

PART NUMBER			PARTS LIST	
PREFIX NUMBER	ITEM NUMBER	NUMBER RECD	DESCRIPTION	

HEAVY QUARK DETECTOR

126Y-267912

REV. 0

8/29/2008

Los Alamos

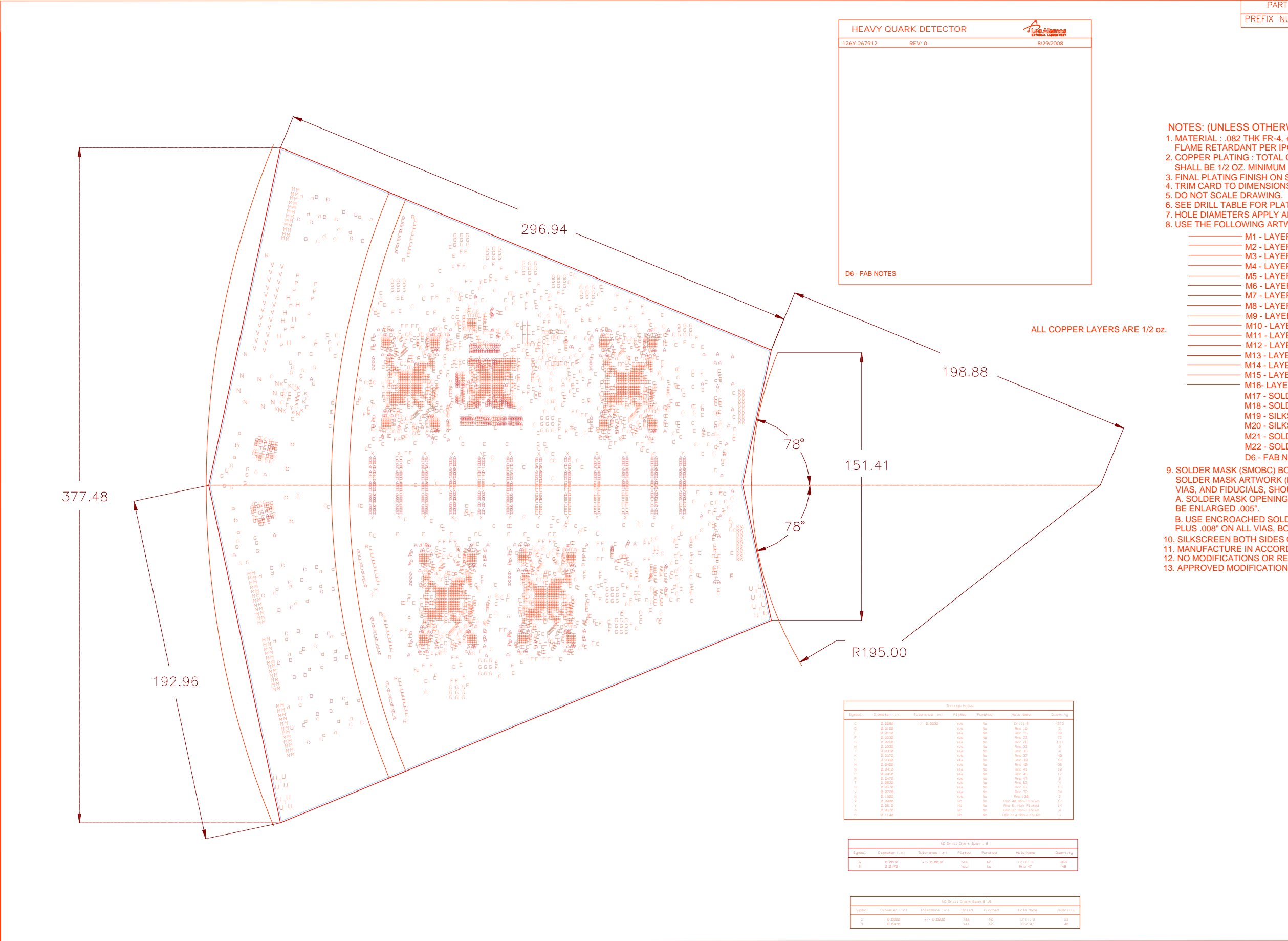
NATIONAL LABORATORY

D6 - FAB NOTES

- NOTES: (UNLESS OTHERWISE SPECIFIED)
1. MATERIAL : .082 THK FR-4, +/- .008. LAMINATE GLASS FIBER EPOXY FLAME RETARDANT PER IPC-4101.
 2. COPPER PLATING : TOTAL ON THE SURFACE INCLUDING ORIGINAL CLADDING PLUS PLATED COPPER SHALL BE 1/2 OZ. MINIMUM ON SIGNAL LAYERS AND INTERNAL PLANE LAYERS.
 3. FINAL PLATING FINISH ON SURFACE LAYERS SHALL BE IMMERSION GOLD OVER NICKEL PLATING
 4. TRIM CARD TO DIMENSIONS SHOWN. DIMENSIONS ARE IN MILLIMETERS.
 5. DO NOT SCALE DRAWING.
 6. SEE DRILL TABLE FOR PLATING REQUIREMENTS.
 7. HOLE DIAMETERS APPLY AFTER PLATING +/- .003.
 8. USE THE FOLLOWING ARTWORK/STACKUP FOR LANL PN 126Y-267912 REV - 0

- _____ M1 - LAYER 1, CONTROLLED SIGNAL (50 OHMS) / POURED GROUND
- _____ M2 - LAYER 2, GROUND PLANE
- _____ M3 - LAYER 3, CONTROLLED SIGNAL (100 OHM DIFF)
- _____ M4 - LAYER 4, POWER PLANE
- _____ M5 - LAYER 5, CONTROLLED SIGNAL (100 OHM DIFF)
- _____ M6 - LAYER 6, GROUND PLANE
- _____ M7 - LAYER 7, CONTROLLED SIGNAL (100 OHM DIFF)
- _____ M8 - LAYER 8, POWER PLANE
- _____ M9 - LAYER 9, GROUND PLANE
- _____ M10 - LAYER 10, CONTROLLED SIGNAL (100 OHM DIFF)
- _____ M11 - LAYER 11, POWER PLANE PLANE
- _____ M12 - LAYER 12, CONTROLLED SIGNAL (100 OHM DIFF)
- _____ M13 - LAYER 13, GROUND PLANE
- _____ M14 - LAYER 14, SIGNAL
- _____ M15 - LAYER 15, POWER PLANE
- _____ M16 - LAYER 16, CONTROLLED SIGNAL (50 OHMS) / POURED GROUND
- _____ M17 - SOLDERMASK, PRIMARY SIDE
- _____ M18 - SOLDERMASK, SECONDARY SIDE
- _____ M19 - SILKSCREEN, PRIMARY SIDE
- _____ M20 - SILKSCREEN, SECONDARY SIDE
- _____ M21 - SOLDERPASTE, PRIMARY SIDE
- _____ M22 - SOLDERPASTE, SECONDARY SIDE
- _____ D6 - FAB NOTES

9. SOLDER MASK (SMOBC) BOTH SIDES OF BOARD. SOLDER MASK ARTWORK (M17 & M18) CONTAIN ACTUAL PAD SIZES FOR COMPONENTS, VIAS, AND FIDUCIALS, SHOULD BE MODIFIED AS FOLLOWS PRIOR TO FABRICATION;
A. SOLDER MASK OPENINGS FOR ALL COMPONENTS LANDS (SMT & THRU HOLE) SHOULD BE ENLARGED .005".
B. USE ENCRATCHED SOLDERMASK OPENING SIZES OF PLATED THRU HOLE SIZES PLUS .008" ON ALL VIAS, BOTH SIDES OF BOARD.
10. SILKSCREEN BOTH SIDES OF BOARD USING WHITE INK.
11. MANUFACTURE IN ACCORDANCE WITH IPC 6011 AND 6012- CLASS 2.
12. NO MODIFICATIONS OR REPAIRS WITHOUT PRIOR APPROVAL.
13. APPROVED MODIFICATIONS OR REPAIRS SHALL BE IN ACCORDANCE WITH IPC-R-700.



Through Holes						
Symbol	Diameter (in)	Tolerance (in)	Plated	Punched	Note/Note	Quantity
C	0.0000	+/- 0.0030	Yes	No	Drill B	4272
D	0.0100	Yes	No	No	Rad 15	2
E	0.0150	Yes	No	No	Rad 15	99
F	0.0200	Yes	No	No	Rad 25	72
G	0.0250	Yes	No	No	Rad 28	123
H	0.0300	Yes	No	No	Rad 35	4
J	0.0350	Yes	No	No	Rad 37	46
K	0.0400	Yes	No	No	Rad 39	18
L	0.0450	Yes	No	No	Rad 46	96
M	0.0410	Yes	No	No	Rad 41	18
N	0.0400	Yes	No	No	Rad 45	12
O	0.0410	Yes	No	No	Rad 47	8
P	0.0500	Yes	No	No	Rad 63	8
Q	0.0510	Yes	No	No	Rad 67	16
R	0.0750	Yes	No	No	Rad 72	24
S	0.1300	Yes	No	No	Rad 130	2
V	0.0400	No	No	No	Rad 48 Non-Plated	12
W	0.0510	No	No	No	Rad 63 Non-Plated	14
X	0.0570	No	No	No	Rad 67 Non-Plated	4
Y	0.1140	No	No	No	Rad 114 Non-Plated	6

NC Drill Chart Span 1-8						
Symbol	Diameter (in)	Tolerance (in)	Plated	Punched	Note/Note	Quantity
A	0.0030	+/- 0.0030	Yes	No	Drill B	959
B	0.0470	Yes	No	No	Rad 47	48

NC Drill Chart Span 9-18						
Symbol	Diameter (in)	Tolerance (in)	Plated	Punched	Note/Note	Quantity
A	0.0030	+/- 0.0030	Yes	No	Drill B	57
B	0.0470	Yes	No	No	Rad 47	48

RELEASED FOR FABRICATION

REVISIONS

DATE

CHANGED BY

CHECKED BY

APPROVED BY

LOS ALAMOS

LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO 87545

WG2005 (EXPEDITION)

NAME

SIGNATURE

DATE

GROUP

ORIGINATED

PROKOP

PROKOP

6/08

AOT-RFE

DESIGNED

PROKOP

PROKOP

6/08

AOT-RFE

DRAWN

CHACON

CHACON

6/08

AOT-IC

CHECKED

PROKOP

PROKOP

6/08

AOT-RFE

PROJ ENGR

PROKOP

PROKOP

6/08

AOT-RFE

APPROVED

PROKOP

PROKOP

6/08

AOT-RFE

RELEASED

CLASSIFICATION OF

DRAWING UNCLASSIFIED

PART UNCLASSIFIED

TITLE BLOCK

UNCLASSIFIED

PROJECT

P-25

HEAVY QUARK DETECTOR

DATA AQUISITION SYSTEM

TOLERANCE (UNLESS OTHERWISE NOTED)

X = -

0.XX = .01

ANGULAR = -

0.XX = .010

FINISH = 125

SCALE

TOTAL SHEETS

DRAWING NO.

SHEET NO.

N/A

1

126Y-267912

D 1