

ECO Change Description	Date	Rev.	Layer / Function	File Name	EXT.
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			Top Overlay:	12-0084	.GTO
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			Bottom Solder:	12-0084	.GBS
			Mechanical 1 / Board Outline:	12-0084	.GM1

Impedance Stackup			
Layer Name	Copper Weight	Impedance	Trace Width/Space
L1	0.5oz	100 Ohm (+/- 10%)	0.0762mm / 0.0762mm
L4	0.5oz	100 Ohm (+/- 10%)	0.0762mm / 0.0762mm

## FABRICATION NOTES

### General:

1. Fabricate PCB in accordance with IPC-6012, Class 2; per IPC-6011.
2. Board assembler shall adjust solder mask and solder stencil to achieve J-STD-001 and IPC-A-610, Class 2 , rating.

### Materials:

3. Laminate and Prepreg (B-stage) to be in accordance with IPC-4101/99 (RoHS Compliant UL/ANSI FR-4/99).
4. Copper foil to be in accordance with IPC-MF-150. Unless otherwise specified, all copper weight for inner signal layers and inner plane layers to be 0.5 oz For outer layers 0.5 ozCopper weight is to be considered 'finished'.
5. Fabricator to adjust dielectric to meet impedance and overall thickness tolerance.

### Drill Holes and Slots:

6. All hole and slot sizes specified are finished size (after plating).
7. Holes under 7mil shall be within 0.003" of the specified hole size, unless otherwise specified in the drill table.

### Finish:

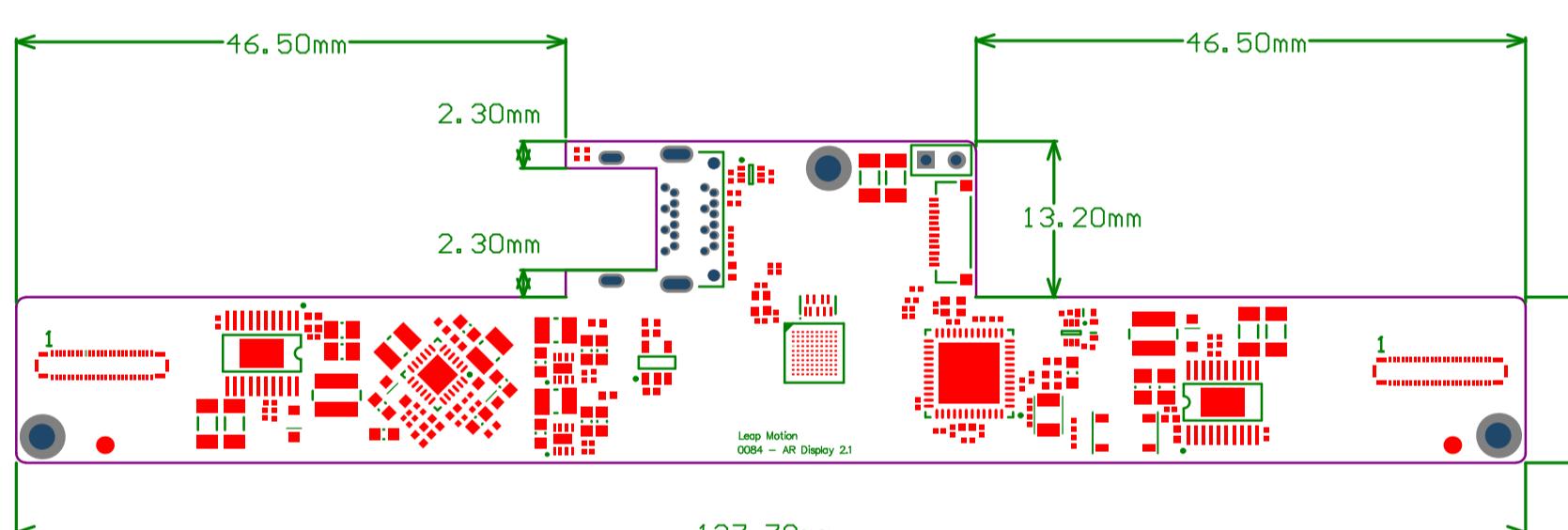
8. Shall be plated with Electroless Nickel Immersion Gold (ENIG) per IPC-4552.
9. Apply liquid photo imageable solder mask (color Matte Black ). Via holes covered with solder mask do not need to be plugged.
10. Silkscreen shall be White, permanent, non conductive ink. There shall be no silkscreen on any solderable component pad.
11. Overall board thickness shall be 1.6mm +/- 10% and is inclusive of all plating and solder mask coatings.

### Marking:

12. UL logo, manufacturer's identification and date code letter shall be rendered in etch on the bottom side of the board approximately where shown.

### Test Requirements:

13. 100% net list electrical verification using customer supplied IPC-D-356 net list for opens and shorts.
14. No changes shall be made without LEAP Motion's consent, unless stated otherwise.



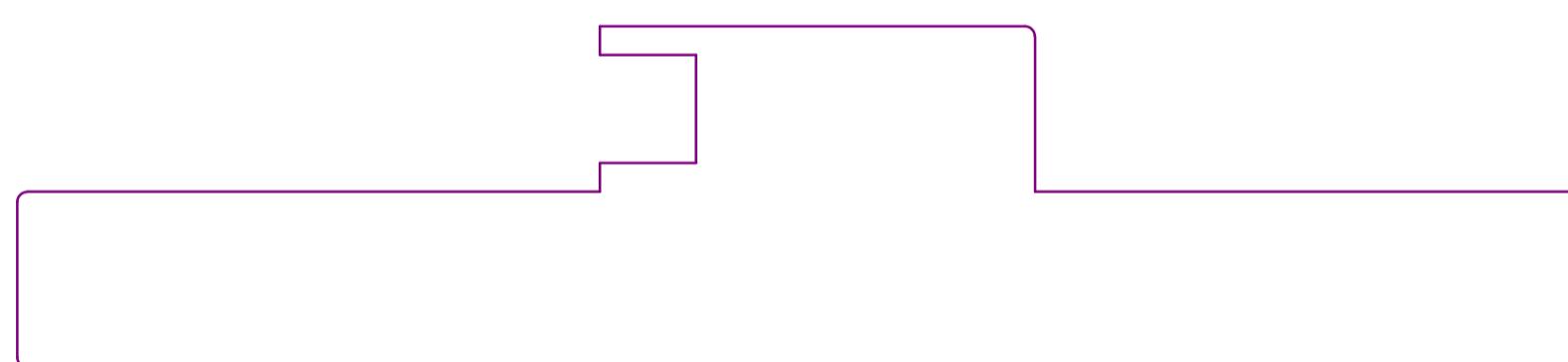
0084 - AR Display Board

SIZE Tabloid	CAGE CODE XXXXX	DWG NO. 12-0084	REV. 002
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APPROVALS	DATE	SHEET NO.: 1 OF 1
ENGINEER: Ryan Young	8/16/2018	SCH NO.: 10-0084
CHECKED BY: Ryan Young		CONFIDENTIALITY NOTICE
DRAWN BY: Ryan Young	8/16/2018	This drawing is confidential and contains proprietary information of LEAP Motion. Any of the information contained herein may not be reproduced or disclosed without authorization by LEAP Motion.
ISSUED: Ahmed Abbas	8/16/2018	

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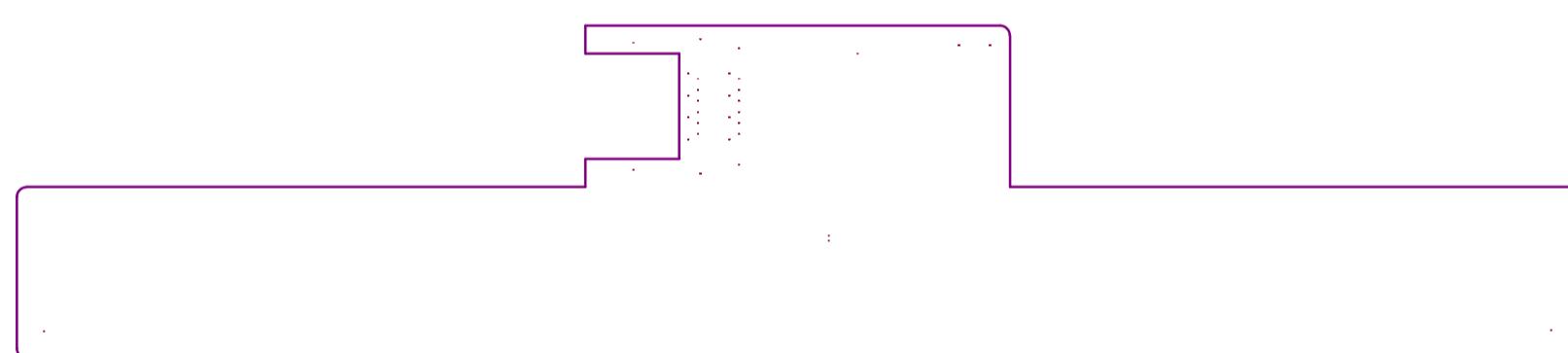
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Symbol	Hit Count	Tool Size	Physical Length	Rout Path Length	Plated	Hole Type
▽	2	0.1mm (3.937mil)			PTH	Round
○	445	0.15mm (5.905mil)			PTH	Round
✖	20	0.55mm (21.654mil)			PTH	Round
○	2	0.9mm (35.433mil)			PTH	Round
✖	2	1mm (39.37mil)			NPTH	Round
□	3	2.2mm (86.614mil)			PTH	Round
◇	2	0.7mm (27.559mil)	1.74mm (68.504mil)	1.04mm (40.945mil)	PTH	Slot
✖	2	0.9mm (35.433mil)	2.35mm (92.52mil)	1.45mm (57.087mil)	PTH	Slot
<b>478 Total</b>						

Slot definitions : Rout Path Length = Calculated from tool start centre position to tool end centre position.

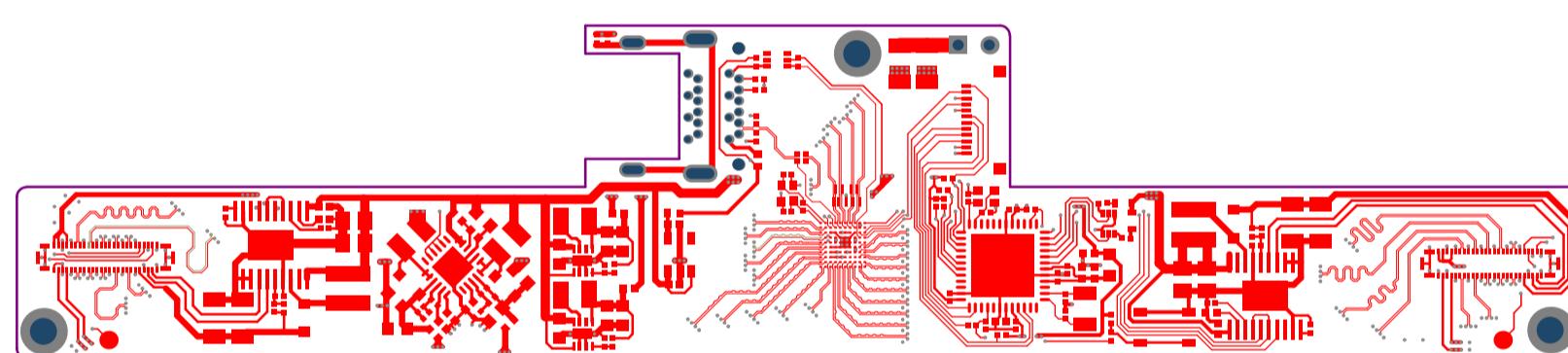
Physical Length = Rout Path Length + Tool Size = Slot length as defined in the PCB layout

Drill Drawing.

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ISSUED:	Ahmed Abbas	8/16/2018			

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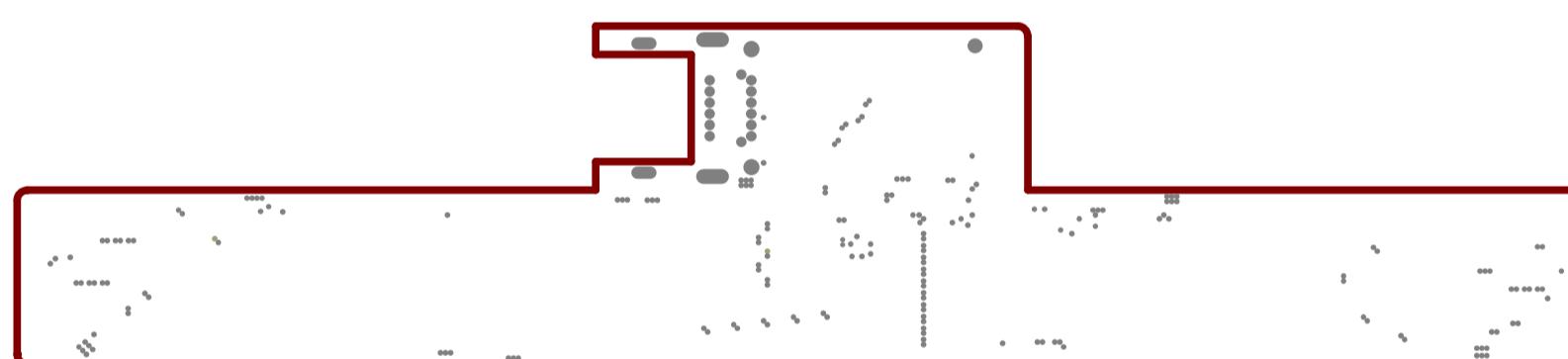
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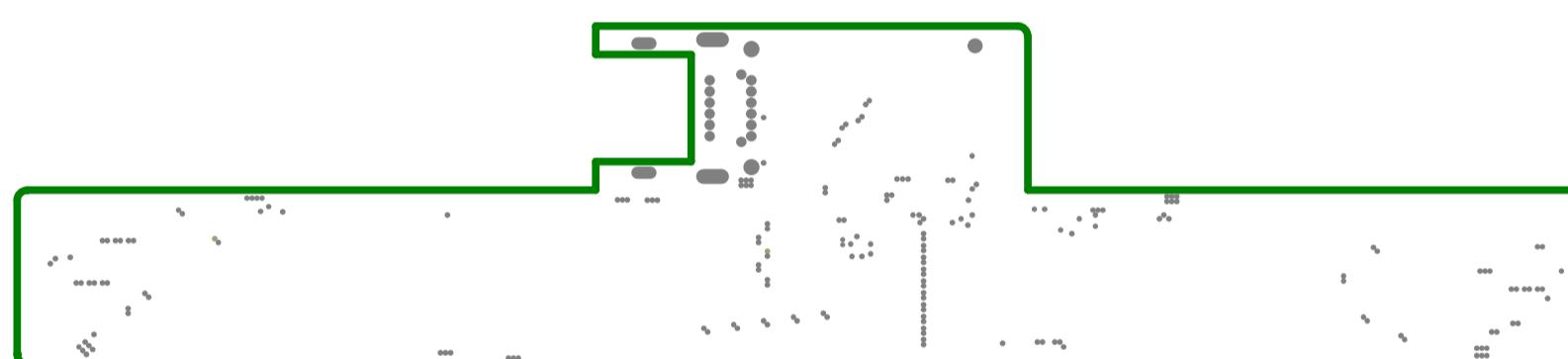
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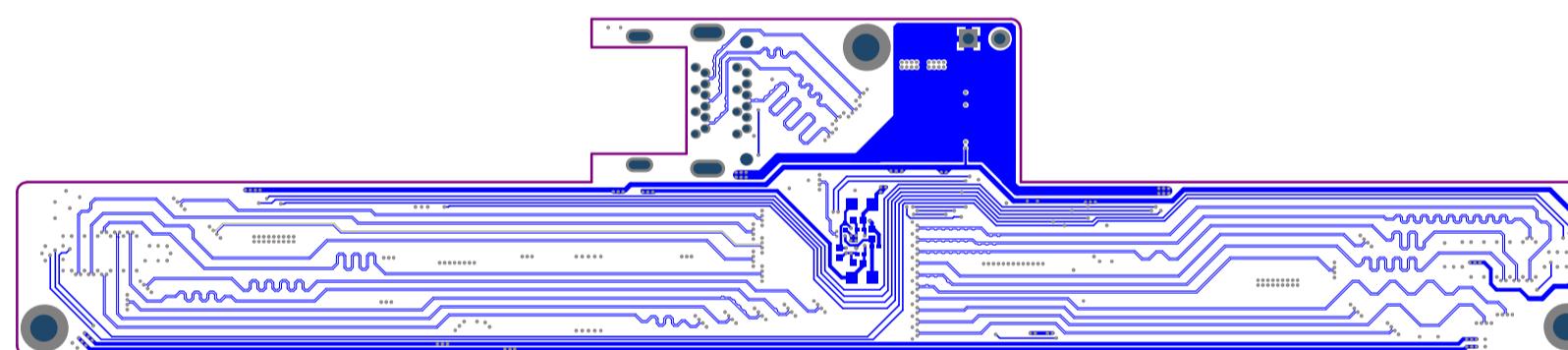
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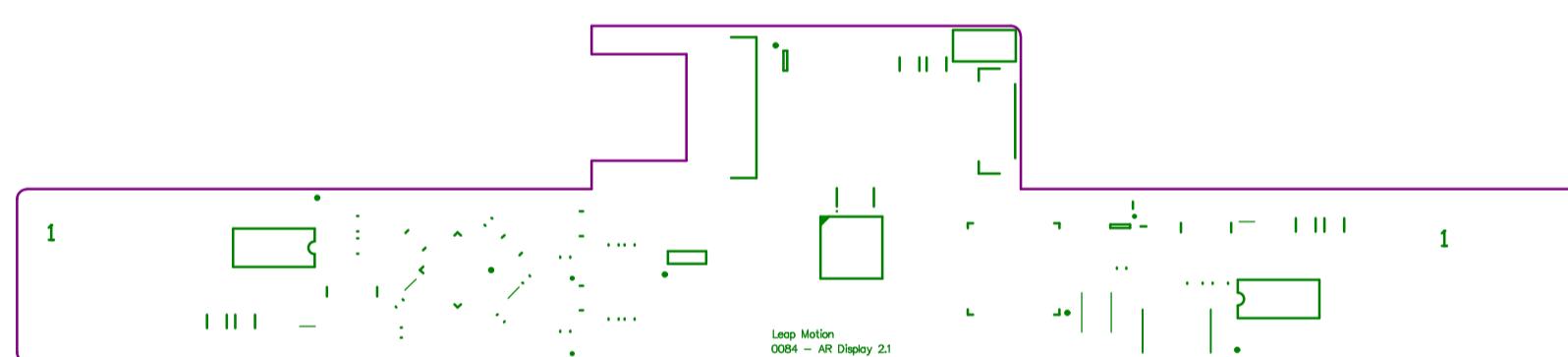
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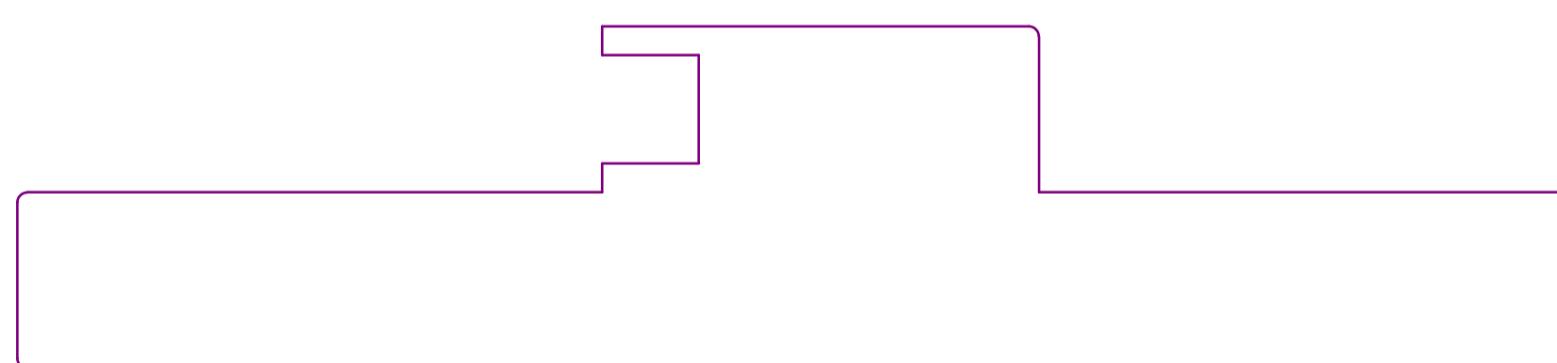
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