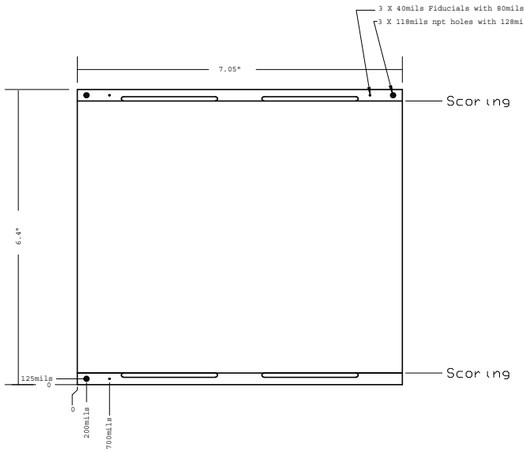
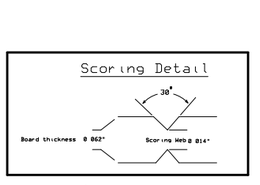
NOTES: (UNLESS OTHERWISE SPECIFIED)
THIS FAB SHOULD BE "RoHS COMPLIANT".

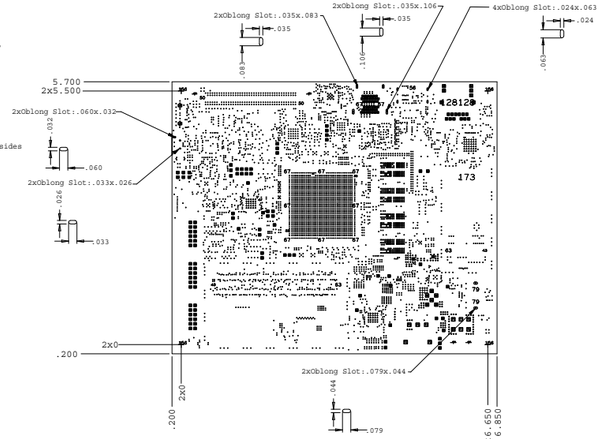
1. FABRICATE TO IPC-A-600, CURRENT REVISION
2. BOARD SHALL MEET THE INSPECTION CRITERIA OF
   a- ACCEPTABILITY AS PER IPC-A-600 (LATEST REVISION) CLASS II
   b- QUALIFICATION AND PERFORMANCE AS PER IPC-6012 (LATEST REVISION) CLASS II.
3. MATERIAL:ISOLA FR408HR (RoHS COMPLIANT MATERIAL) OR EQUIVALENT. GLASS TRANSITION TEMPERATURE MUST MEET OR EXCEED THE TEMPERATURE EXHIBITED WITH HIGH TEMPERATURE PROCESSES ASSOCIATED WITH LEAD FREE ASSEMBLY.
4. APPLY SOLDER MASK OVER BARE COPPER (SMOBC) IAW IPC-SM-840, BOTH SIDES, USING LPI, COLOR GREEN.
5. LPI SOLDER MASK TAIYO PSR4000 (RoHS COMPLIANT MATERIAL) OR EQUIVALENT WILL BE USED ON BOTH SIDES.
6. SOLDER MASK REGISTRATION TO BE WITHIN DIAMETRICAL TRUE POSITION OF + / - 0.002"WITH APPLICABLE HOLE / PAD.
7. FINISH: GOLD IMMERSION.
8. SILKSCREEN USING WHITE - HAVEN PC421 (NON-CONDUCTIVE OR EQUIVALENT RoHS COMPLIANT MATERIAL) BOTH SIDES DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON SOLDER LANDS IS NOT ACCEPTABLE.
9. VENDOR LOGO AND DATE CODE TO BE MARKED SOLDER SIDE IN SILKSCREEN. MAXIMUM HEIGHT 0.12 INCHES.
10. 100% ELECTRICAL TEST REQUIRED FOR CONTINUITY. BOARD SHALL HAVE A UL-RATING OF 94V-0. UL SYMBOL AND RATING SHALL BE MARKED SOLDER SIDE IN SILKSCREEN.
11. REMOVE ALL UNUSED PADS FROM INTERNAL LAYERS.
12. 274X GERBER/ODB++ USED FOR FAB MUST BE VERIFIED AGAINST THE PROVIDED IPC356 NETLIST. COPPER SLIVERS THAT ARE LESS THAN 0.003" IN WIDTH BETWEEN ANTI-PAD TO PLANE EDGE, ANTI-PAD TO SPLIT PLANE AND ANTI-PAD TO ANTI-PAD MUST BE REMOVED FROM THE MANUFACTURING ARTWORK. A NETLIST COMPARISON MUST BE PASSED WITH NO VIOLATION AFTER THE REMOVAL OF SLIVERS. ANY REQUIREMENT FOR SLIVER REMOVAL ABOVE OR EQUAL TO THE 0.003" COPPER WIDTH MUST BE ADDRESSED AND APPROVED IN WRITING BY SUPPLIER.
13. VIAS ARE SUPPOSED TO BE DIRECTLY CONNECTED TO RESPECTIVE PLANE.
14. FOR IMPEDANCE CONTROL DETAILS REFER TO STACK-UP DOCUMENT INCLUDED ZCU106_HR408BUILD.pdf DATA.
15. VIA IN PAD TECHNOLOGY USED:
    VIA FILL IS REQUIRED: THIS IS A VIA IN PAD JOB. ALL VIA IN PAD LOCATIONS,LISTED IN "VIA_EPOXY_TOP" AND "VIA_EPOXY_BOT"MUST BE COMPLETELY FILLED" WITH PETERS PP-2795 OR EQUIVALENT 100% SOLIDS FILL MATERIAL, PLANARIZED, AND PLATED OVER WITH" COPPER AND SURFACE FINISH.
16. ALL VIA DRILLS LISTED IN "VIA_PLUG_TOP AND VIA_PLUG_BOT" MUST BE PLUGGED AND COVERED WITH SOLDER MASK.
17. PCB VENDOR IS ALLOWED TO ADD COPPER THIEVING TO ALL INTERNAL SIGNALS LAYERS. DISTANCE FROM EXISTING FEATURES MUST BE 100 MILS MINIMUM.
18. INTENTIONAL SHORT: SEE HW-Z1-ZCU104_REVC_SHORTS_LIST.DOC

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	PROTOTYPE	08/30/17	
B	PROTOTYPE	08/30/17	
C	PROTOTYPE	11/27/17	
1.0	PROTOTYPE	02/10/18	
01	PROTOTYPE	02/08/18	

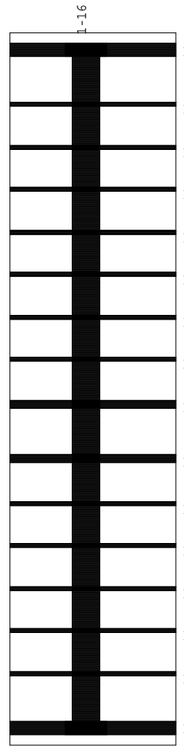




Array size X = 7.05" Y = 6.4"
Rail area 250mils including routing tab



DRILL CHART: TOP to BOTTOM ALL UNITS ARE IN MILS					
FIGURE	FHS	TOLERANCE	PLATED	QTY	ADDITIONAL
•	8.0	+0.0/-8.0	PLATED	473	
•	9.0	+0.0/-9.0	PLATED	1456	
•	10.0	+0.0/-10.0	PLATED	3132	
•	12.0	+0.0/-12.0	PLATED	239	
*	22.0	+3.0/-3.0	PLATED	38	
*	35.0	+3.0/-3.0	PLATED	12	
*	40.0	+3.0/-3.0	PLATED	98	
*	48.0	+3.0/-3.0	PLATED	6	
*	50.0	+3.0/-3.0	PLATED	5	
*	62.0	+3.0/-3.0	PLATED	2	
*	71.0	+3.0/-3.0	PLATED	6	
*	73.0	+3.0/-3.0	PLATED	5	
*	106.0	+3.0/-3.0	PLATED	2	
*	125.0	+3.0/-3.0	PLATED	2	
*	156.0	+3.0/-3.0	PLATED	4	
*	33.0	+2.0/-2.0	NON-PLATED	2	
*	40.0	+2.0/-2.0	NON-PLATED	2	
*	43.0	+2.0/-2.0	NON-PLATED	2	
*	50.0	+2.0/-2.0	NON-PLATED	2	
*	56.0	+2.0/-2.0	NON-PLATED	1	
*	63.0	+2.0/-2.0	NON-PLATED	2	
*	67.0	+2.0/-2.0	NON-PLATED	10	
*	79.0	+2.0/-2.0	NON-PLATED	2	
*	128.0	+2.0/-2.0	NON-PLATED	2	
*	173.0	+2.0/-2.0	NON-PLATED	1	
•	33.0x26.0	+4.0/-4.0	PLATED	2	
•	60.0x32.0	+4.0/-4.0	PLATED	2	
•	63.0x24.0	+4.0/-4.0	PLATED	4	
•	79.0x44.0	+4.0/-4.0	PLATED	2	
•	83.0x35.0	+4.0/-4.0	PLATED	2	
•	106.0x35.0	+4.0/-4.0	PLATED	2	
TOTAL HOLES: 5520					



DESIGN CROSS SECTION CHART
TOTAL THICKNESS 61.19 MIL

TOTAL THICKNESS 61.19 MIL +/- 5 MIL (8%)

IMPEDANCE CHART

	SINGLE ENDED		EDGE-COUPLED DIFFERENTIAL		EDGE-COUPLED DIFFERENTIAL
	TRACE WIDTH	TARGET IMPEDANCE Z (OHMS)	TRACEWIDTH/AIRGAP	TARGET IMPEDANCE Z (OHMS)	TRACEWIDTH/AIRGAP	TARGET IMPEDANCE Z (OHMS)
TOP SIDE	11 MIL 10 MIL 8 MIL ~~11.5 MIL~~	36 39 50 ~~28~~	3.1 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
LAYER 3	6.2 MIL 5.5 MIL 3.5 MIL	36 39 50	3 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
LAYER 5	6.2 MIL 5.5 MIL 3.5 MIL	36 39 50	3 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
LAYER 7	6.2 MIL 5.5 MIL 3.5 MIL	36 39 50	3 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
LAYER 12	6.2 MIL 5.5 MIL 3.5 MIL	36 39 50	3 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
LAYER 14	6.2 MIL 5.5 MIL 3.5 MIL	36 39 50	3 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~
BOTTOMD	11 MIL 10 MIL 8 MIL ~~11.5 MIL~~	36 39 50 ~~28~~	3.1 MIL/3 MIL 3.1 MIL/4.1 MIL 3.1 MIL/5.1 MIL 3.2 MIL/7.8 MIL 3.4 MIL/8.4 MIL	~~66~~ ~~72~~ ~~76~~ ~~86~~ ~~90~~ ~~100~~	~~4.4 MIL/3.1 MIL~~ ~~4.3 MIL/5 MIL~~ ~~5.2 MIL/7.8 MIL~~	~~66~~ ~~76~~ ~~100~~

CROSSED IMPEDANCE CALL OUTS DO NOT EXIST IN PROVIDED DATA. IGNORE THEM.

UNLESS OTHERWISE SPECIFIED	SIGNATURES		DATE
DIMENSIONS ARE IN INCHES	DRAWN	Rocket EMS	02-10-18
TOLERANCES ON;	CHECKED	Brian Forsse	
2 PL DECIMALS +/- .010	ENGRG	Brian Forsse	02-10-18
3 PL DECIMALS +/- .005	ISSUED		
ANGLES +			
FRACTIONS +			

XILINX.
2100 LOGIC DR.
SAN JOSE, CA 95124
HWCP - HARDWARE & CONFIGURATION PLATFORMS

FABRICATION DRAWING

HW-Z1-ZCU104

PCB,ROHS COMPLIANT

SIZE	FSCM NO	DWG NO	REV
D		1280961	01
			VER: 1.0
SCALE NONE			SHEET 1 OF 1