

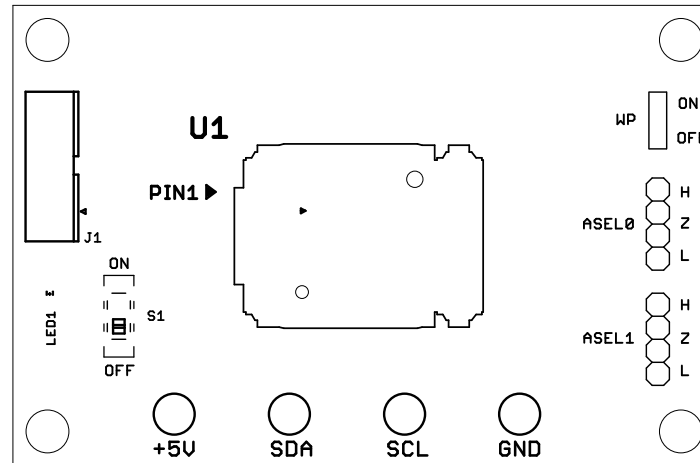
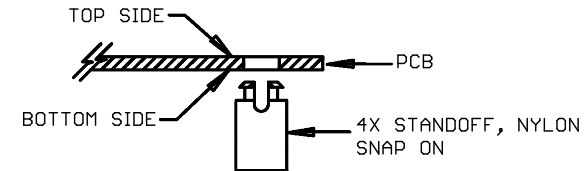
# REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017

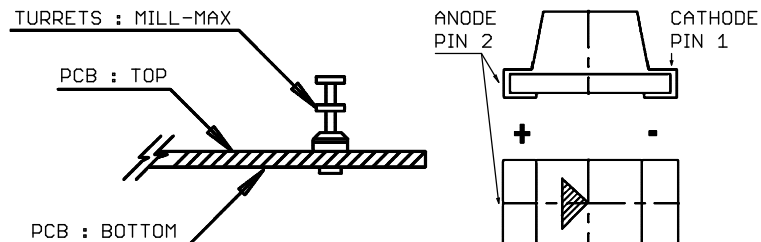
## NOTES: UNLESS OTHERWISE SPECIFIED


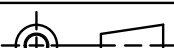
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610.
2. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS. MASK THE SOLDER STENCIL WHERE SMT PARTS ARE OMITTED.
3. DEPANELIZE BOARDS AFTER ASSEMBLY AND ROUTE-OUT THE BREAKOUT TABS ON 4 SIDES OF THE BOARD EDGE.
4. ASSY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD.
5. DO NOT APPLY ANY KIND OF ASSEMBLY STAMP OR QA STAMP ON ANY BOARD.

6. INSTALL 4 STANDOFFS AT 4 CORNERS FROM THE BOTTOM SIDE.

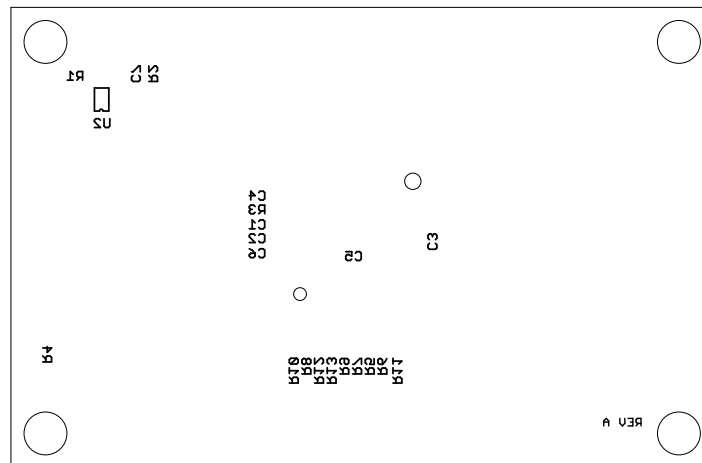



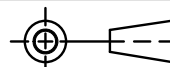
7. INSTALL TURRETS and LEDS AS SHOWN BELOW:



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE $\pm 1^\circ$ $0.XX'' = \pm 0.01''$ $0.XXX'' = \pm 0.005''$ INTERPRET DIM AND TOL PER ASME Y14.5M-1994	APPROVALS			 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
		NAME	DATE	
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION	TITLE: TOP ASSEMBLY DRAWING			
	PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER			
	SIZE	IC NO.	REV	
	N/A	LTC2972	0	
	DO NOT SCALE DRAWING			
	SCALE: NONE			
FILENAME: DC2691A		SHEET 1 OF 13		

REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017

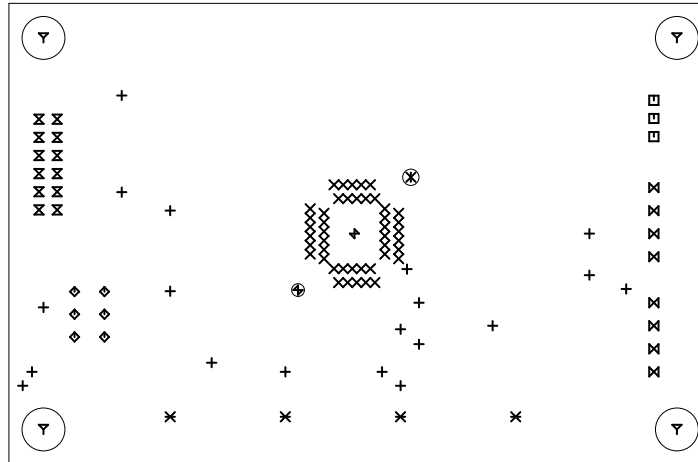
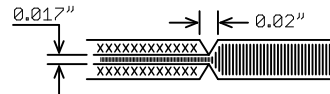


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XXX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	APPROVALS			 <div>1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY</div>		
		NAME	DATE			
	PCB DES.	R.S.	05-30-17			
	ENG	MIKE P.	06-10-17			
THIRD ANGLE PROJECTION				TITLE: BOTTOM ASSEMBLY DRAWING  PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER		
						
DO NOT SCALE DRAWING	SCALE: NONE			SIZE N/A	IC NO. LTC2972	REV 0
				FILENAME: DC2691A		SHEET 2 OF 13

## NOTES: UNLESS OTHERWISE SPECIFIED

1. FAB PER IPC-A-600.
2. MATERIAL: EPOXY FIBERGLASS, NEMA GRADE FR-4  
FINISHED THICKNESS TO BE 0.062" +/-0.005"  
4-LAYER BOARD, 2 OZ. CU ON OUTER LAYERS,  
1 OZ. CU ON INNER LAYERS,  
FLAMMABILITY RATING: 94 V-2 MINIMUM.
3. SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.  
0.00" ARE PRIMARY DATUMS.
4. FINISH: SMOBC USING LPI BOTH SIDES, COLOR BLACK.  
ENIG FINISH. LEAD FREE SOLDER CAN BE USED  
FOR PROTOTYPE BOARDS.  
HIGH DEFINITION WHITE SILKSCREEN.

5. DRILL: PLATE THRU ALL HOLES WITH COPPER, 0.001"  
THICK MIN. ALL HOLES SHALL BE DRILLED  
+/-0.003" WITH RESPECT TO CTR. OF DRILLED  
PAD. ALL HOLES FINISHED SIZE AFTER PLATING.
6. DROP ALL UNUSED PADS ON INNER LAYERS.
7. DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.  
PAD SIZE CAN BE MODIFIED TO MEET END FINISH.
8. PCBs ARE TO BE RoHS COMPLIANT.
9. SCORING FOR PANELIZED PCB:



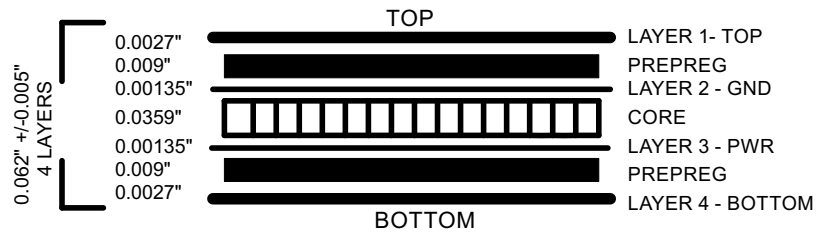
## REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017

## DRILL TABLE

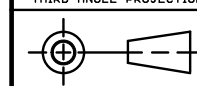
Sym	Nº	Mils	MM	Qty	Plated
+	1	10	0.25	19	YES
x	2	17	0.43	44	YES
□	3	31	0.80	3	YES
◇	4	35	0.90	6	YES
z	5	36	0.91	12	YES
⌘	6	40	1.02	8	YES
+	7	41	1.04	1	YES
+	8	55	1.40	1	NOT
x	9	71	1.80	1	NOT
x	10	96	2.44	4	YES
▽	11	183	4.65	4	NOT

## LAYER STRUCTURE



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON ANGLE +/- 1°  
0.XX" = +/- 0.01"  
0.XXX" = +/- 0.005"  
INTERPRET DIM AND TOL  
PER ASME Y14.5M-1994

THIRD ANGLE PROJECTION



DO NOT SCALE DRAWING

## APPROVALS

NAME	DATE
PCB DES.	R.S.
ENG	MIKE P.

05-30-17	06-10-17
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1630 MCCARTHY BLVD.  
MILPITAS, CA 95033  
PH: (408) 432-1900  
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TITLE: FABRICATION DRAWING

PROGRAMMING BOARD FOR 2-CHANNEL  
PMBUS POWER SYSTEM MANAGER

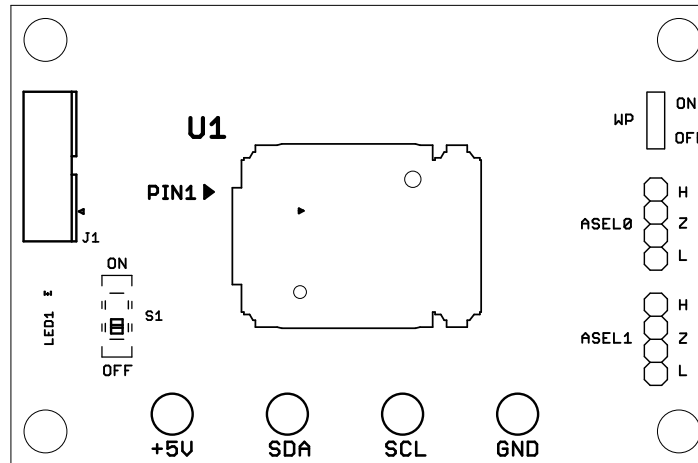
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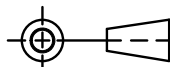
FILENAME: DC2691A

SHEET 3 OF 13

# REVISION HISTORY

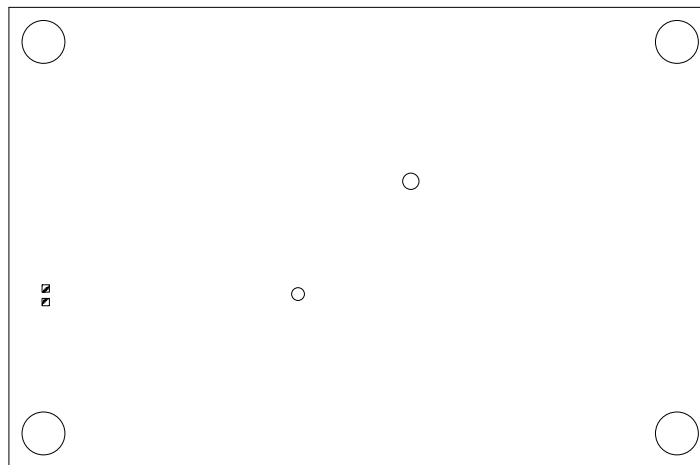
ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017



<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994</small>	<b>APPROVALS</b>			 <div style="font-size: 0.8em;">             1630 MCCARTHY BLVD.              MILPITAS, CA 95033              PH: (408) 432-1900              LTC CONFIDENTIAL              FOR CUSTOMER USE ONLY           </div>
		NAME	DATE	
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION				<b>TITLE: TOP SILKSCREEN</b> <b>PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER</b>
DO NOT SCALE DRAWING	SCALE: NONE	SIZE N/A	IC NO. LTC2972	REV 0
FILENAME: DC2691A			SHEET 4 OF 13	

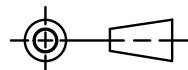
# REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
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0.XX" = +/- 0.01"  
0.XXX" = +/- 0.005"  
INTERPRET DIM AND TOL  
PER ASME Y14.5M-1994

THIRD ANGLE PROJECTION



DO NOT SCALE DRAWING

## APPROVALS

	NAME	DATE
PCB DES.	R.S.	05-30-17
ENG	MIKE P.	06-10-17



1630 MCCARTHY BLVD.  
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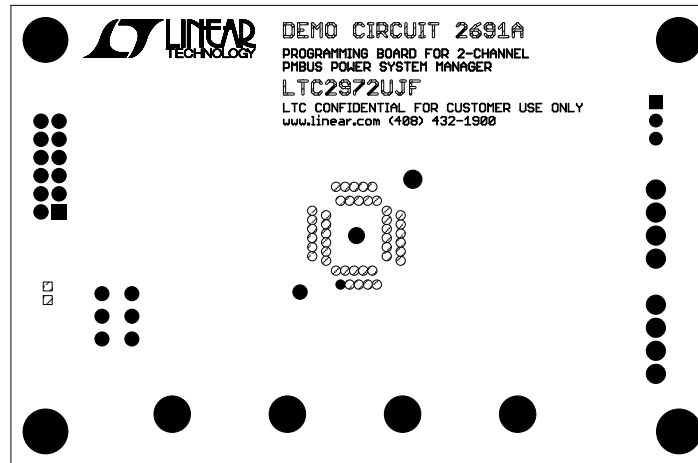
TITLE: TOP PASTE  
PROGRAMMING BOARD FOR 2-CHANNEL  
PMBUS POWER SYSTEM MANAGER

SIZE N/A	IC NO. LTC2972	REV 0
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FILENAME: DC2691A SHEET 5 OF 13

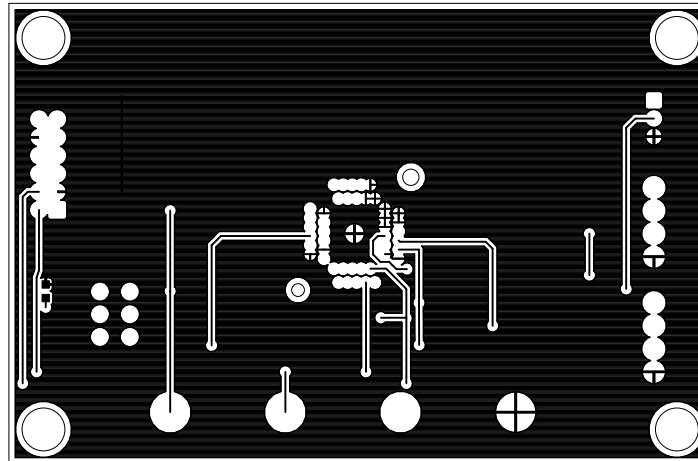
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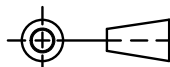
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-	0	PRODUCTION	MIKE P.	06/10/2017



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	<b>APPROVALS</b>			1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
		NAME	DATE	
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION				<b>TITLE: TOP SOLDERMASK</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
	SIZE	IC NO.	REV	
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DO NOT SCALE DRAWING	SCALE: NONE		FILENAME: DC2691A	
		SHEET 6 OF 13		

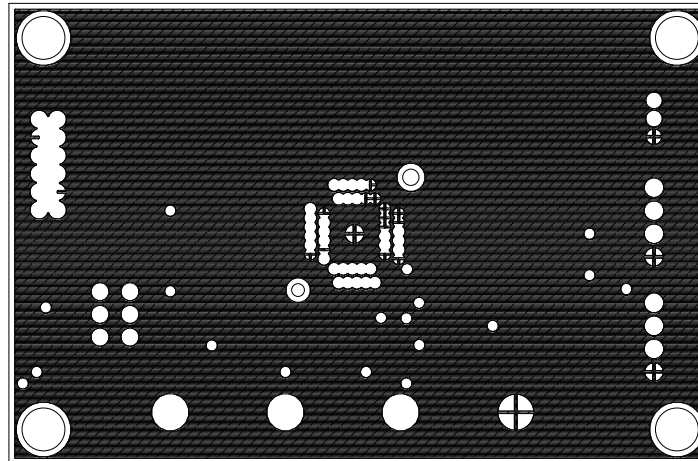
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ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017


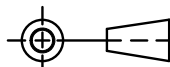


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994		<b>APPROVALS</b>			 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
		PCB DES.	R.S.	05-30-17	
THIRD ANGLE PROJECTION		ENG	MIKE P.	06-10-17	<b>TITLE: 1 - TOP COPPER (SIGNAL)</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
					
DO NOT SCALE DRAWING		SCALE: NONE			SIZE N/A
					IC NO. LTC2972
					REV 0
FILENAME: DC2691A				SHEET 7 OF 13	

# REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017

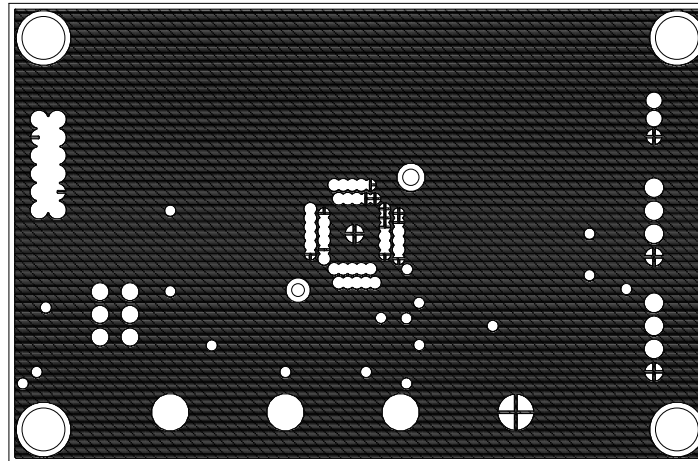



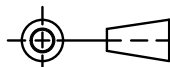
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	<b>APPROVALS</b>			 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
	NAME DATE			
PCB DES. ENG	R.S. MIKE P.	05-30-17 06-10-17	<b>TITLE: 2 - INNER COPPER (GND PLANE)</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER	
THIRD ANGLE PROJECTION 			SIZE N/A	IC NO. LTC2972
DO NOT SCALE DRAWING	SCALE: NONE		SHEET 8 OF 13	



# REVISION HISTORY

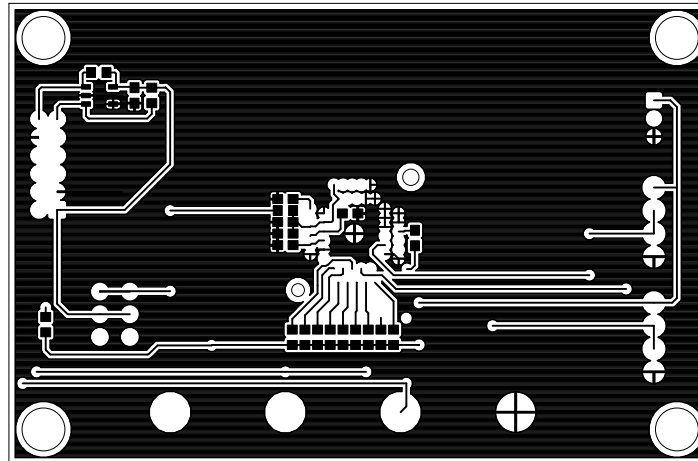
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-	0	PRODUCTION	MIKE P.	06/10/2017



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	<b>APPROVALS</b>			 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
	NAME	DATE		
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION				<b>TITLE: 3 - INNER COPPER (POWER)</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
DO NOT SCALE DRAWING	SCALE: NONE	SIZE N/A	IC NO. LTC2972	REV 0
FILENAME: DC2691A		SHEET 9 OF 13		

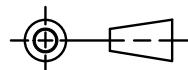
# REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON ANGLE +/- 1°  
0.XX" = +/- 0.01"  
0.XXX" = +/- 0.005"  
INTERPRET DIM AND TOL  
PER ASME Y14.5M-1994

THIRD ANGLE PROJECTION



DO NOT SCALE DRAWING

## APPROVALS

	NAME	DATE
PCB DES.	R.S.	05-30-17
ENG	MIKE P.	06-10-17



1630 MCCARTHY BLVD.  
MILPITAS, CA 95033  
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TITLE: 4 - BOTTOM COPPER (SIGNAL)  
PROGRAMMING BOARD FOR 2-CHANNEL  
PMBUS POWER SYSTEM MANAGER

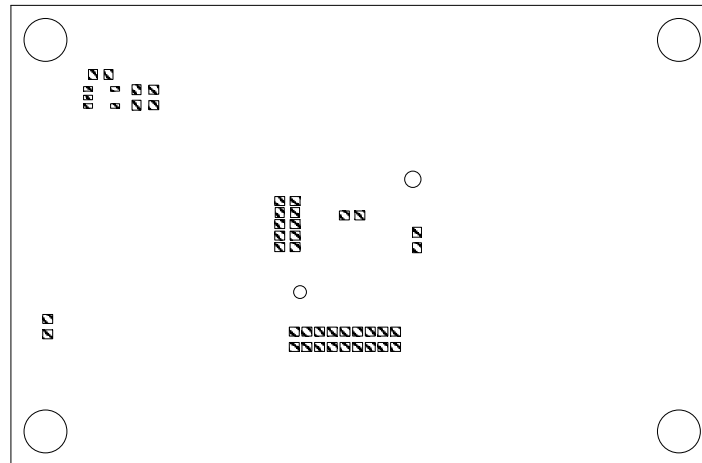
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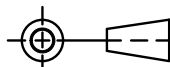
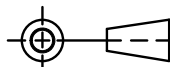
FILENAME: DC2691A

SHEET 10 OF 13

# REVISION HISTORY

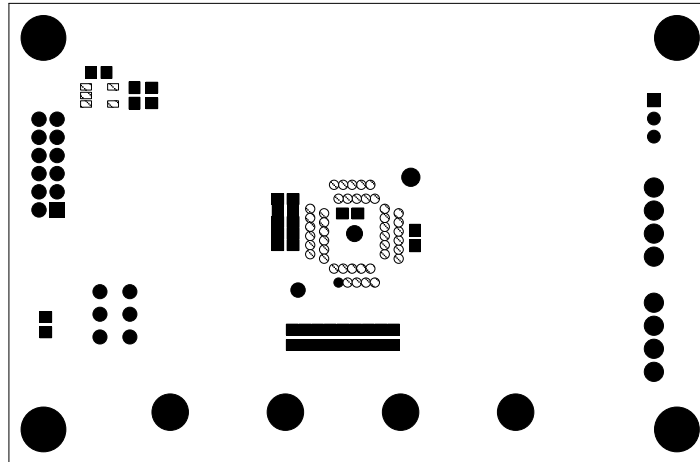
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-	0	PRODUCTION	MIKE P.	06/10/2017


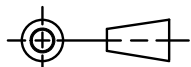


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994	<b>APPROVALS</b>			 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
	NAME	DATE		
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION				<b>TITLE: BOTTOM PASTE</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
	SIZE	IC NO.	REV	
	N/A	LTC2972	0	
DO NOT SCALE DRAWING	SCALE: NONE		FILENAME: DC2691A <div style="float: right;">SHEET 11 OF 13</div>	

# REVISION HISTORY

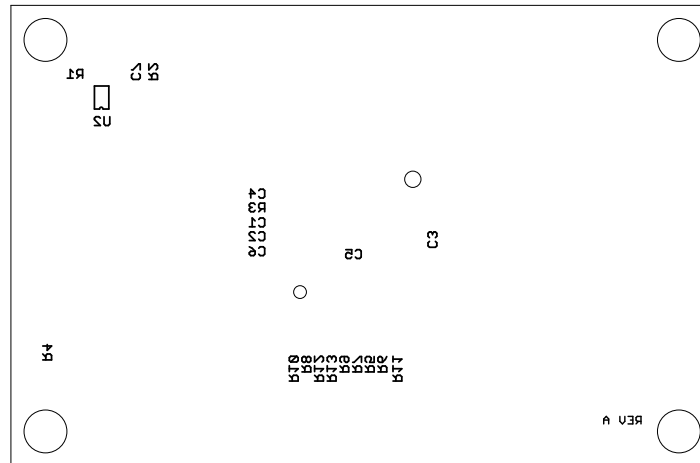
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-	0	PRODUCTION	MIKE P.	06/10/2017


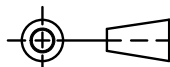


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	NAME	DATE		
	PCB DES.	R.S.	05-30-17	
	ENG	MIKE P.	06-10-17	
THIRD ANGLE PROJECTION				<b>TITLE: BOTTOM SOLDERMASK</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
DO NOT SCALE DRAWING	SCALE: NONE	SIZE N/A	IC NO. LTC2972	REV 0
FILENAME: DC2691A		SHEET 12 OF 13		

# REVISION HISTORY

ECO	REV	DESCRIPTION	APPROVED	DATE
-	0	PRODUCTION	MIKE P.	06/10/2017



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON ANGLE +/- 1° 0.XX" = +/- 0.01" 0.XXX" = +/- 0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994		<b>APPROVALS</b>		 1630 MCCARTHY BLVD. MILPITAS, CA 95033 PH: (408) 432-1900 LTC CONFIDENTIAL FOR CUSTOMER USE ONLY
		PCB DES. ENG	NAME MIKE P.	
THIRD ANGLE PROJECTION				<b>TITLE: BOTTOM SILKSCREEN</b> PROGRAMMING BOARD FOR 2-CHANNEL PMBUS POWER SYSTEM MANAGER
DO NOT SCALE DRAWING		SCALE: NONE		SIZE N/A
				IC NO. LTC2972
				REV 0
		FILENAME: DC2691A		SHEET 13 OF 13