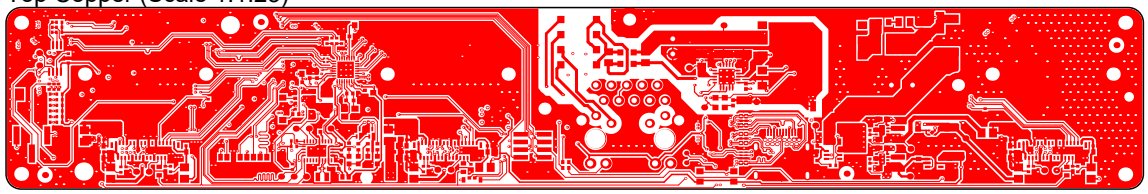
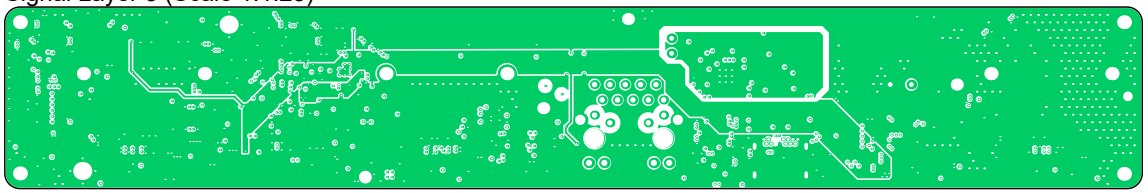
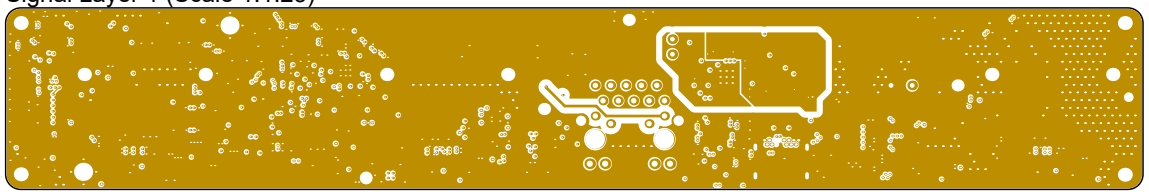
Top Copper (Scale 1:1.25)



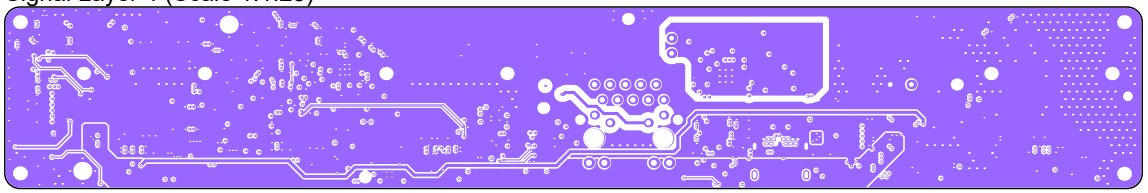
Signal Layer 3 (Scale 1:1.25)



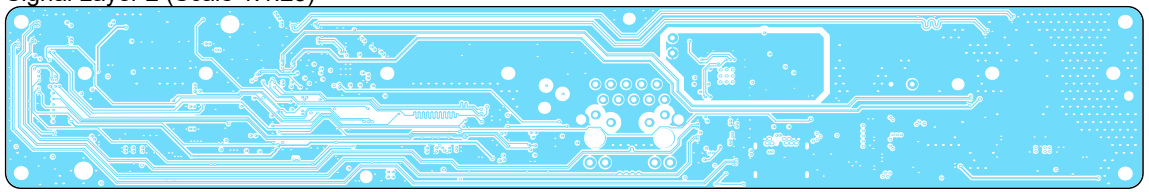
Signal Layer 1 (Scale 1:1.25)



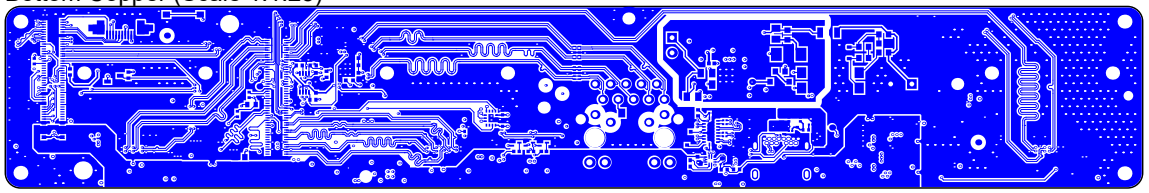
Signal Layer 4 (Scale 1:1.25)



Signal Layer 2 (Scale 1:1.25)



Bottom Copper (Scale 1:1.25)



FABRICATION NOTES:

Fabricate per IPC-6011 & IPC-6012 CLASS 2
Inspect per IPC-A-600 CLASS 2
Test per IPC-TM-650

*** PCB has 6 copper layers**
*** Copper thicknesses are finished and include base foil plus Cu plating on plated layers.**
*** PCB thickness: please refer to the Layer Stack Legend**
*** Min. trace width/clearance: 4/4mil**
*** Min. hole drill/ring: 8mil/16mil**
*** All vias-in-pad shall be plugged and plated over (VIPPO)**
*** Soldermask gang relief is allowed for pads in same footprint, if footprint is NSMD.**
*** Silkscreen, non-conductive epoxy ink, color: white**
*** Remove slikscreen as needed to prevent ink on any exposed copper**
*** Surface finish: ENIG**
*** Hole dimensions are finished size, +/-3mil**
*** Linear board dimension tolerance: +/-10mil**
*** Bow, twist, warp not to exceed 0.75% of greatest diagonal span**
*** PCB shall be UL Recognized printed wiring board (ZPMV2), minimum flammability rating 94V-0**
*** PCB shall be marked with fabricator company or trade name, UL mark, and date code using legend ink on secondary side**
*** All PCBs shall be electrically tested for opens and shorts per gerber. Test marking shall be marked on secondard side.**
*** GM1 shall be used as PCB outline GKO can be ignnored.**

Fabricator shall panelize the PCB using mouse bites and tab routing. V-scoring not allowed.

Controlled impedance differential pairs shall be within +/-10% of target impedance. See sheets below for more detail.

Title: ***BC2087***		LUXonis
Number: D2088000	Revision: R3M1 E3	
Date: 08/06/2023	Sheet: 1 of 4	PROPRIETARY AND CONFIDENTIAL
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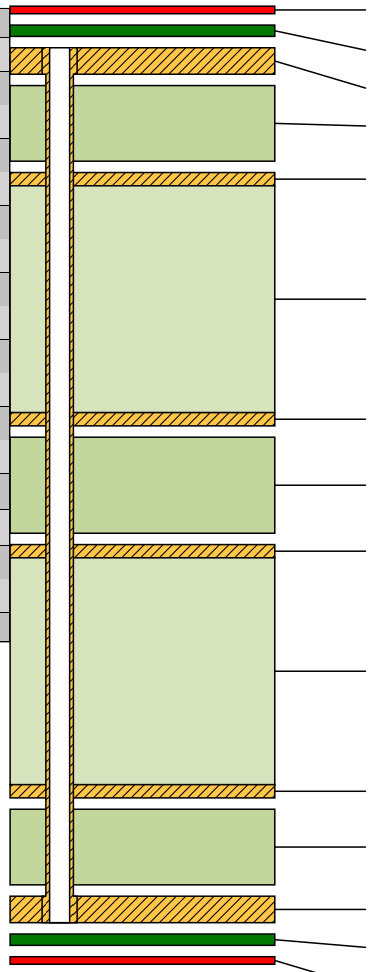
Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
	32	7.95mil(0.202mm)	Plated	
	550	8.00mil(0.203mm)	Plated	
	311	10.00mil(0.254mm)	Plated	
	1	11.81mil(0.300mm)	Plated	
	14	15.75mil(0.400mm)	Plated	
	4	23.62mil(0.600mm)	Plated	
	4	31.50mil(0.800mm)	Plated	
	14	35.43mil(0.900mm)	Plated	
	4	40.16mil(1.020mm)	Plated	
	1	62.99mil(1.600mm)	Non-Plated	
	1	62.99mil(1.600mm)	Plated	
	2	66.93mil(1.700mm)	Plated	
	3	78.74mil(2.000mm)	Plated	
A	6	86.61mil(2.200mm)	Plated	
B	4	90.55mil(2.300mm)	Plated	
	2	118.11mil(3.000mm)	Plated	
	2	125.98mil(3.200mm)	Plated	+/-0.00mil(0.000mm)
	955 Total			

Layer Stack Legend



Layer	Thickness	Type	Gerber	Df	Dk
Top Overlay		Legend	GTO		
Top Mask	0.59mil(0.015mm)	Solder Mask	GTS		3,8
Top Copper	1.38mil(0.035mm)	Signal	GTL		
	3.94mil(0.100mm)	*Dielectric*			*4,05*
Signal Layer 1	0.69mil(0.018mm)	Signal	G1		
	22.24mil(0.565mm)	*Dielectric*			*4,5*
Signal Layer 2	0.69mil(0.018mm)	Signal	G2		
	5.00mil(0.127mm)	*Dielectric*			*4,25*
Signal Layer 3	0.69mil(0.018mm)	Signal	G3		
	22.24mil(0.565mm)	*Dielectric*			*4,5*
Signal Layer 4	0.69mil(0.018mm)	Signal	G4		
	3.94mil(0.100mm)	*Dielectric*			*4,05*
Bottom Copper	1.38mil(0.035mm)	Signal	GBL		
Bottom Mask	0.59mil(0.015mm)	Solder Mask	GBS		3,8
Bottom Overlay		Legend	GBO		

Total thickness: 64.06mil(1.627mm)

Title: ***BC2087***	LUXonjs
Number: D2088000 Revision: R3M1 E3	
Date: 08/06/2023 Sheet: 2 of 4	PROPRIETARY AND CONFIDENTIAL
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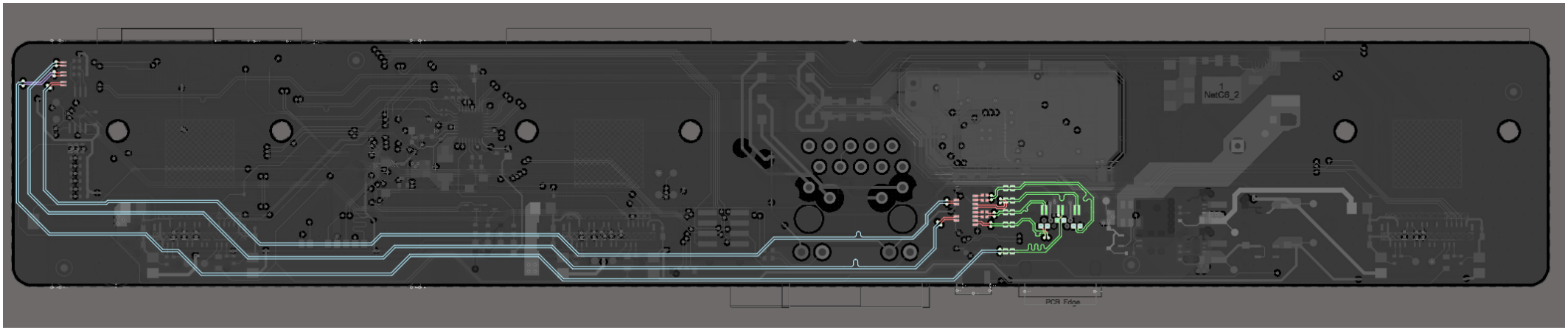
90 OHM (+/-10%) DIFF PAIRS

USB differential pairs



Transmission Line Structure Table

Impedance Id	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Gap	Reference layers	Clearance	Target Tolerance
1	100	100.02	Top Copper	5.12mil	7.67mil	Signal Layer 1	5.00mil	10%
2	90	92.83	Top Copper	5.12mil	5.12mil	Signal Layer 1	5.00mil	10%
3	100	99.98	Signal Layer 2	5.12mil	10.52mil	Signal Layer 1,Signal Layer 3	0.00mil	10%
4	90	89.97	Signal Layer 2	5.17mil	5.89mil	Signal Layer 1,Signal Layer 3	0.00mil	10%
5	90	90.62	Signal Layer 4	4.33mil	5.51mil	Signal Layer 3,Bottom Copper	0.00mil	10%
6	100	100.02	Bottom Copper	5.12mil	7.67mil	Signal Layer 4	5.00mil	10%
7	90	92.83	Bottom Copper	5.12mil	5.12mil	Signal Layer 4	5.00mil	10%

Title: ***BC2087***	LUXonjs
Number: D2088000 Revision: R3M1 E3	
Date: 08/06/2023 Sheet: 3 of 4	PROPRIETARY AND CONFIDENTIAL
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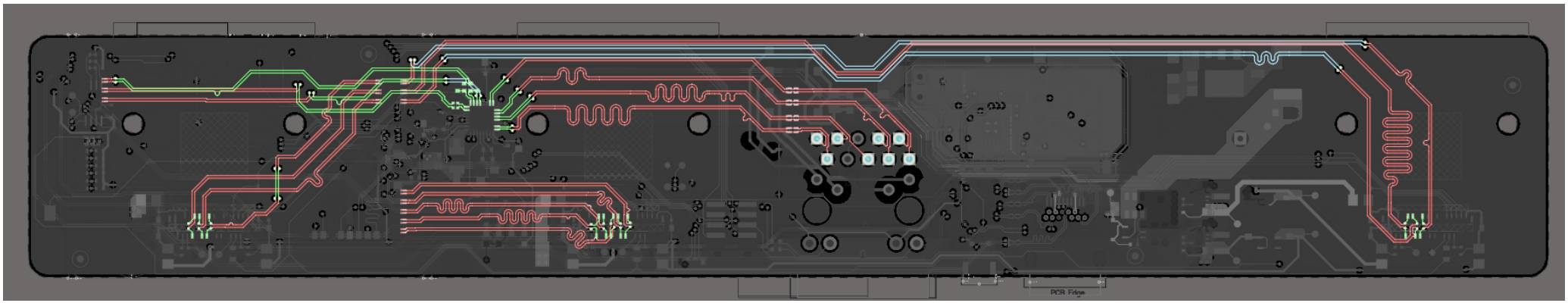
100 OHM (+/-10%) DIFF PAIRS



Transmission Line Structure Table

Impedance Id	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Gap	Reference layers	Clearance	Target Tolerance
1	100	100.02	Top Copper	5.12mil	7.67mil	Signal Layer 1	5.00mil	10%
3	100	99.98	Signal Layer 2	5.12mil	10.52mil	Signal Layer 1,Signal Layer 3	0.00mil	10%
6	100	100.02	Bottom Copper	5.12mil	7.67mil	Signal Layer 4	5.00mil	10%

Title: ***BC2087***	LUXonjs
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