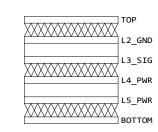


DRILL CHART: TOP to BOTTOM						
AL	ALL UNITS ARE IN MILLIMETERS					
FIGURE	SIZE	PLATED	QTY			
•	0.2	PLATED	237			
ø	0.25	PLATED	105			
•	0.3	PLATED	66			
+	0.9	PLATED	8			
+	1.0	PLATED				
•	1.016	5 PLATED				
•	0.9	NON-PLATED	2			
	3.25	NON-PLATED	4			



Stackup			Single-ended	impedance	Differential impedance			
Layer name:	thickness (mm)	material	Trace Width (mm)	Impedance (Ohms)	Trace Width (mm)	Design Space(mm)	Impedance (Ohms)	
ТОР	0.5oz+plating	copper			0.17	0.11	90+/-10%	
TOP					0.12	0.12	100+/-10%	
prepreg	0.194	2x2113						
L2_GND	1oz	copper						
core	0.4							
L3_SIG	1oz	copper						
prepreg	0.198	2113+2116						
L4_PWR	1oz	copper						
core	0.4							
L5_PWR	1oz	copper						
prepreg	0.194	2x2113						
BOTTOM	0.5oz+plating	copper						

TECHNICAL SPECIFICATION:

1. No. of layers: 6

2. Finished board size: $76.2mm \times 76.2mm$

3. Base material: Generic FR-4, glass epoxy material must conform to UL94V-0.

4. Finished board thickness & tolerance: 1.6 mm +/-10%

5. Bow&twist: <=0.7%

6. All hole sizes are specified after plating and marked.
Thickness in hole wall: 20um (min)7. Apply white, non-conductive silkscreen legend to top and bottom sides of the board. No ink is allowd in holes and on pads.

8. The layer order is as shown in the figure.

9. Add teardrops to all inner layer positive pads on holes as needed.

10. Fabricate board per IPC-6012A.

11. Surface finish:Both HASL and ENIG are OK, the cheaper option is preferred. 12. Green soldermask on top and bottom sides of board, LPI applied over bare copper. No soldermask is allowed on solder pad. Must conform to IPC-SM-840.

13. PCB vendor must print date, ID code, UL rating on bottom silkscreen layer of boards.

14. Test short/open against IPC-D-356A netlist provided by Axelsys.

15. Fabricate PCB using the Gerber data provided. If any Gerber edits are performed. A copy of the edited data must be provided to Axelsys no later $% \left(1\right) =\left(1\right) \left(1\right)$ than 24 hours after fabrication release.

16. Vendor strictly dispose according to customer's original Gerber file, without any modifications. If any, immediately inform customer for confirmation.

17 Plug all the 0.2mm vias with epoxy from both sides in the BGA area.

18. Refer to next page for the panelization.

PCB tolerance specification:

UNTT:mm

			OIVII I IIIII
		L<=100	+/-0.20
Outline dimension	n tolerance	100 <l<=300< td=""><td>+/-0.25</td></l<=300<>	+/-0.25
		L>300	+/-0.30
Hole diameter tolerance	PTH/NPTH	D=0.1-0.8	+/-0.08
		D=0.81-1.6	+/-0.10
		D=1.61-5.0	+/-0.15
		Position tolerance	+/-0.076
	PTH	L>2W+0.15	(+/-0.08)X(+/-0.08)
C1-+	PIH	L<2W+0.15	(+/-0.10)X(+/-0.10)
Slot	NPTH	L>2W+0.05	(+/-0.05)X(+/-0.05)
		L<2W+0.05	(+/-0.08)X(+/-0.08)
		NC routing	(+/-0.13)X(+/-0.13)

	F	AB DRAWING		a)(elsys			
	DES	GIGNER:L.WANG		JECT NAME			
	СНЕ	CKER:L.WANG	MACHXO3 STARTER KIT				
DA			SIZE	FAB NUMBER			
	DAT	E:23SEP14	С	LSC	C15001		
						SHEET 1/1	REV A



