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open source
hardware

Title

MAIN

Number

0

Project

nas-craftsman nixie v1.PrjPcb

Revision

v1

Created by:

Nasib Fahim Fernández

Date


26/07/2023

Size

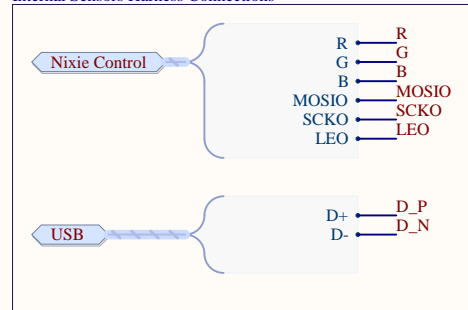
A4

Company

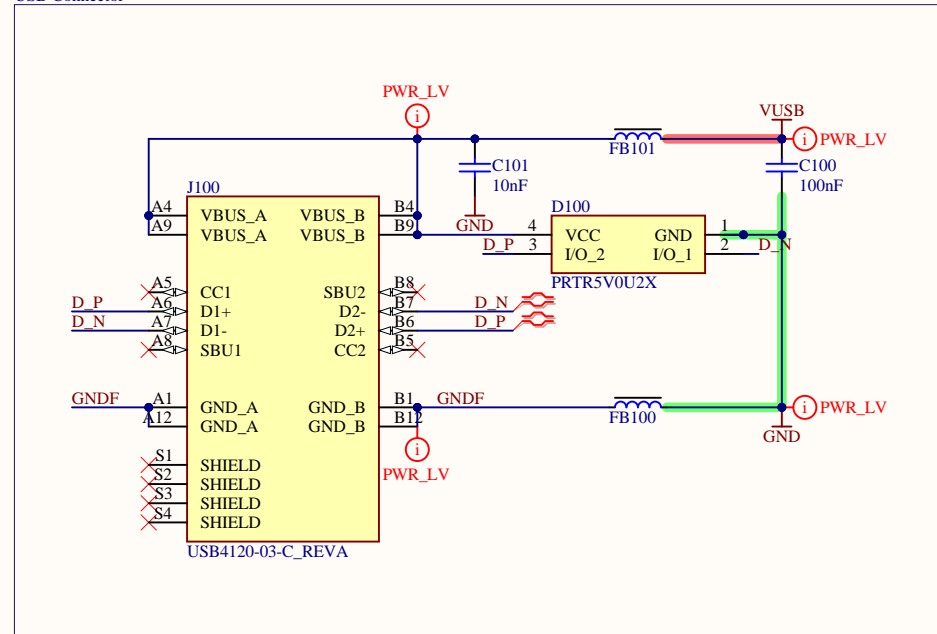
@nas.craftsman



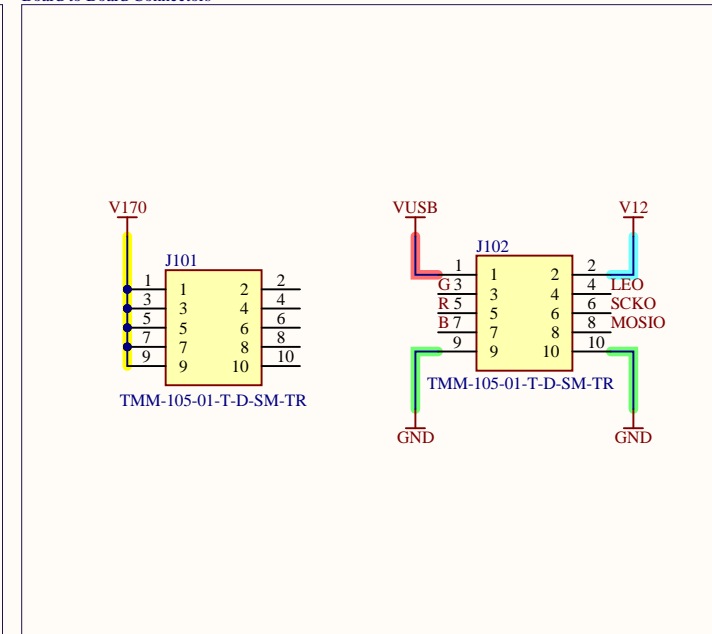
Internal Sensors Harness Connections



USB Connector



Board to Board Connectors



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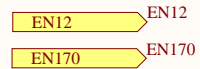


Title	CONNECTORS
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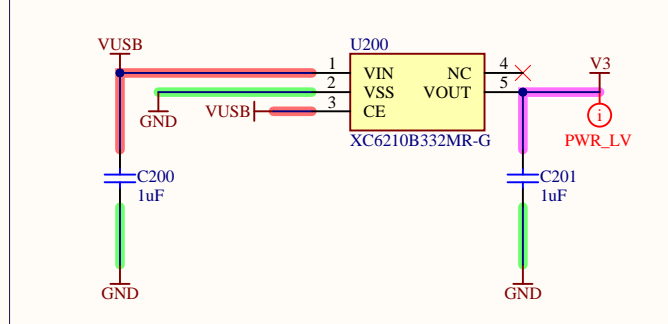
Number 1	Project nas-craftsman nixie v1.PrjPcb	Revision v1
Created by:	Nasib Fahim Fernández	Date 26/07/2023
Size A4	Company @nas.craftsman	



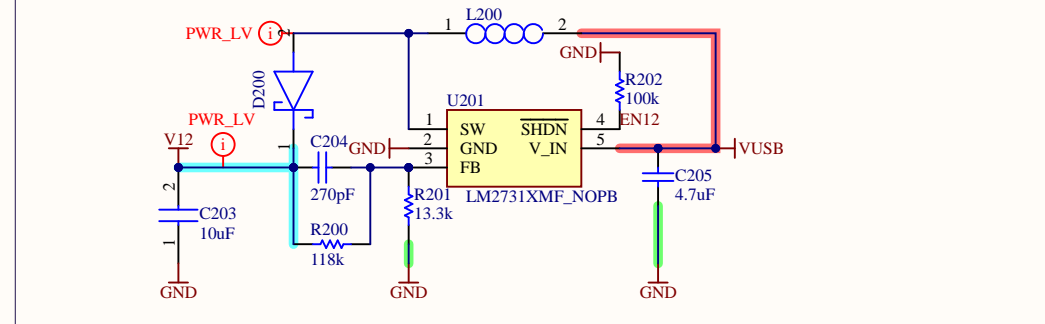
Power Management Port Connections



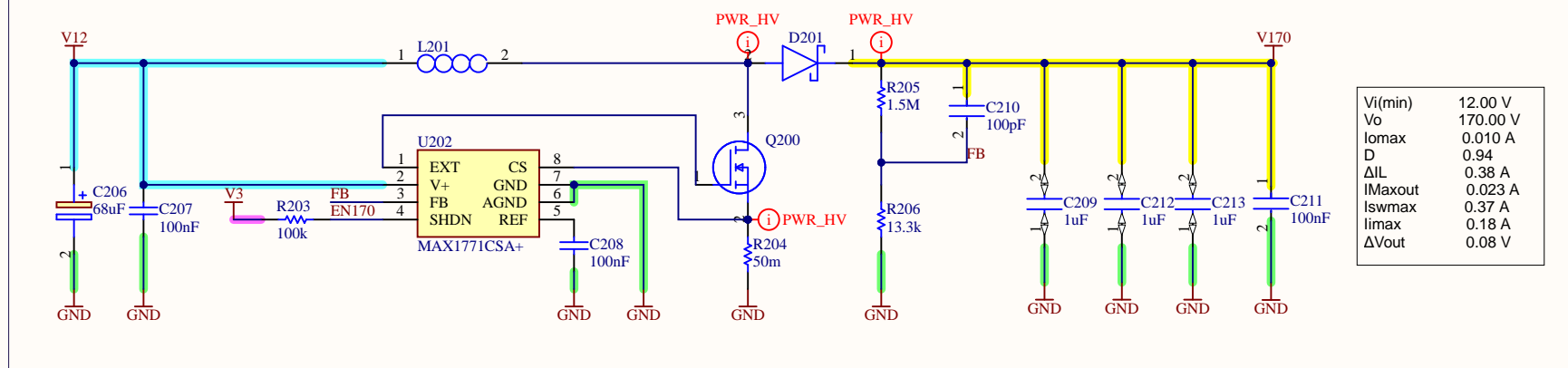
3V LDO ESP32



12V dc-dc Boost



170V dc-dc Boost

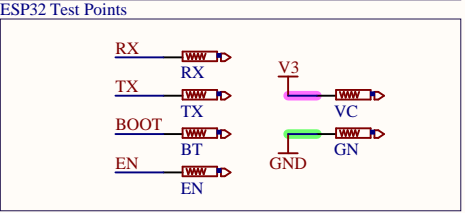
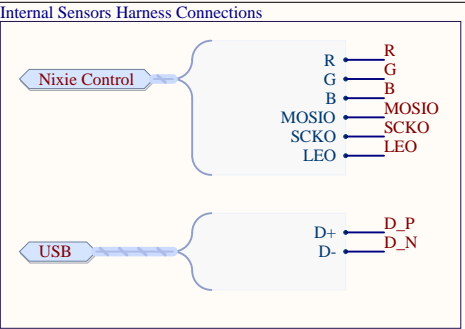
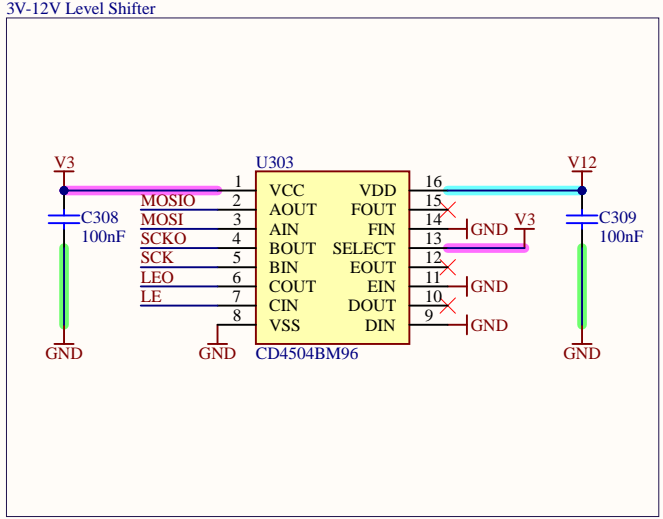
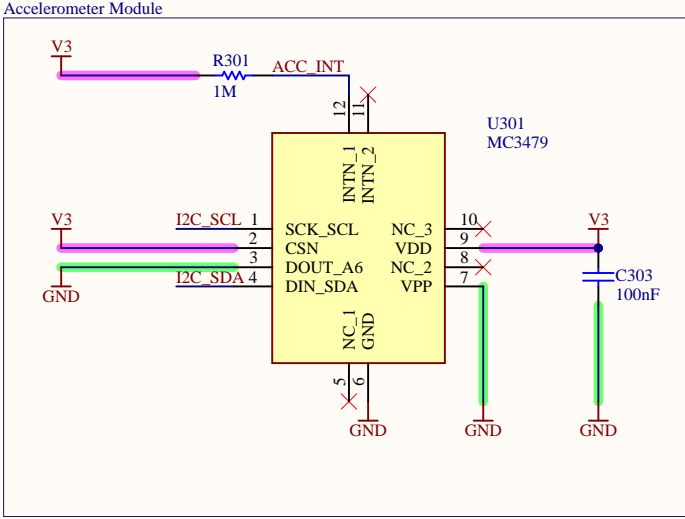
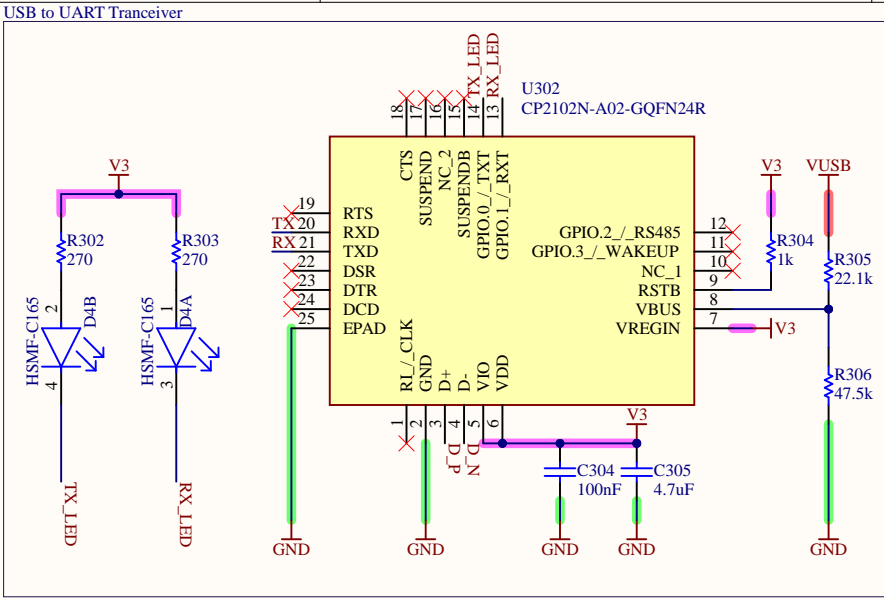
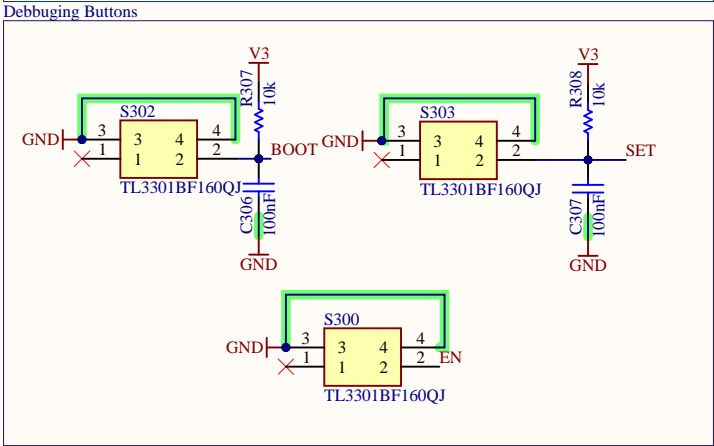
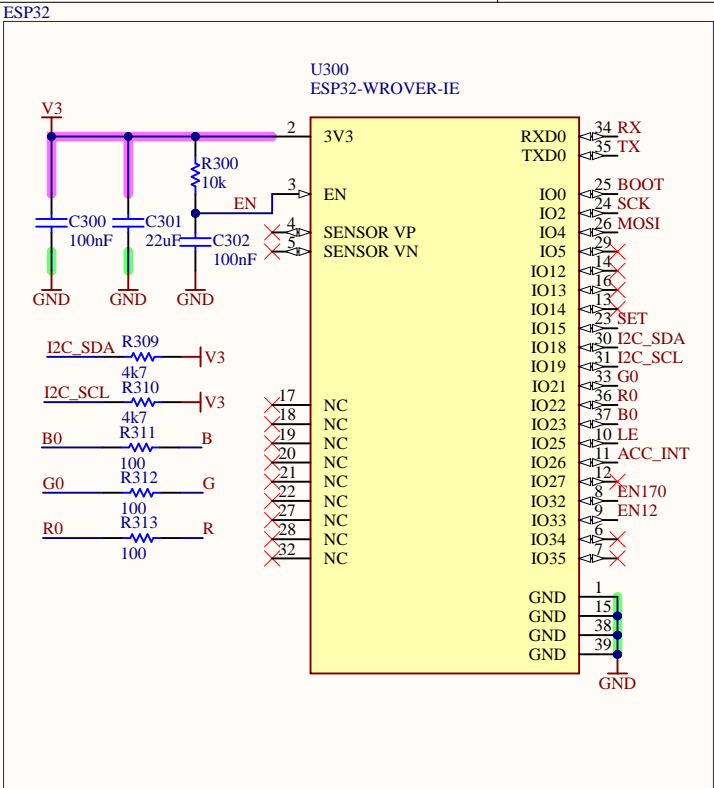


Vi(min)	12.00 V
Vo	170.00 V
Iomax	0.010 A
D	0.94
ΔI_L	0.38 A
IMaxout	0.023 A
Iswmax	0.37 A
limax	0.18 A
ΔV_{out}	0.08 V



Title POWER MANAGEMENT		
Number 2	Project nas-craftsman nixie v1.PrjPcb	Revision v1
Created by: Nasib Fahim Fernández		Date 26/07/2023
Size A4	Company @nas.craftsman	

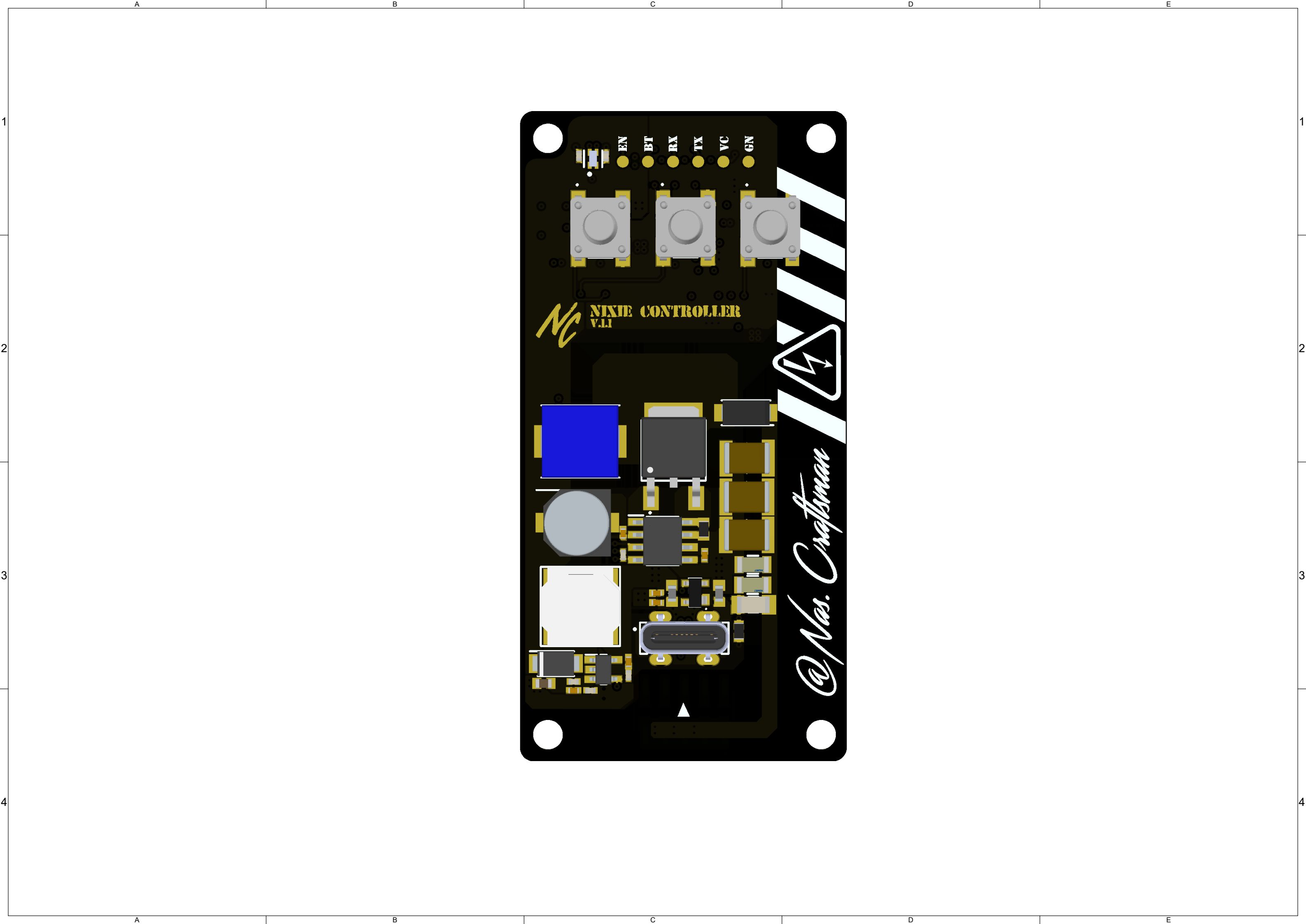


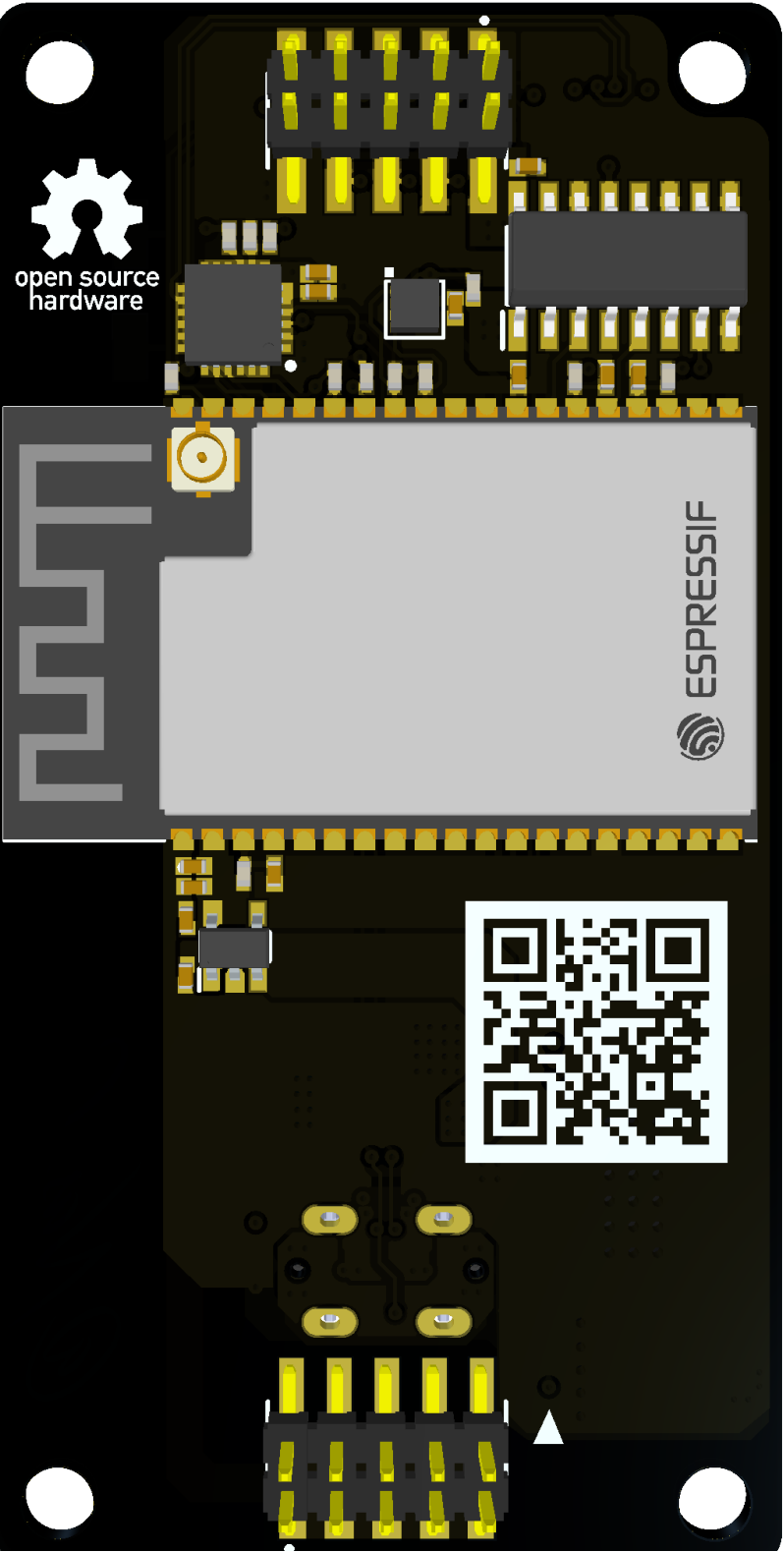


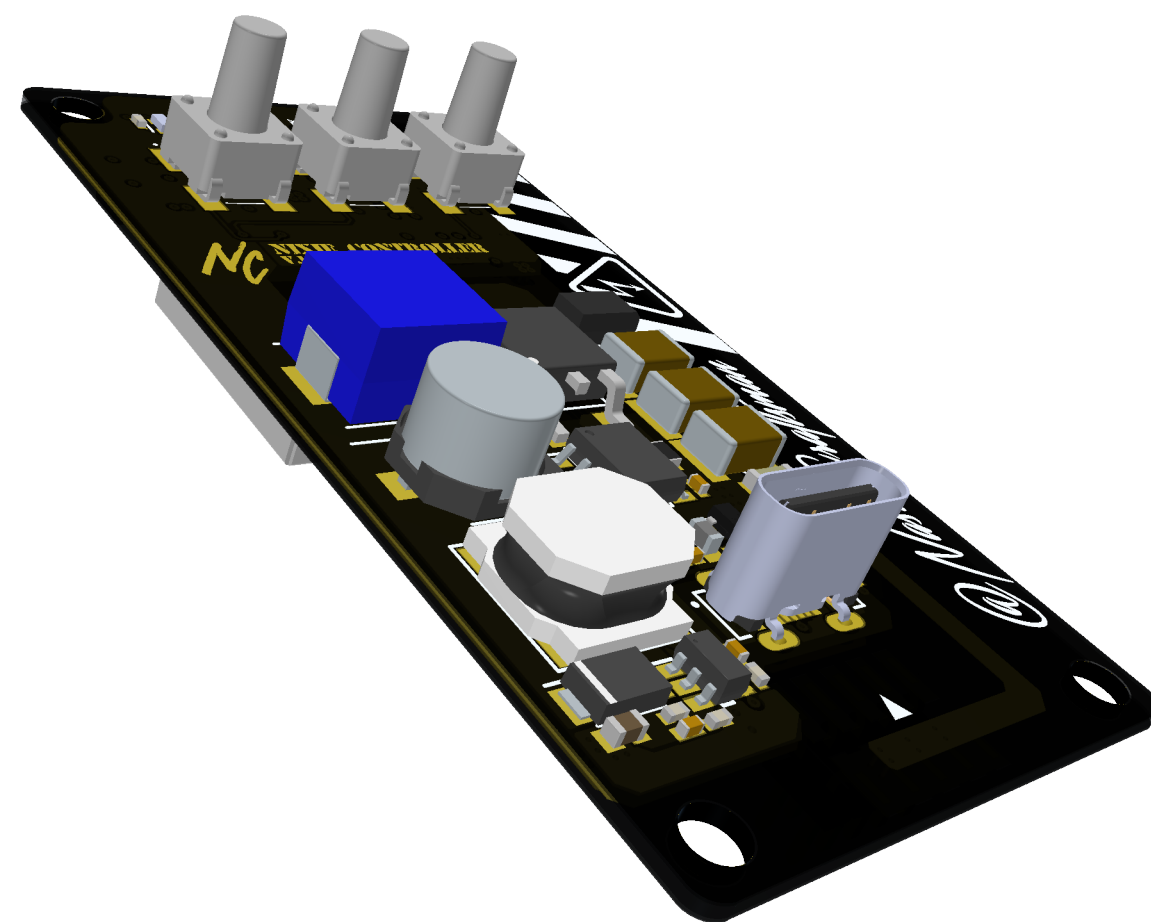
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Title	
MCU	
Number	3
Project	nas-craftsman nixie v1.PrjPcb
Revision	v1
Created by:	Nasib Fahim Fernández
Date	26/07/2023
Size	A4
Company	@nas.craftsman

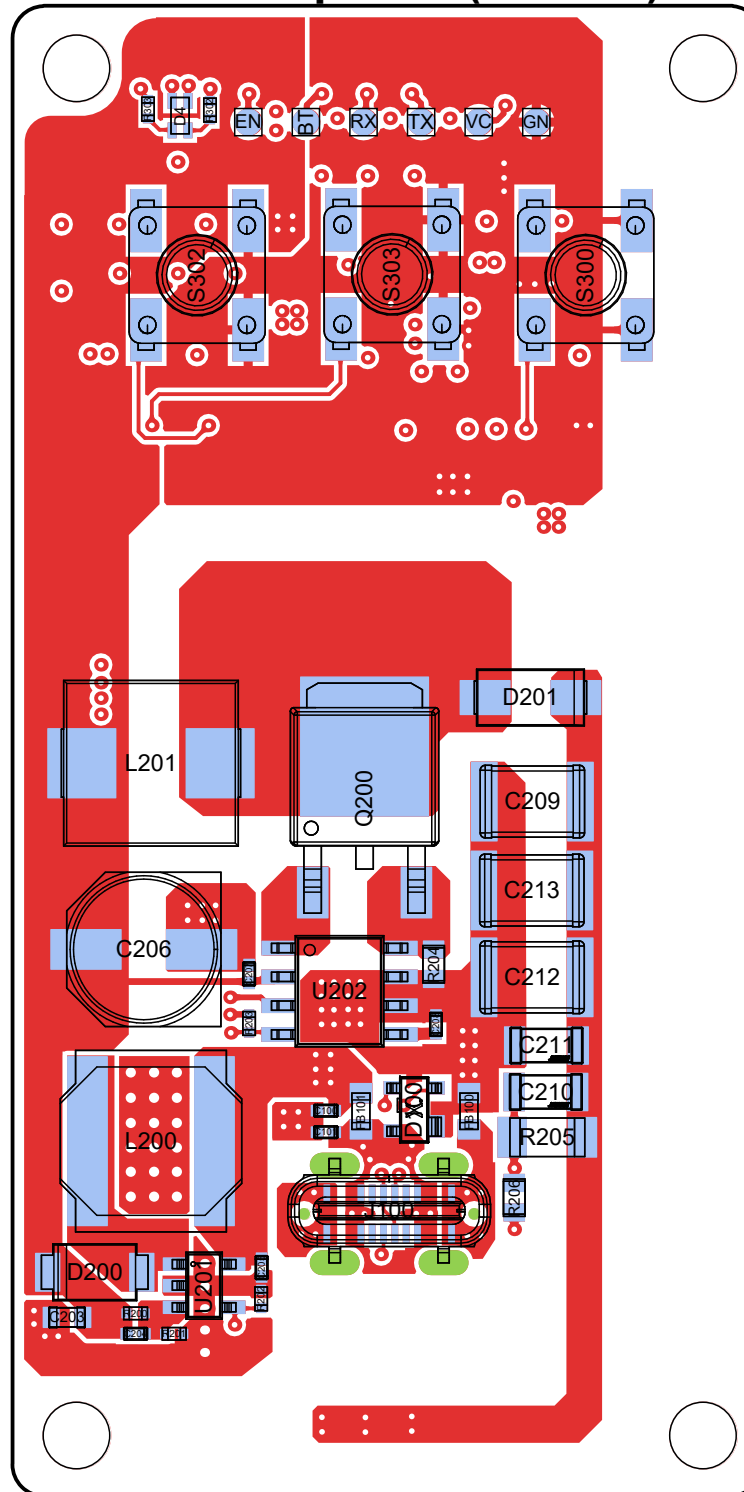




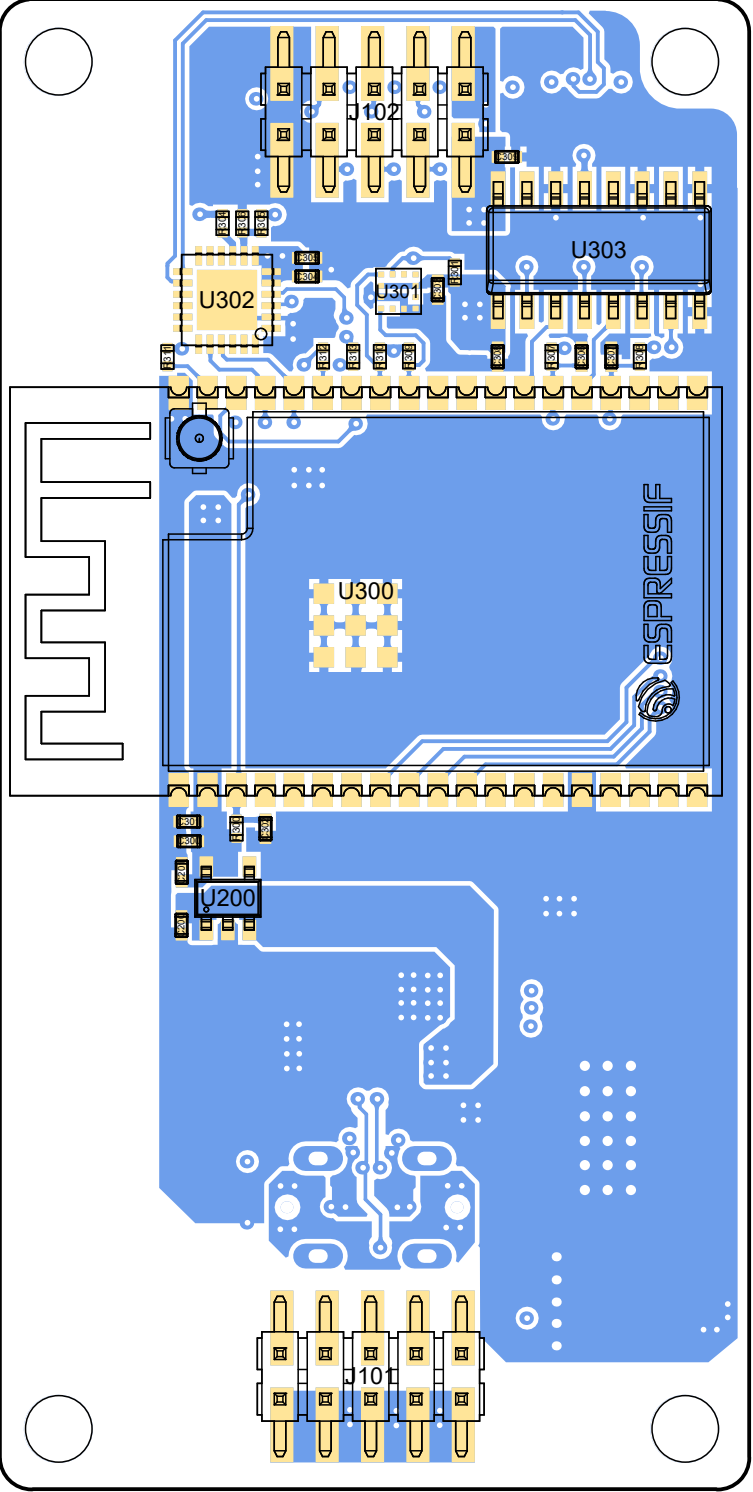


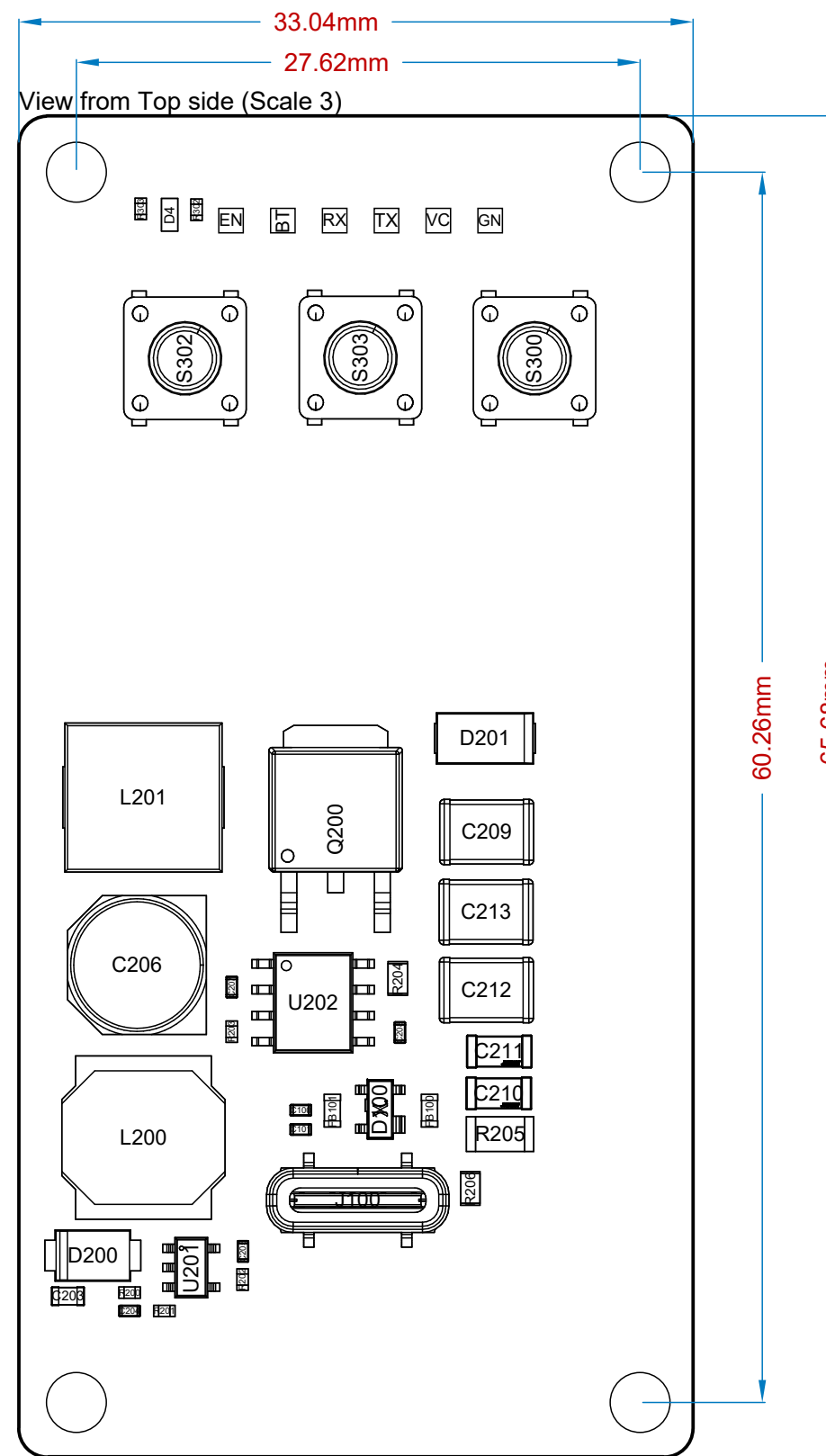
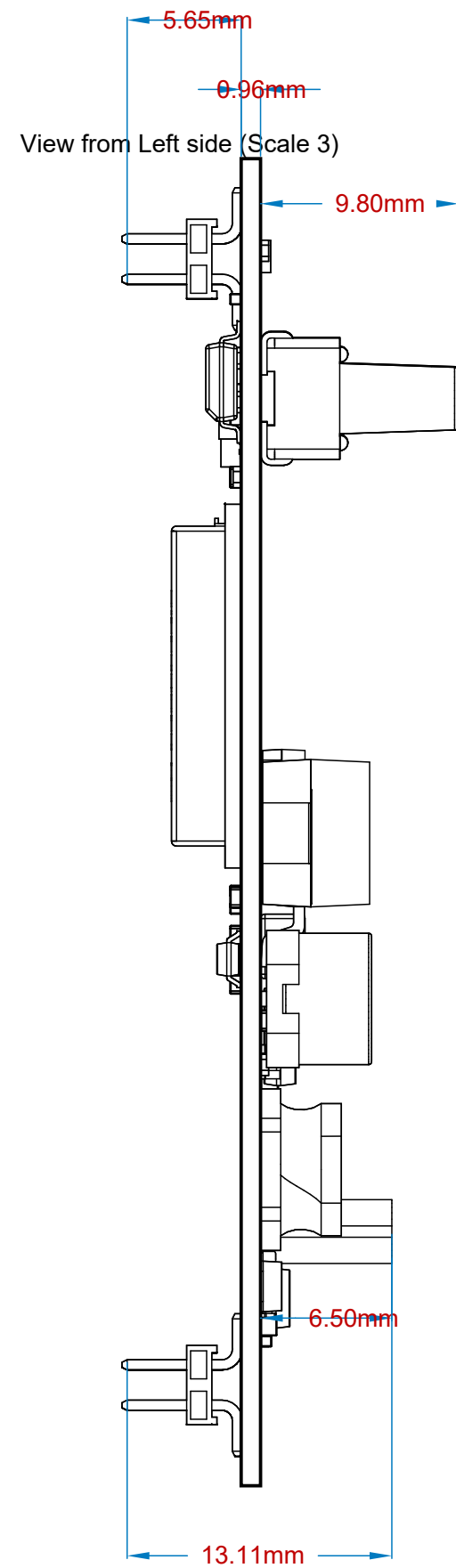


View from Top side (Scale 3)

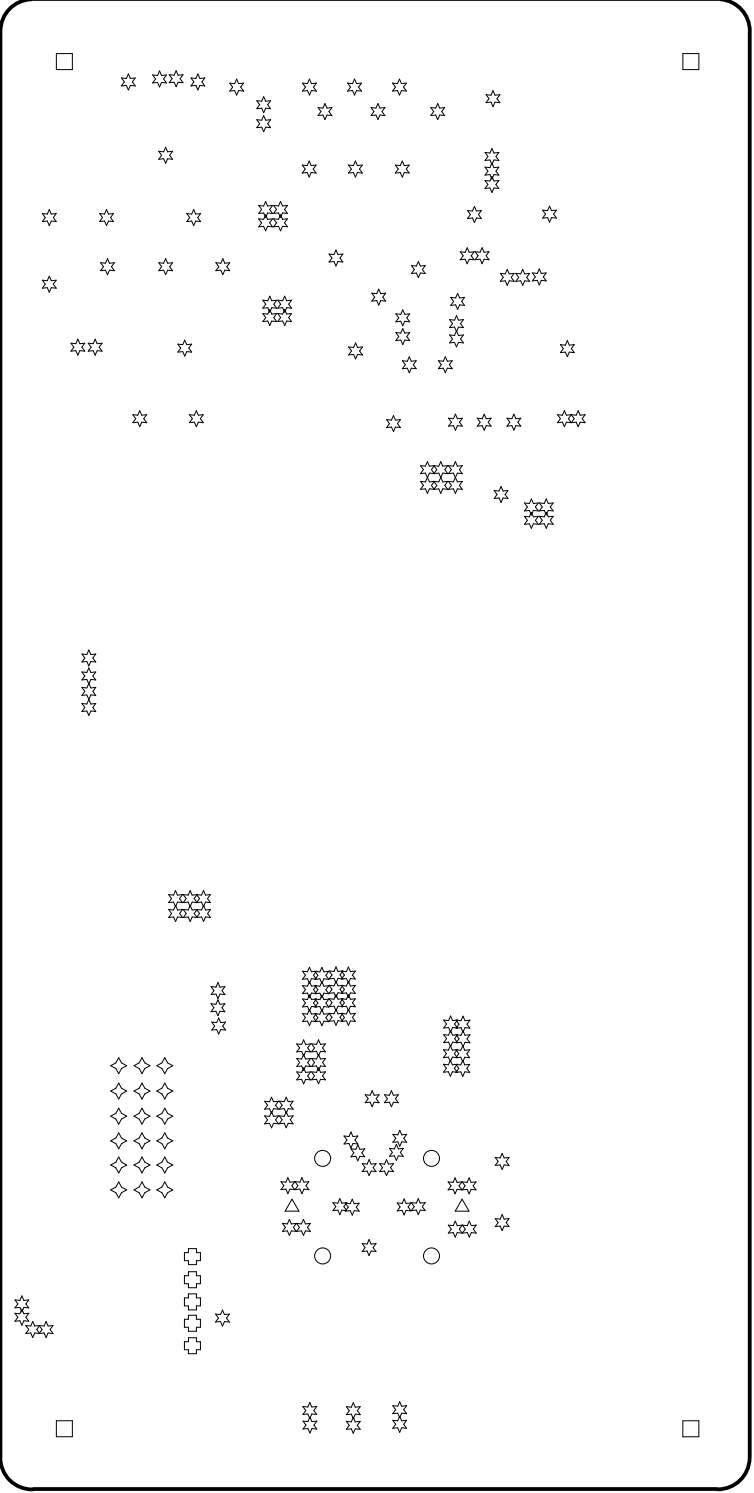


View from Bottom side (Scale 3)





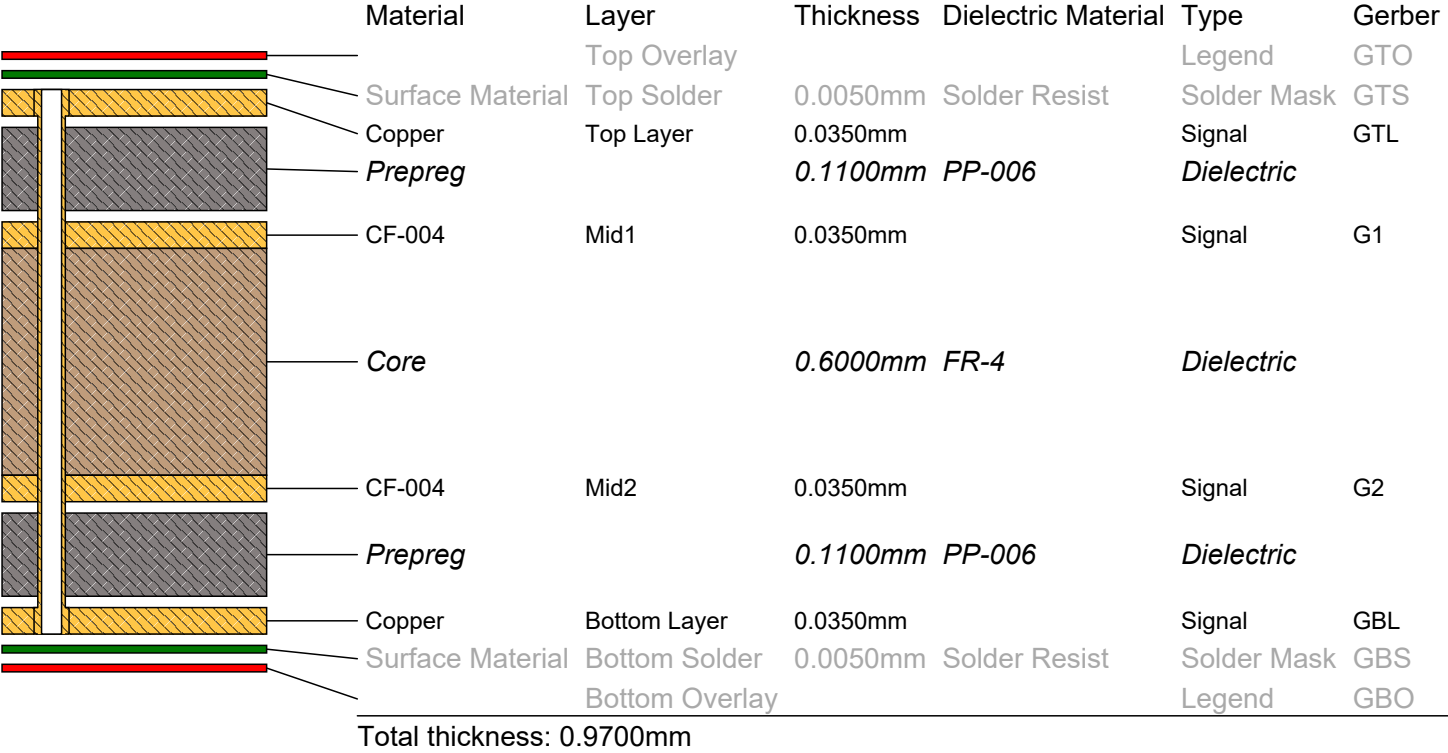
Drill Drawing View (Scale 3)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
☆	158	0.25mm	Plated	
⊞	5	0.40mm	Plated	
◇	18	0.45mm	Plated	
△	2	0.52mm	Non-Plated	
○	4	0.60mm	Plated	
□	4	3.00mm	Non-Plated	
191 Total				

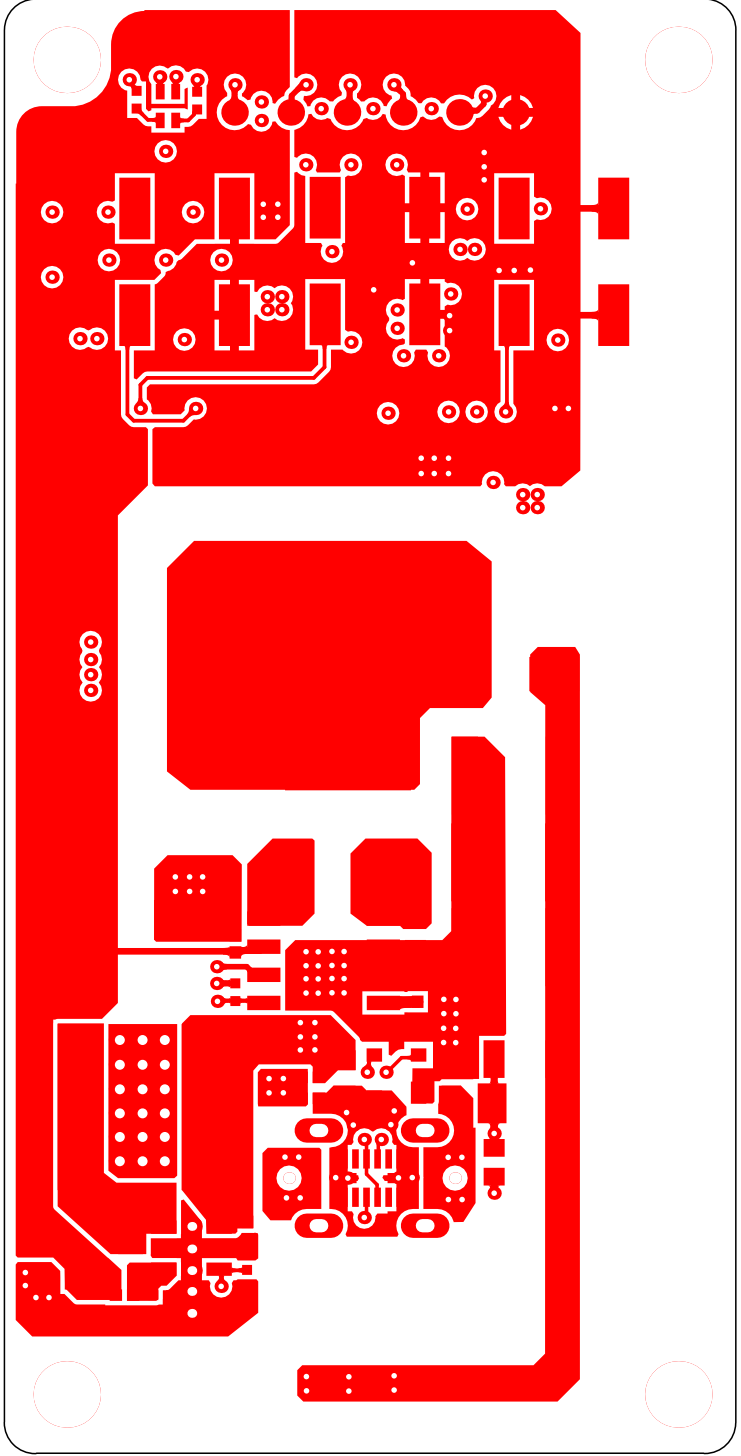
Layer Stack Legend

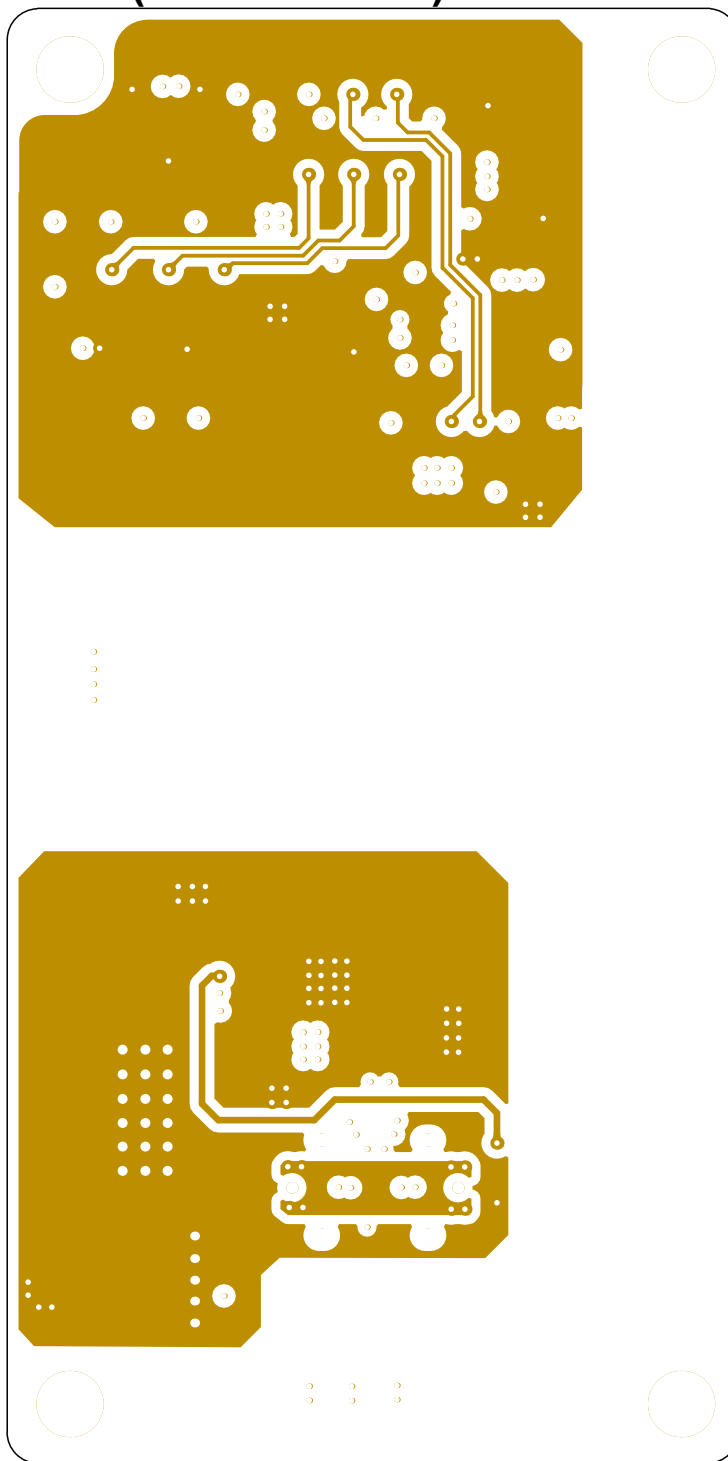


Transmission Line Structure Table

Impedance Id	Transmission Line	Target Impedance	Calculated Impedance	Trace layer	Lower Trace Width	Upper Trace Width	Gap	Reference layers	Substack
1	Diff Embedded Coplanar Waveguide With Ground	90	90.43	Mid2	0.16mm	0.16mm	0.30mm	Bottom Layer	Board Layer Stack

Top Layer (Scale 2.9284)



Mid1 (Scale 2.9284)

A

B

C

D

E

1

1

2

2

3

3

4

4

A

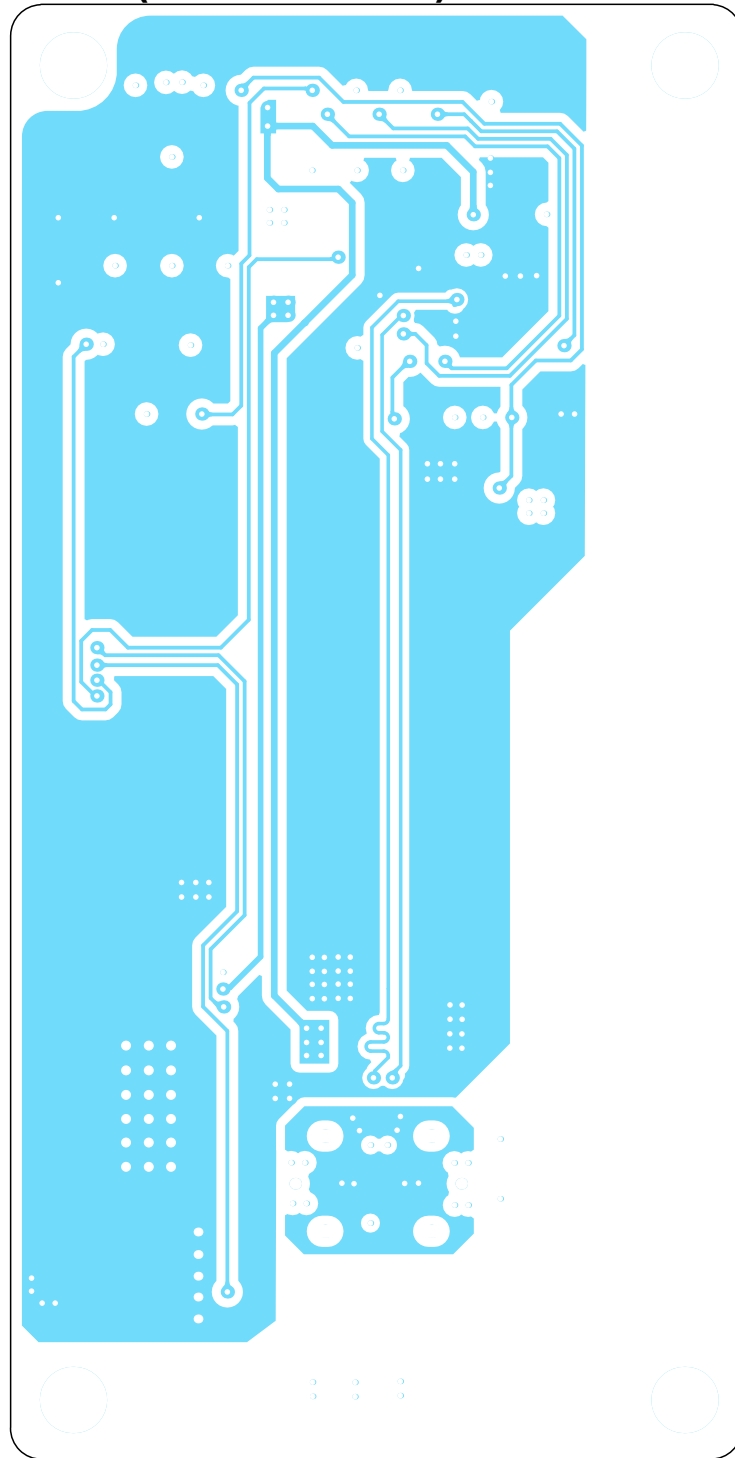
B

C

D

E

Mid2 (Scale 2.9284)



A

B

C

D

E

1

1

2

2

3

3

4

4

A

B

C

D

E

Bottom Layer (Scale 2.9284)

