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FSCM

DWG NO.

SH

REV

REVISIONS

ZONE

REV

DESCRIPTION

DATE

APPROVED

BROOKHAVEN NATIONAL LABORATORY
MAIA ANCILLARY BOARD
FABRICATION DRAWING
J. MEAD / AL 4-4-16

BOARD STACKUP DETAIL - 10 LAYERS

HOLE SIZE CHART

SYM	SIZE (AFTER PLATING)	QTY	PLATED
✕	.015 +.001 -.015	70	YES
□	.020 +.001 -.020	198	YES
◇	.037 ±.003	32	YES
⊗	.040 ±.003	20	YES
⊗	.041 ±.003	37	YES
A	.050 ±.003	10	YES
B	.052 ±.003	24	YES
C	.055 ±.003	20	YES
D	.120 ±.003	2	YES
E	.125 ±.003	5	YES
F	.187 ±.002	1	NO

FABRICATION NOTES (REV 1.0)

- FINISHED TRACE LINE WIDTHS SHOULD MATCH SUPPLIED GERBER FILES.
- MATERIAL :
☒ FR4 (GF per IPC-4101) ☐ GPY (GI per IPC-4101) ☐ OTHER
- COPPER WEIGHT:
OUTER LAYERS : ☐ 1/4 oz. ☒ 1/2 oz. ☐ 1 oz. ☐ 2 oz.
INNER LAYERS : ☐ 1/4 oz. ☒ 1/2 oz. ☐ 1 oz. ☐ 2 oz. ☐ NONE
- SOLDER MASK: MATTE FINISH
☒ LIQUID PHOTOMAGEABLE ☐ DRY FILM ☐ NONE
☒ OVER BARE COPPER ☐ OVER TIN LEAD ☐ OVER FULL BODY GOLD
☒ GREEN ☐ RED ☐ BLUE
- OVERALL BOARD THICKNESS:
☒ 0.062" ☐ 0.093" ☐ 0.125" ☐ 0.063"
☐ +/- 0.005" ☒ +/- 0.007" ☐ +/- 0.010" ☐ OTHER
- BARE BOARD ELECTRICAL TEST:
☒ TESTED TO NETLIST DATA ☐ NO TEST REQUIRED
- HOLE DIAMETER TOLERANCES ARE:
PLATED HOLES : +/- 0.003".NON PLATED HOLES : +/- 0.002".
- SILK SCREEN USING EPOXY BASED INK.
☒ BOTH SIDES ☐ PRIMARY SIDE ☐ SECONDARY SIDE ☐ NONE
☒ WHITE ☐ YELLOW ☐ BLACK
- MINIMUM ANNULAR RING:
☒ .003" FOR EXTERNAL LAYERS
☒ .002" FOR INTERNAL LAYERS
- PLANE REGISTRATION:
+/- .005" TO TOP PLANE FOR ALL PLANES
- MINIMUM PLATING THROUGH ALL HOLES IS:
.001" THICK COPPER
- AS PER IPC ENIG SPECIFICATION 4522, 2-4 MICRO-INCHES IMMERSION GOLD OVER 120-240 MICRO-INCHES NICKEL.
- WARP AND TWIST:
NOT TO EXCEED .007" PER INCH ACROSS THE DIAGONAL
- ACCEPTABILITY: (PER LATEST REVISION)
☒ IPC-A-600 ☐ IPC-RB-276 ☐ MIL-P-55110
- MANUFACTURER TO ADD MFR'S LOGO, DATE CODE, UL CODE AND ET STAMP.
- VENDOR TO SUPPLY CROSS SECTIONS AND TEST COUPONS PER LOT
- SURFACE MOUNT PADS:
TOP LAYER: 353
BOTTOM LAYER: 170
TOTAL: 523

QTY REQD	FSCM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX .01 ± .XXX=.005 ±				
MATERIAL		CONTRACT NO.		COMPANY
FINISH		APPROVALS		TITLE
NEXT ASSY		DRAWN BY		SIZE
USED ON		CHECKED		TICKET NO.
APPLICATION		ENGINEER		DWG NO.
DO NOT SCALE DRAWING		J. MEAD		10-1619-1
		4-4-16		REV.
				—
				SCALE
				1/1
				SHEET 1 OF 1