



Title		
brd_2_switching_noise_with_good_and_bad_layout		
Size	Number	Revision
A	Text	REV01
Date:	11/26/2025	Sheet of
File:	C:\Users\...\Schematic_Board2.SchDoc	Drawn By: Nikhil Sawane

Comment	Description	Designator	Footprint	Library	Quantity	DocPart#
	22uF ±10%,25V XGR 1206 Multilayer Ceramic Capacitors MLCC - BMD3MT R44S	C1	100L_Passive_Capacitor	C_22uF_1206		1C1281
	22uF ±10%,25V XGR 1206 Multilayer Ceramic Capacitors MLCC - BMD3MT R44S	C2	100L_Passive_Capacitor	C_22uF_1206		1C1281
	MULTILAYER CERAMIC CAPACITORS MLCC - BMD3MT 0.1uF 50V 1206 RCHS	C3	1206_Passive_Capacitor	C_1uF_1206		1C1848
	22uF ±10%,25V XGR 1206 Multilayer Ceramic Capacitors MLCC - BMD3MT R44S	C4	100L_Passive_Capacitor	C_22uF_1206		1C1281
	22uF ±10%,25V XGR 1206 Multilayer Ceramic Capacitors MLCC - BMD3MT R44S	C5	100L_Passive_Capacitor	C_22uF_1206		1C1281
	22uF ±10%,25V XGR 1206 Multilayer Ceramic Capacitors MLCC - BMD3MT R44S	C6	100L_Passive_Capacitor	C_22uF_1206		1C1281
Red	Red 621-481nm 1206 Light Emitting Diodes LED1 R44S	LED1	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED2 R44S	LED2	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED3 R44S	LED3	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED4 R44S	LED4	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED5 R44S	LED5	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED6 R44S	LED6	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED7 R44S	LED7	LED_1206	LED_RED_1206		1C0133
Red	Red 621-481nm 1206 Light Emitting Diodes LED8 R44S	LED8	LED_1206	LED_RED_1206		1C0133
Power Jack	Power Barrel Connector Jack 2.1mm ID (0.082"), 5.50mm OD (0.217") Through Hole, Right Angle	P1	Power_Jack	P_Power_Jack		1C12644
AMS1117-3.3	LOW-DROPOUT REGULATOR (SOT-23) PCB MOUNT, 1.3V 600mA, 50 (2.17") 1A SOT-223 RCHS	PS1	LDO	PS_1A(S),LDO_3u3		1C0186
1k	CHIP RESISTOR SURFACE MOUNT HCH05471% 1/4W 1206 RCHS	R1	100L_Passive_Resistor	R_1K_1206		1C4410
1k	CHIP RESISTOR SURFACE MOUNT HCH05471% 1/4W 1206 RCHS	R2	100L_Passive_Resistor	R_1K_1206		1C4410
1k	CHIP RESISTOR SURFACE MOUNT HCH05471% 1/4W 1206 RCHS	R3	100L_Passive_Resistor	R_1K_1206		1C4410
1k	CHIP RESISTOR SURFACE MOUNT HCH05471% 1/4W 1206 RCHS	R4	100L_Passive_Resistor	R_1K_1206		1C4410
1k	10kChips ±5% (0.25W) 1/4W Chip Resistor 1206 (2016 Metric) Automotive- AEC-Q200 Trust Film	R5	100L_Passive_Resistor	R_10kChm_1206		1C17002
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R6	100L_Passive_Resistor	R_47Ohm_1206		1C0384
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R7	100L_Passive_Resistor	R_47Ohm_1206		1C0384
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R8	100L_Passive_Resistor	R_47Ohm_1206		1C0384
1k	10kChips ±5% (0.25W) 1/4W Chip Resistor 1206 (2016 Metric) Automotive- AEC-Q200 Trust Film	R9	100L_Passive_Resistor	R_10kChm_1206		1C17002
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R10	100L_Passive_Resistor	R_47Ohm_1206		1C0384
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R11	100L_Passive_Resistor	R_47Ohm_1206		1C0384
47 Ohms	47k ±5% (0.25W) ±0.5%pin ±C 1206 Chip Resistor - Surface Mount R44S	R12	100L_Passive_Resistor	R_47Ohm_1206		1C0384
5V_505_OFFON	2Pin Header	B01	2Pin+Header Conn	BV_2Pin_100mil_Smt01		1C14375
LDO_OFFON	2Pin Header	B02	2Pin+Header Conn	BV_2Pin_100mil_Smt02		1C14375
5V_5V1/3/5	Connector Header Through Hole 3 position (0.100" (2.54mm))	B03	3_PIN_100mil	BV_3Pin_100mil_Smt03		1C46257
5V_Good_VCC	2Pin Header	B04	2Pin+Header Conn	BV_2Pin_100mil_Smt04		1C14375
5V_Bad_VCC	2Pin Header	B05	2Pin+Header Conn	BV_2Pin_100mil_Smt05		1C14375
TP_5V	Test Point 300mil centris	TP1	TP10x_Probe	TP_10x_Probe	1	
TP_505_Output	Test Point 300mil centris	TP2	TP10x_Probe	TP_10x_Probe	1	
TP_3_3V	Test Point 300mil centris	TP3	TP10x_Probe	TP_10x_Probe	1	
TP_Good_Q_Low	Test Point 300mil centris	TP4	TP10x_Probe	TP_10x_Probe	1	
TP_Good_Q_High	Test Point 300mil centris	TP5	TP10x_Probe	TP_10x_Probe	1	
TP_Good_Triggr	Test Point 300mil centris	TP6	TP10x_Probe	TP_10x_Probe	1	
TP_Good_Out	Test Point 300mil centris	TP7	TP10x_Probe	TP_10x_Probe	1	
TP_Bad_Q_Low	Test Point 300mil centris	TP8	TP10x_Probe	TP_10x_Probe	1	
TP_Bad_Q_High	Test Point 300mil centris	TP9	TP10x_Probe	TP_10x_Probe	1	
TP_Bad_Triggr	Test Point 300mil centris	TP10	TP10x_Probe	TP_10x_Probe	1	
TP_Bad_Out	Test Point 300mil centris	TP11	TP10x_Probe	TP_10x_Probe	1	
9474N4C14DR	Inverter IC(2 Channel) Shrink Trigger 14- DIP	U1	48V_74V14	U_74V4C14		1C0042
LM323CDA/NOPB	666 Type, Triaver Oscillator / Amplifier, 5.00MHz 8-Pin	U2	TR666DTR	U_566_Fast		1C0070
9474N4C14DR	Inverter IC(2 Channel) Shrink Trigger 14- DIP	U3	48V_74V14	U_74V4C14		1C0042