

1

2

3

4

5

6

7

8

9

10

A2-TE-0182-018-00-A

PROJECTION

CONTACT FOR TECHNICAL ISSUES

PRIMARY CONTACT:

DAN BECKETT 01235 446634
DAN.BECKETT@STFC.AC.UK

SECONDARY CONTACTS:

CHRIS DAY 01235 446635
CHRIS.DAY@STFC.AC.UK

DARREN BALLARD 01235 445856
DARREN.BALLARD@STFC.AC.UK

DESIGN CROSS SECTION CHART

* SURFACE - AIR 0 UM

L1: TOP CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L2: LAYER 2 - GND CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L3: LAYER 3 - POWER CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L4: LAYER 4 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L5: LAYER 5 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L6: LAYER 6 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L7: LAYER 7 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L8: LAYER 8 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L9: LAYER 9 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L10: LAYER 10 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L11: LAYER 11 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L12: LAYER 12 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L13: LAYER 13 CONDUCTOR - COPPER 5 UM

* DIELECTRIC - FR-4 35 UM

L14: BOTTOM CONDUCTOR - COPPER 5 UM

* SURFACE - AIR 0 UM

MANUFACTURING NOTES

1. STYLE

:

SEQUENTIAL BUILD-UP RIGID BOARD - 14 LAYERS

2. MATERIAL

:

ISOLA PCL370HR

3. FINISHED BOARD THICKNESS

:

0.58um SEE STACK-UP DIAGRAM

4. BASE COPPER

:

SEE STACK-UP DIAGRAM

5. ACCEPTABLE BOARD BOW/TWIST:

:

FLATNESS ACROSS THE INTERPOSER SHOULD BE 5-10um MAX DUE TO HEIGHT OF GLUE BONDS USED.

6. FINISH

:

ELECTROLESS NICKEL ELECTROLESS PALLADIUM IMMERSION GOLD (ENEPIG)

* ELECTROLESS NICKEL = 3-6um

* ELECTROLESS PALLADIUM = 0.15-0.25um

* IMMERSION GOLD = 0.05-0.08um

VIAS SHOULD BE FILLED AND FLAT, SUITABLE FOR GOLD STUD BUMPS.

7. LINE/SPACE TOLERANCE

:

+/-50%

8. SOLDER RESIST

:

2 OFF, TOP & BOTTOM. THIS SHOULD BE NO MORE THAN 10um THICK.

9. COMPONENT IDENT.

:

1 OFF, TOP ONLY

10. RELEASE

:

CERTIFICATE OF CONFORMITY

40.4

39.9

HOLE SIZES (FINISHED): TOP to LAYER 2 - GND

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6456

HOLE SIZES (FINISHED): LAYER 5 to LAYER 6

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 10 to LAYER 11

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 2 - GND to LAYER 3 - POWER

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 6 to LAYER 7

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 11 to LAYER 12

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 3 - POWER to LAYER 4

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 7 to LAYER 8

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 12 to LAYER 13

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 4 to LAYER 5

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 8 to LAYER 9

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

HOLE SIZES (FINISHED): LAYER 13 to BOTTOM

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6401

HOLE SIZES (FINISHED): LAYER 9 to LAYER 10

ALL UNITS ARE IN MILLIMETERS

FIGURE	SIZE	PLATED	NONSTANDARD	QTY
•	0.05	PLATED	LASER	6433

PC3595M

ISSUE 1

LAYER STRUCTURE

LAYER	DESCRIPTION	COMMENT
Q	COMPONENT IDENT. - TOP	
O	SOLDER RESIST - TOP	
A	LAYER 1 - TOP TRACKS	
B	LAYER 2 - GND	
C	LAYER 3 - POWER	
D	LAYER 4	
E	LAYER 5	
F	LAYER 6	
G	LAYER 7	
H	LAYER 8	
I	LAYER 9	
J	LAYER 10	
K	LAYER 11	
L	LAYER 12	
M	LAYER 13	
N	LAYER 14 - BOTTOM TRACKS	
P	SOLDER RESIST - BOTTOM	

A	02-12-16	-----	D.J.BECKETT	D.J.BALLARD	P.SELLER	
ISSUE	DATE	MOD NO.	DRAWN	CHECKED	APPROVED	STATUS
TOLERANCE UNLESS STATED			FINISH		ORIGINAL SCALE	
GENERAL +/- 0.1 mm			SEE NOTES		1:1	
HOLES +/- 0.05 mm			REMOVE ANY BURRS		DO NOT SCALE	
MATERIAL & SPEC			SURFACE TEXTURE micro m		0 50mm	
SEE NOTES			✓ UNLESS STATED			
USED ON CENTRE FOR INSTRUMENTATION					© SCIENCE & TECHNOLOGY FACILITIES COUNCIL 2016	
SCIENCE & TECHNOLOGY FACILITIES COUNCIL RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, DIDCOT, OXON. OX11 0QX						
TITLE PC3595M HEXITEC INTERPOSER						
A2-TE-0182-018-00-A						

TOTAL NO. OF SHEETS 1

1