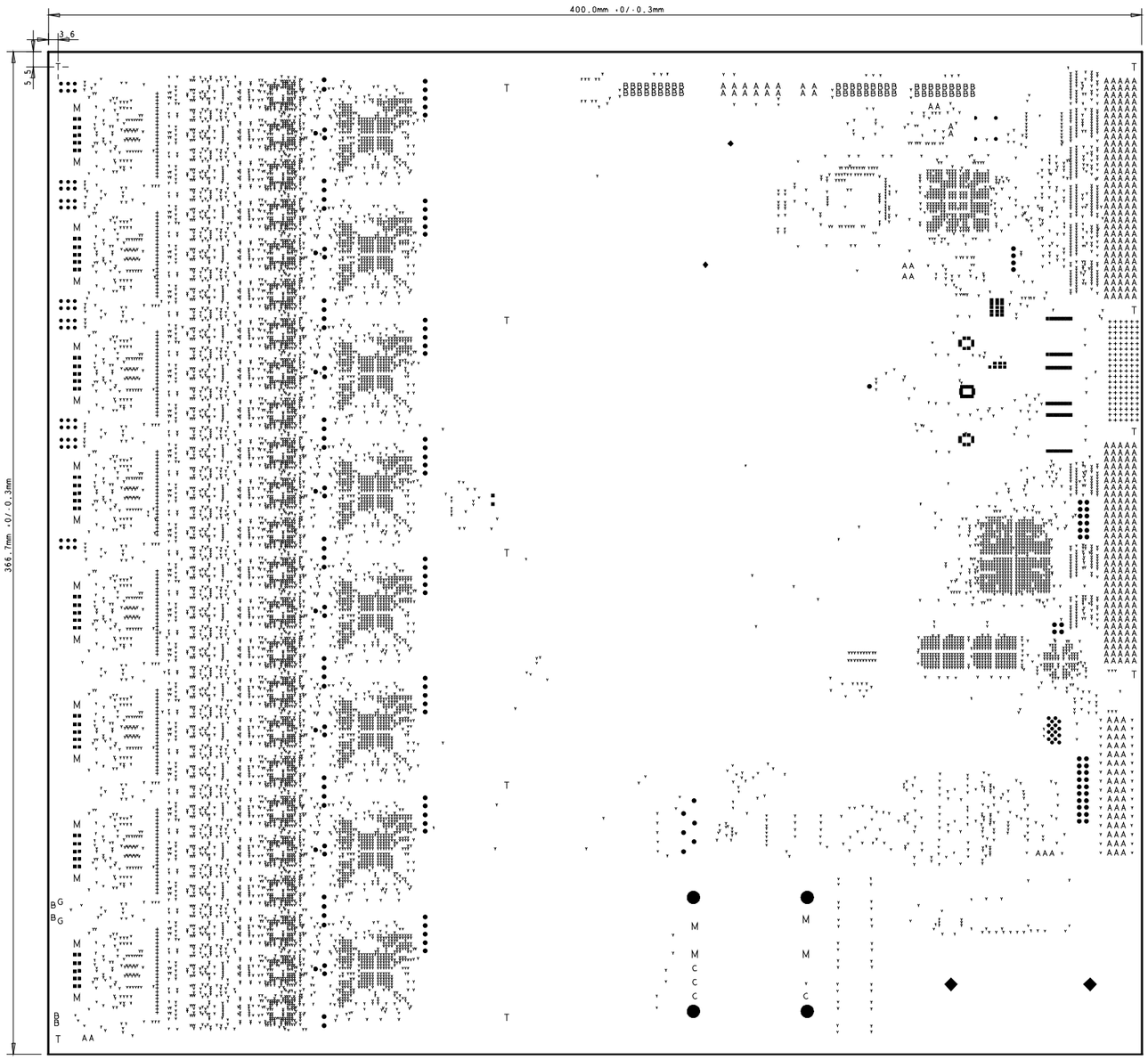
A | 1-TE-0070-021-00-A | PROJECTION | THIS DRAWING CONFORMS TO B.S. 308



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 1

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 TABLE
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 TABLE
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	13449
T02	■	0.4	YES	181
T03	+	0.6	YES	314
T04	●	0.8	YES	68
T05	A	0.9	YES	397
T06	B	1.0	YES	58
T07	●	1.0	YES	143
T08	C	1.1	YES	4
T09	G	1.5	YES	2
T10	M	2.1	YES	20
T11		2.8	YES	11
T12	●	4.4	YES	4
T13	◆	4.7	YES	2
T14	◆	1.4	NO	2

TABLE OF CONTROLLED IMPEDANCES

LAYER	TRACK D-CODE	TRACK WIDTH	MIN. GAP	Zo	REF: LAYER/LAYERS
A	*	125um	100um	56	B (MICROSTRIP)
C&D	*	100um	100um	52	B&E (STRIPLINE)
F	*	100um	100um	59	E&G (STRIPLINE)
I	*	100um	100um	59	H&J (STRIPLINE)
K&L	*	100um	100um	52	J&M (STRIPLINE)
N	*	125um	100um	56	M (MICROSTRIP)

* RS274X GERBER FORMAT USED

TABLE OF DIFFERENTIAL IMPEDANCES

LAYER	TRACK D-CODE	TRACK WIDTH	MIN GAP	Zo	REF LAYER/LAYERS
A&N	*	100um	100um	100	# SEE BELOW
C,F,I&L	*	75um	125um	100	@ SEE BELOW

* RS274X GERBER FORMAT USED

DIFFERENTIAL IMPEDANCE OF 100 OHMS REQUIRED BETWEEN PAIRS OF 100um TRACKS RUNNING IN PARALLEL SEPERATED BY A 100um GAP

@ DIFFERENTIAL IMPEDANCE OF 100 OHMS REQUIRED BETWEEN PAIRS OF 75um TRACKS RUNNING IN PARALLEL SEPERATED BY A 125um GAP

ISSUE	DATE	MOD NO.	DRAWN	CHECKED	APPROVED	STATUS
A	04-12-02	-----	C.P.DAY	D.J.BECKETT	S.TAGHAVIRAD	

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

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COUNCIL FOR THE CENTRAL LABORATORY OF THE RESEARCH COUNCILS
RUTHERFORD APPLETON LABORATORY, CHILTON, OXON, OX11 0QX

TITLE PC3205M DRILLING
CMS TRACKER FED v1

A | 1-TE-0070-021-00-A

TOTAL NO. OF SHEETS 1

A | 1-TE-0070-021-00-A