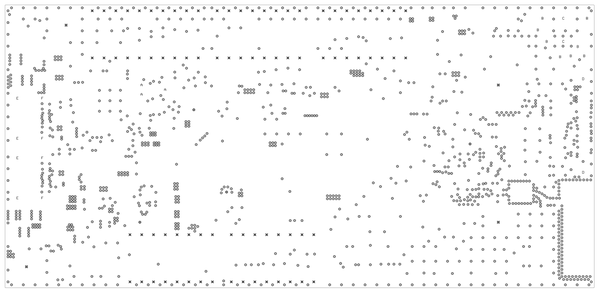
Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template	Description	Hole Tolerance (+)	Hole Tolerance (-)
D	2	40.00mil (1.016mm)	NPTH	Round	TOP - BOTTOM	Pad	Rounded	c25hn102			
C	2	47.00mil (1.194mm)	NPTH	Round	TOP - BOTTOM	Pad	Rounded	c25hn119			
A	3	39.00mil (0.991mm)	NPTH	Round	TOP - BOTTOM	Pad	Rounded	c25hn99			
F	4	23.60mil (0.599mm)	PTH	Slot	TOP - BOTTOM	Pad	Rounded	r210_110h60_160r100m215_115			
E	4	23.60mil (0.599mm)	PTH	Slot	TOP - BOTTOM	Pad	Rounded	r260_110h60_210r100m265_115			
	4	40.00mil (1.016mm)	PTH	Round	TOP - BOTTOM	Pad	Rounded	c152h102			
	4	150.00mil (3.810mm)	PTH	Round	TOP - BOTTOM	Pad	Rounded	c559h381			
B	8	64.00mil (1.626mm)	PTH	Round	TOP - BOTTOM	Pad	Rounded	c203h163			
	84	35.00mil (0.889mm)	PTH	Round	TOP - BOTTOM	Pad	Rounded	c150h89			
	143	4.00mil (0.102mm)	PTH	Round	(Mixed)	Via	Rounded	(Mixed)			
	1328	8.00mil (0.203mm)	PTH	Round	(Mixed)	Via	Rounded	(Mixed)			
	1596 Total										

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout



REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
1	AMAP4BPXEVB Apollo4 Blue Plus KXR EVB	6/23/2022	Daniel Lanzone

NOTES (UNLESS OTHERWISE SPECIFIED):

1. THE FINISHED PRINTED CIRCUIT BOARD SHALL MEET THE REQUIREMENTS OF IPC-A-6012.

2. CONFIGURATION OF THE PRINTED CIRCUIT BOARD NOT SPECIFICALLY DIMENSIONED ON THE DRAWING SHALL BE CONTROLLED BY THE GERBER DATA.

3. MATERIAL: GLASS EPOXY, NATURAL COLOR. LAMINATED NEMA GRADE FR4. SEE LAYER STACKUP FOR COPPER WEIGHT AND LAYER ORIENTATION. CORE AND PREPREG COMBINATIONS ARE OPTIONAL TO THE MANUFACTURER UNLESS OTHERWISE SPECIFIED IN THE LAYER STACKUP.

FINISHED PRINTED CIRCUIT BOARD SHALL MEET UL 94V-0 FLAMMABILITY RATING AND BE MARKED WITH THE REQUIRED UL CODE NUMBER.

4. PLATING: ALL HOLES AND CONDUCTIVE SURFACES SHALL BE PLATED WITH .001" COPPER MINIMUM.

5. ALL HOLE DIAMETERS ARE STATED AS FINISHED HOLE SIZES.

6. FABRICATION TOLERANCES: END PRODUCT TRACE WIDTHS AND LANDS SHALL NOT VARY MORE THAN THE SMALLER OF .002" OR 20% OF THE TRACE WIDTH FROM THE GERBER DATA.

7. SOLDER MASK. PHOTO-IMAGED LIQUID POLYMER IN ACCORDANCE WITH IPC-SM-840, TYPE B, CLASS 2, OVER BARE COPPER

8. COMPONENT MARKING: SILKSCREEN WITH NON-CONDUCTIVE EPOXY INK. LANDS AND EXPOSED PLATED AREAS TO BE FREE OF INK.

9. BOW AND TWIST: SHALL NOT EXCEED .007" PER INCH.

10. FINISHED BOARD SHALL MATCH SUPPLIED IPC-356 NET LIST.

11. 4-MIL,6-MIL AND 8-MIL VIAS ARE ALLOWED TO BE PLATED SHUT OR FILLED WITH SOLDER MASK.

12. THIS IS A CONTROLLED-IMPEDANCE BOARD. 50 OHM CONTROLLED IMPEDANCE ON 4 MIL TRACES ON EXTERNAL LAYERS,3.5 MIL TRACES ON INTERNAL LAYERS.VENDOR MAY ADJUST DIELECTRIC THICKNESS AND/OR CONDUCTOR WIDTHS AS REQUIRED.

13. 4 MILS TRACES REQUIRE 50 OHM SINGLE ENDED IMPEDANCE CONTROL

14. DIFF PAIR NETS MUST BE FABRICATED WITH 90 OHM DIFF IMPEDANCE:

EXTERNAL 4.0 MIL TRACES WITH 6 MIL AIRGAP

15. DIFF PAIR NETS MUST BE FABRICATED WITH 100 OHM DIFF IMPEDANCE:

EXTERNAL 3.0 MIL TRACES WITH 6 MIL AIRGAP

INTERNAL 3.0 MIL TRACES WITH 7 MIL AIRGAP

16. BOARD THICKNESS = 60.8 MILS

Layer	Name	Material	Thickness	Constant	Gerber
	Top Overlay				GTO
	Top Solder	Solder Resist	1.70mil	3.5	GTS
1	TOP		1.10mil		GTL
	Dielectric 1	FR-4	2.70mil	4.5	
2	LY2 - GND		0.80mil		G1
	Dielectric2	FR-4	3.70mil	4.5	
3	LY3 - SIG		0.80mil		G2
	Dielectric3	FR-4	3.70mil	4.5	
4	LY4 - GND		0.80mil		G3
	Dielectric4	FR-4	30.20mil	4.5	
5	LY5 - SIG		0.80mil		G4
	Dielectric5	FR-4	3.70mil	4.5	
6	LY6 - SIG		0.80mil		G5
	Dielectric6	FR-4	3.70mil	4.5	
7	LY7 - GND		0.80mil		G6
	Dielectric7	FR-4	2.70mil	4.5	
8	BOTTOM		1.10mil		GBL
	Bottom Solder	Solder Resist	1.70mil	3.5	GBS
	Bottom Overlay				GBO

Total board thickness: 60.80mil

BOARD PARAMETERS

LAYER COUNT:	8	X DIMENSION:	5.00"	Y DIMENSION:	2.40"
ARRAY:	NO	TAB-ROUT:	NO	SCORING:	NO
MATERIAL TYPE:	FR4	FINISH THICKNESS:	0.0608"	FINISH PLATING:	ENIG
GOLD FINGERS:	NO	COPPER WT (OUTER):	1.0 OZ	COPPER WEIGHT (INNER):	1.0 OZ
MIN TRACE/SPACE:	0.003"	SOLDERMASK:	BOTH	SOLDERMASK COLOR:	BLUE
SMALLEST HOLE SIZE:	0.004"	SILKSCREEN:	BOTH	SILKSCREEN COLOR:	WHITE
TOP SMD PADS:	YES	BOTTOM SMD PADS:	YES	MIN PITCH:	0.01378"
PLATED SLOTS:	YES	PLATED EDGES:	NO	CONTROLLED DIELECTRIC:	NO
COUNTER BORE:	NO	COUNTERSINK:	NO	CONTROLLED IMPEDANCE:	YES, 4 MIL = 50 OHM
ITAR:	NO	VIA IN PAD:	YES	NON-PLATED HOLES:	YES

		APPROVAL	DATE	Ambiq
		DRAWN Chad Crosby	6/23/2022	FABRICATION DRAWING, PWB,Apollo4 Blue Plus KXR EVB
		CHECKED Daniel Lanzone	8/30/2022	
		RELEASED Daniel Lanzone	8/30/2022	
XXXXXX				SIZE A · DWG NO AMAP4BPXEVB-FAB · REV 1
NEXT ASSY	USED ON			SCALE 1:1 · CUST: · SHEET 1 OF 1
APPLICATION				