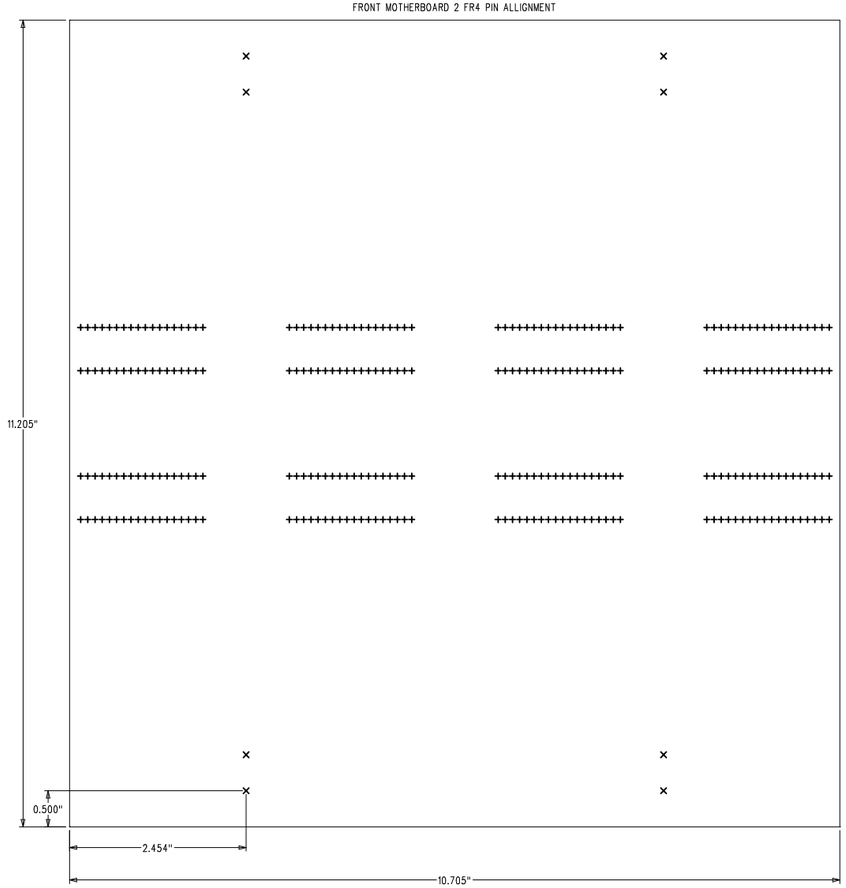
FSCM	DWG NO.	SH	REV

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

IO972-2 REV - 8/24/99
FRONT MOTHERBOARD 2 FR4 PIN ALLIGNMENT



FABRICATION NOTES (REV 1.0)

1) FINISHED BOARD SHALL BE FREE OF COPPER ON BOTH SIDES.

2) MATERIAL :
☒ FR4 (GF per MIL-P-13949) ☐ GPY (GI per MIL-P-13949) ☐ OTHER

3) COPPER WEIGHT:
OUTER LAYERS : ☐ 1/4 oz. ☐ 1/2 oz. ☐ 1 oz. ☐ 2 oz. ☒ NONE
INNER LAYERS : ☐ 1/4 oz. ☐ 1/2 oz. ☐ 1 oz. ☐ 2 oz. ☒ NONE

4) SOLDER MASK
☐ LIQUID PHOTOIMAGEABLE ☐ DRY FILM ☒ NONE
☐ OVER BARE COPPER ☐ OVER TIN LEAD ☐ OVER FULL BODY GOLD
☐ GREEN ☐ RED ☐ BLUE

5) OVERALL BOARD THICKNESS:
☐ 0.062" ☐ 0.093" ☐ 0.125" ☒ 0.015" (COPPER FREE)
☐ +/- 0.005" ☒ +/- 0.007" ☐ +/- 0.010" ☐ OTHER

6) BARE BOARD ELECTRICAL TEST:
☐ TESTED TO GERBER DATA ☒ NO TEST REQUIRED

7) HOLE DIAMETER TOLERANCES ARE:
PLATED HOLES : +/- 0.003". NON PLATED HOLES : +/- 0.002".

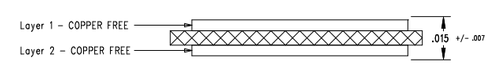
8) SILK SCREEN USING EPOXY BASED INK.
☐ BOTH SIDES ☐ PRIMARY SIDE ☐ SECONDARY SIDE ☒ NONE
☐ WHITE ☐ YELLOW ☐ BLACK

12) WARP AND TWIST:
NOT TO EXCEED .007" PER INCH ACROSS THE DIAGONAL

13) ACCEPTABILITY: (PER LATEST REVISION)
☒ IPC-A-600 ☐ IPC-RB-276 ☐ MIL-P-55110

HOLE SIZE CHART			
SYM	SIZE (NO PLATING)	QTY	PLATED
+	.045 +.002 -.002	288	NO
×	.125 +.002 -.002	8	NO

LAYUP DETAIL
2 LAYER



QTY REQD	FSCM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION

PARTS LIST

NEXT ASSY	USED ON
	IO-972-1

APPLICATION

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX ± .010 .XXX=± .005 ANGLES ± 1/2°

MATERIAL: 0.015" COPPER FREE FR4

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN K WOLNIEWICZ	8-24-99
CHECKED	
ISSUED	

CUSTOMER: BROOKHAVEN NATIONAL LABORATORY
INSTRUMENTATION DIVISION
UPTON, NEW YORK

TITLE: ATLAS FRONT MOTHERBOARD 2
FR4 PIN ALIGNMENT

SIZE	TICKET NO.	DWG NO.	REV.
D	T-1999-XX	IO-972-2	-

SCALE 1 : 1 SHEET 1 OF 1