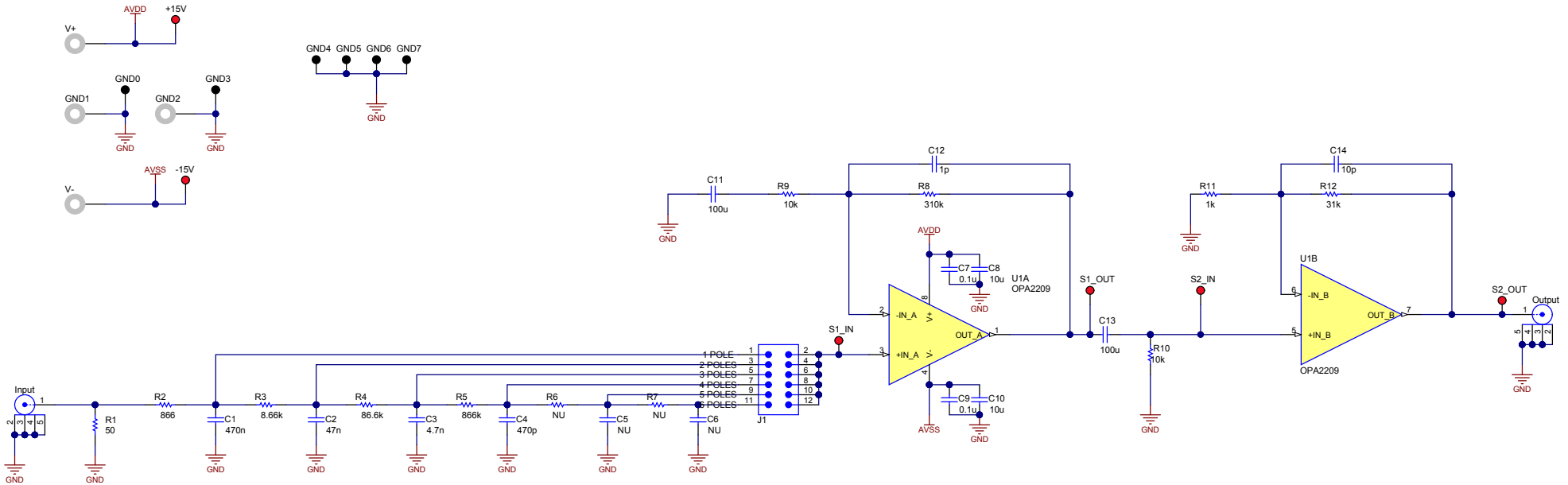


Number: XX####	Rev: E1	Designed for: Public Release	Mod. Date: 2013-6-25
SVN Rev: Not in version control		Project Title: Change in menu Project|Project Options|Parameters	
Drawn By:		Sheet Title:	
Engineer: Enter name of project lead		Assembly Variant: [No Variations]	Sheet: 1 of 1
		File: PWM Filter.SchDoc	Size: B
		Contact: http://www.ti.com/support	http://www.ti.com

H1
NY PMS 440 0025 PH

H2
NY PMS 440 0025 PH

PCB
LOGO
Texas Instruments

H3
NY PMS 440 0025 PH

H4
NY PMS 440 0025 PH

Designed for: Public Release		Mod. Date: 2013-5-21	
Project Title: Change in menu Project|Project Options|Parameters			
Sheet Title:			
Number: XX####	Rev: E1	Assembly Variant: [No Variations]	Sheet: 1 of 1
SVN Rev: Not in version control		File: Hardware_ANSI-B.SchDoc	Size: B
Drawn By:		Contact: http://www.ti.com/support	
Engineer: Enter name of project lead			

TEXAS INSTRUMENTS
http://www.ti.com

The Stackup Legend below this is static.
If you change the stackup, update the Legend.

Layer Stack Up Detail for: Ref_Design.PcbDoc

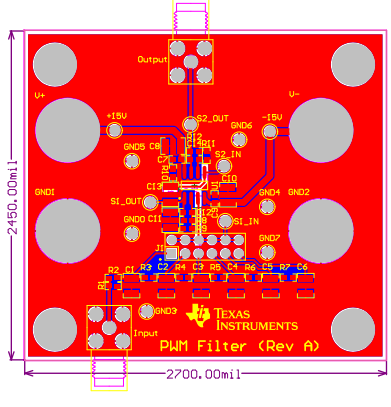
Layer Name	Gerber Document	Copper Thickness	Dielectric Material
Top Solder Mask	(.GTS)		Solder Resist
Top Layer	(.GTL)	1.4mil	FR-4
Bottom Layer	(.GBL)	1.4mil	
Bottom Solder Mask	(.GBS)		Solder Resist

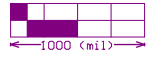
DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
3450MIL X 4950MIL

Number of Layers : 2
MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 8 MIL
MIN. VIA PAD SIZE: 24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-4 [X] FR-4 High Tg [ ] OTHER
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
COPPER THICKNESS (FINISHED):
OUTER: [X] 1.4MIL (1oz) [ ] 2MIL (1.4oz) [ ] 2.8MIL (2oz)
INNER SIGNAL: [X] 1.4MIL (1oz) [ ] 2.8MIL (2oz)
DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER
BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] Pb-FREE HASL
[ ] OTHER
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S ID/LOGO: [ ] RAIL [X] METAL [ ] SILK





TEXAS INSTRUMENTS

PROJECT TITLE: Change in menu Project|Project Options|Parameters
DESIGNED FOR: Public Release
FILE NAME: PWM Filter.PcbDoc
ENGINEER: Enter name of project
LAYOUT BY: Who did the Layout?
SCALE: 1.00
ALTIUM DESIGNER VERSION: 10.0.0.27009

M9 Title Sheet

Comment	Designator	Footprint	LibRef	Quantity
5000	+15V, -15V, S1_IN, S1_OUT, S2_IN, S2_OUT	Keystone5000	5000	6
470n	C1	1210	Capacitor	1
47n	C2	1210	Capacitor	1
4.7n	C3	1210	Capacitor	1
470p	C4	1210	Capacitor	1
NU	C5, C6	1210	Capacitor	2
0.1u	C7, C9	0603	Capacitor	2
10u	C8, C10	1210	Capacitor	2
100u	C11, C13	1210	Capacitor	2
1p	C12	0603	Capacitor	1
10p	C14	0603	Capacitor	1
5001	GND0, GND3, GND4, GND5, GND6, GND7	Keystone5001	5001	6
108-0740-001	GND1, GND2, V+, V-	Johnson_108-0740-001	108-0740-001	4
NY PMS 440 0025 PH	H1, H2, H3, H4	NY PMS 440 0025 PH	NY PMS 440 0025 PH	4
901-143	Input, Output	Amphenol_901-143	901-143	2
TSW-106-07-G-D	J1	TSW-106-07-G-D	TSW-106-07-G-D	1
50	R1	0603	Resistor	1
866	R2	0603	Resistor	1
8.66k	R3	0603	Resistor	1
86.6k	R4	0603	Resistor	1
866k	R5	0603	Resistor	1
NU	R6, R7	0603	Resistor	2
310k	R8	0603	Resistor	1
10k	R9, R10	0603	Resistor	2
1k	R11	0603	Resistor	1
31k	R12	0603	Resistor	1
OPA2209	U1	D0008A_M	OPA2188	1

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