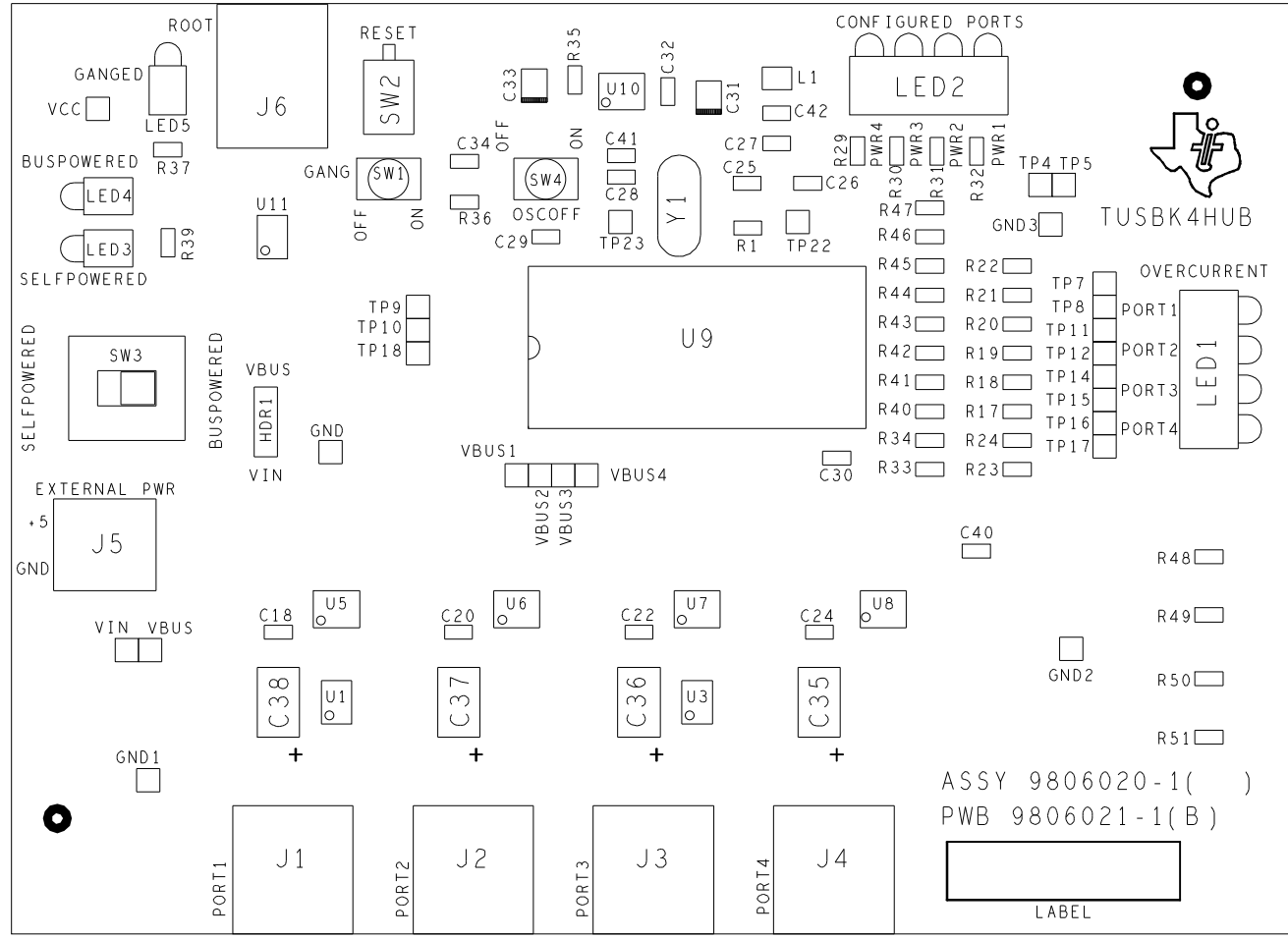


NOTES: UNLESS OTHERWISE SPECIFIED

REVISES			
REV	DESCRIPTION	DATE	APPROVAL
B	ENGINEERING CHANGE	02/11/97	



ASSY 9806020-1( )  
 PWB 9806021-1(B)  
 LABEL

QTY	ITEM NO.	PART OR IDENTIFIER NUMBER	DESCRIPTION	APPROVAL	DATE	NOTES
UNLESS OTHERWISE SPECIFIED			APPROVAL			
DIMENSIONS ARE IN INCHES			DRAWN G. PEREZ 02/11/97			
TOLERANCES - ANGLES ***			POCKED			
1/16 DECIMALS *** .01			RELEASED			
30 DEGREE *** .01			RELEASED			
UNLESS ALL DIMS AND DIMS ARE			RELEASED			
UNLESS OTHERWISE SPECIFIED .010 P/M			RELEASED			
CONSTRUCTION LINES APPLY AFTER PROCESS			RELEASED			
HOLE DIAMETER TOLERANCE			RELEASED			
.013 +.004			.126 +.005			
.151 +.004			.156 +.005			
.187 +.004			.200 +.005			
.219 +.004			.250 +.005			
.250 +.004			.312 +.005			
.312 +.004			.375 +.005			
.375 +.004			.437 +.005			
.437 +.004			.500 +.005			
.500 +.004			.562 +.005			
.562 +.004			.625 +.005			
.625 +.004			.687 +.005			
.687 +.004			.750 +.005			
.750 +.004			.812 +.005			
.812 +.004			.875 +.005			
.875 +.004			.937 +.005			
.937 +.004			1.000 +.005			
1.000 +.004			1.062 +.005			
1.062 +.004			1.125 +.005			
1.125 +.004			1.187 +.005			
1.187 +.004			1.250 +.005			
1.250 +.004			1.312 +.005			
1.312 +.004			1.375 +.005			
1.375 +.004			1.437 +.005			
1.437 +.004			1.500 +.005			
1.500 +.004			1.562 +.005			
1.562 +.004			1.625 +.005			
1.625 +.004			1.687 +.005			
1.687 +.004			1.750 +.005			
1.750 +.004			1.812 +.005			
1.812 +.004			1.875 +.005			
1.875 +.004			1.937 +.005			
1.937 +.004			2.000 +.005			
2.000 +.004			2.062 +.005			
2.062 +.004			2.125 +.005			
2.125 +.004			2.187 +.005			
2.187 +.004			2.250 +.005			
2.250 +.004			2.312 +.005			
2.312 +.004			2.375 +.005			
2.375 +.004			2.437 +.005			
2.437 +.004			2.500 +.005			
2.500 +.004			2.562 +.005			
2.562 +.004			2.625 +.005			
2.625 +.004			2.687 +.005			
2.687 +.004			2.750 +.005			
2.750 +.004			2.812 +.005			
2.812 +.004			2.875 +.005			
2.875 +.004			2.937 +.005			
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3.000 +.004			3.062 +.005			
3.062 +.004			3.125 +.005			
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3.875 +.004			3.937 +.005			
3.937 +.004			4.000 +.005			
4.000 +.004			4.062 +.005			
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8.000 +.004			8.062 +.005			
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8.875 +.004			8.937 +.005			
8.937 +.004			9.000 +.005			
9.000 +.004			9.062 +.005			
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9.625 +.004			9.687 +.005			
9.687 +.004			9.750 +.005			
9.750 +.004			9.812 +.005			
9.812 +.004			9.875 +.005			
9.875 +.004			9.937 +.005			
9.937 +.004			10.000 +.005			

SEQ NO.	IDENT	ADDITIONAL CLASSIFICATION	NOTES	REV STATUS OF SHEETS	REV B	SH	1	1

**SOLETRON TEXAS**

ASSEMBLY DRAWING  
TUSBK4HUB

REV NO. 9806020

REV. NO. 1 OF 1

8 7 6 5 4 3 2 1

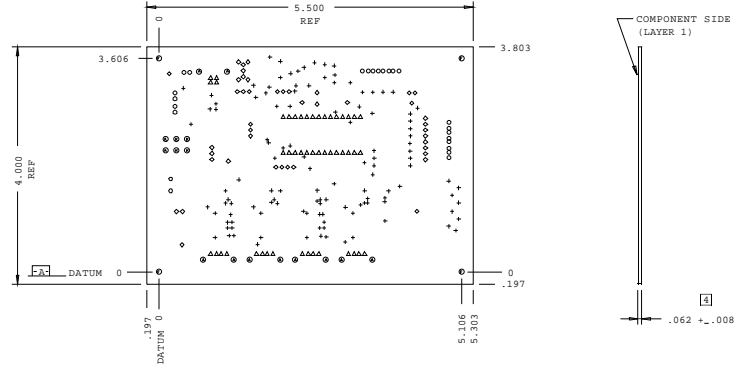
NOTES: UNLESS OTHERWISE SPECIFIED

- 1 HOT AIR SOLDER LEVEL PER PROCESS 1.
- 2 FINISHED BOARD SHALL MEET UL 94V-0 FLAMMABILITY RATING AND BE MARKED WITH THE REQUIRED UL CODE NUMBER.
- 3 FINISHED BOARD SHALL MEET THE REQUIREMENTS OF ITEM 4.
- 4 THICKNESS SELECTED AT FABRICATION TO MEET THE TOTAL BOARD THICKNESS SPECIFIED ON THIS DRAWING.
- 5 MINIMUM COPPER WALL THICKNESS .001
- 6 RECOMMEND DRILL AT .013 NO BREAKOUT ALLOWED ON INTERNAL LAYERS.
- 7 ALL HOLES ARE WITHIN .014 TRUE POSITION OF DATUM "0" WHEN PINNED TO PLANE "A".
- 8 BOARD IS TO BE ELECTRICALLY TESTED BY VENDOR.
- 9 SOLDERMASK TO BE APPLIED OVER BARE COPPER TO BOTH SIDES OF BOARD PER ARTWORK SUPPLIED AND PROCESS 2.

- 10 MARK PER PROCESS 3, HEIGHT TO BE CONTROLLED BY ITEM 3. COLOR TO BE CONTRASTING TO THAT OF SUBSTRATE.
- 11. INTERNAL AND/OR EXTERNAL CORNERS TO BE .06 RADIUS MAXIMUM AT SHOP OPTION.
- 12. SURFACE LANDS OF THE FINE PITCH DEVICES MUST BE +/- .001 TOLERANCE TO SUPPLIED ARTWORK AT LOCATION .025 PITCH LOCATION: U1,U3,U11

EMG. NO. 9806021 REV. 1

REVISION LEVEL CONTROL		REV		REVISIONS	
THIS DRAWING	A B	REV	DESCRIPTION	DATE	APPROVAL
DRILL TEMPLATE	A B	+	PROTOTYPE	09/18/96	
MARKING(TOP)	A B	A	ENGINEERING CHANGE	12/13/96	
SOLDER PASTE (TOP)	A B	B	ENGINEERING CHANGE	02/11/97	
CONTINUITY TEST	A B				
LAYER 1 (TOP SIDE)	A B				
LAYER 2 (GND LAYER)	A B				
LAYER 3 (VCC LAYER)	A B				
LAYER 4 (BOTTOM SIDE)	A B				
SOLDERMASK (TOP SIDE)	A B				
SOLDERMASK (BOTTOM SIDE)	A B				



SYM	FINISHED HOLE DIAMETER		REMARKS
	UNSUPPORTED	PLATED THRU ± .003 [5]	
6	+	.013	119
	◇	.025	44
7	○	.038	16
	△	.039	48
	○	.043	6
	○	.051	2
	○	.073	6
	○	.090	10
	○	.120	4

TABLE OF LAYERS			
NO	DESCRIPTION	REMARKS	COPPER WT
L1	TOP LAYER	PADS/ROUTING	1/2 OZ/FT2
L2	PLANE	GROUND	1 OZ/FT2
L3	PLANE	VCC/SPLIT	1 OZ/FT2
L4	BOTTOM LAYER	PADS/ROUTING	1/2 OZ/FT2

REF 4	IPC-BB-276	PERFORMANCE SPEC. FOR RIGID MULTILAYER PWB	3
REF 3	MP-9806021	MASTER PATTERN (ARTWORK)	10
AR 2	IPC-L-109	GLASS COLTH, PREIMPREGNATED RESIN, (B STAGE)	
AR 1	IPC-L-130	THIN LAMINATE, COPPER CLAD (UL APVD)	2

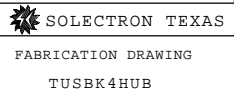
QTY	ITEM NO	PART OR IDENTIFYING NUMBER	DESCRIPTION	APPROVAL	DATE	NOTES

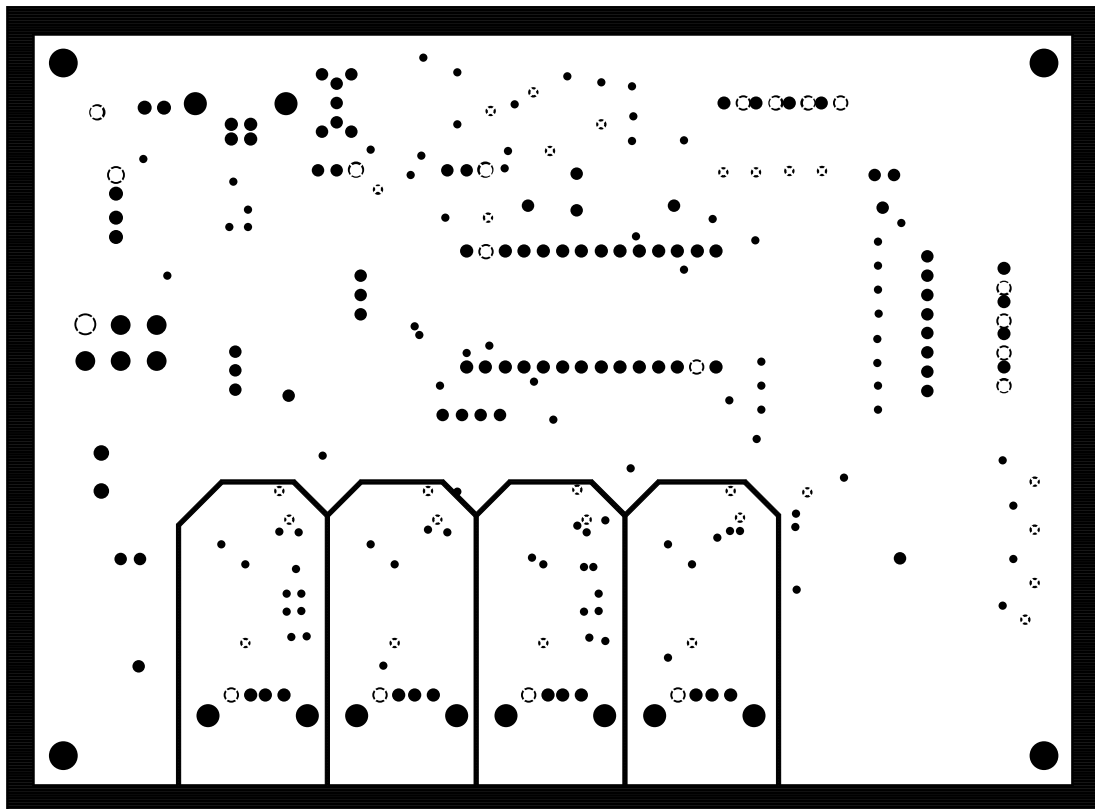
DESIGNED BY: J. RAMOS		DATE: 09/18/96
CHECKED:		
RELEASED:		
RELEASED:		
REV: D	REV NO: 9806021	REV: B
DATE: 1/1		HEET: 1 OF 1

3	MARK	MIL-STD 883(LATEST)	METHOD 2015.8	10
2	SDRMSK	IPC-SM-840	L.P.I. TYPE B	9
1	SLDRCT	IPC-D-949(LATEST), CLASS 2	THKNS. .0001 MIN. .002 MAX.	1

REQ NO	IDENT	ADDITIONAL CLASSIFICATION	NOTES	REV STATUS OF SHEETS	REV B	SH

8 7 6 5 4 3 2 1





SIGNAL VCC LAYER 3



SOLECTRON  
TEXAS

CUSTOMER:

DATE: 02/11/97

TI-MSP

BOARD NAME:

TUSBK4HUB

BOARD PART NUMBER AND REVISION:

9806021 REV-B



SIGNAL GND LAYER 2



SOLECTRON  
TEXAS

CUSTOMER:

DATE: 02/11/97

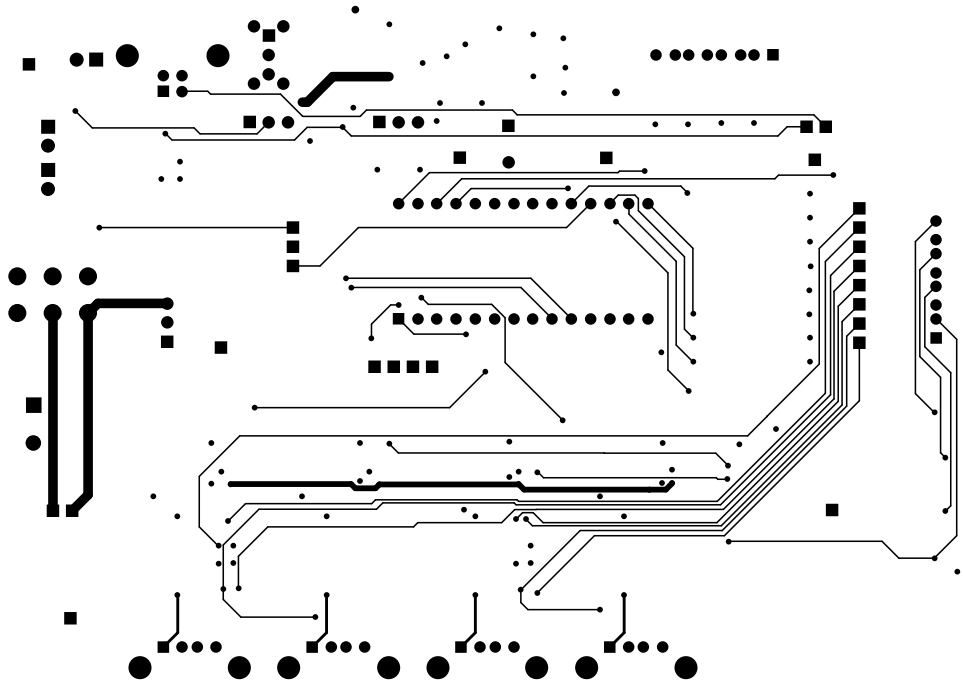
TI-MSP

BOARD NAME:

TUSBK4HUB

BOARD PART NUMBER AND REVISION:

9806021 REV-B



BOTTOM SIDE LAYER 4



SOLECTRON  
TEXAS

CUSTOMER:

DATE: 02/11/97

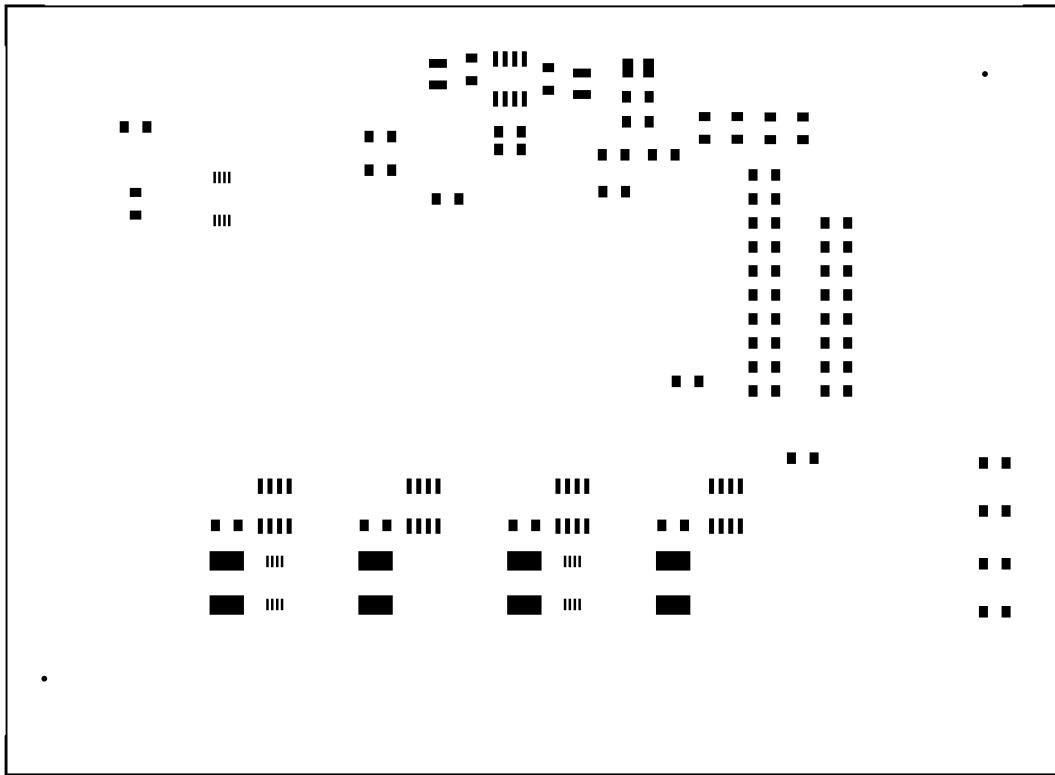
TI-MSP

BOARD NAME:

TUSBK4HUB

BOARD PART NUMBER AND REVISION:

9806021 REV-B



PASTEMASK TOP SIDE



SOLECTRON  
TEXAS

CUSTOMER:

DATE: 02/11/97

TI-MSP

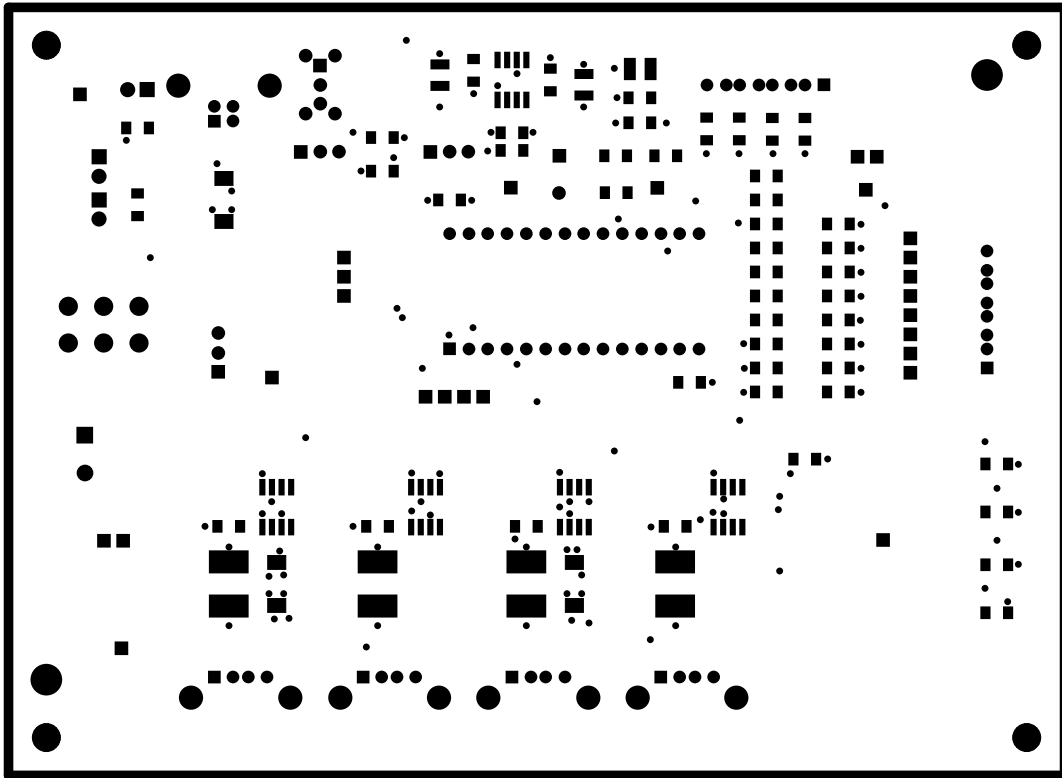
BOARD NAME:

TUSBK4HUB

BOARD PART NUMBER AND REVISION:

9806021 REV-B





SOLDERMASK TOP SIDE



SOLECTRON  
TEXAS

CUSTOMER:

DATE: 02/11/97

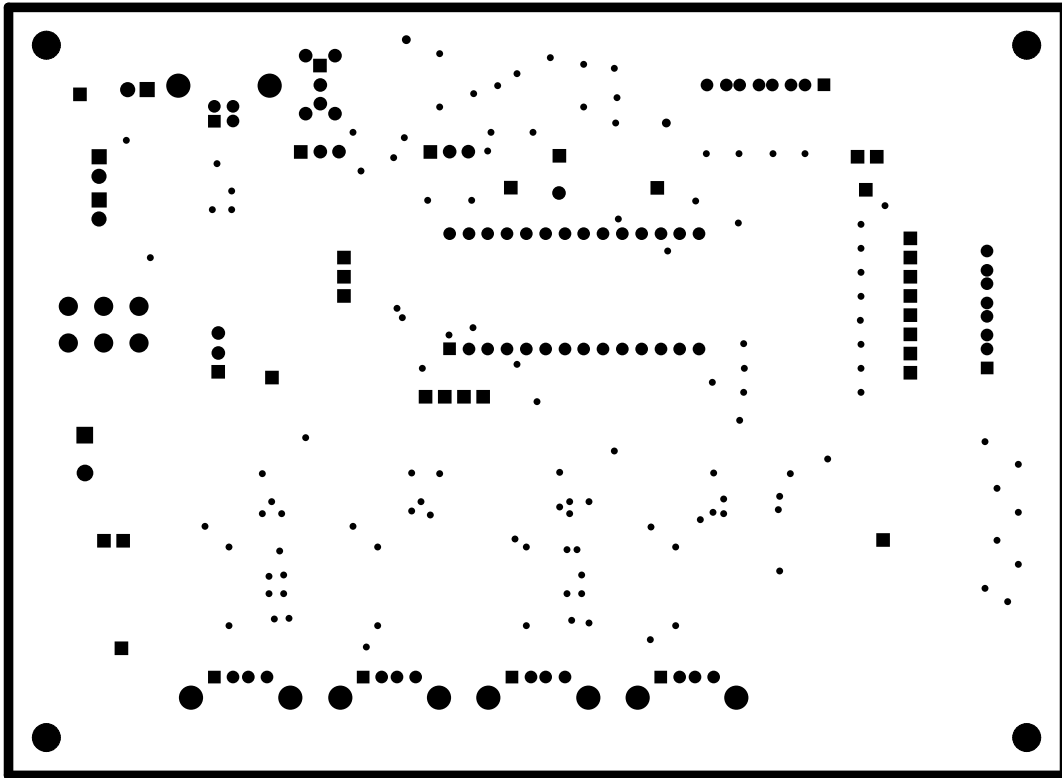
TI-MSP

BOARD NAME:


TUSBK4HUB

BOARD PART NUMBER AND REVISION:

9806021 REV-B



SOLDERMASK BOTTOM SIDE

 SOLECTRON TEXAS	
CUSTOMER:	DATE: 02/11/97
TI-MSP	
BOARD NAME:	
TUSBK4HUB	
BOARD PART NUMBER AND REVISION:	
9806021 REV-B	