

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.

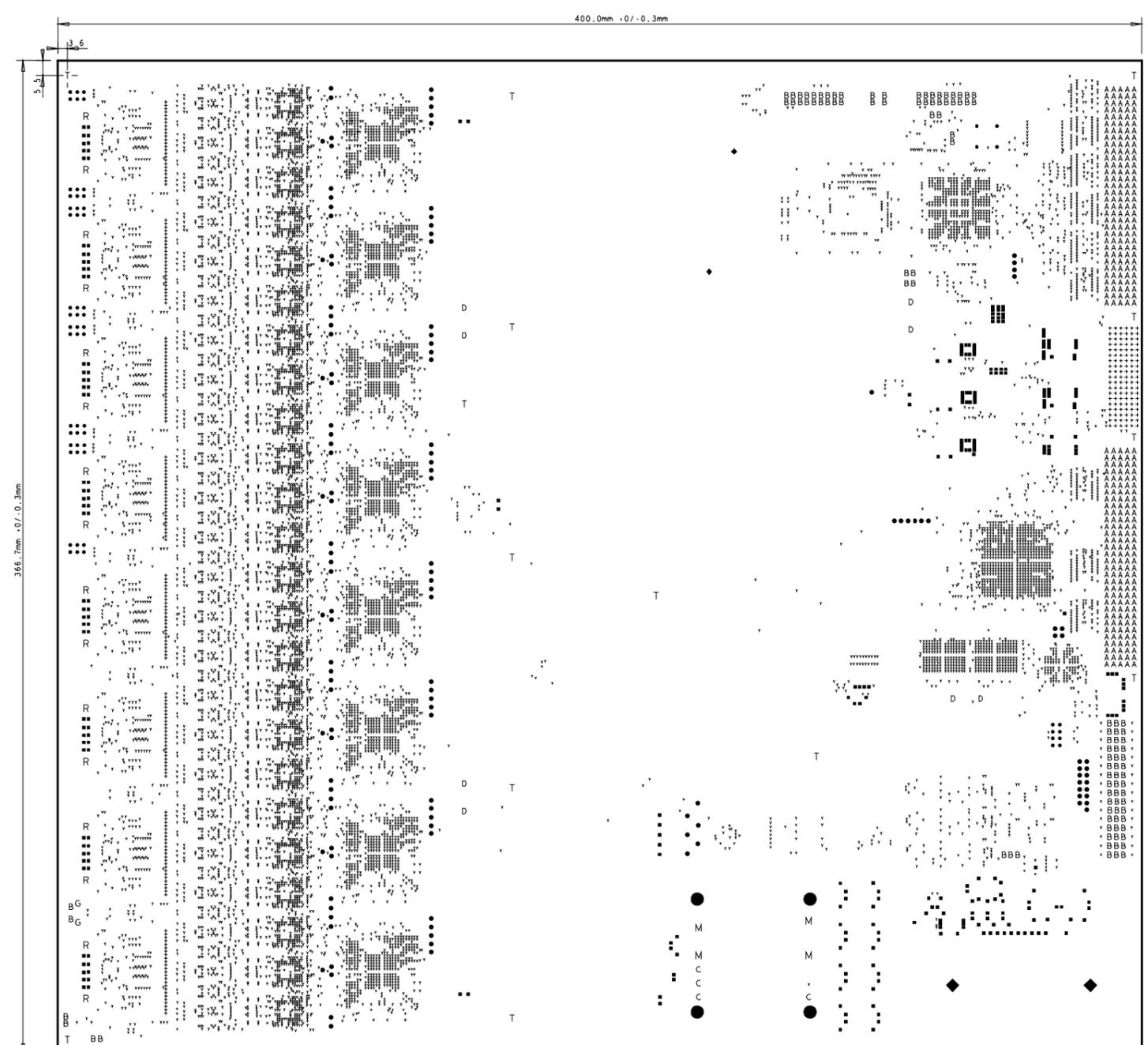
PC3205M ISSUE 2		
LAYER STRUCTURE		
LAYER	DESCRIPTION	COMMENT
O	COMPONENT IDENT - TOP	
S	SOLDER RESIST - TOP	MOSTLY RESIST
A	TOP TRACKS	SEE IMPEDANCE TABLES
B	GND PLANE 1	MOSTLY COPPER
C	INNER TRACKS 1	SEE IMPEDANCE TABLES
D	INNER TRACKS 2	SEE IMPEDANCE TABLES
E	POWER PLANE 1	MOSTLY COPPER
F	INNER TRACKS 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	0.9	YES	320	
T06	1.0	YES	105	
T07	1.0	YES	132	
T08	1.1	YES	4	
T09	1.2	YES	8	
T10	1.5	YES	2	
T11	2.1	YES	4	
T12	2.4	YES	16	
T13	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	*	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	09-06-04	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 2003
COUNCIL FOR THE CENTRAL LABORATORY RUTHERFORD APPLETON LABORATORY, CHILTON, OXON. OX11 0XQ						
TITLE PC3205M			DRILLING CMS TRACKER FED			
A1-TE-0070-021-00-C						