



Client Information
Finger Lakes Engineering 15 West Main, Suite A Dryden, NY 13053

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sheet1.SCHDOC

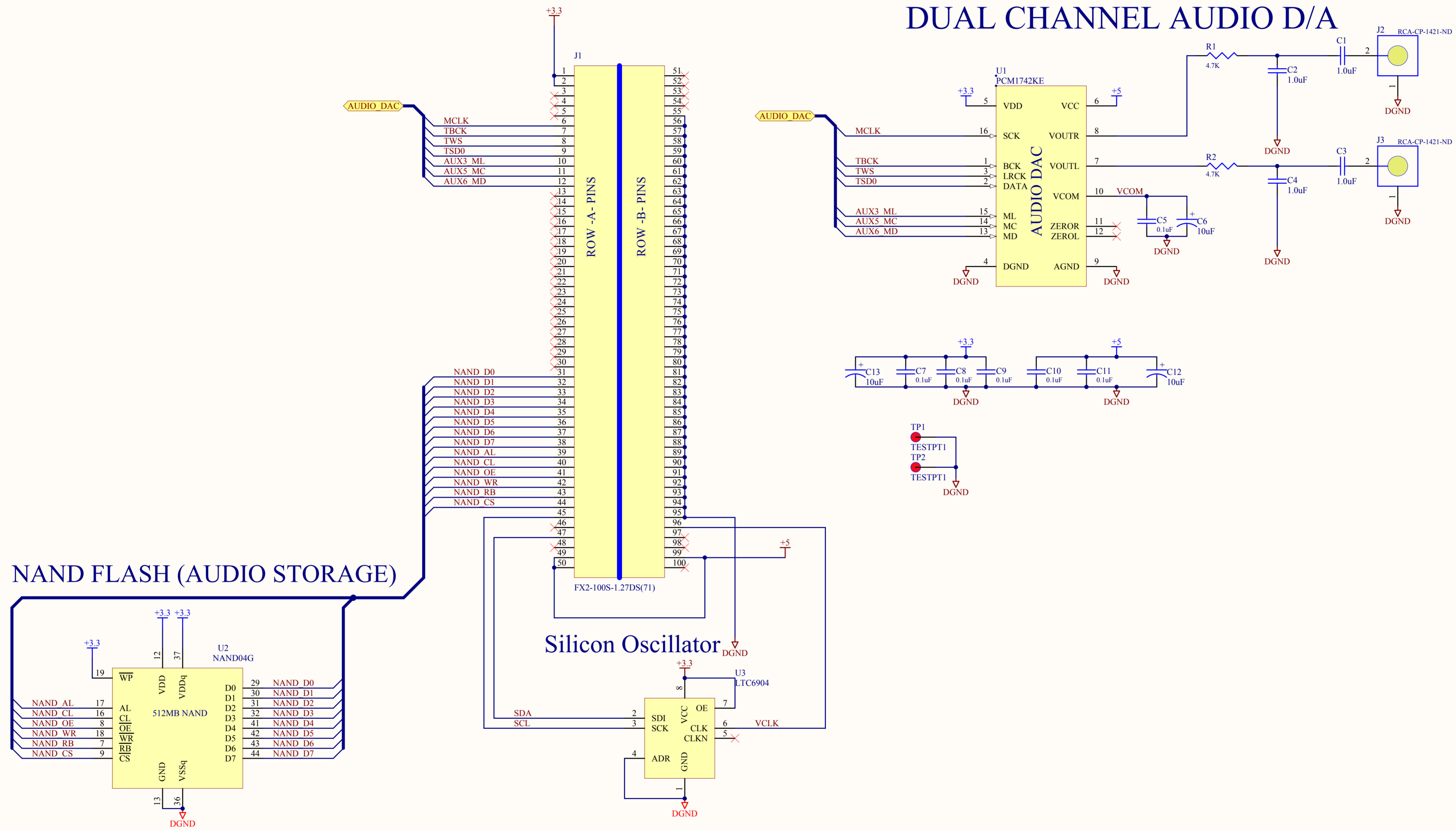
AUDIO_DAC
HOOK
RING
TOEDET
ADBUS
CIP
SPICS
SPICK
SPIDIN

Project Information	
Project Title:	Spartan3 Option Card (NAND and I2S)
Start Date:	01/05/09
Schematic #	#99-010509
Notes:	REVISION INFORMATION ===== Rev 1.0 - Fab Release

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SPARTAN INTERFACE HEADER

DUAL CHANNEL AUDIO D/A



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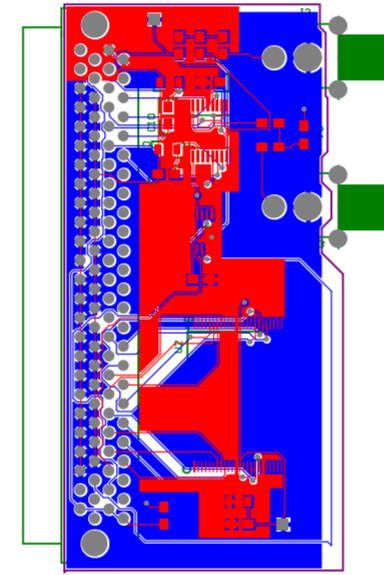
FABRICATION NOTES:

- 1. MATERIAL
LAMINATE MATERIAL GLASS FIBER EPOXY FLAME RETARDANT PER IPC-4101/24, 170C Tg MIN
PRPREG MATERIAL PER IPC-4101/24 170C Tg MINIMUM SIZE AND CONSTRUCTION PER BOARD LAYOUT
- 2. COPPER PLATER
A. EXTERNAL LAYERS
PLATE WITH 0.5oz COPPER ON SURFACE LAYERS
PLATE UPTO 1.0oz AFTER COMPLETION
B. INTERNAL LAYERS
PLATE WITH 0.5oz COPPER
C. VIAS AND HOLES
COPPER PLATE SHOULD BE NO LESS THAN 0.0007
- 3. SURFACE FINISH SHOULD BE ROHS HASL
- 4. MINIMUM TRACE AND SPACE REQUIREMENTS
A. WIDTH SHOULD BE MIN 0.006
B. SPACE SHOULD BE MIN 0.006
- 5. HOLE REQUIREMENTS
A. MINIMUM ANNULAR RING - 0.002
B. HOLES SHALL BE DRILLED PER NC DATA
- 6. SOLDERMASK
A. SOLDERMASK IS PRESENT ON TOP AND BOTTOM SURFACE
B. PCB VENDOR MAY ADJUST PER PROCESS
C. ADJUSTMENTS MUST BE AUTHORIZED BY CUSTOMER
- 7. MARKING
A. MARKING SHALL BE PER TOP/BOTTOM SILKSCREEN
B. NO SILKSCREEN ALLOWED ON EXPOSED COPPER
C. PCB VENDOR MAY ADJUST PER PROCESS
D. ADJUSTMENTS MUST BE AUTHORIZED BY CUSTOMER
- 8. MANUFACTURE TO IPC CLASS-2 STANDARD
- 9. TESTING
A. NO ELECTRICAL/ICT TESTING IS REQUIRED
- 10. REPAIRS
A. NO MODIFICATIONS OR REPAIRES WITHOUT APPROVAL
- 11. BOW AND TWIST
A. SHOULD NOT EXCEED 0.0075 PER INCH
- 12. CONTROLLED IMPEDANCE LAYERS
A. NO CONTROLLED IMPEDANCE REQUIREMENTS
- 13. TOTAL COPPER LAYERS IS TWO (2)

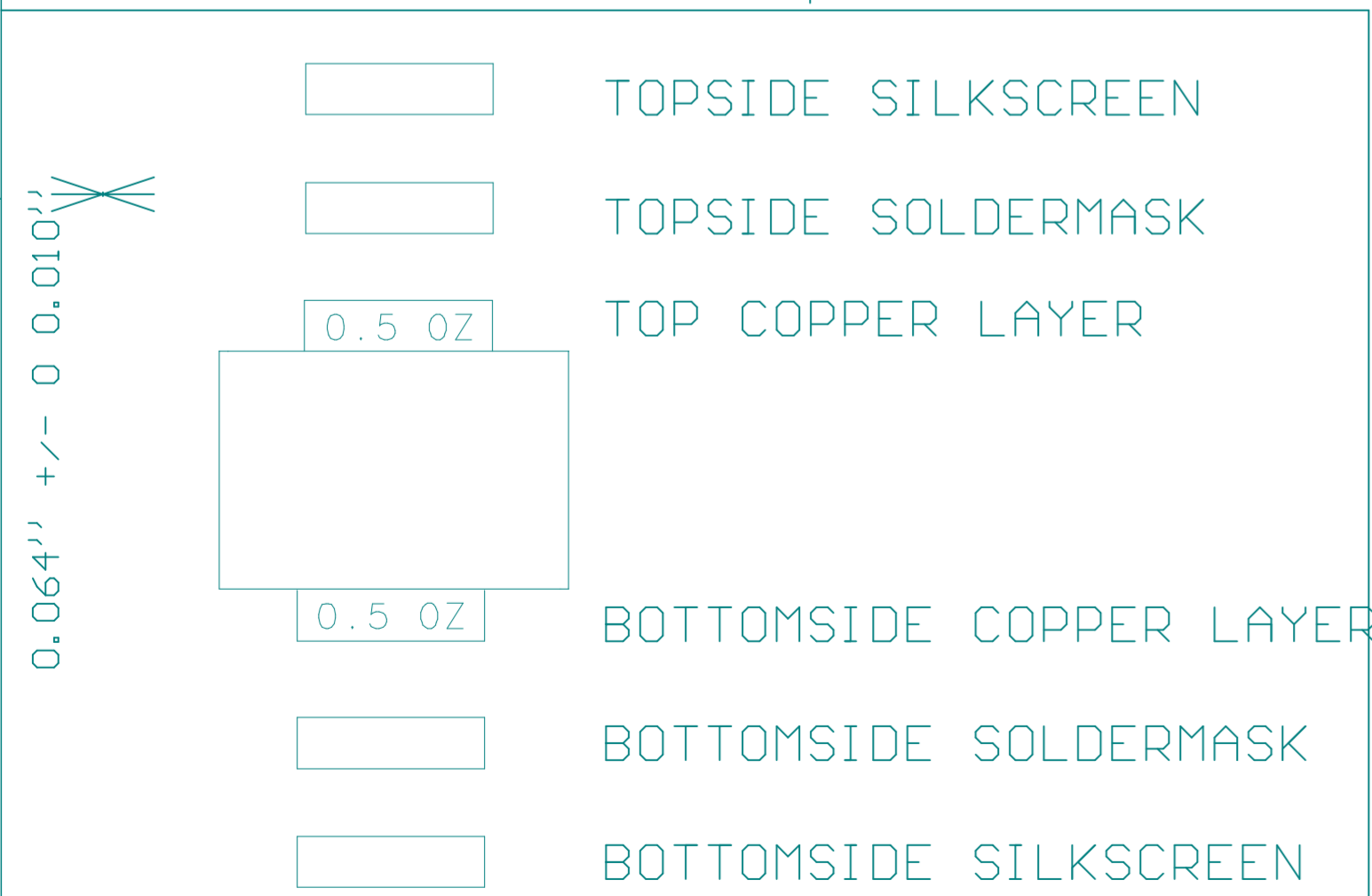
ASSEMBLY NOTES:

- 1. WORKMANSHIP TO MEET IPC CLASS 2 UNLESS NOTED OTHERWISE
- 2. PCB CONTAINS ELECTROSTATIC SENSITIVE DEVICES - USE STATIC FREE HANDELING
- 3. DESIGNATORS ARE FOR REFERENCE AND MAY NOT APPEAR ON INDIVIDUAL PARTS
- 4. ALL THROUGH HOLE COMPONENTS SHOULD BE MOUNTED FLUSH WITH PCB SURFACE UNLESS NOTED OTHERWISE
- 5. PCB CONTAINS HUMIDITY SENSITIVE COMPONENTS. THESE PARTS MUST BE PLACED AND REFLOWED < 24 HOURS AFTER OPEN AIR EXPOSURE. COMPONENTS THAT HAVE BEEN EXPOSED TO > 20% HUMIDITY MUST BE BAKED PER MANUFACTURER'S INSTRUCTIONS PRIOR TO REFLOW SOLDERING.

REVISIONS		
REV	DESCRIPTION	DATE
1.0	Released To Fab	01/22/09



Board Stackup



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SIZE	DRAWN BY:	PART NUMBER	REV
D	SMS	#99-010509	1.0
SCALE 1:1		SHEET 1 of 1	

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