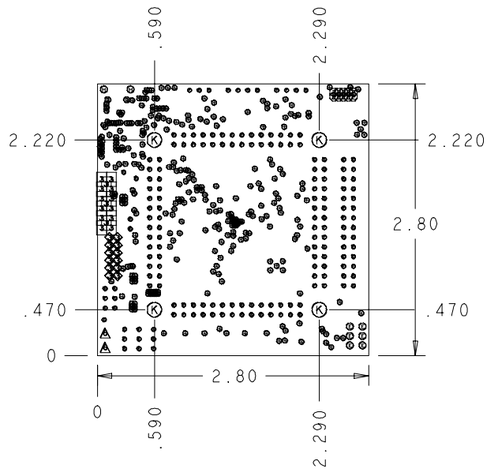
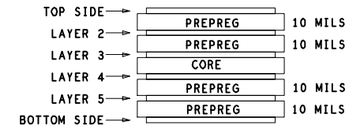
REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A	INITIAL RELEASE	21JAN15	JHAPP
2.0.0	LAYOUT CHANGES	06/05/15	XXXXX
3.0.0	ADDED R102, R103, SILK CHANGES	08/09/15	XXXXX



NOTES (UNLESS OTHERWISE SPECIFIED):

1. THE FINISHED PRINTED CIRCUIT BOARD SHALL MEET THE REQUIREMENTS OF IPC-A-600.
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 COLOR BLUE 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. IDENTIFICATION: VENDOR LOGO AND DATE CODE TO BE MARKED ON THE BOARD.
11. FINISHED BOARD SHALL MATCH SUPPLIED IPC-356 NET LIST.
12. 8-MIL VIAS MAY BE PLATED SHUT OR FILLED WITH SOLDER MASK.
13. THIS IS A CONTROLLED-IMPEDANCE BOARD. NETS USB_DM AND USB_DP ARE A DIFFERENTIAL PAIR WITH A DIFFERENTIAL IMPEDANCE OF 90 OHMS +/- 15%. VENDOR MAY ADJUST DIELECTRIC THICKNESS AND/OR CONDUCTOR WIDTH AS REQUIRED.



LAYER STACKUP

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
●	8.0	+3.0/-8.0	PLATED	307
⊗	28.0	+2.0/-2.0	PLATED	10
③	32.0	+2.0/-2.0	PLATED	15
◉	34.0	+3.0/-3.0	PLATED	2
◈	35.0	+3.0/-3.0	PLATED	12
⊙	39.0	+3.0/-3.0	PLATED	6
•	40.0	+3.0/-3.0	PLATED	171
⊛	45.0	+3.0/-3.0	PLATED	2
⚠	63.0	+3.0/-3.0	PLATED	2
Ⓚ	150.0	+3.0/-3.0	PLATED	4

BOARD PARAMETERS

LAYER COUNT:	6	X DIMENSION:	2.80"	Y DIMENSION:	2.80"
ARRAY:	NO	TAB-ROUT:	NO	SCORING:	NO
MATERIAL TYPE:	FR4	FINISH THICKNESS:	0.062"	FINISH PLATING:	ENIG
GOLD FINGERS:	NO	COPPER WT (OUTER):	1 OZ	COPPER WEIGHT (INNER):	1 OZ
MIN TRACE/SPACE:	0.003"	SOLDERMASK:	BOTH	SOLDERMASK COLOR:	BLACK
SMALLEST HOLE SIZE:	0.008"	SILKSCREEN:	BOTH	SILKSCREEN COLOR:	WHITE
TOP SMD PADS:	YES	BOTTOM SMD PADS:	YES	MIN PITCH:	0.020"
PLATED SLOTS:	NO	PLATED EDGES:	NO	CONTROLLED DIELECTRIC:	NO
COUNTER BORE:	NO	COUNTERSINK:	NO	CONTROLLED IMPEDANCE:	YES
ITAR:	NO			NON-PLATED HOLES:	NO

XXXXXX

NEXT ASSY | USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES
TOLERANCES: ANGLES +/-1 DEG
2 PL DECIMALS +/- .02
3 PL DECIMALS +/- .005

REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .010 FIM
DIMENSIONAL LIMITS APPLY AFTER PROCESSES

HOLE DIAMETER TOLERANCE

.013 THRU .125	+.005 -.001	.126 THRU .250	+.005 -.001	.251 THRU .500	+.004 -.001
.501 THRU .750	+.006 -.001	.751 THRU 1.000	+.010 -.001	1.001 THRU 2.000	+.012 -.001

APPROVAL	DATE
DRAWN DZS	21JAN15
CHECKED JHAPP	21JAN15
RELEASED JHAPP	21JAN15

ambiqmicro

FABRICATION DRAWING,
PWB,APOLLO EVK BASE BOARD

SIZE	DWG NO	REV
A	AMBRD-0013-FAB	3.0.0
SCALE 1:1	CUST:	SHEET 1 OF 1