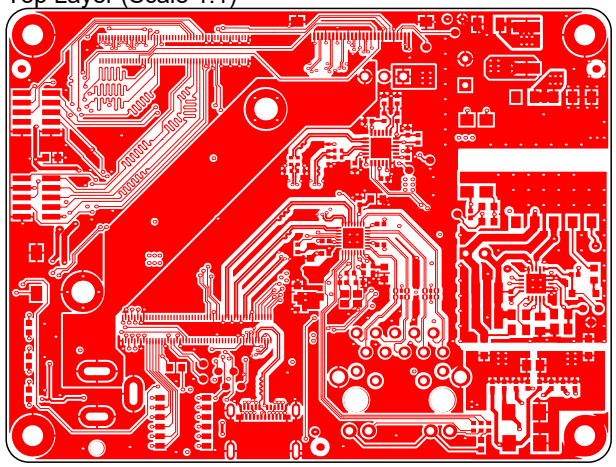
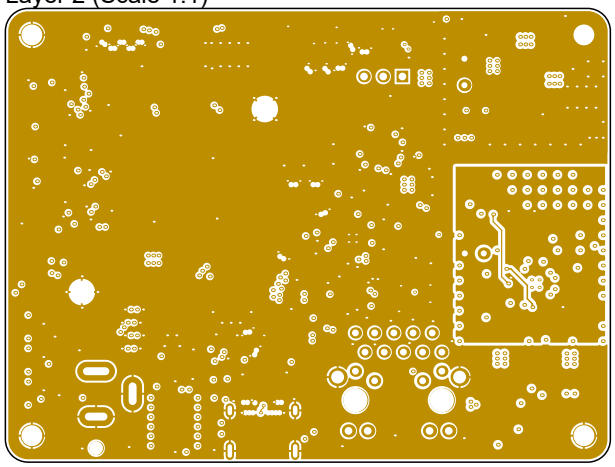
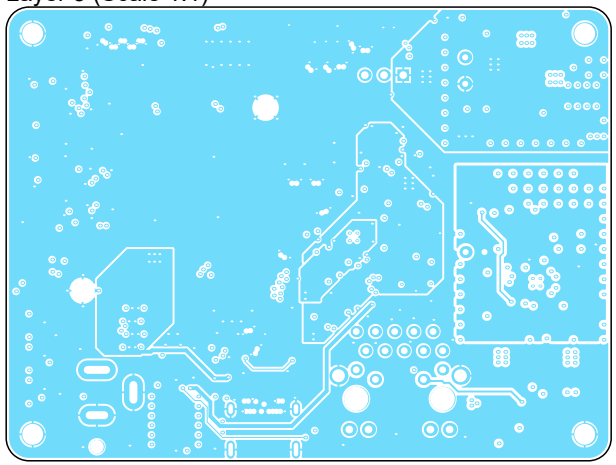
Top Layer (Scale 1:1)



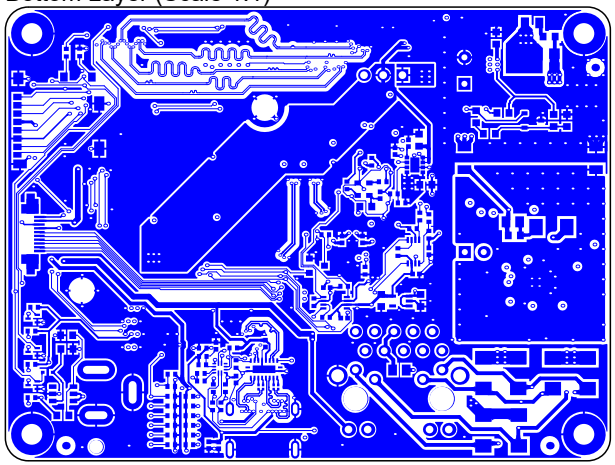
Layer 2 (Scale 1:1)



Layer 3 (Scale 1:1)



Bottom Layer (Scale 1:1)



FABRICATION NOTES:

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

*** PCB has 4 copper layers**
*** Copper thicknesses are finished and include base foil plus Cu plating on plated layers.**
*** PCB thickness: 63mil +/- 3mil**
*** 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.**

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

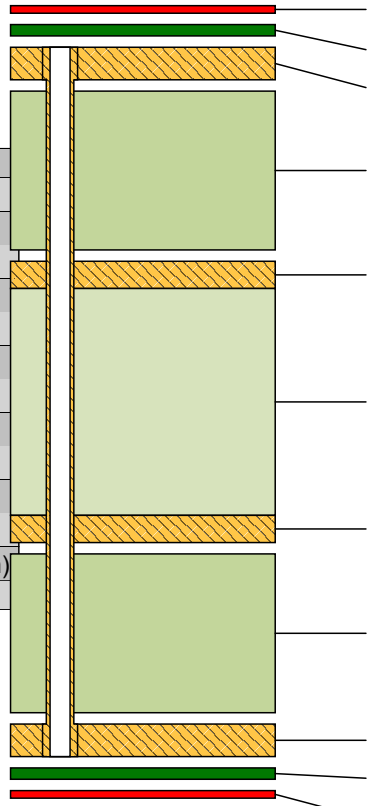
Controlled impedance differential pairs shall be within +/-10% of target impedance. See sheets below for more detail.

Title: ***BW2098POE***	LUXonjs
Number: D2098000 Revision: =revision	
Date: 21/04/2021 Sheet: 1 of 5	PROPRIETARY AND CONFIDENTIAL
Drawn by: Brian Weinstein	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LUXONIS HOLDING CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION IS PROHIBITED.

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
◎	104	8.00mil(0.203mm)	Plated	
⧈	434	10.00mil(0.254mm)	Plated	
▽	4	23.62mil(0.600mm)	Plated	
□	4	31.50mil(0.800mm)	Plated	
○	14	35.43mil(0.900mm)	Plated	
◇	7	40.16mil(1.020mm)	Plated	
✡	3	41.34mil(1.050mm)	Plated	
✣	2	66.93mil(1.700mm)	Plated	
☆	1	70.87mil(1.800mm)	Non-Plated	
✡	4	108.27mil(2.750mm)	Plated	
⧖	2	118.11mil(3.000mm)	Plated	
⧖	2	125.98mil(3.200mm)	Plated	+/-0.00mil(0.000mm)
	581 Total			

Layer Stack Legend



Layer	Thickness	Type	Gerber	Df	Dk
Top Overlay		Legend	GTO		
Top Solder	0.59mil(0.015mm)	Solder Mask	GTS		3,8
Top Layer	1.69mil(0.043mm)	Signal	GTL		
	8.27mil(0.210mm)	*Dielectric*		*0,013*	*4,2*
Layer 2	1.42mil(0.036mm)	Signal	G1		
	39.37mil(1.000mm)	*Dielectric*		*0,013*	*4,2*
Layer 3	1.42mil(0.036mm)	Signal	G2		
	8.27mil(0.210mm)	*Dielectric*		*0,013*	*4,2*
Bottom Layer	1.69mil(0.043mm)	Signal	GBL		
Bottom Solder	0.59mil(0.015mm)	Solder Mask	GBS		3,8
Bottom Overlay		Legend	GBO		

Total thickness: 63.31mil(1.608mm)

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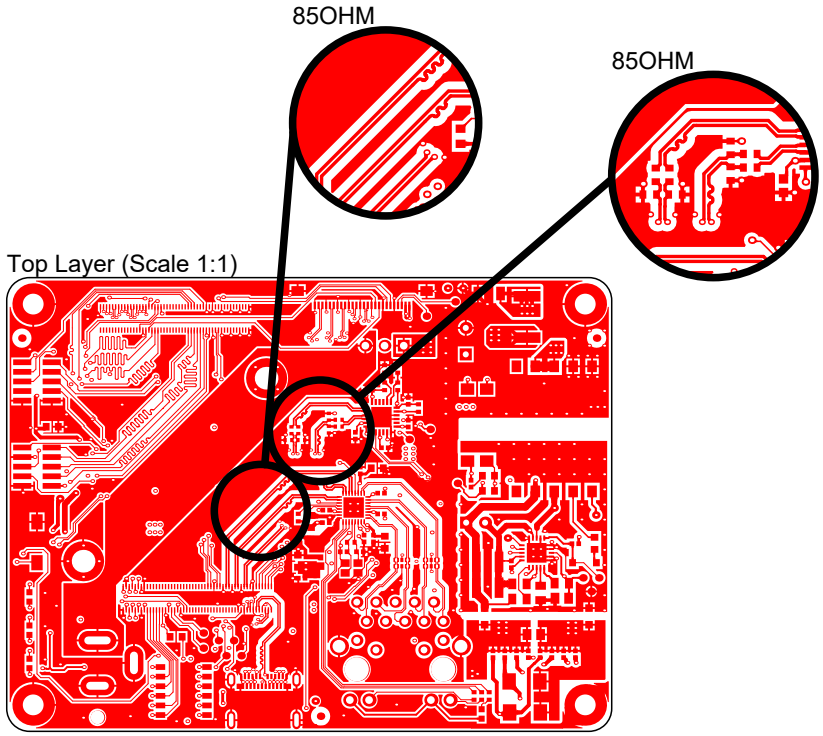
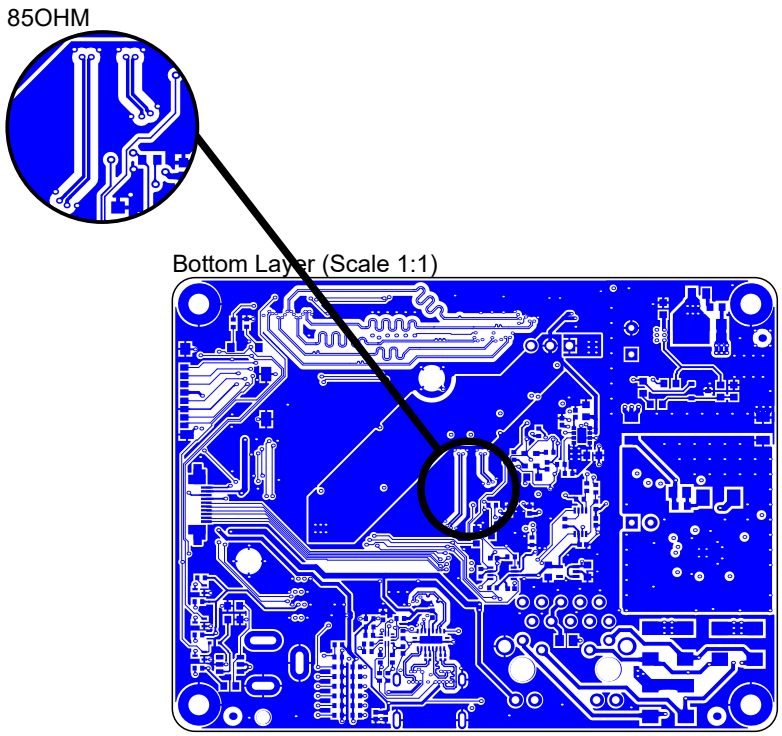
85 OHM (+/-10%) DIFF PAIRS

PCIe differential pairs





Transmission Line Structure Table

Target Impedance	Calculated Impedance	Trace layer	Lower Trace Width	Upper Trace Width	Gap	Reference layers
85	85.01	Top Layer	8.8mil(0.223mm)	8.8mil(0.223mm)	4.0mil(0.102mm)	Layer 2
85	85.01	Bottom Layer	8.8mil(0.223mm)	8.8mil(0.223mm)	4.0mil(0.102mm)	Layer 3

Title: ***BW2098POE***	LUXonjs
Number: D2098000 Revision: =revision	
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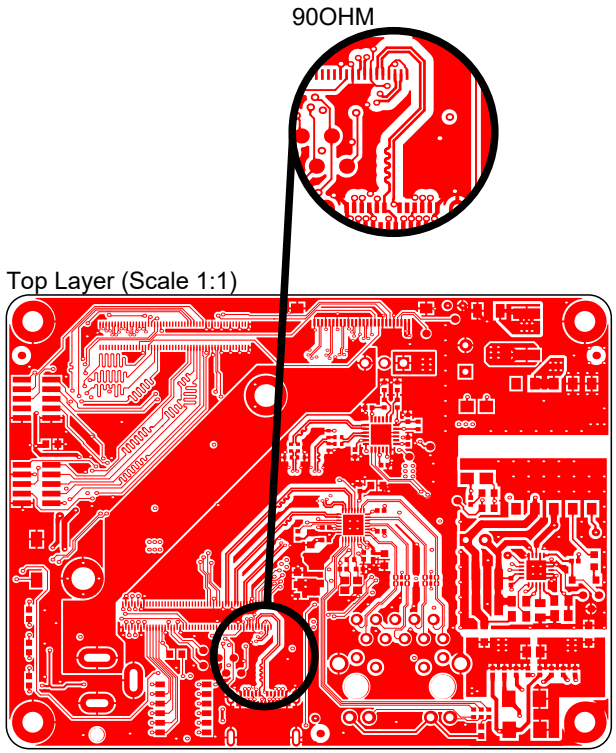
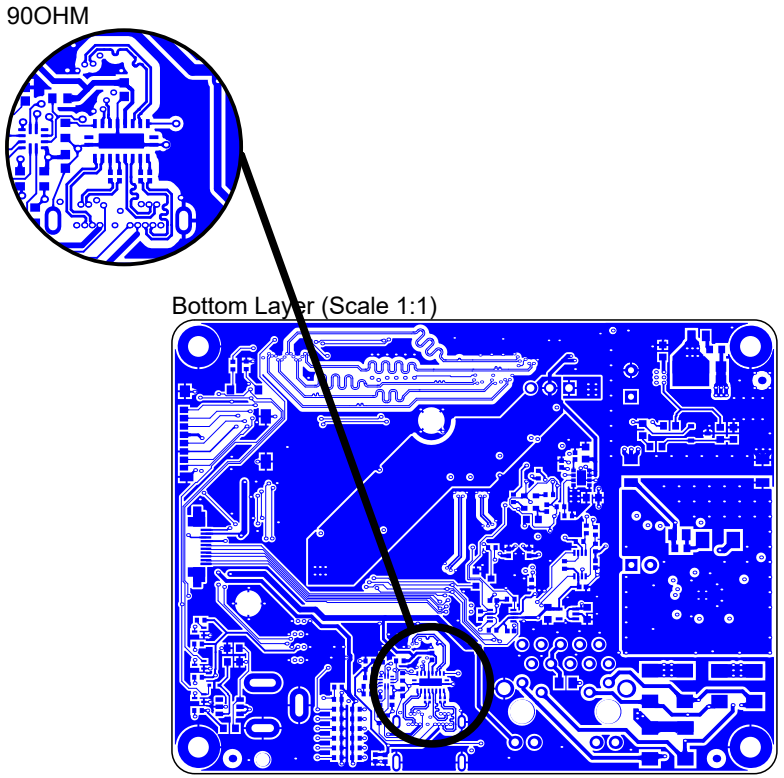
90 OHM (+/-10%) DIFF PAIRS

USB differential pairs





Transmission Line Structure Table

Target Impedance	Calculated Impedance	Trace layer	Lower Trace Width	Upper Trace Width	Gap	Reference layers
90	91.41	Top Layer	7.0mil(0.178mm)	7.0mil(0.178mm)	4.0mil(0.102mm)	Layer 2
90	91.41	Bottom Layer	7.0mil(0.178mm)	7.0mil(0.178mm)	4.0mil(0.102mm)	Layer 3

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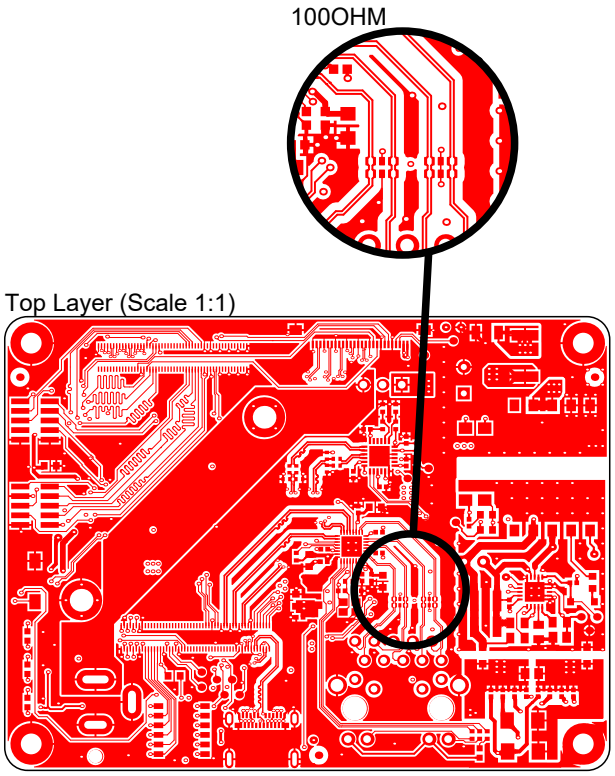
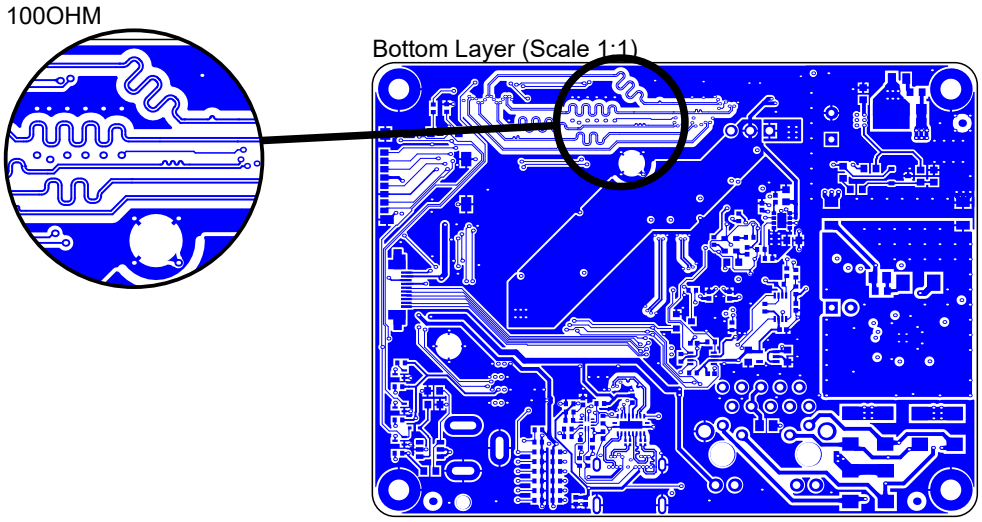
ALL OTHER DIFFERENTIAL PAIRS ARE 100OHM +/-10%

MIPI, ETHERNET DIFFERENTIAL PAIRS





Transmission Line Structure Table

Target Impedance	Calculated Impedance	Trace layer	Lower Trace Width	Upper Trace Width	Gap	Reference layers
100	99.96	Top Layer	5.1mil(0.130mm)	5.1mil(0.130mm)	4.0mil(0.102mm)	Layer 2
100	99.96	Bottom Layer	5.1mil(0.130mm)	5.1mil(0.130mm)	4.0mil(0.102mm)	Layer 3

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