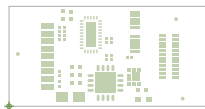


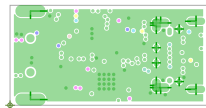
CUSTOMER NAME							T I							
BOARD NAME				3220DFPDONGLEE				DESCRIPTION						
							SOLDERMASK TOP							
BOARD NO.				REV		DATE		PRJ#			SH		OF	
				A1		13 NOV 2015		TIDIB-23916-01			7		13	



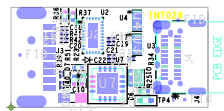
CUSTOMER NAME		T I		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			PASTEMASK TOP	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	11 13



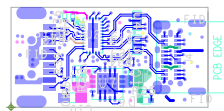
CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			LAYER 4 - PWR	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	4 13



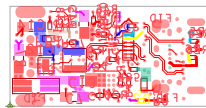
CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			LAYER 5 - GND	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	5 13



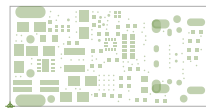
ART FILM - assyt



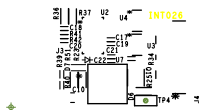
CUSTOMER NAME			TI			ASSEMBLY TOP			
BOARD NAME				3220DFPDONGLEE				DESCRIPTION	
								LAYER 1 - TOP	
BOARD NO.			REV	DATE	PRJ#	SH	OF		
			A1	13 NOV 2015	TIDIB-23916-01	1	13		



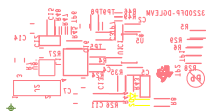
CUSTOMER NAME		TI		ASSEMBLY BOTTOM	
BOARD NAME		3220DFPDONGLEE		DESCRIPTION	
				LAYER 6 - BOTTOM	
BOARD NO.	REV	DATE	PRJ#	SH	OF
	A1	13 NOV 2015	TIDIB-23916-01	6	13



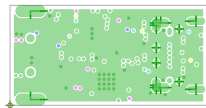
CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			SOLDERMASK BOTTOM	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	8 13



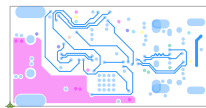
CUSTOMER NAME		T I		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			SILKSCREEN TOP	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	9 13



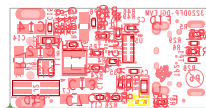
CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			SILKSCREEN BOTTOM	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	10 13



CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			LAYER 2 - GND	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	2 13



CUSTOMER NAME		TI		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			LAYER 3 - SIGNAL	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	3 13



CUSTOMER NAME		T I		ASSEMBLY BOTTOM	
BOARD NAME		3220DFPDONGLEE		DESCRIPTION	
				SILKSCREEN BOTTOM	
BOARD NO.	REV	DATE	PRJ#	SH	OF
	A1	13 NOV 2015	TIDIB-23916-01	10	13



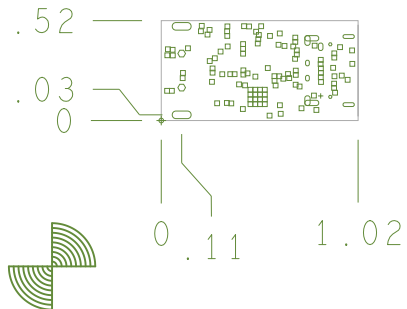
DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	17.72	+3.15/-3.15	PLATED	2
◻	8.0	+3.0/-8.0	PLATED	109
◦	43.31	+3.0/-3.0	NON-PLATED	2
+	27.56	+3.0/-3.94	NON-PLATED	1
⊐	98.43x39.37	+3.0/-3.0	PLATED	2
⊐	72.83x27.56	+3.15/-3.15	PLATED	2
⊐	59.06x19.69	+3.15/-3.15	PLATED	2
◦	51.18x27.56	+3.15/-3.15	PLATED	2
◦	29.53x19.69	+3.15/-3.15	PLATED	2
◦	39.37x23.62	+3.0/-3.94	NON-PLATED	1

CONTROLLED IMPEDANCE DESIGN

ALL 4.8 MIL LINES ON ALL LAYERS
SHALL BE 50 OHM SINGLE ENDED IMPEDANCE +/-10%

ALL 4.5 MIL LINES WITH 5.5 MIL SPACED ON LAYERS 1,3 AND 6
SHALL BE 90 OHM DIFFERENTIAL IMPEDANCE +/-10%

STACK-UP	MINIMUM COPPER WEIGHT
LY1-SIGNAL	1/2 oz
LY2-GND PLANE	1 oz
LY3-SIGNAL	1/2 oz
LY4-PWR PLANE	1/2 oz
LY5-GND PLANE	1 oz
LY6-SIGNAL	1/2 oz



- FAB NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. ALL BOARD OUTLINE DIMENSION TOLERANCES ARE +/- .010".
 2. THE PWB SHALL BE FABRICATED TO IPC-6012, CLASS 2 AND WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2. CURRENT REVISIONS.
 3. 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, RoHS CERTIFICATE OF CONFORMANCE SHALL BE DELIVERED WITH EACH LOT.
 4. BOARD MATERIAL & CONSTRUCTION TO BE U.L. APPROVED AND MARKED ON THE FINISHED BOARD.
 5. MINIMUM COPPER WALL THICKNESS OF PLATED-THRU HOLES TO BE .001 INCH, WITH A MINIMUM ANNULAR RING OF .001 INCH.
 6. OVERALL BOARD THICKNESS TO BE .062 +/- 10% AND APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES, MEASURED FROM COPPER TO COPPER.
 7. MAX. WARP & TWIST TO BE .0075 INCHES PER INCH.
 8. BOARD MUST BE ELECTRICALLY TESTED USING SUPPLIED IPC-D-356 NETLIST.

- PROCESS NOTES:
1. PLATE ALL EXPOSED AREAS WITH ELECTROLESS IMMERSION GOLD, NICKEL 100 MIN MICROINCHES THK GOLD 2-6 MICROINCHES THK.
 2. APPLY LPI SOLDERMASK OVER BARE COPPER (SMOBC), COLOR: BLACK SOLDERMASK SHALL CONFORM TO IPC-SM-840, CLASS H. CURRENT REV.
 3. FABRICATION VENDOR IS ALLOWED TO INCREASE SOLDERMASK COMPONENT PADS BY A MAXIMUM 1 MIL ON EACH SIDE OVER THE COPPER PAD IN ORDER TO MEET TOOLING REQUIREMENTS WHILE MAINTAINING WEBBING BETWEEN ADJACENT PADS.
 4. APPLY LPI SILKSCREEN OR EQUIVALENT PER THE ARTWORK. COLOR: WHITE.

CUSTOMER NAME		TI			
BOARD NAME		3220DFPDONGLEE		DESCRIPTION	
				FABRICATION DRAWING	
BOARD NO.	REV	DATE	PRJ#	SH	OF
	A1	13 NOV 2015	TIDIB-23916-01	13	13



CUSTOMER NAME		T I		
BOARD NAME		3220DFPDONGLEE	DESCRIPTION	
			PASTEMASK BOTTOM	
BOARD NO.	REV	DATE	PRJ#	SH OF
	A1	13 NOV 2015	TIDIB-23916-01	12 13