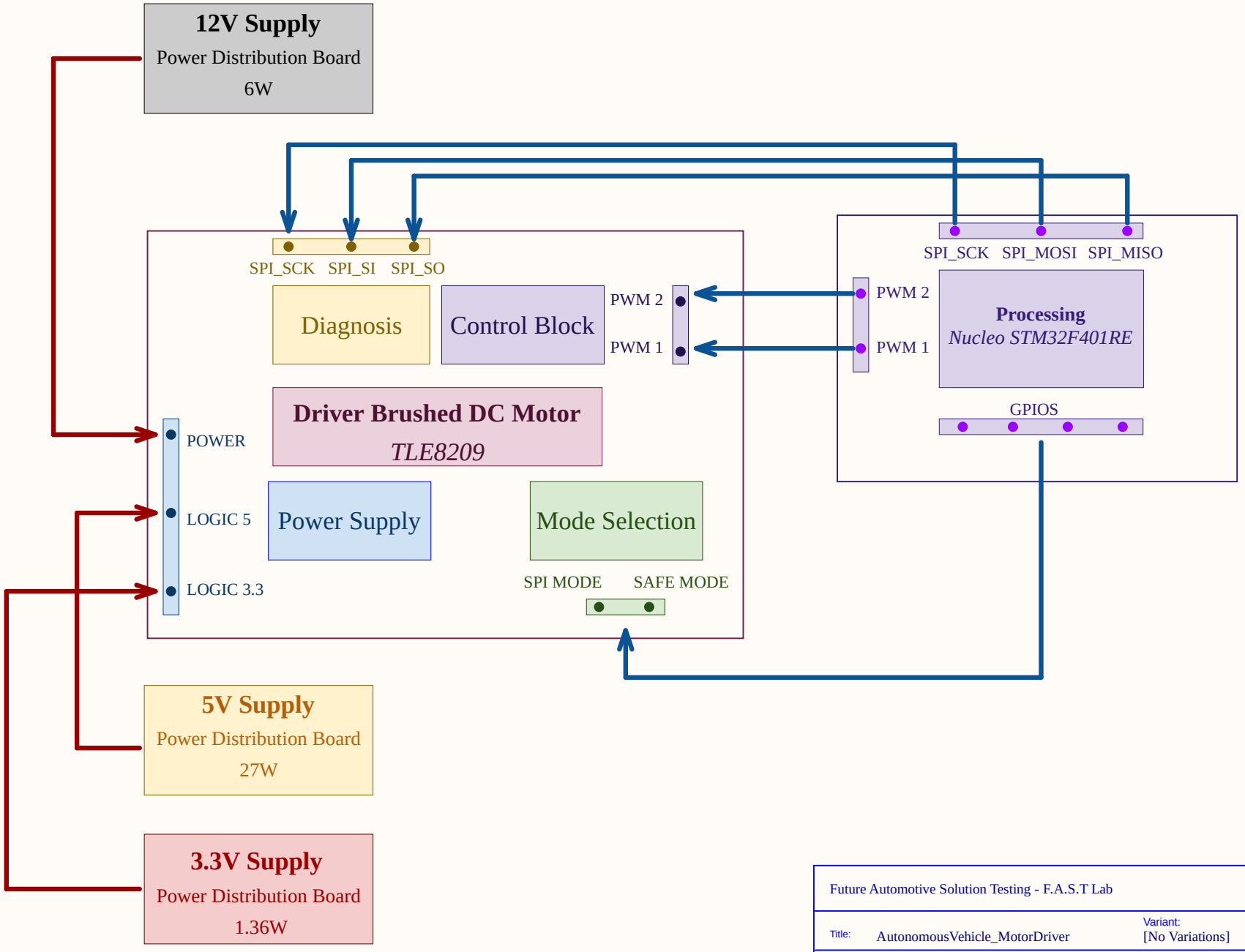

Future Automotive Solution Testing - F.A.S.T Lab			
Title: AutonomousVehicle_MotorDriver		Variant: [No Variations]	
Page Contents: MotorDriver_Diagram.SchDoc			Checked by
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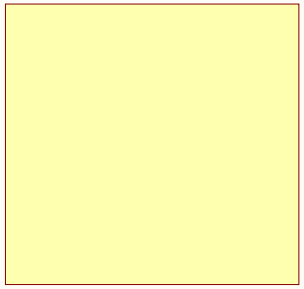
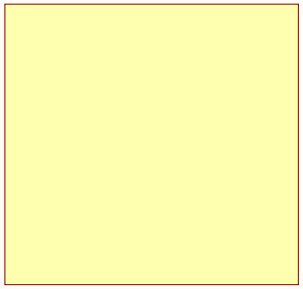
SYSTEM_DIAGRAM



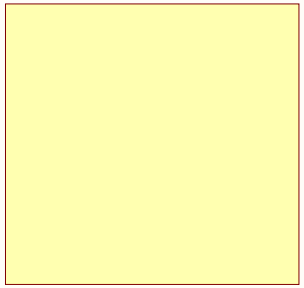
File: MotorDriver_Diagram.SchDoc

BRUSHEDMOTOR_IO



File: MotorDriver_BrushedMotor_IO.SchDoc

COMMUNICATION



File: MotorDriver_BrushedMotor_Communication.SchDoc

Future Automotive Solution Testing - F.A.S.T Lab			
Title: AutonomousVehicle_MotorDriver		Variant: [No Variations]	
Page Contents: MotorDriver_FileInfo.SchDoc			Checked by
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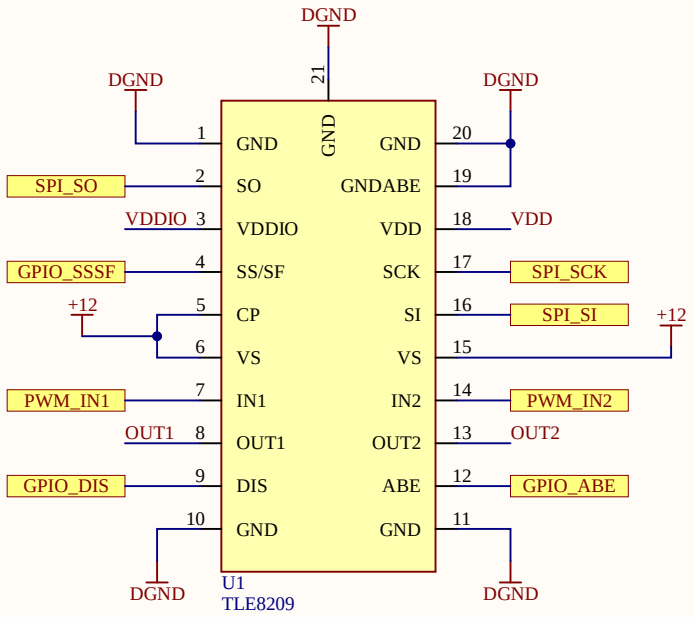
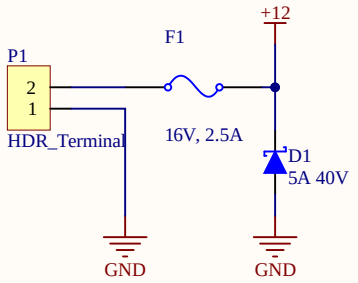
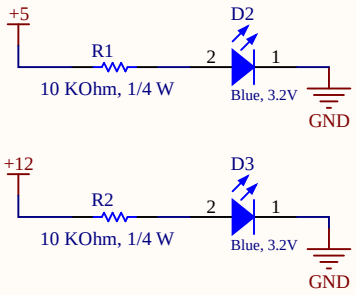
TLE8209



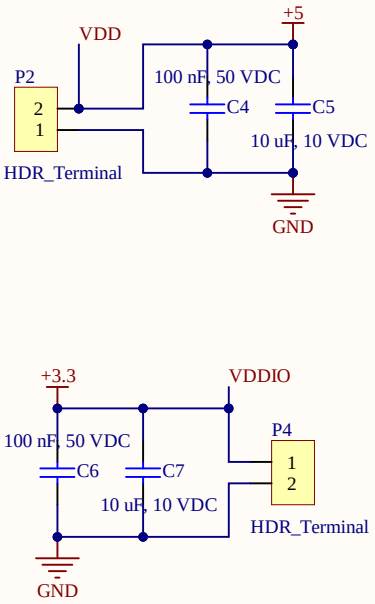
Power Supply



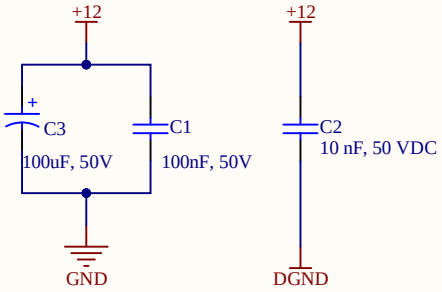
LED



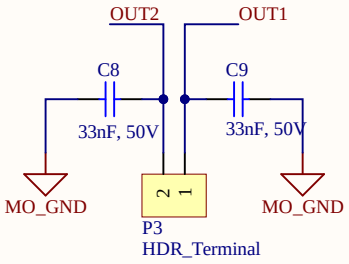
Logic Supply



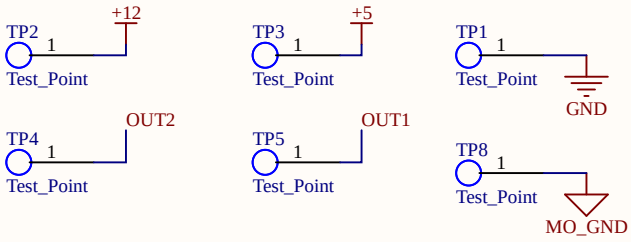
Input Filter



Output Filter



Test Point



Support Board

Future Automotive Solution Testing - F.A.S.T Lab			
Title: AutonomousVehicle_MotorDriver		Variant: [No Variations]	
Page Contents: MotorDriver_BrushedMotor_IO.SchDoc			Checked by
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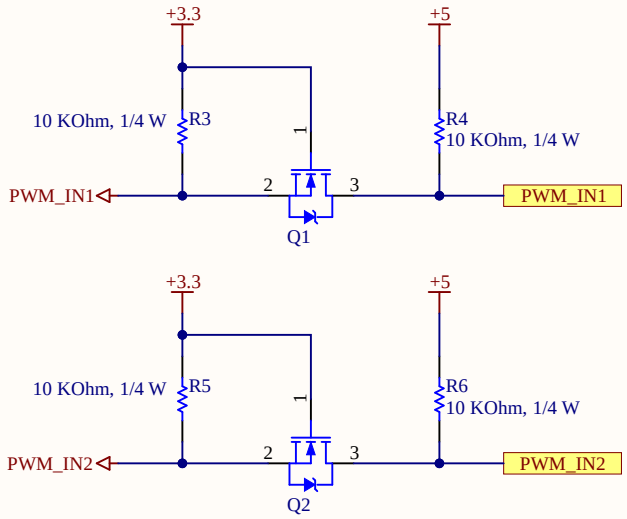
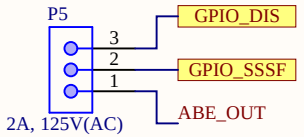
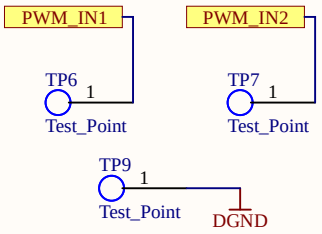
Level Shifting



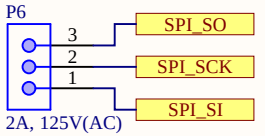
GPIO Communication



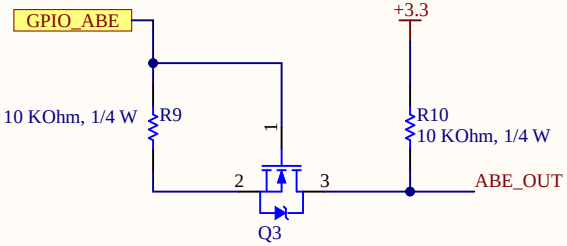
Test Point



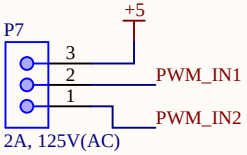
SPI Communication



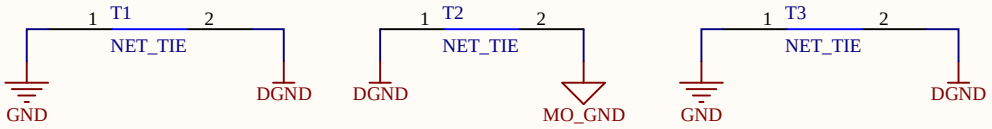
ABE Voltage Regulator



PWM Supply



Net Tie



Future Automotive Solution Testing - F.A.S.T Lab			
Title: AutonomousVehicle_MotorDriver		Variant: [No Variations]	
Page Contents: MotorDriver_BrushedMotor_Communication.SchDoc		Checked by	
Size:	DWG NO		Revision:
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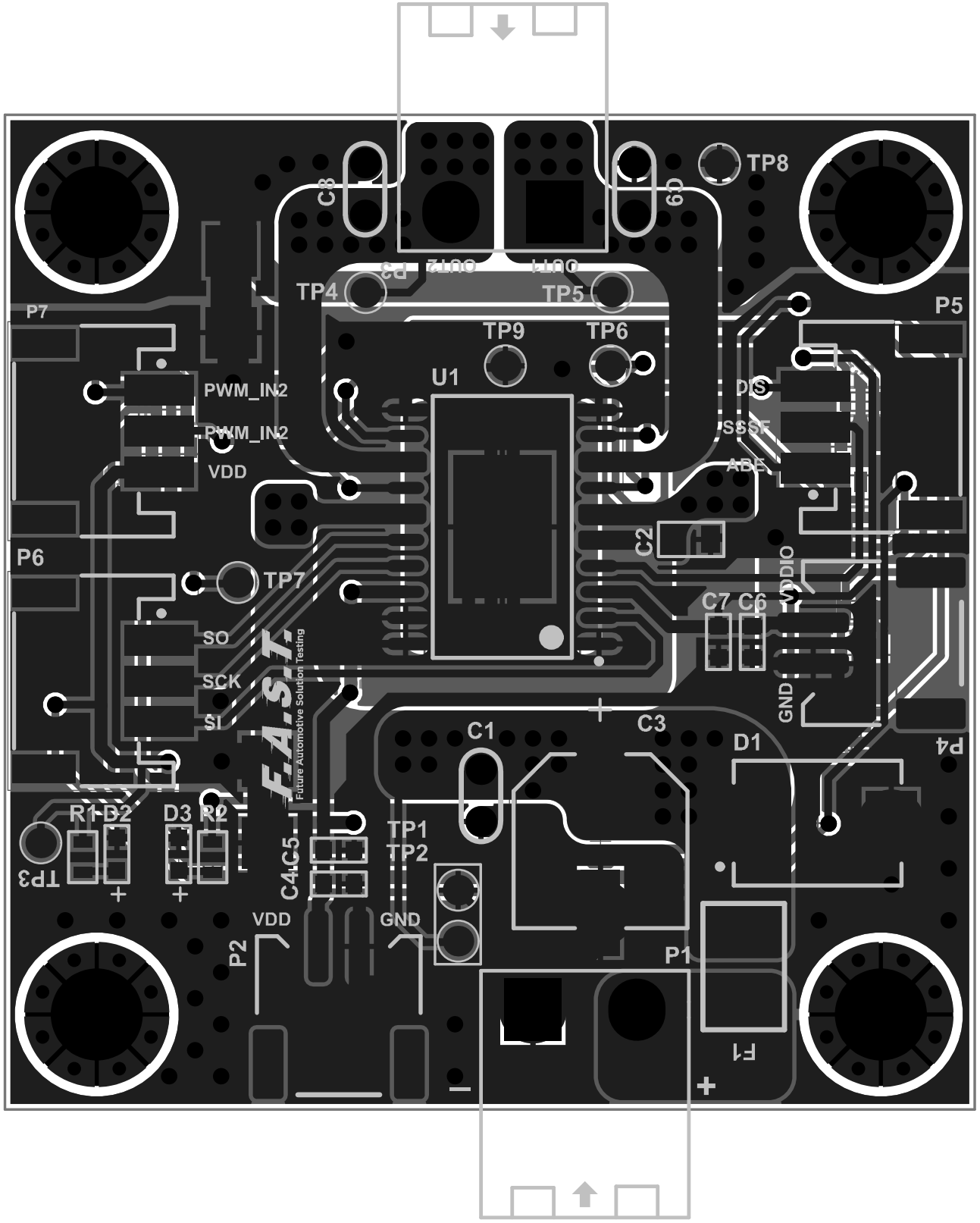
TP8
C8
C9
TP4
TP5
P7
P5
TP9
TP6
U1
PWM_IN2
PWM_IN2
VDD
P6
TP7
SO
SCK
SI
C2
VDDIO
C7 C6
GND
C1
C3
D1
P4
F.A.S.T.
Future Automotive Solution Testing
R1 D2
D3 R2
TP3
C4 C5
TP1
TP2
VDD
GND
P2
P1
F1

Comment	Description	Designator	Footprint	LibRef	Quantity
100nF, 50V	Capacitor	C1	CAP_RADIAL_2.54	Capacitor	1
10 nF, 50 VDC	CAP, size 0805, 10 nF, 50 VDC	C2	CAP_0805	0108051031050	1
100uF, 50V	V-Chip, D8 x H10.5mm, 100uF, 50V	C3	WCAP-ASLI_D8H10.5	865080653016	1
100 nF, 50 VDC	CAP, size 0603, 100 nF, 50 VDC	C4, C6	CAP_0603	0106031041050	2
10 uF, 10 VDC	CAP, size 0603, 10 uF, 10 VDC	C5, C7	CAP_0603	0106031061010	2
33nF, 50V	Capacitor	C8, C9	CAP_RADIAL_2.54	Capacitor	2
5A 40V	SS54 SMC Diode Schottky 5A 40V	D1	DO-214AB, SMC	Diode_Schottky	1
Blue, 3.2V	WL-SMCW SMT Mono-color Chip LED Waterclear, size 0603, Blue, 3.2V, 140deg	D2, D3	WL-SMCW_0603_H=0.7mm	160603BlueClear	2
16V, 2.5A	Resettable Fuse, Size 1812, 16V, 2.5A	F1	Fuse_SMD_1812	061812250016	1
Hole	Hole	H1, H2, H3, H4	Hole_3.2mm	Hole	4
HDR_Terminal	HDR_Terminal 2 pin	P1, P3	KF-5.08-2-R	HDR_Terminal	2
HDR_Terminal	HDR_Terminal 2 pin	P2, P4	HDR_HEADER_2.0_HORIZONTAL	HDR_Terminal	2
2A, 125V(AC)	WR-WTB SMT Male Horizontal Shrouded Header, pitch 2mm, 3p	P5, P6, P7	620103131822	620103131822	3
Mosfet_N_channel	Mosfet_N_Channel	Q1, Q2, Q3	MOSFET_N_SOT23-3	Mosfet_N_channel	3
10 KOhm, 1/4 W	RES, size 0603, 10 KOhm, 1/4 W	R1, R2, R3, R4, R5, R6, R9, R10	resistor_0603	0006031031	8
NET_TIE	Straight Net Tie	T1, T2, T3	NET_TIE_2.0mm	NET_TIE	3
Test_Point	Test_Point	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9	TP_1_5mm_SMD	Test_Point	9
TLE8209	SPI Programmable H-Bridge, Automotive Application for Motor Control, Throttle Control,...	U1	TLE8209_2E_PG-DSO-20-71	TLE8209	1