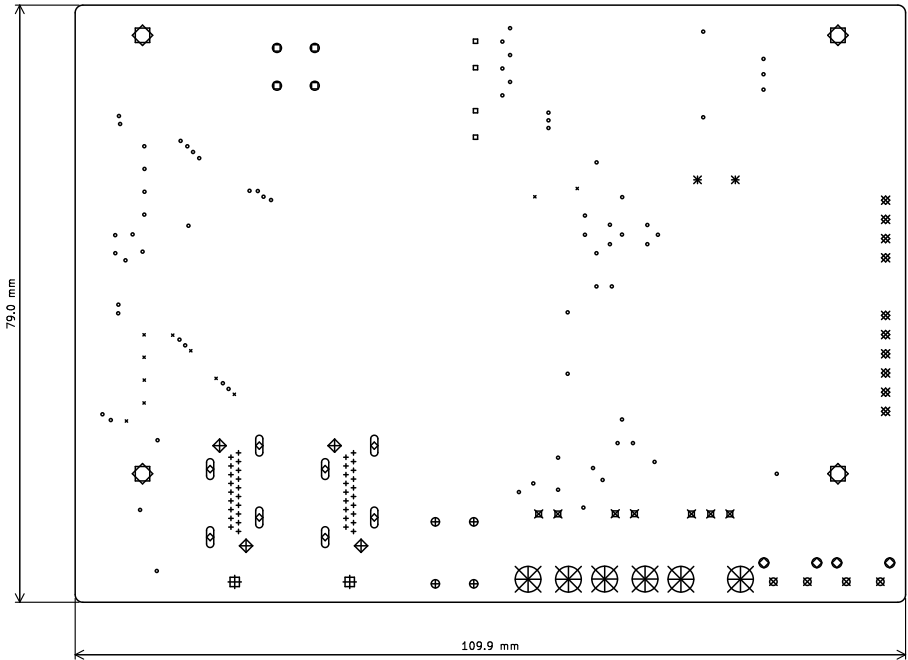


User.1



Impedance Controlled Stackup  
Differential Non-coplaner Waveguide with Ground Plane

Param | Size

Z		100 ohm
D		10 mil
W		10.22 mil
T		1.38 mil
H		8.12 mil (2x3313 57% 4.2 mil)

JLCPCB: JLC04161H-3313A

- Drill Map:
- 0.305mm / 0.0120" (11 holes)
  - 0.406mm / 0.0160" (72 holes)
  - 0.600mm / 0.0236" (38 holes)
  - ◻ 0.800mm / 0.0315" (4 holes)
  - ◊ 0.950mm / 0.0374" (0 holes + 8 slots)
  - ◻ 0.991mm / 0.0390" (4 holes)
  - \* 1.000mm / 0.0394" (2 holes)
  - \* 1.067mm / 0.0420" (7 holes)
  - \* 1.092mm / 0.0430" (10 holes)
  - ◊ 1.100mm / 0.0433" (4 holes)
  - ◊ 1.194mm / 0.0470" (4 holes)
  - ◊ 1.295mm / 0.0510" (4 holes)
  - ◊ 1.750mm / 0.0689" (2 holes)
  - ◊ 1.750mm / 0.0689" (4 holes) (not plated)
  - ⊗ 2.700mm / 0.1063" (4 holes) (not plated)
  - ⊗ 3.400mm / 0.1339" (6 holes) (not plated)

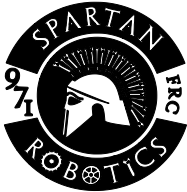
NOTES:

- Layers: 4
- PCB Thickness: 1.6 mm
- PCB Color: GREEN
- Material Type: FR-4 TG155
- Surface Finish: ENIG 1 um
- Outer Copper Weight: 1 oz
- Inner Copper Weight: 0.5 oz
- Impedance Control: YES
- Layer Stackup: JLC04161H-3313A
- Via Covering: Plugged
- Min Via Hole Size / Diameter: 0.406 mm / 0.81 mm
- Board Outline Tolerance: +/- 0.2 mm
- Silk Screen: INK-JET/SCREEN PRINTING
- Stencil Framework: YES
- Top+Bottom on single stencil
- Sencil Polishing: Electropolishing
- Fiducials: Etched Through
- Engrave Text
- Impedance controlled differential pair traces are 10.22 mil.
- Differential pair impedance shall be 100 ohm +/-10%

BOARD CHARACTERISTICS

Copper Layer Count:	4	Board Thickness:	1.5981 mm
Board overall dimensions:	109.8550 mm x 78.9940 mm		
Min track/spacing:	0.2540 mm / 0.1963 mm	Min hole diameter:	0.3000 mm
Copper Finish:	ENIG	Impedance Control:	Yes
Castellated pads:	No	Plated Board Edge:	No
Edge card connectors:	No		

Layer Name	Type	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Not specified	0 mm	White	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Not specified	0.01 mm	Green	3.3	0
F.Cu	copper		0.035052 mm		1	0
Dielectric	prepreg	3313	0.106934 mm	FR4 natural	4.5	0.02
Dielectric	prepreg	3313	0.099314 mm		1	0
In1.Cu	copper		0.01524 mm		1	0
Dielectric	core	1.1mm H/HOZ	1.065 mm	Not specified	4.5	0.02
In2.Cu	copper		0.01524 mm		1	0
Dielectric	prepreg	3313	0.099314 mm	Not specified	4.5	0.02
Dielectric	prepreg	3313	0.106934 mm		1	0
B.Cu	copper		0.035052 mm		1	0
B.Mask	Bottom Solder Mask	Not specified	0.01 mm	Green	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Not specified	0 mm	White	1	0



971 Spartan Robotics

Sheet:		
File: NX-J401-Adapter.kicad_pcb		
Title: NX Adapter Board		
Size: B	Date: 2024-08-10	Rev: 3
KiCad E.D.A. 8.0.4		Page: 1/1