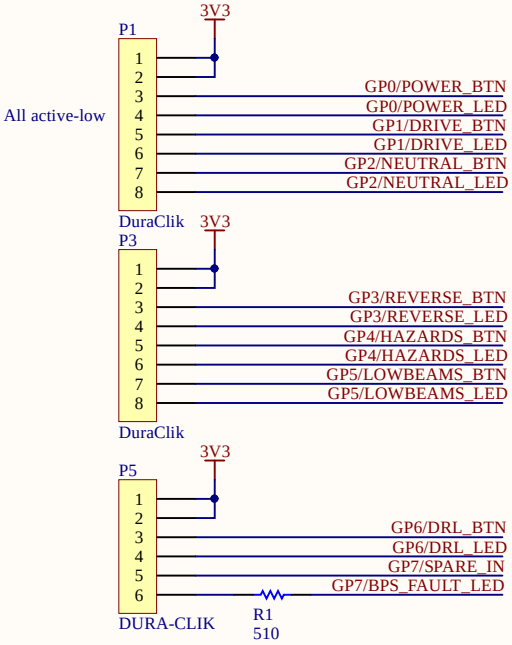
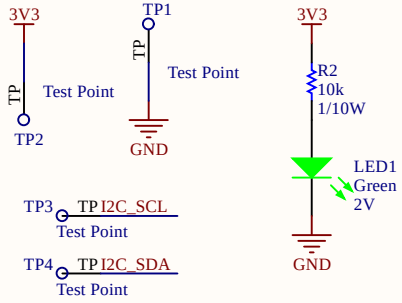
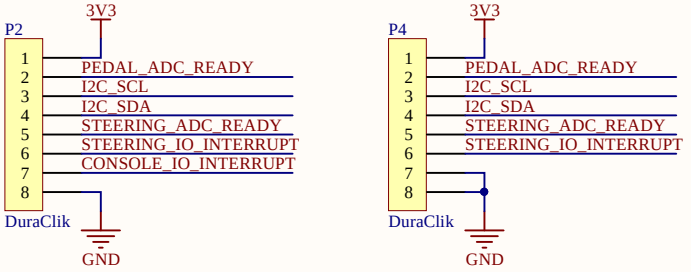
Console Connectors



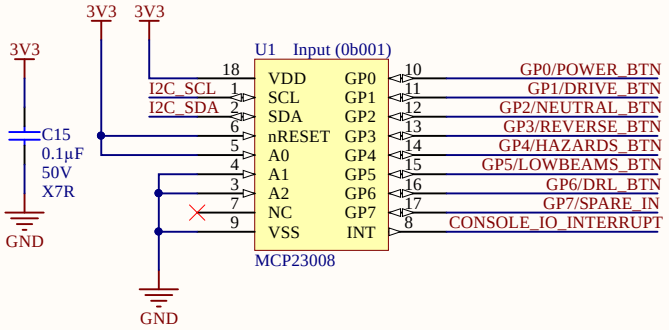
Misc

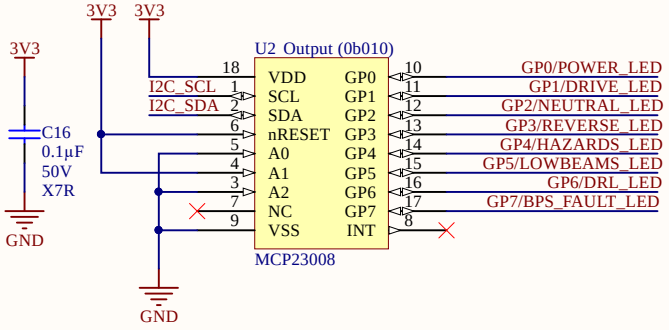


Daisy-Chain Connectors

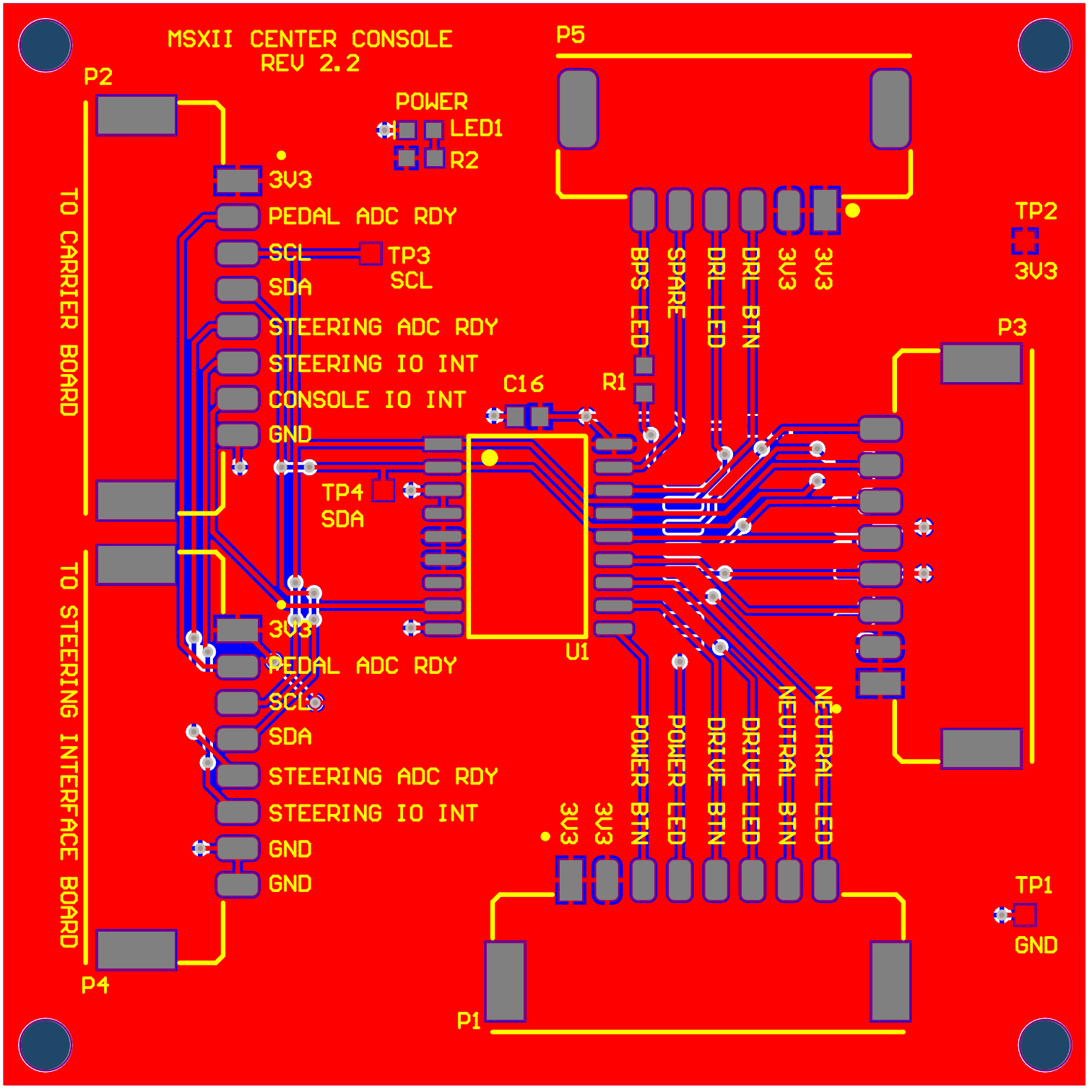


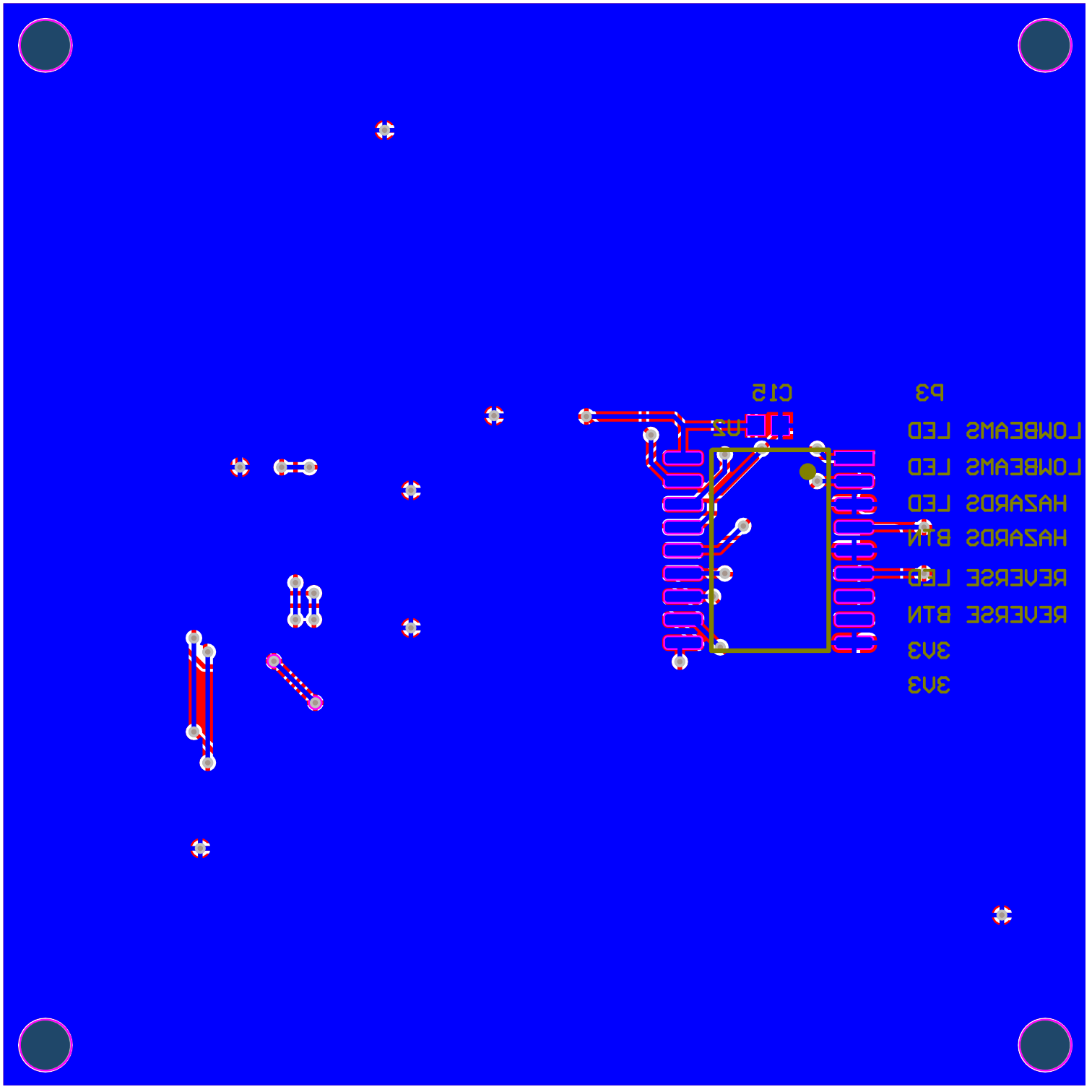
IO Expanders

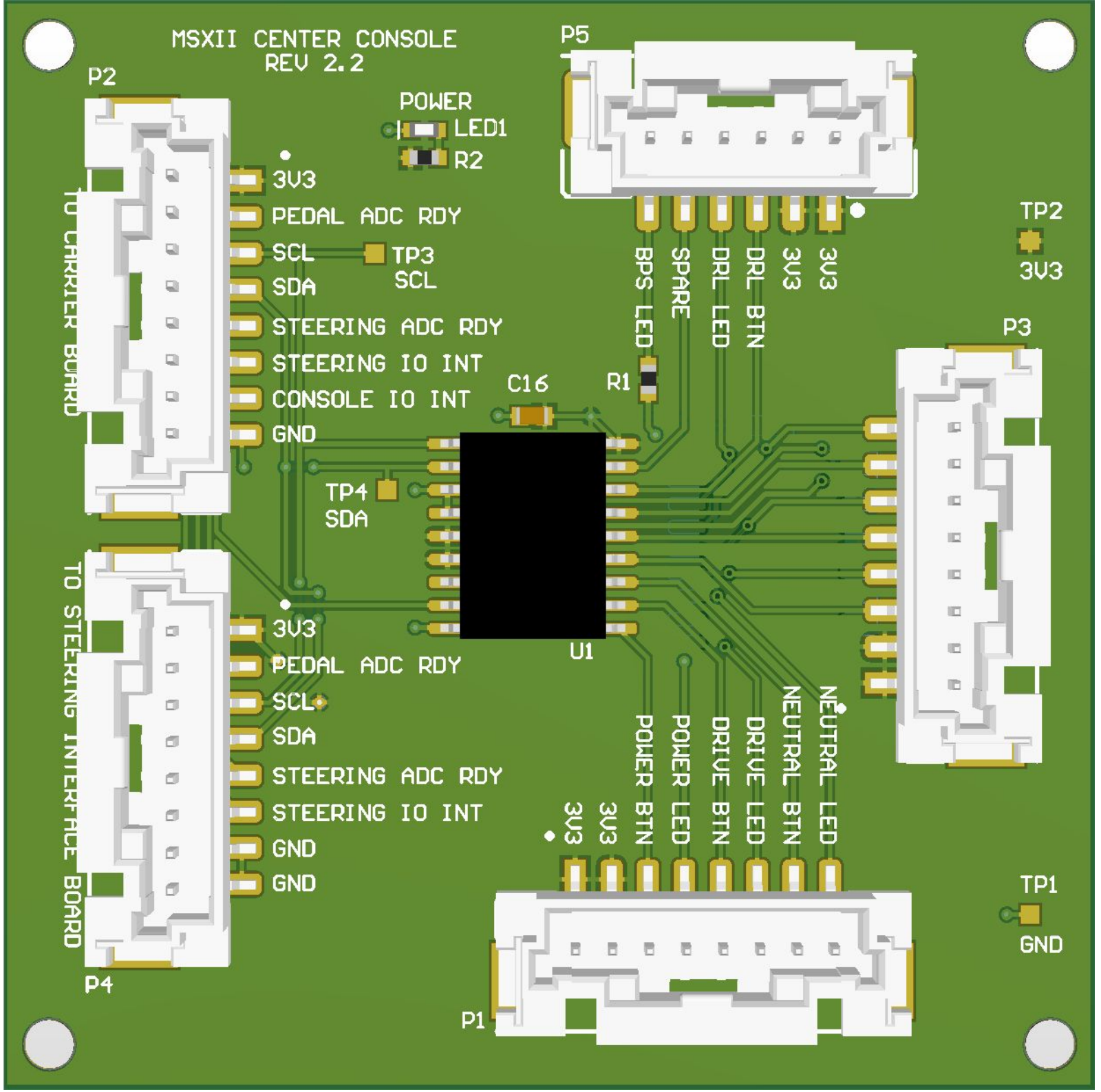




Project: ***MSXII_Center_Console_Switches.PrjPcb***		MIDNIGHT SUN
Title: **Center Console**		
Project Author: Titus Chow		University of Waterloo 200 University Ave W Waterloo, ON, Canada N2L 3E9
Size: Letter	Revision: 2.2	
Date: 6/19/2018	Sheet 1 of 1	Website: www.uwmidsun.com


MSXII CENTER CONSOLE
REV 2.2
P2
P5
POWER
LED1
R2
3V3
PEDAL ADC RDY
SCL
TP3
SCL
SDA
STEERING ADC RDY
STEERING IO INT
CONSOLE IO INT
GND
TP4
SDA
C16
R1
U1
TO CARRIER BOARD
TO STEERING INTERFACE BOARD
BPS LED
SPARE
DRL LED
DRL BTN
3V3
3V3
TP2
3V3
P3
NEUTRAL LED
NEUTRAL BTN
DRIVE LED
DRIVE BTN
POWER LED
POWER BTN
3V3
3V3
TP1
GND
P1
P4


C15
U2
P3
LOWBEAMS LED
LOWBEAMS LED
HAZARDS LED
HAZARDS BTN
REVERSE LED
REVERSE BTN
3V3
3V3


MSXII CENTER CONSOLE
REV 2.2
P2
TO CARRIER BOARD
3V3
PEDAL ADC RDY
SCL
SDA
STEERING ADC RDY
STEERING IO INT
CONSOLE IO INT
GND
POWER
LED1
R2
TP3
SCL
TP4
SDA
C16
U1
P5
BPS LED
SPARE
DRL LED
DRL BTN
3V3
3V3
R1
TP2
3V3
P3
TO STEERING INTERFACE BOARD
3V3
PEDAL ADC RDY
SCL
SDA
STEERING ADC RDY
STEERING IO INT
GND
GND
P4
3V3
3V3
POWER BTN
POWER LED
DRIVE BTN
DRIVE LED
NEUTRAL BTN
NEUTRAL LED
P1
TP1
GND

Electrical Rules Check Report

Class	Document	Message
Warning	Center Console.SchDoc	Off grid Net Label CONSOLE_IO_INTERRUPT at 8013.711mil,4100mil
Warning	Center Console.SchDoc	Off grid Net Label GP0/POWER_BTN at 2283.468mil,6700mil
Warning	Center Console.SchDoc	Off grid Net Label GP0/POWER_BTN at 8383.469mil,4900mil
Warning	Center Console.SchDoc	Off grid Net Label GP0/POWER_LED at 2290.883mil,6600mil
Warning	Center Console.SchDoc	Off grid Net Label GP0/POWER_LED at 8390.883mil,2900mil
Warning	Center Console.SchDoc	Off grid Net Label GP1/DRIVE_BTN at 2323.636mil,6500mil
Warning	Center Console.SchDoc	Off grid Net Label GP1/DRIVE_BTN at 8423.636mil,4800mil
Warning	Center Console.SchDoc	Off grid Net Label GP1/DRIVE_LED at 2331.05mil,6400mil
Warning	Center Console.SchDoc	Off grid Net Label GP1/DRIVE_LED at 8431.05mil,2800mil
Warning	Center Console.SchDoc	Off grid Net Label GP2/NEUTRAL_BTN at 2178.177mil,6300mil
Warning	Center Console.SchDoc	Off grid Net Label GP2/NEUTRAL_BTN at 8278.177mil,4700mil
Warning	Center Console.SchDoc	Off grid Net Label GP2/NEUTRAL_LED at 2185.592mil,6200mil
Warning	Center Console.SchDoc	Off grid Net Label GP2/NEUTRAL_LED at 8285.592mil,2700mil
Warning	Center Console.SchDoc	Off grid Net Label GP3/REVERSE_BTN at 2198.151mil,5600mil
Warning	Center Console.SchDoc	Off grid Net Label GP3/REVERSE_BTN at 8298.151mil,4600mil
Warning	Center Console.SchDoc	Off grid Net Label GP3/REVERSE_LED at 2205.565mil,5500mil
Warning	Center Console.SchDoc	Off grid Net Label GP3/REVERSE_LED at 8305.565mil,2600mil
Warning	Center Console.SchDoc	Off grid Net Label GP4/HAZARDS_BTN at 2173.063mil,5400mil
Warning	Center Console.SchDoc	Off grid Net Label GP4/HAZARDS_BTN at 8273.063mil,4500mil
Warning	Center Console.SchDoc	Off grid Net Label GP4/HAZARDS_LED at 2180.477mil,5300mil
Warning	Center Console.SchDoc	Off grid Net Label GP4/HAZARDS_LED at 8280.477mil,2500mil
Warning	Center Console.SchDoc	Off grid Net Label GP5/LOWBEAMS_BTN at 2082.807mil,5200mil
Warning	Center Console.SchDoc	Off grid Net Label GP5/LOWBEAMS_BTN at 8182.807mil,4400mil
Warning	Center Console.SchDoc	Off grid Net Label GP5/LOWBEAMS_LED at 2090.221mil,5100mil
Warning	Center Console.SchDoc	Off grid Net Label GP5/LOWBEAMS_LED at 8190.221mil,2400mil
Warning	Center Console.SchDoc	Off grid Net Label GP6/DRL_BTN at 2418.918mil,4400mil
Warning	Center Console.SchDoc	Off grid Net Label GP6/DRL_BTN at 8518.918mil,4300mil
Warning	Center Console.SchDoc	Off grid Net Label GP6/DRL_LED at 2426.332mil,4300mil
Warning	Center Console.SchDoc	Off grid Net Label GP6/DRL_LED at 8526.332mil,2300mil
Warning	Center Console.SchDoc	Off grid Net Label GP7/BPS_FAULT_LED at 2110.151mil,4100mi
Warning	Center Console.SchDoc	Off grid Net Label GP7/BPS_FAULT_LED at 8210.151mil,2200mil
Warning	Center Console.SchDoc	Off grid Net Label GP7/SPARE_IN at 2403.795mil,4200mil
Warning	Center Console.SchDoc	Off grid Net Label GP7/SPARE_IN at 8503.795mil,4200mil

Design Rules Verification Report

Filename : \\vmware-host\Shared Folders\projects\hardware\MSXII_Center_Console_Switch

Warnings 0
Rule Violations 16

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.152mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.254mm) (Max=0.635mm) (Preferred=0.254mm) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm)	0
Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	4
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)	0
Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)	9
Silk to Silk (Clearance=0.254mm) (All),(All)	3
Net Antennae (Tolerance=0mm) (All)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)	0
Total	16

Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)
Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(2.5mm,2.5mm) on Multi-Layer Actual Hole Size = 2.7mm
Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(2.5mm,57.5mm) on Multi-Layer Actual Hole Size = 2.7mm
Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(57.5mm,2.5mm) on Multi-Layer Actual Hole Size = 2.7mm
Hole Size Constraint: (2.7mm > 2.54mm) Pad Free-(57.5mm,57.5mm) on Multi-Layer Actual Hole Size = 2.7mm

Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)
Silk To Solder Mask Clearance Constraint: (0.209mm < 0.254mm) Between Pad LED1-2(22.376mm,52.832mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P1-(27.8mm,6mm) on Top Layer And Tracl
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P1-(49mm,6mm) on Top Layer And Tracl
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P2-(7.495mm,32.45mm) on Top Layer And
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P2-(7.495mm,53.65mm) on Top Layer And
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P3-(54mm,18.8mm) on Top Layer And Tracl
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P3-(54mm,40mm) on Top Layer And Tracl
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P4-(7.495mm,28.925mm) on Top Layer And
Silk To Solder Mask Clearance Constraint: (0.153mm < 0.254mm) Between Pad P4-(7.495mm,7.725mm) on Top Layer And

Silk to Silk (Clearance=0.254mm) (All),(All)
Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Arc (46.02mm,21mm) on Top Overlay And Text "NEUTRA
Silk To Silk Clearance Constraint: (0.19mm < 0.254mm) Between Text "U1" (31.242mm,23.769mm) on Top Overlay And Trac
Silk To Silk Clearance Constraint: (0.194mm < 0.254mm) Between Text "U1" (31.242mm,23.769mm) on Top Overlay And