

**BUILD STATISTICS**

GENERAL	252
NETS	100
COMPONENTS	100
PRIMITIVES	
FILES	3040
TRACES	30056
STRINGS	632
ARCS	7110
LANDS	
PADS	998
VIAS	981
PRINT SCALE	SCALE: 0.70

**LAYER USAGE**

TOP PASTE	
TOP OVERLAY WHITE	
TOP SOLDER MASK BLACK	
TOP LAYER	
BOTTOM LAYER	
BOTTOM SOLDER MASK BLACK	
BOTTOM OVERLAY WHITE	
BOTTOM PASTE	
DRILL GUIDE (CUTOUT)	
DRILL DRAWING	
BOARD OUTLINE	
MULTILAYER	
DRAWINGS	
BOT SOLDERMASK GREEN	
BOT SOLDERMASK YELLOW	
BOT SOLDERMASK ORANGE	
BOT SOLDERMASK RED	
BOT SOLDERMASK PURPLE	
BOT SOLDERMASK BLUE	

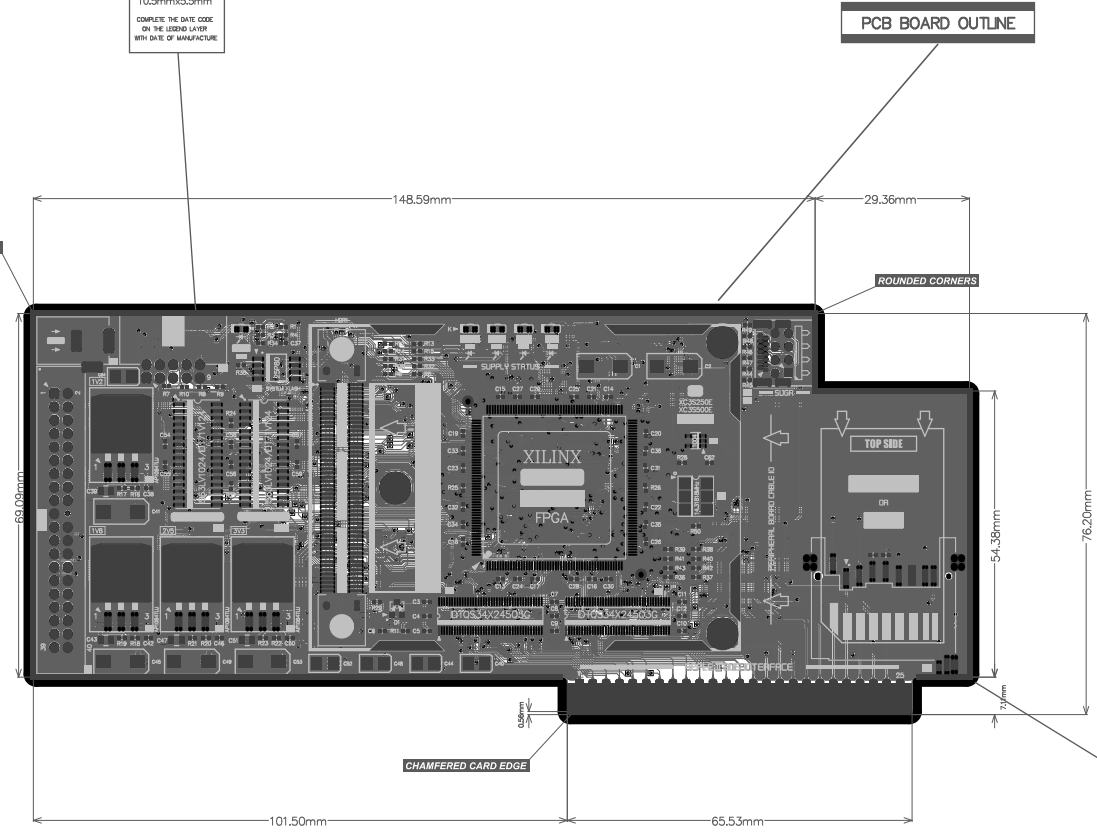
**PCB MATERIAL SPEC**  
 $\epsilon_r = \text{TYP } 4.1$

- Standard FR408 Style Material
- Dielectric at 1GHz = TYP 4.2
- FR4 Material Construction
- 288°C Max. Temperature Capability
- PC-4101A /24 Compliant
- Tg by DSC (°C) = 180
- 94V-0/UL94 Compliant

**BUILD CONFIGURATION AND SPECIFICATIONS SUMMARY**

- 2 Layer Build
- 8 Thou Tracks / 5 Thou Spacing
- 28 Thou Via / 0.30mm Hole
- 1/2 Oz Copper Clad
- 25um Immersion Gold
- Glass Black Solder Mask
- Gold Plated Board Edges
- Silk-Screened White Legend
- DO NOT TRIM Legend (Silkscreen)
- Board Thickness Approx 1.6mm
- BOARD OUTLINE Layer Denotes Board Cutout
- BBT (Bare Board Tested) Required

**MANUFACTURER DATE CODE LEGEND**  
WEEK/YEAR  
10.5mmx5.5mm  
COMPLETE THE DATE CODE ON THE UPPER LAYER WITH DATE OF MANUFACTURE



**STANDARD BOARD SOLDER MASK (BLACK)**

- 1 BLACK - SOLDER MASK - TOP LAYER:
- 2 BLACK - SOLDER MASK - BOTTOM LAYER MAIN

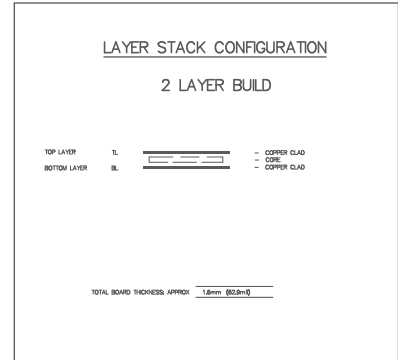
**COLORED LOGO SOLDER MASK LAYERS (6 DIFFERENT COLORS)**

- 3 GREEN - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)
- 4 YELLOW - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)
- 5 ORANGE/AMBER - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)
- 6 RED - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)
- 7 PURPLE - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)
- 3 BLUE - SOLDER MASK - BOTTOM LAYER: THIS LAYER REQUIRES INVERTING (NEGATIVE)

**LAYER BOTTOM**

**DO NOT TRIM TOP OR BOTTOM SILKSCREENS**

**NOTE**  
BOARDS HAVE PLATED EDGES  
MILL CUTOUTS BEFORE PLATING  
ALL SIDES ARE PLATED BY DESIGN



Symbol	Hit Count	Tool Size	Physical Length	Route Path Length	Plated	Hole Type
□	981	11.811mil (0.3mm)			PTH	Round
○	14	19.685mil (0.5mm)			PTH	Round
◇	2	31.496mil (0.8mm)			PTH	Round
▽	57	35.433mil (0.9mm)			PTH	Round
⊙	1	39.37mil (1mm)			NPTH	Round
○	1	47.244mil (1.2mm)			PTH	Round
▽	1	62.992mil (1.6mm)			PTH	Round
○	3	122.047mil (3.1mm)			PTH	Round
□	2	23.622mil (0.6mm)	55.118mil (1.4mm)	31.496mil (0.8mm)	PTH	Slot
⊙	2	23.622mil (0.6mm)	86.614mil (2.2mm)	62.992mil (1.6mm)	PTH	Slot
⊙	2	23.622mil (0.6mm)	102.362mil (2.6mm)	78.74mil (2mm)	PTH	Slot
○	2	39.37mil (1mm)	118.11mil (3mm)	78.74mil (2mm)	PTH	Slot
⊙	1	39.37mil (1mm)	137.795mil (3.5mm)	98.425mil (2.5mm)	PTH	Slot
1069 Total						

Slot definitions : **Route Path Length** = Calculated from tool start centre position to tool end centre position.  
**Physical Length** = Route Path Length + Tool Size = Slot length as defined in the PCB layout

DESIGNER	NOVASAR	DATE	26.APR.09	S.R.K.H. <b>Carte Blanche</b>	SCALE:	SCALE: 0.70
DRAWN	Steven. R. Howell	DATE	26.APR.09		DATE:	10/5/2011
CHECKED	Steven. R. Howell	DATE	26.APR.09		SHEET	1 OF 1
1	DESIGN CREATED	S.HOWELL	26.APR.09	CUSTOMER	CONSORTIUM (APPLE2.SYS.GROUP)	A2
REVISION	DESCRIPTION OF TASK OR MODIFICATION	APPD	DATE	Title: PBA01.01 - PERIPHERAL BOARD APPLE - VERSION 1		
TEMPLATE: - Multilayer Composite Print		C:\Designs\Novasara\Carte Blanche\PBA03.PcbDoc				

**DRILL DRAWING** APERTURE TABLES/FILES ARE EMBEDDED 1

MATERIAL:  FR4-01  FR4-04  FR4-08  POLYIMIDE  ARLON  TUC-722  
THICKNESS:  0.8mm  1.2mm  1.6mm  2.2mm  3.2mm  
TOLERANCE:  IN A/W ANSI IPC-6012 TYPE 2 CLASS 2  OTHER +/-  
BOW & TWIST:  IN A/W ANSI IPC-6012 TYPE 2 CLASS 2  AS SHOWN  
COPPER THICKNESS (FINISHED)  
OUTER:  18um (1/2oz)  35um (1oz)  70um (2oz)  
INNER SIGNAL:  18um (1/2oz)  35um (1oz)  70um (2oz)  
INNER PWR:  18um (1/2oz)  35um (1oz)  70um (2oz)  
STRUCTURE:  REFER  AS PER DRAWING No. \_\_\_\_\_  AS SHOWN  
DRILLING:  
VIEWED FROM:  COMPONENT SIDE  SOLDER SIDE  
REFERENCE:  AS SHOWN  PATTERN MASTER LIST  NC\_DRILL FILES  
PTH MINIMUM COPPER THICKNESS:  20um  OTHER \_\_\_\_\_  
NPTH:  TENTED  PADS REMOVED  REMOVE PADS  
 2nd DRILL  BOTH  AS SHOWN  NONE  
BOARD FINISH:  ETCHING  REFER PATTERN MASTER LIST  
LEGEND / SCREEN PRINT:  NONE  COMPONENT  SOLDER  
COLOUR:  WHITE  YELLOW  OTHER \_\_\_\_\_  
SOLDER RESIST:  LIQUID PHOTOMAGEABLE  SCREEN PRINT  
COLOUR:  GLOSS  MATTE  GREEN  BLUE  G/Y  BLACK  
TRACK FINISH:  SELECTIVE SOLDER  REFLOW SOLDER  
 HASL (HOT AIR SOLDER LEVEL)  
 REFER PATTERN MASTER LIST  OTHER \_\_\_\_\_  
 3um IMMERSION GOLD SMOBC (SOLDER MASK OVER BARE COPPER)  
 HARD GOLD PLATE FINISH  OTHER \_\_\_\_\_  
 AS SHOWN  REFER  
PROFILING:  CUT AND TRIM ACCORDING TO LAYER MECHANICAL 1 (BOARD OUTLINE)  
 REFER PCB BLANK DWG No. \_\_\_\_\_  
 USE PROFILE/ ROUTE TAPE SUPPLIED (REFER PATTERN MASTER LIST)  
 SQUARE CUT  N.C. ROUTE  V. SCORE  BLANK  
ACCEPTABILITY: MATERIALS AND WORKMANSHIP FOR ALL PRINTED WIRING BOARDS TO MEET OR EXCEED THE REQUIREMENTS OF:  
 IN A/W ANSI IPC-A-600F  1  2  3  
 UL CERTIFICATION  AUSTEL  
 ML-P-55110E GRP  A  B  AS2546  OTHER \_\_\_\_\_  
ADDITIONAL REQUIREMENTS:  
MICROSECTION:  NONE  SAMPLE PLAN  ML-P-55110E SERIAL Nos. PER ORDER  
CERTIFICATION:  NONE  ML-P-55110E GRP  A  B IPC CLASS:  1  2  3  
 QUALITY RELEASE REPORT  OTHER PER ORDER  
ELECTRICAL TEST: Bare Board  NONE  REQUIRED  PER ORDER  
SURFACE MOUNT:  NONE  1 SIDE  2 SIDES  MIN. PITCH  
MANUFACTURER'S D/LOGO:  NONE  FOIL  LEGEND  REFER  
MANUFACTURER'S ACCREDITATION:  ISO9001/AS3901  NONE  
PACKAGING AND HANDLING:  PER ORDER  REFER