

DWG. NO.		1395-405-84		SH 1 REV A		1	
				REVISIONS			
ZONE		REV.		DESCRIPTION		DATE	
						APPROVED	

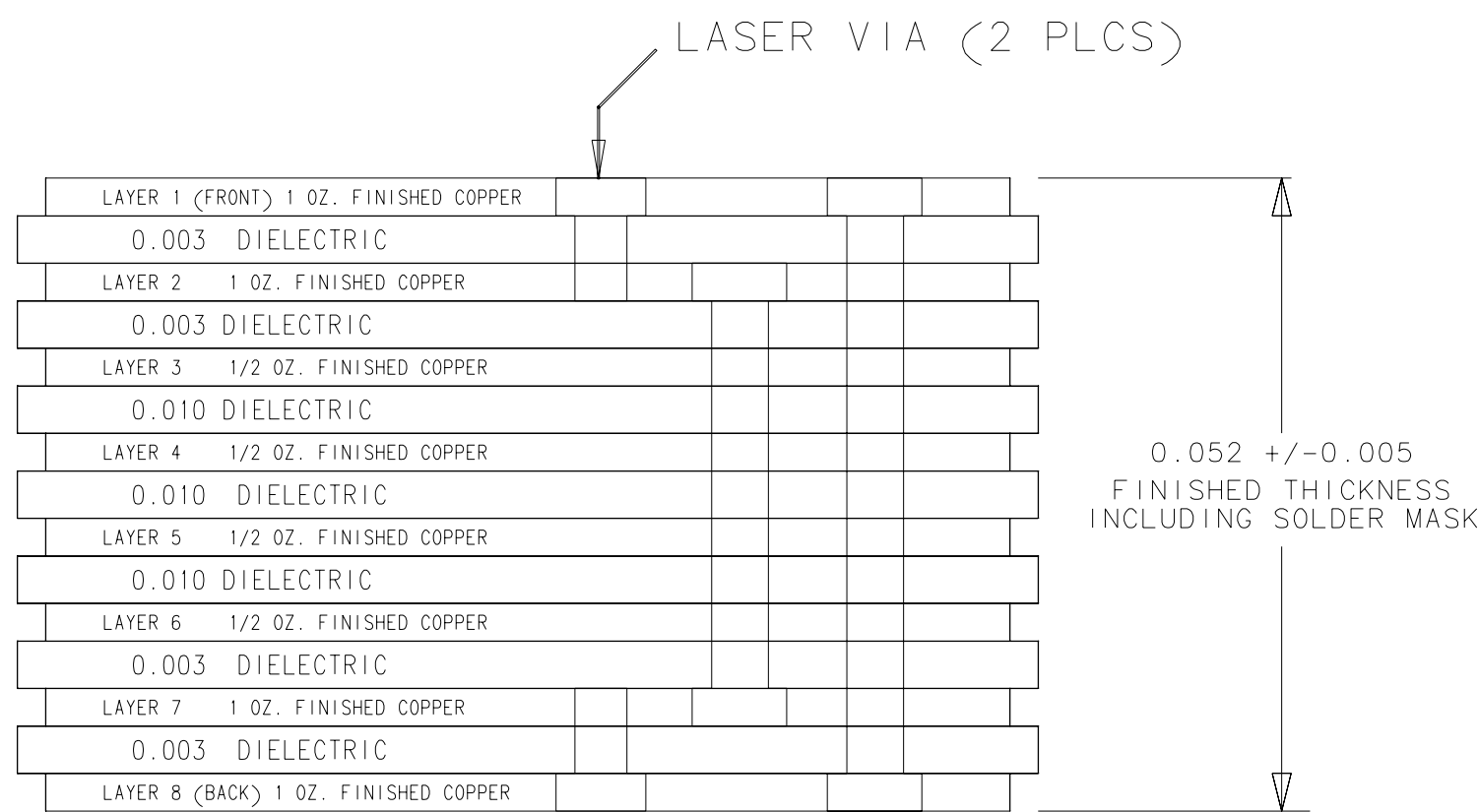
NOTES:

A INITIAL RELEASE 1/6/09 DGC

- REFER TO SPECIFICATION # 1343A703, "PRINTED CIRCUIT BOARD MATERIAL SPECIFICATION, VERSION 2.4" FOR FABRICATION AND INSPECTION REQUIREMENTS.
- MATERIAL: USE LAMINATE AND PREPREG PER IPC-4101:
 - ☐ FR4 (/21), ☐ POLYIMIDE (/40), ☐ BT EPOXY (/30);
 - ☐ HIGH TEMP FR4 (/24), ☐ _____ ;
 - ☐ SINGLE SIDED, ☐ DOUBLE SIDED, ☒ MULTILAYER 8 LAYERS;
 - ☐ DIELECTRIC CONSTANT _____
 - ☒ HDI: 1:6:1 CONSTRUCTION. _____
- FINISHED COPPER THICKNESS SHALL BE:
 - ☒ 0.0005-0.0010 (APPROX. 1/2 OZ) ☒ INTERNAL;
 - ☒ 0.0012-0.0019 (APPROX. 1 OZ) ☒ EXTERNAL, ☒ INTERNAL;
 - ☐ 0.0023-0.0033 (APPROX. 2 OZ) ☐ EXTERNAL, ☐ INTERNAL
 COPPER PLATING IN PLATED HOLES TO BE PER IPC-6012, CLASS 3.
 - ☐ COPLANAR COPPER THICKNESS ON THE OUTER LAYERS.
- BOARD THICKNESS SHALL BE 0.052 +/-0.005
 - ☒ FINISHED BOARD, ☐ LAMINATE.
 SEE CROSS SECTION DETAIL FOR MULTILAYER BOARDS.
- TECHNOLOGY:
 - MINIMUM LINE/SPACE USED: 0.004 /0.004;
 - MINIMUM COMPONENT PITCH: 0.020
 - ☒ CONTROLLED IMPEDANCE.
- ☒ SOLDER MASK: APPLY PHOTO-IMAGEABLE: ☒ WET FILM (LPI),
 - ☐ DRY FILM SOLDER MASK OVER BARE COPPER, UNLESS GOLD IS USED AS AN ETCH MASK, TO: ☐ FRONT, ☐ BACK, ☒ BOTH SIDE(S) USING ARTWORK SUPPLIED.
 - COLOR TO BE: ☐ GREEN, ☐ RED, ☒ ORANGE
 - ☐ VIAS TO BE PLUGGED WITH SOLDER MASK FROM: ☐ FRONT, ☐ BACK SIDE FOR THE: ☐ ENTIRE BOARD, ☐ AREA INDICATED.
- FINISH/PLATING:
 - ☐ HASL - AREAS EXPOSED BY SOLDER MASK TO BE HOT AIR SOLDER LEVELED 0.000300 - 0.003000 THICK.
 - ☒ ENIG - AREAS EXPOSED BY SOLDER MASK TO BE IMMERSION GOLD PLATED 0.00000118 - 0.0000394 THICK OVER ELECTROLESS NICKEL 0.000118 - 0.000300 THICK.
 - ☐ ALL CONDUCTIVE PATTERNS TO BE PLATED 0.000118 - 0.000300 THICK OF NICKEL. GOLD PLATE WITH SOFT/WIREBONDABLE GOLD 0.000040 - 0.000060 THICK.
 - ☐ CONDUCTORS TO BE PLATED 0.000118 - 0.000300 THICK OF NICKEL. HARD GOLD PLATE 0.000060 THICK MINIMUM ☐ WHERE SPECIFIED, USING ARTWORKS SUPPLIED, ☐ ALL CONDUCTORS.
 - ☐ ENEG - AREAS EXPOSED BY SOLDER MASK TO BE ELECTROLESS GOLD PLATED 0.000020 - 0.000040 THICK OVER ELECTROLESS NICKEL 0.000118 - 0.000300 THICK.
 - ☐ OSP - CLEAR ORGANIC BASED COATING (ENTEK CU-106A).
 - ☐ PTF RESISTORS ON LAYER , USING INK(S)
 - ☐ _____
- ☐ LEGEND/SILKSCREEN ON THE ☐ FRONT, ☐ BACK, ☐ BOTH SIDE(S). USE NON-CONDUCTIVE, EPOXY INK, COLOR WHITE.
- ☒ PANELIZED: 1 BOARDS PER PANEL.
- CERTIFICATIONS/REPORTS:
 - ☒ IPC-6012, CLASS 3 CERTIFICATION
 - ☒ CROSS-SECTION REPORT
 - ☒ NETLIST ELECTRICAL TEST TO BE PERFORMED AS THE FINAL STEP. TEST 100% FOR OPENS AND SHORTS PER THE FOLLOWING:
 - ☐ SINGLE SIDE ACCESS
 - ☒ DUAL SIDE ACCESS
 - ☐ PLATING COMPOSITION AND THICKNESS CERTIFICATION
 - ☐ WIREBOND TEST COUPON REQUIRED FOR EACH PANEL.
- ☐ BOARD CONSTRUCTION TO BE THE SAME AS: ☐ THE LAST REVISION OF THIS PART, ☐ . PLEASE REFER TO PREVIOUS BUILD INFORMATION.
- ☐ CRITICAL FEATURES: 100% INSPECTION REQUIRED OF FEATURES INDICATED IN TABLE.

CRITICAL FEATURES TABLE				
TYPE OF FEATURE	NOMINAL SIZE	TOLERANCE	LAYER	QTY/BRD
BGA - U1	0.020 DIA	+/- 0.001	FRONT	1136
BGA - U31	0.013 DIA	+/- 0.001	FRONT	48
BGA - U33	0.013 DIA	+/- 0.001	FRONT	48

TYPE OF FEATURE	NOMINAL LINE WIDTH	PHYSICAL LAYERS	GND REF LAYERS	IMPEDANCE IN OHMS
MICROSTRIP	0.0155*	1	2 GND AREA	25 OHM
MICROSTRIP	0.0105*	1	3 GND AREA	50 OHM
MICROSTRIP	0.0065*	1	4 GND	100 OHM
MICROSTRIP	0.030*	1	4 GND	50 OHM
MICROSTRIP	0.005*	2	3 GND AREA	50 OHM
MICROSTRIP	0.005*	7	5 GND AREA	50 OHM
MICROSTRIP	0.030*	8	5 GND	50 OHM
MICROSTRIP	0.0065*	8	5 GND	100 OHM
MICROSTRIP	0.0105*	8	6 GND AREA	50 OHM
MICROSTRIP	0.0155*	8	7 GND AREA	25 OHM



CROSS SECTION DETAIL

NOT DRAWN TO SCALE
(FOR REFERENCE ONLY)

PANEL 's THRU HOLE SCHEDULE					
DRILL SYMBOL	FINISHED HOLE SIZE	COUNT	PLATED	Min/Max	
+C	0.006	1503	YES	+/-0.002	
+E	0.008	13	YES	+/-0.002	
+F	0.015	65	NO	+/-0.003	
+G	0.023	64	YES	+/-0.003	
+H	0.035	16	YES	+/-0.003	
+J	0.039	2	NO	+/-0.003	
+K	0.040	130	YES	+/-0.003	
+M	0.040	4	NO	+/-0.003	
+N	0.042	18	YES	+/-0.003	
+P	0.047	25	YES	+/-0.003	
+R	0.062	27	YES	+/-0.003	
+S	0.062	4	YES	+/-0.003	
+T	0.067	108	YES	+/-0.003	
+U	0.094	26	NO	+/-0.003	
+V	0.125	2	YES	+/-0.003	
+W	0.128	4	NO	+/-0.003	
+b	0.158	4	NO	+/-0.003	
+a	0.159	4	NO	+/-0.001	
+Z	0.320	2	NO	+/-0.003	

PANEL'S LASER HOLE SCHEDULE 1 TO 2

DRILL SYMBOL	FINISHED HOLE SIZE	COUNT	PLATED	Min/Max
+ ^A	0.004	593	YES	+/-0.002

PANEL'S HOLE SCHEDULE 2 TO 7

DRILL SYMBOL	FINISHED HOLE SIZE	COUNT	PLATED	Min/Max
+D	0.006	156	YES	+/-0.002

PANEL'S LASER HOLE SCHEDULE 7 TO 8

DRILL SYMBOL	FINISHED HOLE SIZE	COUNT	PLATED	Min/Max
+B	0.004	82	YES	+/-0.002

[illegible]

1395-305	RFIC
NEXT ASSY	USED ON
APPLICATION	

QTY REQD	FSCM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION			MATERIAL SPECIFICATION		
PARTS LIST								
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.01 ± .XXX ± 0.005			CONTRACT NO.		PCB - RFIC5 FULL TEST DRILL DWG			
			APPROVALS					DATE
			DRAWN DGC					1/6/09
			CHECKED					
			ISSUED					
MATERIAL SEE NOTE 2								
FINISH SEE NOTE 7								
DO NOT SCALE DRAWING								
MENTOR			SIZE D	FSCM NO.	DWG. NO.	1395-405-84	REV. A	
			SCALE 1:1		SHEET 1 OF 1			