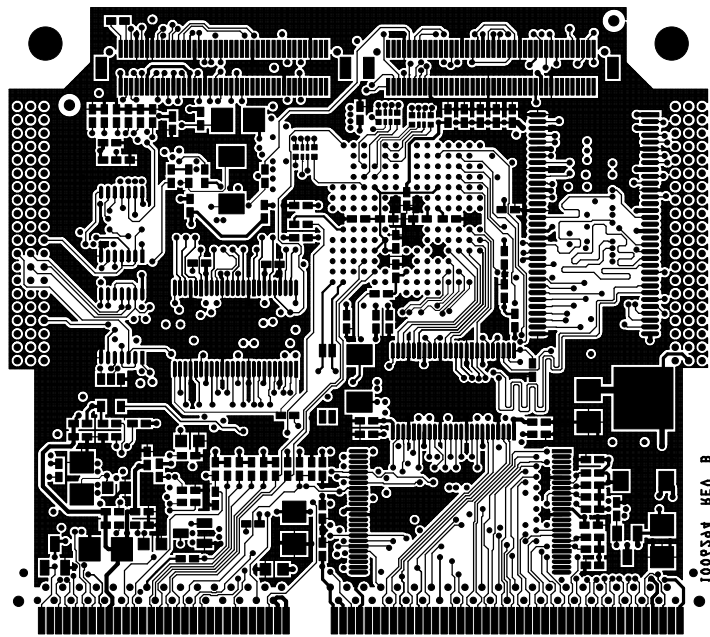
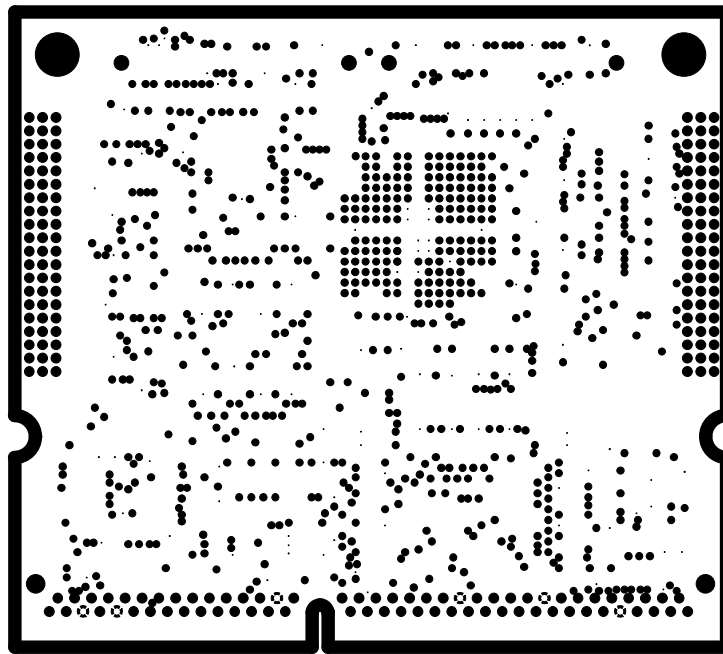




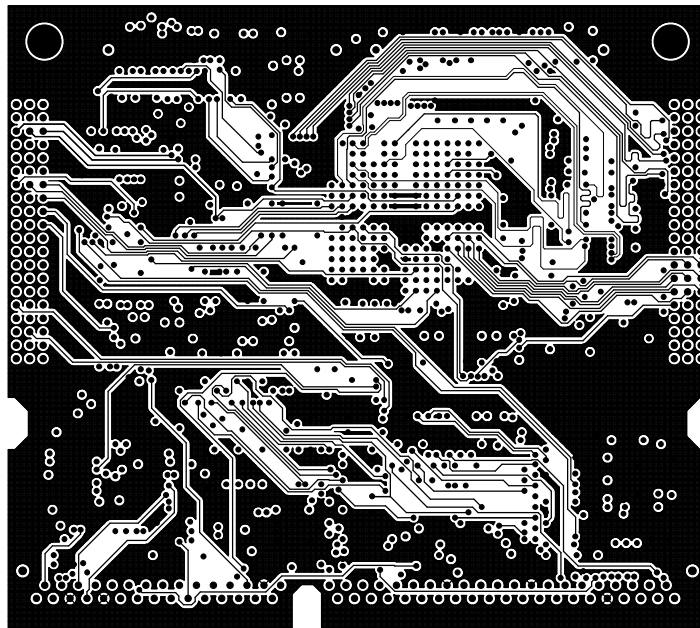
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 8 CIRCUIT BOTTOM SIDE



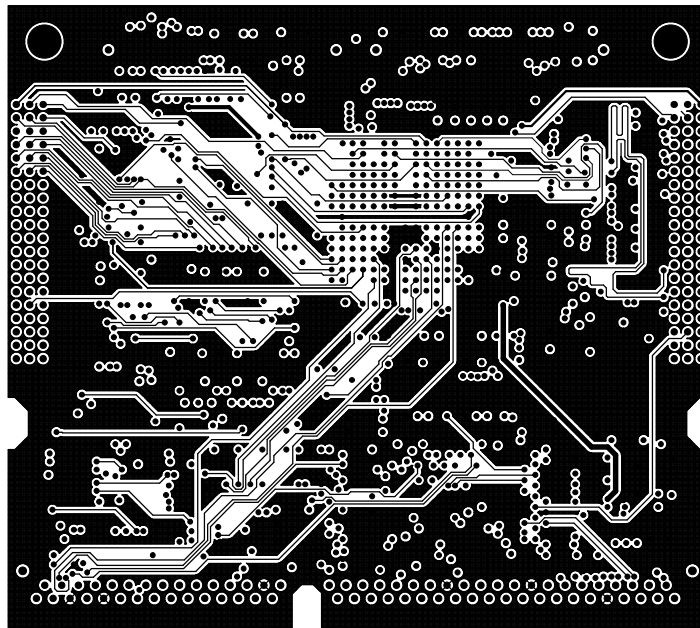
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 2 PLANE GND



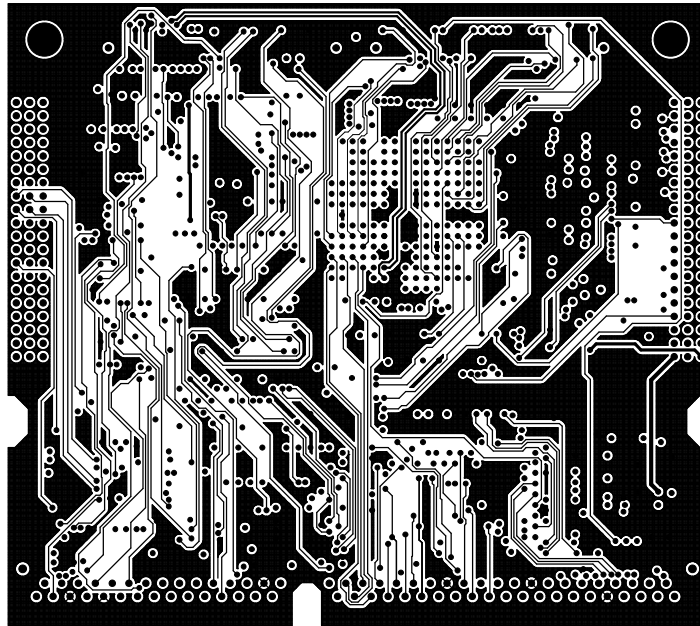
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 3 CIRCUIT



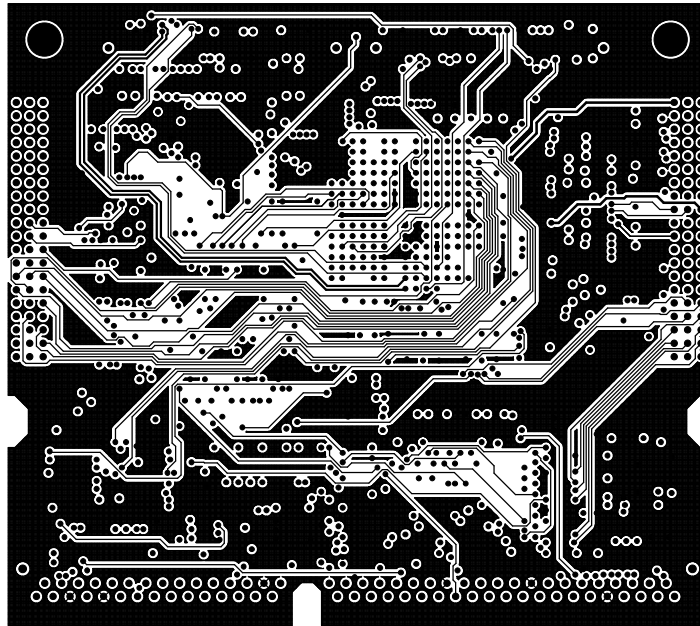
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 6 CIRCUIT



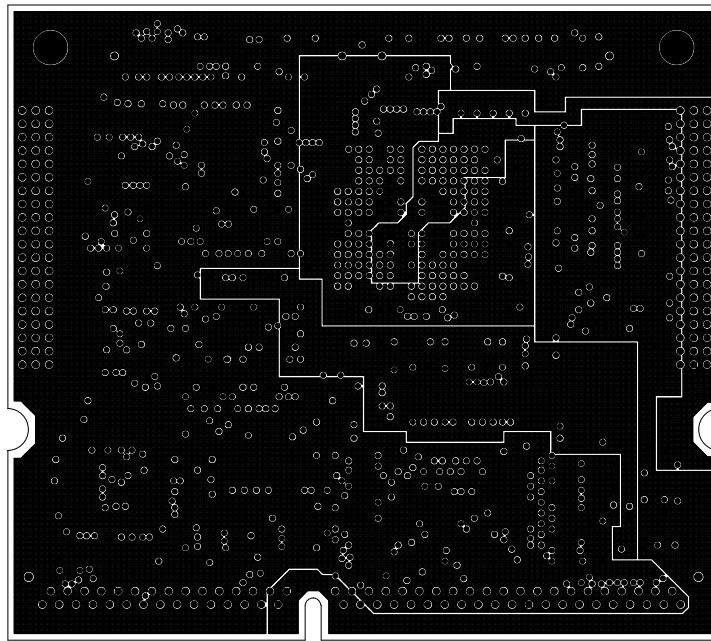
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 5 CIRCUIT



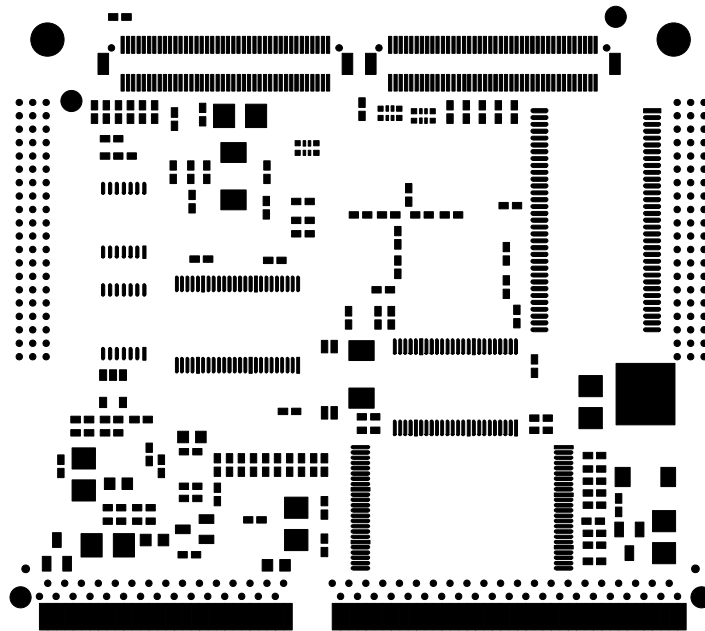
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 4 CIRCUIT



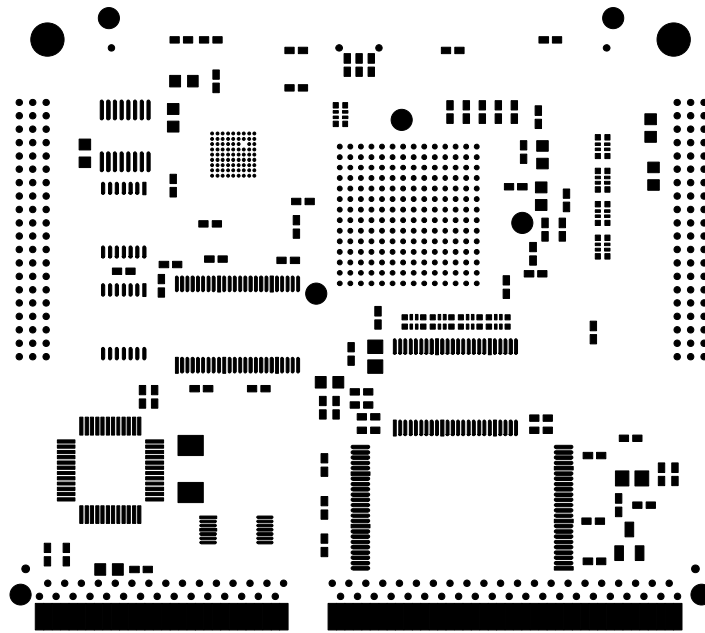
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
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LAYER 7 PLANE POWER



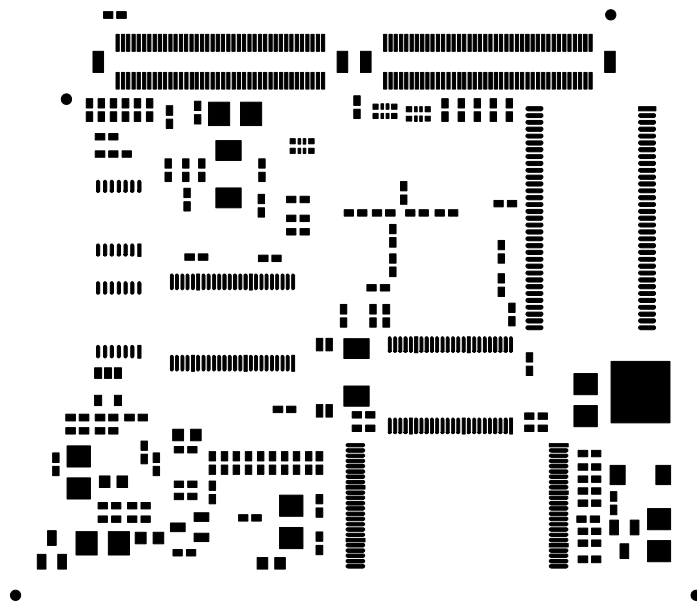
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

SOLDER MASK BOTTOM SIDE



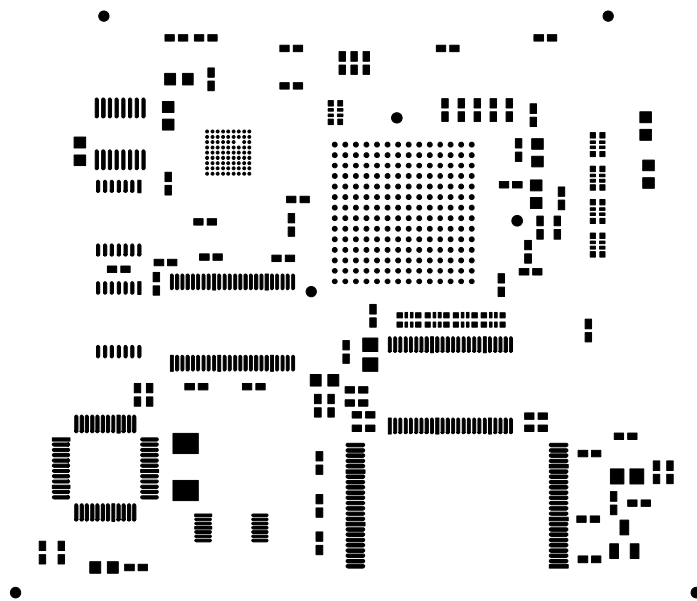
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

SOLDER MASK TOP SIDE



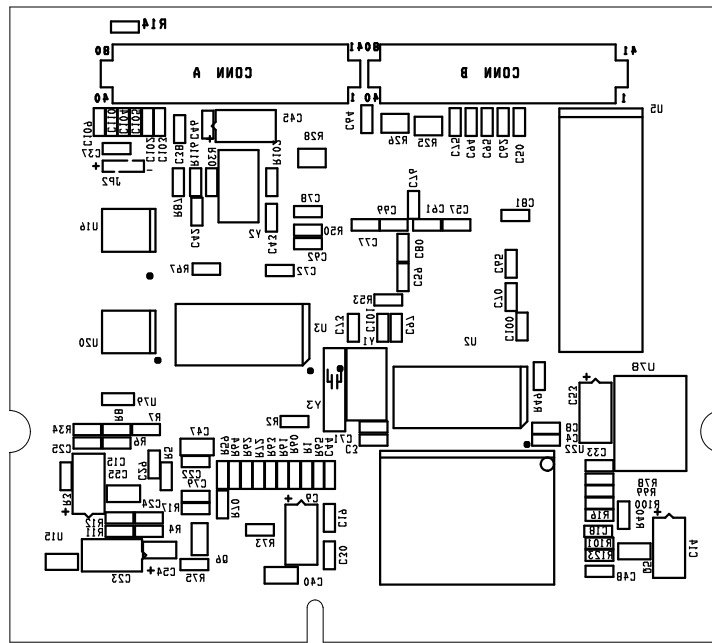
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

SOLDERPASTE BOTTOM SIDE



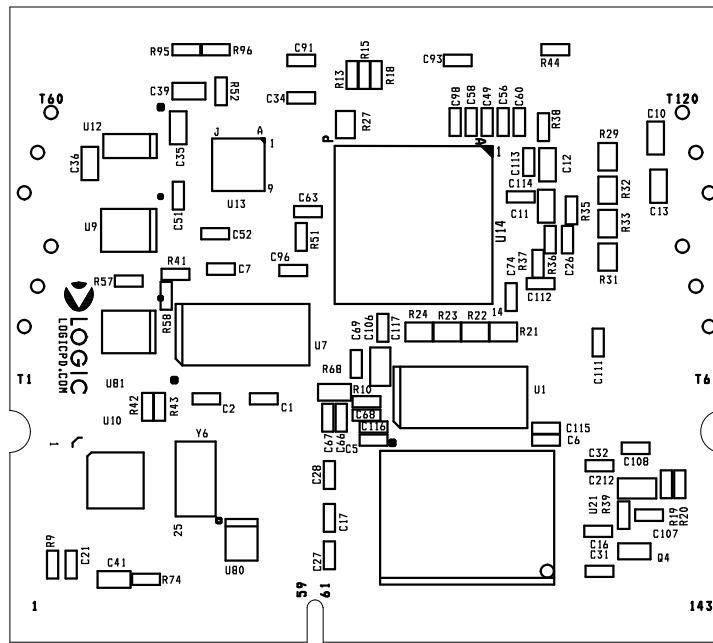
LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

SOLDERPASTE TOP SIDE



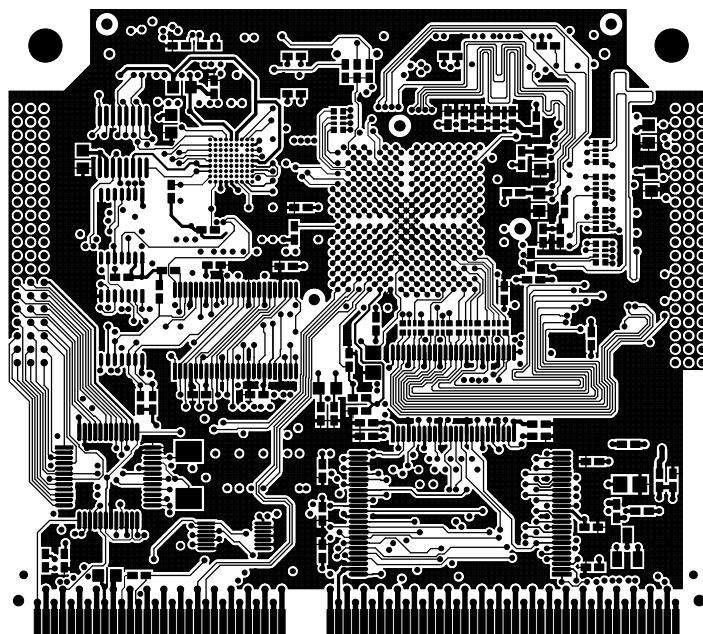
LOGIC PRODUCT DEVELOPMENT
 DRAGON FIRE CARD ENGINE
 1006294 REV B
 01-03-2007

SILKSCREEN BOTTOM SIDE



LOGIC PRODUCT DEVELOPMENT
 DRAGON FIRE CARD ENGINE
 1006294 REV B
 01-03-2007

SILKSCREEN TOP SIDE

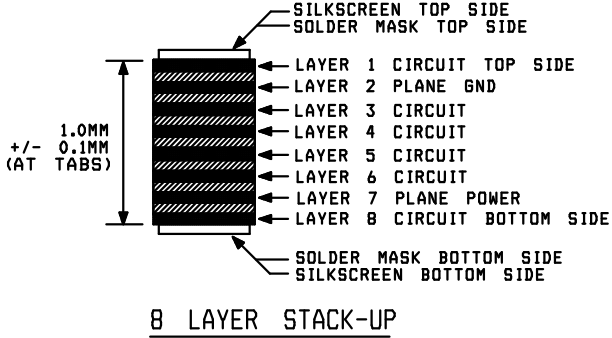


LOGIC PRODUCT DEVELOPMENT
DRAGON FIRE CARD ENGINE
1006294 REV B
01-03-2007

LAYER 1 CIRCUIT TOP SIDE

REVISION CHANGES			
PART NO.	REV	DATE	CHANGES
1006294	A	XX-XX-2006	--
1006294	B	01-03-2007	SEE BELOW
1. REMOVED PB FREE MARKING FROM SILKSCREEN			
2. CHANGED PLATING REQUIREMENT TO BE 1mAg			
3. UPDATED LOGIC LOGO TO NEW STYLE			
4. CHANGED REVISION OF PCB FROM REV A TO REV B IN COPPER			
5. INCREASED PAD WIDTH OF BGA FOOTPRINTS 2-4 MILS			
6. INCREASED PASTE AND MASK LAYERS TO MATCH NEW BGA PAD SIZE			

DRILL CHART				
SYM	DIAM	TOL		QTY
+	0.010	+0.000	-0.010	868
x	0.012	+/-	0.003	192
⊠	0.026	+/-	0.003	4
⊞	0.031	+/-	0.003	2
◇	0.125	+/-	0.003	2
TOTAL				1068



- NOTE:
- MATERIAL SELECTION:
8 LAYER, EPOXY GLASS, NEMA GRADE FR-4, 1.0MM +/- 0.1MM THICK AT THE TABS.
0.5 OZ. MINIMUM COPPER WITH SMOBC.
THE PRINTED CIRCUIT BOARDS MANUFACTURED TO THIS DRAWING MUST BE RoHS COMPLIANT.
ALTERNATIVE MATERIAL MUST BE APPROVED BY LOGIC/MDC PRIOR TO USE.
 - FINISH ON ALL SOLDERABLE SURFACES TO BE:
IMMERSION SILVER (1mAg)
 - SOLDER RESIST: COLOR - BLUE (COLOR MUST BE APPROVED BY LOGIC PRIOR TO USE).
THE USE OF SOLDER RESIST COATING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF IPC-SM-840.
USE LIQUID PHOTOIMAGEABLE RESIST APPLIED OVER BARE COPPER.
ALL SOLDERABLE SURFACES ARE TO BE FREE OF SOLDER RESIST.
SOLDER RESIST BRIDGES 0.003" OR LESS MAY BE REMOVED.
 - SILKSCREEN: USE WHITE NON-CONDUCTIVE INK. ALL COMPONENT AND TESTPOINT LANDS ARE TO BE FREE OF INK.
 - MANUFACTURER'S IDENTIFICATION: ADD TO SILKSCREEN ON BOTTOM SIDE.
 - ELECTRICAL BARE BOARD TEST REQUIRED.
 - DRILL SIZES ARE FINISHED SIZE AFTER PLATING.
 - BOARD VENDOR MAY REMOVE THERMALS FOR VIA'S ON PLANE LAYERS.
 - BOARD VENDOR MAY REMOVE NON FUNCTIONAL PADS ON INNER LAYERS.
 - BOARD VENDOR MAY ADD TEAR SHAPING TO INNER LAYERS.
BOARD VENDOR TO ADD TEAR SHAPING TO OUTER LAYERS.
 - TABS TO BE GOLD PLATED 0.00003 (MINIMUM) THICK OVER NICKEL 0.0001 (MINIMUM) THICK.
 - BOARD IS A 4X ARRAY.
 - BOARD TO BE SCORED AT DESIGNATED LINE. SCORING TO BE 30 DEG. AND A MINIMUM OF 0.015 INCHES BOARD MATERIAL IN CHANNEL.
 - THEIVING STRUCTURES MAY BE ADDED TO COMPENSATE FOR VARIATIONS IN COPPER DENSITIES ACROSS THE PWB. SPACING BETWEEN THEIVING AND CONDUCTIVE PATTERN TO BE 0.020" MINIMUM.
 - 0.005" TRACE WIDTH TO BE IMPEDANCE CONTROLLED.
45 OHM +/-10% SINGLE ENDED, 90 OHM +/-10% DIFFERENTIAL.
SEE STACK-UP FOR LAYER THICKNESS.
WIDTH OF TRACES ON SIGNAL LAYERS MAY BE ADJUSTED AS NECESSARY TO ACHIVE IMPEDANCE SPECIFIED.

