

Design Rules Verification Report

Filename : U:\Session 4\Devo-session-4\Lab 2\Pcb1.PcbDoc

Warnings 0
Rule Violations 320

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.15mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	77
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.15mm) (Max=5mm) (Preferred=0.2mm) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Hole Size Constraint (Min=0.2mm) (Max=5mm) (All)	0
Hole To Hole Clearance (Gap=0.3mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.075mm) (All),(All)	0
Silk To Solder Mask (Clearance=0mm) (IsPad),(All)	0
Silk to Silk (Clearance=0mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) (All)	243
Height Constraint (Min=0mm) (Max=25.4mm) (Preferred=12.7mm) (All)	0
Total	320

Un-Routed Net Constraint ((All))
Un-Routed Net Constraint: Net GND Between Pad C1-1(133.5mm,60.19mm) on Top Layer And Pad C2-1(138.58mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad U1_MotorDrive-A-7(101.651mm,73.14mm) on Top Layer And Pad C1-1(133.5mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad C1-2(135.4mm,60.19mm) on Top Layer And Pad C2-2(140.48mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad U1_MotorDrive-A-5(101.651mm,72.14mm) on Top Layer And Pad C1-2(135.4mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad C2-1(138.58mm,60.19mm) on Top Layer And Pad C3-1(143.66mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad C2-2(140.48mm,60.19mm) on Top Layer And Pad C3-2(145.56mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad C3-1(143.66mm,60.19mm) on Top Layer And Pad C4-1(148.74mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad C3-2(145.56mm,60.19mm) on Top Layer And Pad C4-2(150.64mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad C4-1(148.74mm,60.19mm) on Top Layer And Pad C5-2(153.95mm,60.19mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net VM Between Pad C4-2(150.64mm,60.19mm) on Top Layer And Pad C6-1(156.86mm,60.19mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R3-1(128.92mm,60.19mm) on Top Layer [Unplated] And Pad C5-1(153.05mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad C5-2(153.95mm,60.19mm) on Top Layer [Unplated] And Pad C6-2(157.76mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad C7-1(76.03mm,49.44mm) on Top Layer And Pad J2-1(85.71mm,57.35mm) on Multi-Layer
Un-Routed Net Constraint: Net GND Between Pad R7-2(53.62mm,60.19mm) on Top Layer [Unplated] And Pad C7-1(76.03mm,49.44mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad C7-2(76.03mm,58.24mm) on Top Layer And Pad J2-2(89.21mm,57.35mm) on Multi-Layer
Un-Routed Net Constraint: Net GND Between Pad C8_MotorDrive-A-1(27.77mm,73.71mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net GND Between Pad R12-2(27.77mm,60.64mm) on Top Layer [Unplated] And Pad C8_MotorDrive-A-1(27.77mm,73.71mm)
Un-Routed Net Constraint: Net IPROP Between Pad MB1-1(1.27mm,-10.16mm) on Multi-Layer And Pad C8_MotorDrive-A-2(27.77mm,74.61mm) on Top Layer
Un-Routed Net Constraint: Net IPROP Between Pad C8_MotorDrive-A-2(27.77mm,74.61mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net NetC8_MotorDrive-B_2 Between Pad C8_MotorDrive-B-2(27.77mm,89.85mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net out1_MotorDrive-A Between Pad J1_MotorDrive-A-1(78.87mm,71.14mm) on Multi-Layer And Pad
Un-Routed Net Constraint: Net out2_MotorDrive-A Between Pad J1_MotorDrive-A-2(78.87mm,74.64mm) on Multi-Layer And Pad
Un-Routed Net Constraint: Net out1_MotorDrive-B Between Pad J1_MotorDrive-B-1(78.87mm,86.38mm) on Multi-Layer And Pad
Un-Routed Net Constraint: Net out2_MotorDrive-B Between Pad J1_MotorDrive-B-2(78.87mm,89.88mm) on Multi-Layer And Pad
Un-Routed Net Constraint: Net GND Between Pad J2-1(85.71mm,57.35mm) on Multi-Layer And Pad U1_MotorDrive-A-17(100.16mm,72.89mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad J2-2(89.21mm,57.35mm) on Multi-Layer And Pad U1_MotorDrive-A-5(101.651mm,72.14mm) on Top Layer
Un-Routed Net Constraint: Net SDA Between Pad MB1-11(24.13mm,-22.86mm) on Multi-Layer And Pad R1-2(55.06mm,33.02mm) on Top Layer
Un-Routed Net Constraint: Net SCL Between Pad MB1-12(24.13mm,-20.32mm) on Multi-Layer And Pad U1_MotorDrive-A-15(98.669mm,72.64mm) on Top Layer
Un-Routed Net Constraint: Net FAULT Between Pad MB1-15(24.13mm,-12.7mm) on Multi-Layer And Pad U1_MotorDrive-A-4(100.91mm,71.399mm) on Top Layer
Un-Routed Net Constraint: Net PWM Between Pad MB1-16(24.13mm,-10.16mm) on Multi-Layer And Pad U1_MotorDrive-A-13(98.669mm,73.64mm) on Top Layer
Un-Routed Net Constraint: Net SLEEP Between Pad MB1-2(1.27mm,-12.7mm) on Multi-Layer And Pad R14-2(65.87mm,60.64mm) on Top Layer
Un-Routed Net Constraint: Net RC OUT Between Pad MB1-3(1.27mm,-15.24mm) on Multi-Layer And Pad U1_MotorDrive-A-3(100.41mm,71.399mm) on Top Layer
Un-Routed Net Constraint: Net DIR Between Pad MB1-7(1.27mm,-25.4mm) on Multi-Layer And Pad U1_MotorDrive-A-12(99.41mm,74.381mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad MB1-8(1.27mm,-27.94mm) on Multi-Layer And Pad MB1-9(24.13mm,-27.94mm) on Multi-Layer
Un-Routed Net Constraint: Net GND Between Pad MB1-9(24.13mm,-27.94mm) on Multi-Layer And Pad R12-2(27.77mm,60.64mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R13-1(34.12mm,59.74mm) on Top Layer [Unplated] And Pad R10-1(43.83mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R10-1(43.83mm,60.19mm) on Top Layer [Unplated] And Pad R8-1(56.53mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net NetR10_2 Between Pad R11-1(38.75mm,60.19mm) on Top Layer [Unplated] And Pad R10-2(44.73mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net NetR10_2 Between Pad R10-2(44.73mm,60.19mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Pad R1-1(54.16mm,33.02mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R1-1(54.16mm,33.02mm) on Top Layer [Unplated] And Pad R8-1(56.53mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad R12-2(27.77mm,60.64mm) on Top Layer [Unplated] And Pad R11-2(39.65mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad R11-2(39.65mm,60.19mm) on Top Layer [Unplated] And Pad R6-2(49.81mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net SDA Between Pad R1-2(55.06mm,33.02mm) on Top Layer [Unplated] And Pad U1_MotorDrive-A-14(98.669mm,73.14mm)
Un-Routed Net Constraint: Net NetR12_1 Between Pad R12-1(27.77mm,59.74mm) on Top Layer [Unplated] And Pad R13-2(34.12mm,60.64mm) on Top Layer
Un-Routed Net Constraint: Net NetR12_1 Between Pad R13-2(34.12mm,60.64mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R9-1(61.61mm,60.19mm) on Top Layer [Unplated] And Pad R14-1(65.87mm,59.74mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R14-1(65.87mm,59.74mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net SLEEP Between Pad R14-2(65.87mm,60.64mm) on Top Layer [Unplated] And Pad
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R2-1(123.84mm,60.19mm) on Top Layer [Unplated] And Pad R3-1(128.92mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R4-1(120.03mm,60.19mm) on Top Layer [Unplated] And Pad R2-1(123.84mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net SCL Between Pad U1_MotorDrive-A-15(98.669mm,72.64mm) on Top Layer And Pad R2-2(124.74mm,60.19mm) on Top Layer

Un-Routed Net Constraint ((All))
Un-Routed Net Constraint: Net FAULT Between Pad U1_MotorDrive-A-4(100.91mm,71.399mm) on Top Layer And Pad R3-2(129.82mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad U1_MotorDrive-A-2(99.91mm,71.399mm) on Top Layer And Pad R4-1(120.03mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net RC OUT Between Pad U1_MotorDrive-A-3(100.41mm,71.399mm) on Top Layer And Pad R4-2(120.93mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net IPROP Between Pad R5_MotorDrive-A-1(51.9mm,72.44mm) on Top Layer [Unplated] And Pad R5_MotorDrive-A-2(51.9mm,73.34mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net GND Between Pad R5_MotorDrive-A-2(51.9mm,73.34mm) on Top Layer [Unplated] And Pad R7-2(53.62mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net NetC8_MotorDrive-B_2 Between Pad R5_MotorDrive-B-1(51.9mm,87.68mm) on Top Layer [Unplated] And Pad R6-1(48.91mm,60.19mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net NetR6_1 Between Pad R6-1(48.91mm,60.19mm) on Top Layer [Unplated] And Pad R8-2(57.43mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad R6-2(49.81mm,60.19mm) on Top Layer [Unplated] And Pad R7-2(53.62mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net NetR7_1 Between Pad R7-1(52.72mm,60.19mm) on Top Layer [Unplated] And Pad R9-2(62.51mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad R8-1(56.53mm,60.19mm) on Top Layer [Unplated] And Pad R9-1(61.61mm,60.19mm) on Top Layer
Un-Routed Net Constraint: Net NetR6_1 Between Pad R8-2(57.43mm,60.19mm) on Top Layer [Unplated] And Pad R9-2(62.51mm,60.19mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net NetR7_1 Between Pad R9-2(62.51mm,60.19mm) on Top Layer [Unplated] And Pad R9-1(61.61mm,60.19mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net SLEEP Between Pad U1_MotorDrive-A-11(99.91mm,74.381mm) on Top Layer And Pad R5_MotorDrive-A-1(51.9mm,72.44mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net SDA Between Pad U1_MotorDrive-A-14(98.669mm,73.14mm) on Top Layer And Pad R5_MotorDrive-A-2(51.9mm,73.34mm) on Top Layer [Unplated]
Un-Routed Net Constraint: Net SCL Between Pad U1_MotorDrive-A-15(98.669mm,72.64mm) on Top Layer And Pad R5_MotorDrive-A-3(100.41mm,71.399mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad U1_MotorDrive-A-16(98.669mm,72.14mm) on Top Layer And Pad R5_MotorDrive-A-4(100.91mm,71.399mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad U1_MotorDrive-A-16(98.669mm,72.14mm) on Top Layer And Pad R5_MotorDrive-A-5(101.651mm,72.14mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad U1_MotorDrive-A-17(100.16mm,72.89mm) on Top Layer And Pad R5_MotorDrive-A-6(101.651mm,73.14mm) on Top Layer
Un-Routed Net Constraint: Net FAULT Between Pad U1_MotorDrive-A-4(100.91mm,71.399mm) on Top Layer And Pad R5_MotorDrive-A-7(101.651mm,73.14mm) on Top Layer
Un-Routed Net Constraint: Net VM Between Pad U1_MotorDrive-A-5(101.651mm,72.14mm) on Top Layer And Pad R5_MotorDrive-A-8(101.651mm,73.14mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad U1_MotorDrive-A-7(101.651mm,73.14mm) on Top Layer And Pad R5_MotorDrive-A-9(101.651mm,73.14mm) on Top Layer
Un-Routed Net Constraint: Net VCC 3V3 Between Pad U1_MotorDrive-B-16(98.669mm,87.38mm) on Top Layer And Pad R5_MotorDrive-A-10(101.651mm,73.14mm) on Top Layer
Un-Routed Net Constraint: Net GND Between Pad U1_MotorDrive-B-17(100.16mm,88.13mm) on Top Layer And Pad R5_MotorDrive-A-11(99.91mm,74.381mm) on Top Layer
Un-Routed Net Constraint: Split Plane (No Net) on Int1 (GND) Dead Copper - Net Not Assigned.

[illegible]

Board Outline Clearance(Outline Edge): (Collision $\leq 0.5\text{mm}$) Between Board Edge And Pad B7-1(52.72mm 60.19mm) on Top Layer

Board Clearance Constraint (Gap=0mm) (All)

[illegible]

Board Clearance Constraint (Gap=0mm) (All)

[illegible]

Board Clearance Constraint (Gap=0mm) (All)

Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (75.95mm,84.63mm)(81.19mm,84.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (77.505mm,48.59mm)(81.28mm,48.59mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (77.53mm,59.09mm)(80.28mm,59.09mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (80.305mm,59.09mm)(81.305mm,58.09mm) on Top
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.115mm,68.99mm)(81.19mm,69.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.115mm,68.99mm)(81.765mm,68.99mm) on Top
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.115mm,84.23mm)(81.19mm,84.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.115mm,84.23mm)(81.765mm,84.23mm) on Top
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.28mm,48.59mm)(81.28mm,58.09mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.69mm,69.39mm)(81.765mm,68.99mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.69mm,69.39mm)(82.27mm,69.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.69mm,84.63mm)(81.765mm,84.23mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (81.69mm,84.63mm)(82.27mm,84.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (82.27mm,69.39mm)(82.27mm,76.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (82.27mm,84.63mm)(82.27mm,91.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,54.455mm)(83.56mm,55.105mm) on Top
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,54.455mm)(83.96mm,54.53mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,55.105mm)(83.96mm,55.03mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,60.195mm)(83.56mm,60.845mm) on Top
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,60.195mm)(83.96mm,60.27mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.56mm,60.845mm)(83.96mm,60.77mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.96mm,53.95mm)(83.96mm,54.53mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.96mm,53.95mm)(90.96mm,53.95mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.96mm,55.03mm)(83.96mm,60.27mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.96mm,60.77mm)(83.96mm,61.35mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (83.96mm,61.35mm)(90.96mm,61.35mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (90.96mm,53.95mm)(90.96mm,61.35mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,71.39mm)(98.66mm,71.64mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,71.39mm)(98.91mm,71.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,74.14mm)(98.66mm,74.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,74.39mm)(98.91mm,74.39mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,86.63mm)(98.66mm,86.88mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,86.63mm)(98.91mm,86.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,89.38mm)(98.66mm,89.63mm) on Top Overlay
Board Outline Clearance(Outline Edge): (Collision < 0.5mm) Between Board Edge And Track (98.66mm,89.63mm)(98.91mm,89.63mm) on Top Overlay