

REVISION HISTORY															
LTR	DESCRIPTION				DWN	CHK	STRUCT	MATL	THRM CONT			ENGR	DSGN SUPV	DATA MGT	RELEASE DATE
A	INITIAL RELEASE				CLASS E	SEE TITLE BLOCK									

LAYER STACKUP
EXPLODED VIEW
(NOT TO SCALE)

ADHESIVE

LAYER 1

LAYER 2

FR4 OR POLYIMIDE (STIFFENER 1)

POLYIMIDE FILM / ACRYLIC ADHEASIVE ONE SIDE (TOP COVERLAY)

CU CLAD POLYIMIDE, 1 OZ LAYER 1 - LAYER 2

POLYIMIDE FILM / ACRYLIC ADHEASIVE ONE SIDE (BOTTOM COVERLAY)

ADHESIVE

FR4 OR POLYIMIDE (STIFFENER 2)

12. STIFFENER HOLES SHALL BE 0.25 mm LARGER IN DIAMETER THAN SPECIFIED HOLE SIZES.

11. ELECTRICAL TEST REQUIREMENTS (SHORT AND OPEN TESTING):
A. CONTINUITY: 10 OHMS MAXIMUM FOR EACH CONDUCTOR.
B. IR TEST AT 100 VDC FOR 10 MEGAOHM MINIMUM ISOLATION BETWEEN MUTUALLY ISOLATED CONDUCTORS

10. PLATE ALL EXPOSED COPPER WITH ENIG PER IPC-6013

9. ALL UNDIMENSIONED HOLES SHALL BE LOCATED WITHIN 0.12 RADIUS OF THE POSITION INDICATED BY THE MASTER PATTERN ARTWORK.

8. ALL COPPER FEATURE SIZES OF THE FINISHED PRINTED WIRING FLEXPRINT SHALL BE WITHIN .001 INCH OF THE SIZE INDICATED BY THE MASTER PATTERN ARTWORK.

7. REGISTRATION OF ALL PRINTED WIRING ELEMENTS AFTER LAMINATION SHALL BE 0.075 mm OF THE TRUE POSITION INDICATED BY THE MASTER PATTERN ARTWORK.

6. FABRICATE AND INSPECT PER IPC-6013, CLASS 2, TYPE 2

5 MATERIAL: NON-SUPPORTED POLYIMIDE FILM, ADHESIVE ONE SIDE PER IPC-4203/1-E1E1M2/0

4 MATERIAL: 1 OZ COPPER CLAD, DOUBLE SIDED, .002 IN. THICK POLYIMIDE LAMINATE PER IPC-4204/11-E1E2O0/0 CU-W7-1S/1S

3. ALL UNTOLERANCED DIMENSIONS ARE BASIC.

2. THIS IS A REDUCED DIMENSION DRAWING. ADDITIONAL DIMENSIONS NEEDED TO DEFINE THE TRUE PROFILES OF THIS PART SHALL BE OBTAINED FROM THE MASTER CAD MODEL DATABASE NAMED M1S-100-01219. DIMENSIONS AND TOLERANCES SHALL BE INTERPRETED PER ASME Y14.5M.

1. THIS DATABASE IS THE SOURCE FOR ALL FABRICATION OUTPUT FILES ARCHIVED IN MASTER ARTWORK DATABASE M1S-100-01219. ALL MODIFICATIONS TO THE MASTER ARTWORK SHALL BE PERFORMED HERE.

NOTES: UNLESS OTHERWISE SPECIFIED

M1S-100-01215

NEXT ASSEMBLY

TMT

USED ON

APPLICATION

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.

JPL DRAWING NO 10364578-A

TMT Observatory Corporation
www.tmt.org

TMT STRAIN GAUGE CONNECTOR
(VERTICAL)
FLEX PWB FABRICATION

MATERIAL:

MATERIAL PER SPECIFICATION

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS

LINEAR TOLERANCES:

0 to 6 ± 0.1

OVER 6 to 30 ± 0.2

OVER 30 to 120 ± 0.3

OVER 120 to 315 ± 0.3

ANGULAR TOLERANCES: ± 0.5

MACHINE FINISH

DO NOT SCALE DRAWING
INTERPRET DWG PER ASME Y14.100M

CONTRACT NO

APPD DATE

DWN D. Palmer 2013/05/08

CHK

STRUCT

MATL

THRM CONT

ENGR

DSGN SUPV

SIZE

CAGE CODE

REV

SCALE:

1/1

SENSITIVE

SHEET 1 OF 10

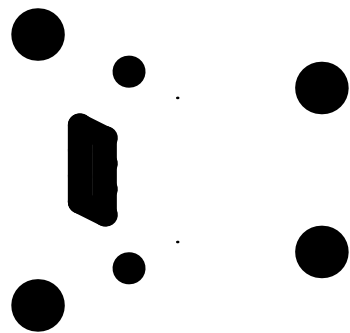
TABLE A / ARTWORK FILE DESIGNATION				
SH NO.	FILE:	LOGICAL LAYER	PHYSICAL LAYER	DESCRIPTION
4	M1S-100-01219.GTS	-	OUTER LAYER	COVERLAY SIDE A
5	M1S-100-01219.GTL	COPPER SIDE A	OUTER LAYER COPPER	LAYER 1
6	M1S-100-01219.GBL	COPPER SIDE B	OUTER LAYER COPPER	LAYER 2
7	M1S-100-01219.GBS	-	OUTER LAYER	COVERLAY SIDE B
8	M1S-100-01219.GD1	-	DRILL SYMBOLS	DRILL DRAWING
		-		
		-		

TABLE B / APERTURE SIZES			
SH NO.	FILE:	APERTURE TYPE	EMBEDDED D-CODE
4	M1S-100-01219.GTS	RS274-X STANDARD	YES
5	M1S-100-01219.GTL		YES
6	M1S-100-01219.GBL		YES
7	M1S-100-01219.GBS		YES
8	M1S-100-01219.GD1		YES

JPL DRAWING NO 10364578-A

A	CAGE CODE					REV
	23835					A
SCALE: 1/1		SENSITIVE		SHEET 3	OF 10	

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.



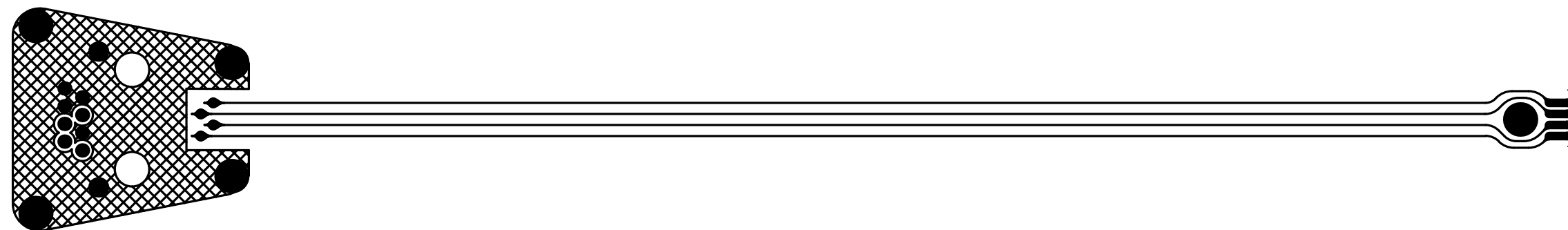
COVERLAY - SIDE A

tmt_strain_gauge_connector_V_flex.PcbDoc
Top Coverlay
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena CA. 91190

JPL DRAWING NO 10364578-A

A	CAGE CODE			REV	
	23835			A	
SCALE:	1/1	SENSITIVE		SHEET	4 OF 10

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.



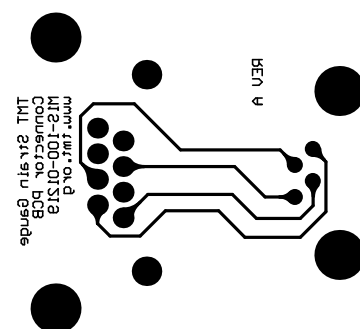
COPPER LAYER 1 - SIDE A

tmt_strain_gauge_connector_V_flex.PcbDoc
Top Layer
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena CA. 91190

JPL DRAWING NO 10364578-A

A	CAGE CODE					REV
	23835					A
SCALE: 1/1		SENSITIVE		SHEET 5 OF 10		

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.



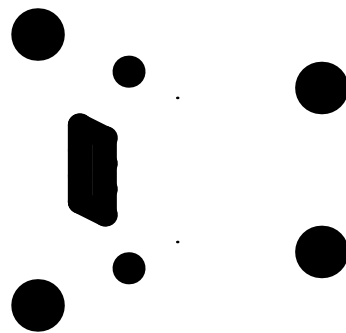
tmt_strain_gauge_connector_V_flex.PcbDoc
Bottom Layer
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena CA. 91190

COPPER LAYER 2 - SIDE B

JPL DRAWING NO 10364578-A

CAGE CODE		REV	
A23835		A	
SCALE:	1/1	SENSITIVE	SHEET 6 OF 10

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.



tmt_strain_gauge_connector_V_flex.PcbDoc
Bottom Coverlay
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena CA. 91190

COVERLAY - SIDE B

JPL DRAWING NO 10364578-A

A	CAGE CODE			REV	
	23835			A	
SCALE:	1/1	SENSITIVE		SHEET	7 OF 10

THIS DOCUMENT HAS BEEN REVIEWED AND DETERMINED NOT TO CONTAIN EXPORT CONTROLLED TECHNICAL DATA.



tmt_strain_gauge_connector_V_flex.PcbDoc
Drill Drawing
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena CA. 91190

DRILL DRAWING

Symbol	Hit Count	Tool Size	Plated	Hole Type
□	4	0.508mm (20mil)	PTH	Round
▽	8	0.889mm (35mil)	PTH	Round
○	2	1.575mm (62mil)	PTH	Round
✕	5	2.4mm (94.488mil)	PTH	Round
☆	2	3.213mm (126.496mil)	NPTH	Round
	21 Total			

JPL DRAWING NO 10364578-A

A	CAGE CODE			REV	A
	23835				
SCALE:		1/1	SENSITIVE		SHEET 8 OF 10

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