

BUILD STATISTICS

GENERAL
NETS 87
COMPONENTS 95

PRIMITIVES
FILLS 63
RINGS 8583
SPRINGS 620
ARCS 368

LANDS
PADS 488
VIAS 300

PRINT SCALE SCALE: 0.70

LAYER USAGE

TOP PASTE
TOP OVERLAY
TOP SOLDER MASK
TOP LAYER
BOTTOM LAYER
BOTTOM SOLDER MASK
BOTTOM LEGEND
BOTTOM PASTE
DRILL GUIDE (SLOTS)
DRILL DRAWING
BOARD OUTLINE
MULTILAYER
TECHNICAL DATA
MANUFACTURE DATA
IDENTIFICATION DATA
DIMENSIONS
ROUTING KEEPOUT LAYER

IMPEDANCE CONTROLLED ROUTES
LAYERS: TOP AND BOTTOM
MICROSTRIP IMPLEMENTATION
TRACK = 20mils
SPACE = 4mils
DIST. FROM GND PLANES = 47.2mils

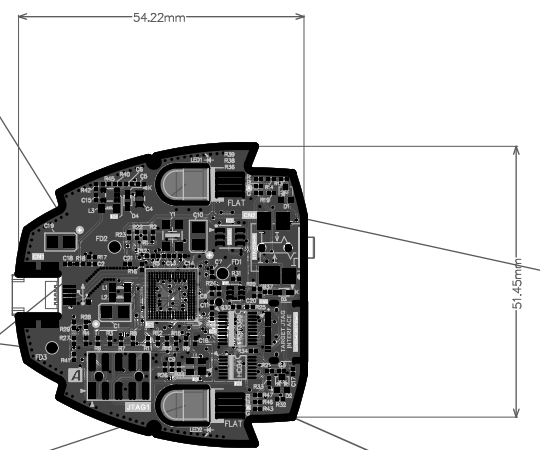
DIFFERENTIAL IMPEDANCE = ~ 107.6 OHMS

REFER TO IMPEDANCE NOTE.

LAYER BOTTOM

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

NOTE:
BOARD CUTOUTS
DEFINED ON THE
DRILL GUIDE
LAYER
ARE 1.7MM DIAMETER



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

PCB BOARD OUTLINE

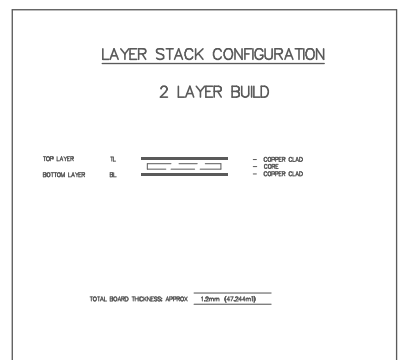
PCB MATERIAL SPEC

$\epsilon_r = \text{TYP } 4.1$

- Standard FR408 Style Material
- Dielectric at 1GHz = TYP 4.2
- FR4 Material Construction
- 288°C Max. Temperature Capability
- IPC-4101A /24 Compliant
- Tg by DSC (°C) = 180
- 94V0/UL94 Compliant

BUILD CONFIGURATION AND SPECIFICATIONS SUMMARY

- 2 Layer Build
- 5 Thou Tracks / 3 Thou Spacing
- 24 Thou Via / 0.30mm Hole
- 1 Oz Copper Clad
- 3um Immersion Gold
- Gloss Black Solder Mask
- Include All BBT Failed Boards With Order
- Silk-Screened White Legend
- DO NOT TRM Legend (Silkscreen)
- Board Thickness Approx 1.6mm
- BOARD OUTLINE Layer Denotes Board Cutout
- Must be BBT (Bare Board Tested)
- Include BBT Certificate with Order



NOTE:
IMPEDANCE CONTROLLED LAYERS
LAYERS: TOP AND BOTTOM

IMPEDANCE = 100 OHMS +/- 10%

ADJUST DIELECTRIC THICKNESS TO MEET SPECIFIED IMPEDANCE

SUPPLIED ARTWORK/PATTERN MASTER LIST

DESCRIPTION	DRAWING No./CAD FILE REF.	REVISION
DT01.02	DEVELOPMENT TOOL 01.02	1
DRILL DRAWING	APERTURE TABLES/FILES ARE EMBEDDED	1

MATERIAL: FR4-01 FR4-04 FR4-08 POLYIMIDE ARLON TUC-722

THICKNESS: 0.8mm 1.2mm 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

MIL-P-55110E GRP A B AS2546 OTHER _____

ADDITIONAL REQUIREMENTS:

MICROSECTION: NONE SAMPLE PLAN MIL-P-55110E SERIAL Nos. PER ORDER

CERTIFICATION: NONE MIL-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 0.65MM

MANUFACTURER'S D/LOGO: NONE FOIL LEGEND REFER

MANUFACTURER'S ACCREDITATION: ISO9001/AS3901 NONE

PACKAGING AND HANDLING: PER ORDER REFER

DO NOT SCALE

DIMENSIONS IN MILLIMETRES

Symbol	Hit Count	Tool Size	Physical Length	Rout Path Length	Plated	Hole Type
□	300	11.81mil (0.3mm)			PTH	Round
▽	2	31.496mil (0.8mm)			NPTH	Round
⊕	1	47.244mil (1.2mm)			NPTH	Round
⊖	2	62.992mil (1.6mm)			PTH	Round
⊗	3	62.992mil (1.6mm)			NPTH	Round
⊙	2	23.622mil (0.6mm)	43.307mil (1.1mm)	19.685mil (0.5mm)	PTH	Slot
○	2	23.622mil (0.6mm)	51.181mil (1.3mm)	27.559mil (0.7mm)	PTH	Slot
	312 Total					

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

REVISION	DESCRIPTION OF TASK OR MODIFICATION	APPD	DATE	DESIGNER	ALTIUM LIMITED	DATE
2	UPDATED WITH HOT PLUG CAPABILITY	S.HOWELL	01.APR.08	CHECKED	Steven. R. Howell	08.SEPT.07
1	DESIGN CREATED	S.HOWELL	08.SEPT.07	CUSTOMER	ALTIUM DEVELOPMENT PRODUCTS	

TEMPLATE: -- Multilayer Composite Print C:\Designs\Altium\2007\Designs\Altium_Products\Developer_Tools\DT01 - USB to JTAG with SD Card\DT01.PcbDoc

Altium LEVEL 3 / 12A RODBOROUGH ROAD FRENCHS FOREST - SYDNEY 2086 NSW AUSTRALIA

SCALE: SCALE: 0.70

DATE: 10/5/2011

Sheet: DT01.01 - DEVELOPMENT TOOL 01.02

1 OF 1 A2