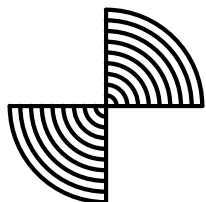
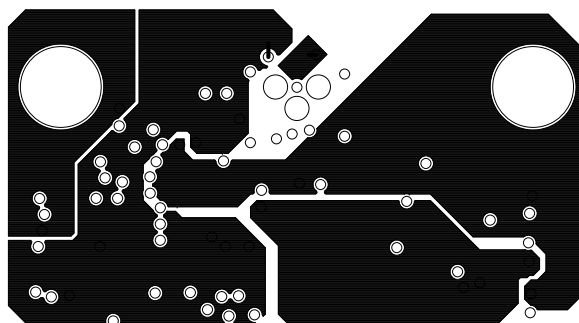
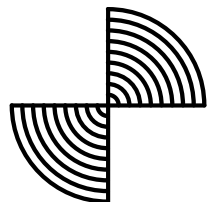
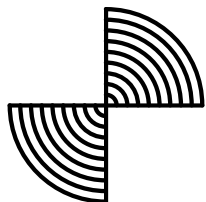
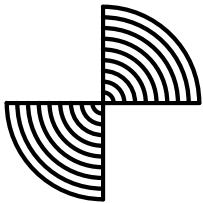
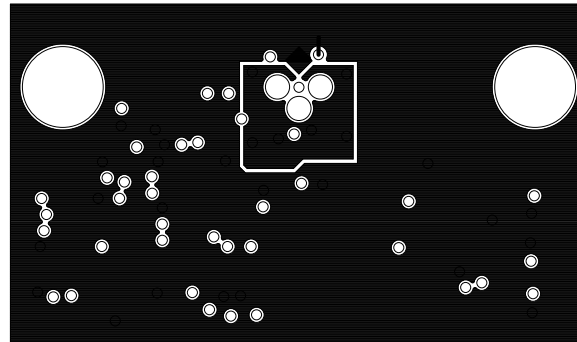
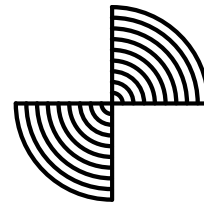
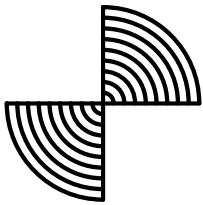


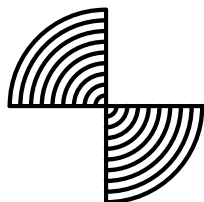
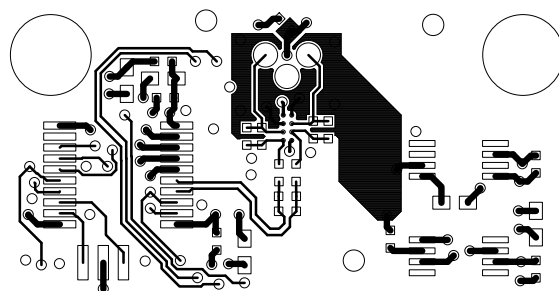
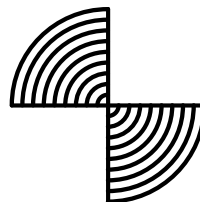
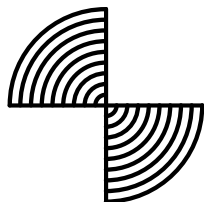
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		LAYER 1 - PRIMARY SIDE		
BOARD NO.	2514021	REV	DATE	PRJ#
		-	30MAY2014	TIDL P-23170-01
		SH	1	OF 11



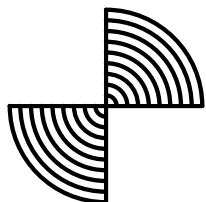
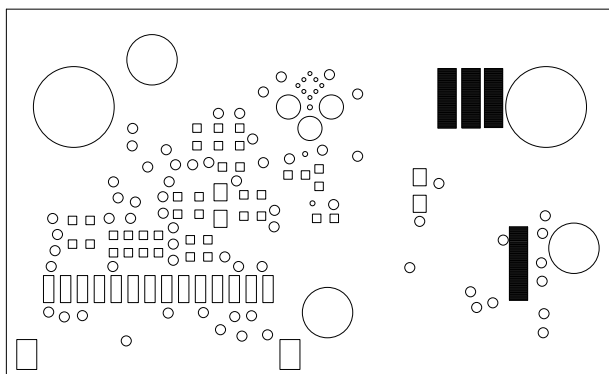
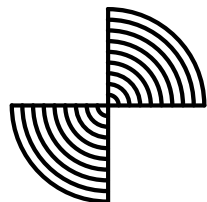
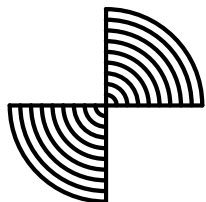
CUSTOMER NAME		TEXAS INSTRUMENTS			
BOARD NAME			DESCRIPTION		
Mobile Spectroscopy Det.Bd.			LAYER 2 - PWR PLANE		
BOARD NO.	2514021	REV	DATE	PRJ#	SH OF
		-	30MAY2014	TIDL P-23170-01	2 11



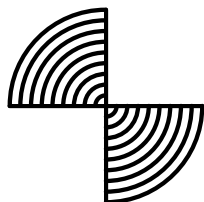
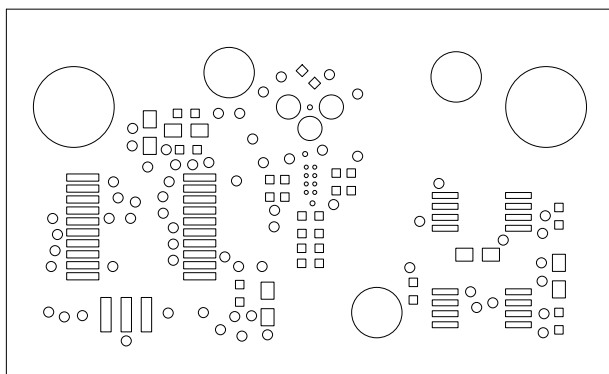
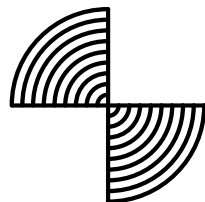
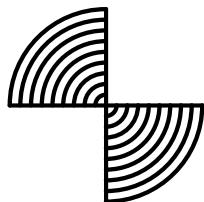
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		LAYER 3 - GND PLANE		
BOARD NO.	2514021	REV	DATE	PRJ#
		-	30MAY2014	TIDL P-23170-01
		SH	OF	
		3	11	



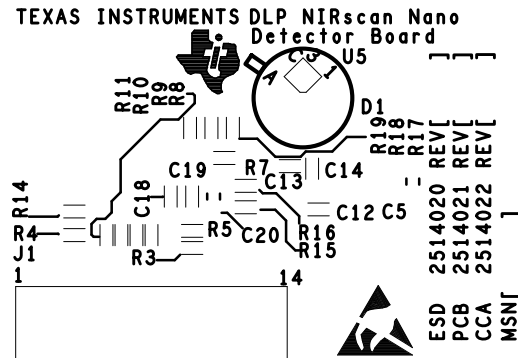
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		LAYER 4 - SECONDARY SIDE		
BOARD NO.	2514021	REV	DATE	PRJ#
		-	30MAY2014	TIDL P-23170-01
		SH	4	OF 11



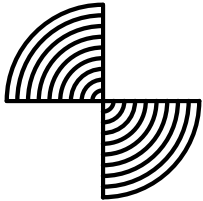
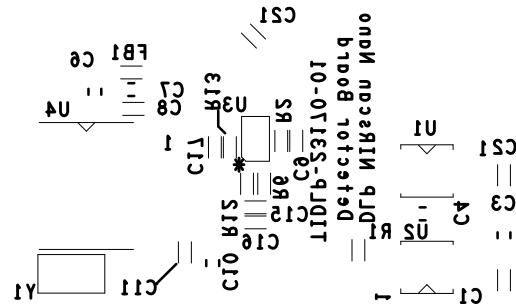
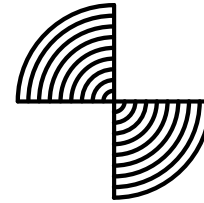
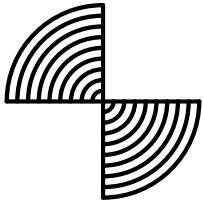
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		SOLDERMASK - PRIMARY SIDE		
BOARD NO.	2514021	REV	DATE	PRJ#
		-	30MAY2014	TIDL P-23170-01
		SH	OF	
		5	11	



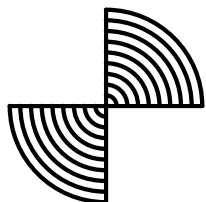
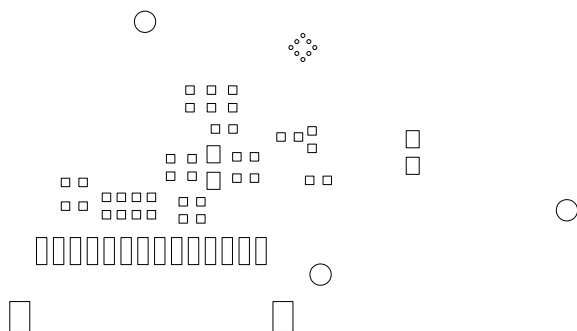
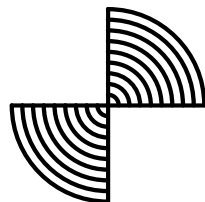
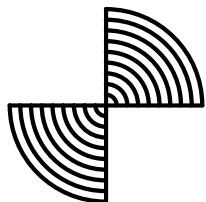
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		SOLDERMASK - SECONDARY SIDE		
BOARD NO.	2514021	REV	DATE	PRJ#
		-	30MAY2014	TIDL P-23170-01
		SH	6	OF 11



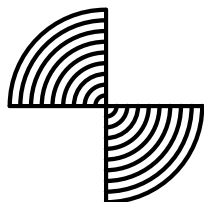
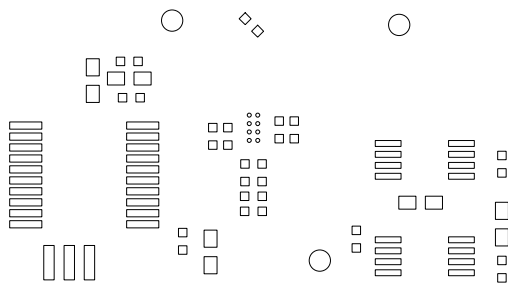
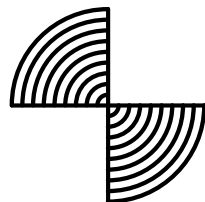
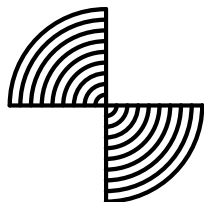
CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		SILKSCREEN - PRIMARY SIDE		
BOARD NO.	REV	DATE	PRJ#	SH OF
2514021	-	30MAY2014	TIDL P-23170-01	7 11



CUSTOMER NAME		TEXAS INSTRUMENTS			
BOARD NAME			DESCRIPTION		
Mobile Spectroscopy Det. Bd.			SILKSCREEN-SECONDARY SIDE		
BOARD NO.	2514021	REV	DATE	PRJ#	SH OF
		-	30MAY2014	TIDLP-23170-01	8 11



CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		SOLDERPASTE - PRIMARY SIDE		
BOARD NO.	REV	DATE	PRJ#	SH OF
2514021	-	30MAY2014	TIDL P-23170-01	9 11

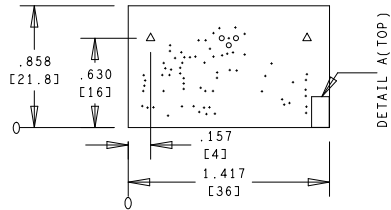


CUSTOMER NAME		TEXAS INSTRUMENTS		
BOARD NAME		DESCRIPTION		
Mobile Spectroscopy Det.Bd.		SOLDERPASTE - SECONDARY SIDE		
BOARD NO.	REV	DATE	PRJ#	SH OF
2514021	-	30MAY2014	TIDL P-23170-01	10 11

LAYER STACK-UP - ALL DIMENSIONS IN INCHES				
		50ohm SINGLE ENDED IMPEDANCE CONTROL +/- 10%	75ohm SINGLE ENDED IMPEDANCE CONTROL +/- 10%	100ohm DIFFERENTIAL IMPEDANCE CONTROL +/- 10%
LAYER#	COPPER WEIGHT (oz)	N/A	N/A	N/A
LAYER 1 - PRIMARY SIDE - SIGNAL	HALF+PLATING			
LAYER 2 - POWER PLANE	1			
LAYER 3 - GND PLANE	1			
LAYER 4 - SECONDARY SIDE - SIGNAL	HALF+PLATING			

- FAB NOTES:
- ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED. ALL BOARD OUTLINE DIMENSION TOLERANCES ARE +/- 0.010".
 - THE PWB SHALL BE FABRICATED TO IPC-6012, CLASS 2 AND WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2. CURRENT REVISIONS.
 - BOARD MATERIAL SHALL BE 180 Tg/340 Td ISOLA FR-370HR OR EQUIVALENT, RoHS COMPLIANT AND LEAD FREE ASSEMBLY CAPABLE. BOARD MATERIAL SHALL MEET OR EXCEED IPC-4101B. COLOR: NATURAL.
 - BOARD MATERIAL & CONSTRUCTION TO BE U.L. APPROVED AND MARKED ON THE FINISHED BOARD. MATERIAL SHALL MEET A MINIMUM OF 94V-0 FLAMMABILITY RATING AND BE MARKED IN COPPER ON THE TOP SIDE OF THE BOARD IN INDICATED AREA (DETAIL A).
 - MINIMUM COPPER WALL THICKNESS OF PLATED-THRU HOLES TO BE .001 INCH, WITH A MINIMUM ANNULAR RING OF .002 INCH.
 - OVERALL BOARD THICKNESS TO BE .062 +/- 10% AND APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES, MEASURED FROM COPPER TO COPPER.
 - MAX. WARP & TWIST TO BE .0075 INCHES PER INCH.
 - BOARD MUST BE ELECTRICALLY TESTED USING SUPPLIED IPC-D-356 NETLIST.

- PROCESS NOTES:
- PLATE ALL EXPOSED AREAS WITH ELECTROLESS IMMERSION GOLD, NICKEL 100 MICROINCHES THK, GOLD 2-6 MICROINCHES THK MIN.
 - APPLY LPI SOLDERMASK OVER BARE COPPER (SMOBC). COLOR: RED. SOLDERMASK SHALL CONFORM TO IPC-SM-840, CLASS H. CURRENT REV.
 - SOLDERMASK ARTWORK HAS ZERO (0) OVERSIZED PADS. FABRICATION VENDOR IS ALLOWED TO ADJUST THE COMPONENT SOLDERMASK PADS TO MEET THEIR TOOLING REQUIREMENTS.
 - APPLY LPI SILKSCREEN OR EQUIVALENT PER THE ARTWORK. COLOR: WHITE.



PRIMARY SIDE VIEW

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
.	12.0	+3.0/-12.0	PLATED	68
o	40.0	+3.0/-3.0	PLATED	3
Δ	111.0	+3.0/-3.0	PLATED	2

CUSTOMER NAME		TEXAS INSTRUMENTS			
BOARD NAME		Mobile Spectroscopy Det.Bd.		DESCRIPTION	
				DRILL DRAWING	
BOARD NO.	2514021	REV	-	DATE	30MAY2014
				PRJ#	TIDL P-23170-01
				SH	11 OF 11