

MANUFACTURING NOTES

1. STYLE : MULTILAYER (14 LAYERS)
2. MATERIAL : FR4
3. FINISHED BOARD THICKNESS : 2.0mm
4. BASE COPPER : OUTER : 17 MICRONS.
INNER : 17 MICRONS
5. COPPER PLANES : FOR ALL COPPER PLANES PLEASE ENSURE MINIMUM ANTIPADS ARE MAINTAINED - SO AS NOT TO REDUCE THE AREA OF THE PLANE THROUGH ETCHBACK
6. FINISH : IMMERSION GOLD ON NICKEL
7. SOLDER RESIST : GREEN, PHOTOIMAGABLE (2-OFF)
8. COMPONENT IDENT : WHITE (2-OFF)
9. RELEASE : CERTIFICATE OF CONFORMITY.

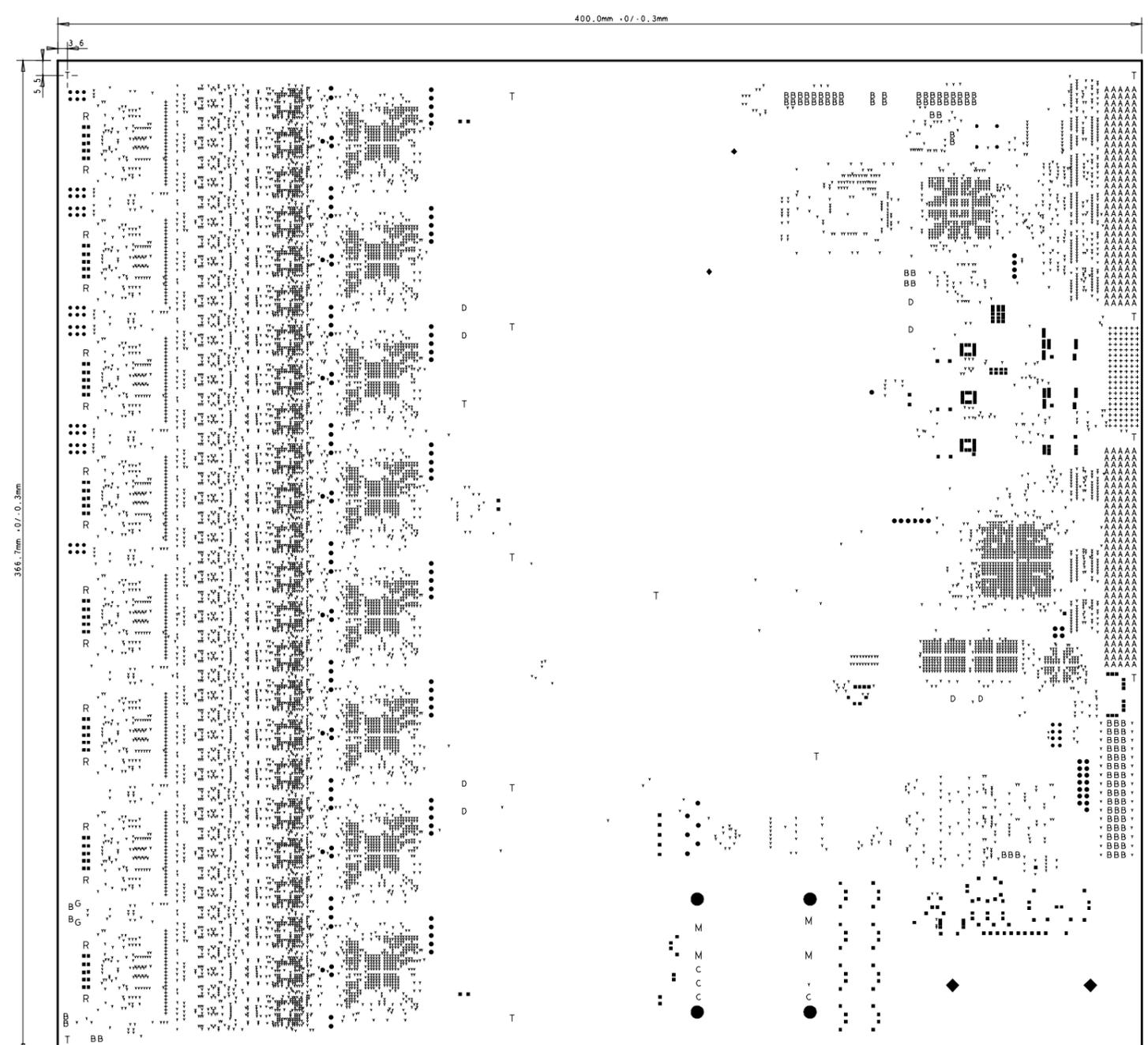
PC3205M ISSUE 2		
LAYER STRUCTURE		
LAYER	DESCRIPTION	COMMENT
O	COMPONENT IDENT - TOP	
S	SOLDER RESIST - TOP	MOSTLY RESIST
A	TOP TRACKS	SEE IMPEDANCE TABLES
B	GND PLANE 1	MOSTLY COPPER
C	INNER TRACKS 1	SEE IMPEDANCE TABLES
D	INNER TRACKS 2	SEE IMPEDANCE TABLES
E	POWER PLANE 1	MOSTLY COPPER
F	INNER TRACKS 3	SEE IMPEDANCE TABLES
G	POWER PLANE 2	MOSTLY COPPER
H	GND PLANE 2	MOSTLY COPPER
I	INNER TRACKS 4	SEE IMPEDANCE TABLES
J	POWER PLANE 3	MOSTLY COPPER
K	INNER TRACKS 5	SEE IMPEDANCE TABLES
L	INNER TRACKS 6	SEE IMPEDANCE TABLES
M	GND PLANE 3	MOSTLY COPPER
N	BOTTOM TRACKS	SEE IMPEDANCE TABLES
R	SOLDER RESIST - BOTTOM	MOSTLY RESIST
P	COMPONENT IDENT - BOTTOM	

HOLE SIZES (FINISHED)				
TOOL	SYMBOL	SIZE (mm)	PLATED	QTY
T01	○	0.2	YES	13291
T02	●	0.4	YES	323
T03	+	0.6	YES	314
T04	•	0.8	YES	60
T05	A	0.9	YES	320
T06	D	1.0	YES	105
T07	●	1.0	YES	132
T08	C	1.1	YES	4
T09	D	1.2	YES	8
T10	G	1.5	YES	2
T11	M	2.1	YES	4
T12	R	2.4	YES	16
T13	I	2.8	YES	14
T14	●	4.4	YES	4
T15	◆	4.7	YES	2
T16	◆	1.4	NO	2

TABLE OF CONTROLLED IMPEDANCES					
LAYER	TRACK P-CODE	TRACK WIDTH	MIN. GAP	Z ₀	REF. LAYER/LAYERS
A	●	100um	100um	80	B (MICROSTRIP)
C&D	●	100um	100um	60	B&E (STRIPLINE)
F	●	100um	100um	60	E&G (STRIPLINE)
J	●	100um	100um	60	H&I (STRIPLINE)
K&L	●	100um	100um	60	J&M (STRIPLINE)
N	●	100um	100um	60	M (MICROSTRIP)

TABLE OF DIFFERENTIAL IMPEDANCES					
LAYER	TRACK P-CODE	TRACK WIDTH	MIN. GAP	Z ₀	REF. LAYER/LAYERS
A&N	●	88um	112um	100	● SEE BELOW
C, F, I, K, L	●	75um	125um	100	● SEE BELOW

- RS274X GERBER FORMAT USED
- ◆ DIFFERENTIAL IMPEDANCE OF 100 OHMS REQUIRED BETWEEN PAIRS OF 88um TRACKS RUNNING IN PARALLEL SEPARATED BY A 112um GAP
- ⊞ DIFFERENTIAL IMPEDANCE OF 100 OHMS REQUIRED BETWEEN PAIRS OF 75um TRACKS RUNNING IN PARALLEL SEPARATED BY A 125um GAP



C	11-06-04	TE243	D.J.BALLARD	C.P.DAY	J. COUGHLAN	
B	17-12-03	TE233	C.P. DAY	D.J. BECKETT	S. TAGHAVIRAD	
A	04-12-02	-----	C.P. DAY	D.J. BECKETT	S. TAGHAVIRAD	
ISSUE	DATE	MOD NO.	DRAWN	CHECKED	APPROVED	STATUS
TOLERANCE UNLESS STATED GENERAL +/- 0.1 mm HOLES +/- 0.05 mm			FINISH SEE NOTES REMOVE ANY BURRS		ORIGINAL SCALE 1:1 DO NOT SCALE	
MATERIAL & SPEC SEE NOTES			SURFACE TEXTURE micro m UNLESS STATED		0 50 mm	
USED ON						
CCLRC COUNCIL FOR THE CENTRAL LABORATORY RUTHERFORD APPLETON LABORATORY, CHILTON, OXON. OX11 0XQ OF THE RESEARCH COUNCILS						
TITLE PC3205M			DRILLING CMS TRACKER FED			
A1-TE-0070-021-00-C						