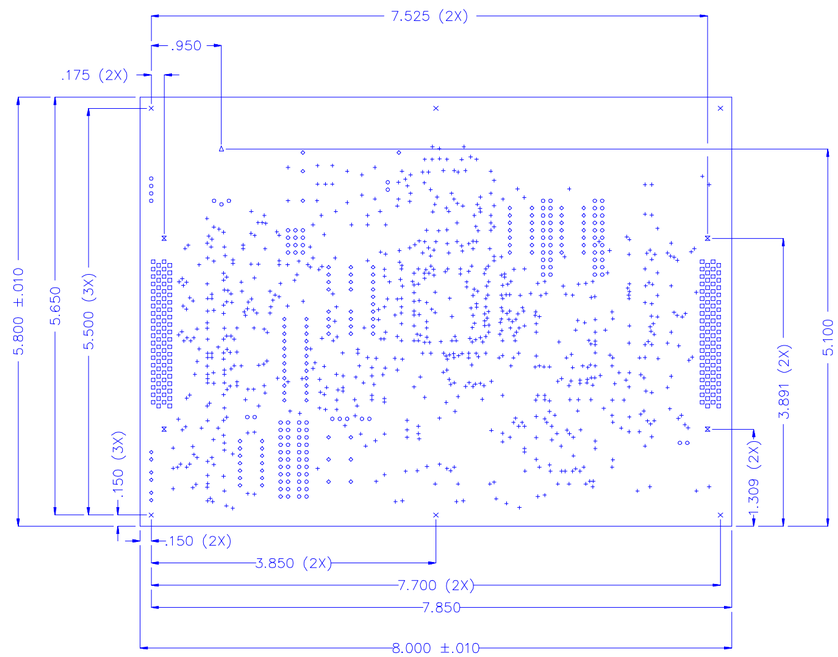
DWG. NO.	SHT	REV
	1	00

REVISIONS

REV	DESCRIPTION	DATE	APPROVED

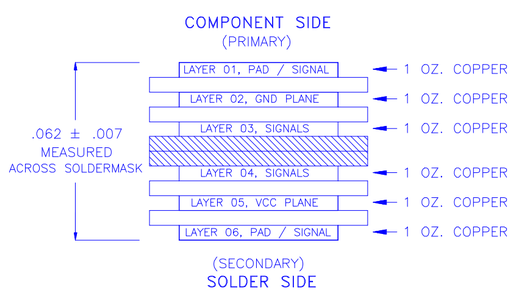
NOTES: UNLESS OTHERWISE SPECIFIED

1. FABRICATION:
   (FABRICATE BOARDS PER IPC–A–600D, CLASS 2 FOR ACCEPTABILITY.
   USE PRINTED WIRING ARTWORK AND DRILL DATA PROVIDED ON
   FLOPPY DISKETTE LABELED "LBL–010A.00 MANUF. DATA".
2. TRACE WIDTH TOLERANCE ±.001".
3. COPPER PLATING > .001" IN HOLES.
4. MATERIAL:
   .0035" MIN. FR–4 LAMINATE. LAMINATE MATERIAL AND PREPREG MUST HAVE
   A Tg OF A MINIMUM OF 135 DEGREES C, COLOR NATURAL, AND MEET 94–V1
   OR BETTER, STACKED TO A BOARD THICKNESS OF .062 ± .007 MEASURED ACROSS SOLDERMASK.
5. APPLY LPI SOLDERMASK OVER BARE COPPER (SMOBC), COLOR GREEN TO COMPONENT
   AND SOLDER SIDE OF BOARD. HOT AIR LEVEL AFTER LPI SOLDERMASK. SOLDERMASK
   MUST MEET IPC–SM–840B, TYPE B, CLASS III AND MUST BE COMPATIBLE WITH COMMON
   COMMERCIALLY USED SOLVENT AND WATER BASED SOLDERING AND CLEANING
   SYSTEMS AND IR AND WAVE TEMPERATURE PROCESSES.
6. LAMINATE THICKNESS IS VENDOR OPTION BASED ON OVERALL BOARD THICKNESS AND IMPEDANCE
   REQUIREMENTS.
7. SILKSCREEN COMPONENT SIDE USING NON–CONDUCTIVE EPOXY BASED INK IAW MIL–I–43553.
8. LAYER TO LAYER MISREGISTRATION MAXIMUM .005" ANY DIRECTION.
9. ANNULAR RING SPECIFICATIONS:
   OUTER LAYERS – .002" MINIMUM ANNULAR RING.
   INNER LAYERS – .001" MINIMUM ANNULAR RING, EXCEPT WHERE LINE TRACES CONNECTS TO
   PAD THERE SHALL BE A .002" MINIMUM ANNULAR RING. BREAKOUT IS NOT
   ALLOWED.
10. TIN LEAD COAT PER IPC–ML–910, CLASS III.
11. HOLE DIAMETERS AND TOLERANCES SHOWN ARE AFTER PLATING.
12. PRIMARY (COMPONENT) SIDE SHOWN, CIRCUITRY OMITTED FOR CLARITY.
13. VENDOR ID AND DATE CODE TO APPEAR IN ETCH ON SOLDER SIDE OF BOARD.
14. WARP AND TWIST SHALL NOT EXCEED .007" PER INCH.
15. DEBUR ALL SHARP EDGES AFTER FUSING AND PLATING.
16. FINAL BOARD SHALL BE FREE OF ALL JUMPERS AND/OR REPAIRS.
17. BOARD SHALL BE 100% CONTINUITY AND ISOLATION TESTED.



VIEWED FROM COMPONENT [TOP] SIDE

FILM SET & LAYER DESCRIPTIONS				
ITEM	FILE NAME	SIDE	DESCRIPTION	REFERENCE
1	LBL10A.SKC	COMP	SILKSCREEN	REFERENCE NOTE 7
2	LBL10A.SMC	COMP	SOLDERMASK	REFERENCE NOTE 5
3	LBL10A.L01	COMP	PAD / SIGNAL LAYER	
4	LBL10A.L02	COMP	GND PLANE	
5	LBL10A.L03	COMP	INTERNAL SIGNALS	
6	LBL10A.L04	SOLD	INTERNAL SIGNALS	
7	LBL10A.L05	SOLD	VCC PLANE	
8	LBL10A.L06	SOLD	PAD / SIGNAL LAYER	
9	LBL10A.SMS	SOLD	SOLDERMASK	REFERENCE NOTE 5
10	LBL10A.DRL	COMP	EXCELLON DRILL FILE	DRILL FILE



DRILLING INFORMATION				
TOOL	SYM	FINISHED HOLE SIZE AFTER PLATING	TYPE	QTY
1	+	.016 +.000/–.016	PTH	775
2	□	.028 +.003/–.003	PTH	160
3	◇	.035 +.003/–.003	PTH	108
4	○	.045 +.003/–.003	PTH	118
5	⧖	.105 +.003/–.003	PTH	4
6	×	.125 +.002/–.002	NPTH	6
7	△	.150 +.002/–.002	NPTH	1
		TOTAL DRILLED HOLES =		1172

ITEM NO.	QTY REQ'D	FSCM NO.	PART OR INDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL/SPECIFICATION	ITEM NO.

PARTS LIST

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONS ±1/64 DECIMALS .XX ± .01 .XXX ± .005 ANGLES ±0°–30'

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN P GORDON	3/4/97
RESP. ENGR.	
CHECKED	
ISSUED	

APPLI–CAD ENGINEERING
11750–J Sterling Avenue, Riverside, CA. 92503
Phone: (909) 343–0367 / Fax: (909) 343–0369

LAWRENCE BERKELEY LABORATORY
P/N: PIXEL READOUT BOARD

SIZE	FSCM NO.	DWG. NO.	REV.
D		FABRICATION	1.0

SCALE | JOB: LBL–010A.00 | SHEET 1 OF 1

NEXT ASSY	USED ON
APPLICATION	