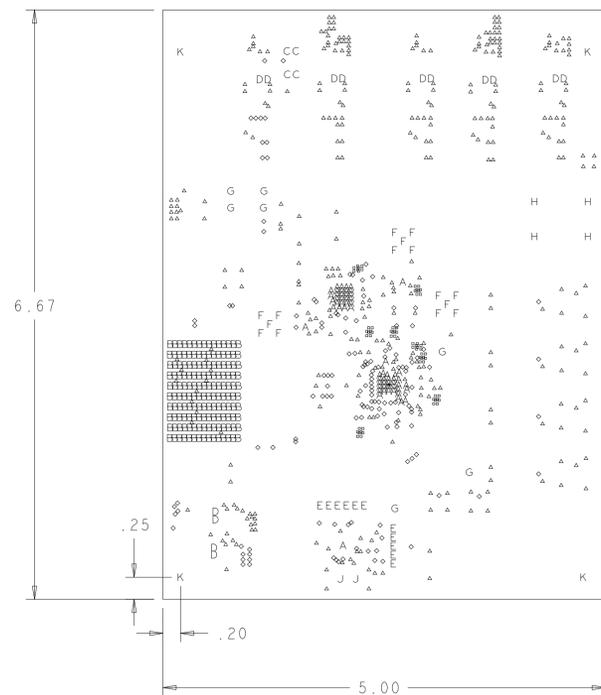


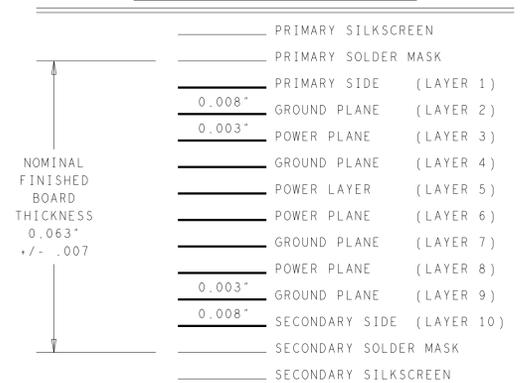
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	26AUG13	T.G.



PRIMARY SIDE

- NOTES:
- MATERIALS; FR-408HR, IN ACCORDANCE WITH IS410 (LATEST REV.). GLASS FABRIC BASE, EPOXY RESIN, FIRE RESISTANT
 - BONDING AGENT; PREIMPREGNATED B STAGE EPOXY GLASS CLOTH IN ACCORDANCE WITH IPC-L-109 (LATEST REV.).
 - CLADDING; EXTERNAL LAYERS 1/2 OZ. COPPER, OVERPLATE TO 1 1/2 OZ. INTERNAL PLANE LAYERS 1 OZ. COPPER.
 - SOLDER MASK; SHALL BE BLUE LIQUID PHOTOIMAGABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3.
 - SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK. COLOR WHITE.
 - U.L. RATING; 94V0 MINIMUM.
- FABRICATION:
1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
 2. UNDIMENSIONED HOLES TO BE LOCATED WITHIN +/- .005 OF THEIR TRUE POSITION WITH RESPECT TO ARTWORK.
 3. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN .001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
 4. HOLE DIAMETERS APPLY AFTER PLATING.
 5. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL, INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
 6. MINIMUM DESIGN LINE WIDTH IS .005 INCH.
 7. MINIMUM DESIGN SPACING IS .005 INCH.
 8. BOARD/PANEL MUST MEET IPC-A-600 (LATEST REV.) CLASS 2 FOR FLATNESS.
 9. MFR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
 - A. U.L. CODE
 - B. DATE CODE (STAMP)
 - C. FLAMMABILITY RATING
 - D. MFR. LOGO
 - E. SUCCESSFUL ELECTRICAL BOARD TEST.
 10. NON-FUNCTIONAL PADS MAY BE REMOVED FROM INNER SIGNAL LAYERS AT MFR. DISCRETION.
 11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY TEAR DROP PADS TO MAINTAIN ANNULAR RING AT PAD TO CIRCUIT INTERFACE ONLY AND MUST INSURE ELECTRICAL INTEGRITY. REPAIRS PER IPC-R-700 ARE ALLOWED.
 12. MODIFICATIONS TO THE ARTWORK, OTHER THAN THOSE DESCRIBED ON THE FABRICATION DRAWING, ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
 13. FINISH: SURFACES SHALL HAVE ENIG FINISH PLATED WITH 2-6 MICRONS OF IMMERSION GOLD OVER 100-200 MICRONS OF ELECTROLESS NICKEL.
 14. 0.016 VIAS TO BE NON-CONDUCTIVE EPOXY FILLED, AND GROUND FLUSH PRIOR TO OVER PLATING.

10 LAYER STACKUP



CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%
 ARTWORK LINE WIDTH FOR IMPEDANCE CONTROLLED LINES = 0.0155" FOR LAYER 1 AND 10.
 DIFFERENTIAL IMPEDANCE = 100 OHMS +/- 10%
 ARTWORK LINE WIDTH FOR IMPEDANCE CONTROLLED LINES = 0.0100" FOR LAYER 1 AND 10.

HOLE TOLERANCE

UNLESS SPECIFIED
 PLATED: +/- .003
 NON PLATED: +/- .001

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
*	6.0	PLATED	64	
o	10.0	PLATED	141	
A	15.0	PLATED	348	
A	16.0	PLATED	62	SEE NOTE 15
B	25.0	PLATED	150	
C	40.0	PLATED	4	
D	42.0	PLATED	14	
E	45.0	PLATED	11	
F	60.0	PLATED	15	
G	63.0	PLATED	7	
H	75.0	PLATED	4	
J	40.0	NON-PLATED	2	
K	155.0	NON-PLATED	4	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		TOLERANCES		DECIMALS FRACTIONS ANGLES		.XX -.010 .XX		.XXX +/- .005		.1/32 .. 2				HSC DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
APPROVAL		DATE		TITLE											
DRAWN BY P.M.A.		26AUG13		AD9144 DAC CUSTOMER BOARD											
DESIGNED				SIZE		FSCM NO		DRAWING NUMBER		REV					
CHECKED				D				HSC 13034		A					
APPROVED				DO NOT SCALE DWG		SCALE		1/1		SHEET 1 OF 1					