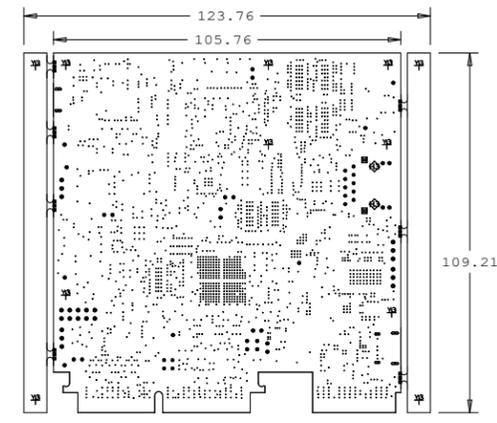


REVISIONS		
REV #	DESCRIPTION	DATE
REV #	CCN #	DDMMYY

FABRICATION NOTES:

- FABRICATE PCB IN ACCORDANCE WITH IPC-6012D, CLASS 2; PER IPC-6011. PCB SHALL BE MANUFACTURED USING ITEQ IT 180A OR EQUIVALENT
- MATERIALS:
 - LAMINATE AND PREPREG (B-STAGE) TO BE IN ACCORDANCE WITH IPC-4101/126. (MIN.TG 170) FR4 HIGH Tg for Core and Prepreg.
 - COPPER FOIL TO BE IN ACCORDANCE WITH IPC-MF-150. UNLESS OTHERWISE SPECIFIED, THE COPPER FOIL THICKNESS TOLERANCES SHALL BE AS PER IPC 6012B TABLE NO.3-7 AND 3-8.
- ALL HOLES SHALL BE LOCATED WITHIN 0.15MM DIAMETER OF TRUE POSITION. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.125MM.
- BOW AND TWIST SHALL NOT EXCEED MORE THAN 0.75% OF THE DESIGN LENGTH.
- CONDUCTOR WIDTH SHALL NOT BE LESS THAN 20% FROM ITS ORIGINAL DATA. INCREASE FOR MATCHING IMPEDANCE MISTRAL SHALL APPROVE THE MODIFIED WIDTHS AND SPACING. TRACE WIDTH SHALL BE MEASURED ON THE SURFACE IN CONTACT WITH THE LAMINATE.
- BOARD FINISHED SHALL BE ACCORDING TO IPC-6012D CLASS 2.
- AUTOMATED OPTICAL INSPECTION OF ALL THE LAYERS IS REQUIRED.
- FINISH:
 - ALL EXPOSED CONDUCTIVE PATTERN AREAS NOT COVERED WITH SOLDER MASK OR OTHER PLATING SHALL BE ENIG, ELECTROLESS NICKEL/IMMERSION GOLD, ELECTROLESS NICKEL SHALL BE 3-6 MICRONS, TYPICAL IMMERSION GOLD THICKNESS SHALL BE 0.04-0.06 MICRONS OF SOLDERABLE IMMERSION GOLD SURFACE.
 - APPLY LIQUID PHOTO IMAGEABLE SOLDER MASK PER IPC-SM-840, CLASS H, TO BOTH SIDES OF THE BOARD OVER BARE COPPER. VIA HOLES SHALL BE RESIN FILLED AND COVERED WITH SOLDER MASK. ONLY SOLDER MASK IMAGES THAT ARE 0.08(0.003") PER SIDE SHALL BE REDUCED IF REQUIRED. ALL OTHER SOLDER MASK IMAGES SHALL NOT BE ENLARGED. DEFAULT COLOUR OF SOLDER MASK SHALL BE GREEN.
 - SILKSCREEN SHALL BE WHITE, PERMANENT, ORGANIC, NON-CONDUCTIVE INK. THERE SHALL BE NO SILKSCREEN ON ANY SOLDERABLE COMPONENT PAD. CLIPPING OF SILK SCREEN SHALL BE ALLOWED IF THE SILK SCREEN FALLS ON SOLDERABLE AREAS.
 - SURFACE AND VIA HOLES FINISH SHALL NOT BE LESS THAN 20UM [0.00079"], IN CASE OF LASER VIA'S, BLIND VIA'S SHALL NOT BE LESS THAN 12UM [0.00047"] AND BURIED VIA'S SHALL NOT BE LESS THAN 15UM [0.0006"].
 - ALL HOLES SURROUNDED BY LAND <=0.010" SHALL BE COMPLIANCE TO IPC6012, CLASS 2.
- MARKING:
 - BOARD SHALL MEET THE REQUIREMENTS OF UL-796E WITH FLAMMABILITY RATING OF MINIMUM 94V-0. UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE RENDERED IN SILKSCREEN.
- TEST REQUIREMENTS:
 - 100% NET LIST ELECTRICAL VERIFICATION USING MISTRAL SUPPLIED IPC-D-356 NET LIST FOR OPENS AND SHORTS.
- THEIVING IS ALLOWED ONLY IN THE PANEL FRAME, NOT IN THE CIRCUIT AREA.
- TEAR DROPS SHALL BE ADDED ON VIA'S AND THROUGH HOLE PADS IN ALL INTERNAL AND OUTER LAYERS.
- ALL UNCONNECTED VIA'S SHALL BE SUPPRESSED IF REQUIRED.
- FINISHED PCB THICKNESS SHALL BE 0.064" +/-10%.
- MIN TRACE WIDTH/SPACING ON BOARD IS 0.0032"/0.0037".
- ENSURE UL REGISTERED E-FILE NUMBER SHALL BE PRINTED ON THE PCB SILKSCREEN.
- VIA ON PAD SHALL BE RESIN FILLED AND CAP-PLATED.
- EDGE FINGERS SHALL HAVE HARD GOLD FINISH AS PER IPC6012.
- ALL BOARD OUTLINE INNER ANGLES THAT ARE NOT EXPLICITLY DIMENTIONED SHALL BE WITH TOOL PATH 1.0MM DIA OR SMALLER.



DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
-	8.0	+3.0/-3.0	PLATED	2215
•	36.0	+3.0/-3.0	PLATED	14
•	40.0	+2.0/-2.0	PLATED	18
•	40.0	+3.0/-3.0	PLATED	12
•	44.0	+2.0/-2.0	PLATED	22
■	66.0	+3.0/-3.0	NON-PLATED	2
•	32.0	+3.0/-3.0	NON-PLATED	21
⊕	108.0	+3.0/-3.0	NON-PLATED	11
•	126.0	+3.0/-3.0	NON-PLATED	2
-	62.0x24.0	+2.0/-2.0	PLATED	2
-	76.0x28.0	+2.0/-2.0	PLATED	2
-	82.0x24.0	+2.0/-2.0	PLATED	2

IMPEDANCE SPECIFICATIONS

SL#	TYPE	LAYER	TRACEWIDTH (Mils)	SPACING (Mils)	IMPEDANCE (Ohms)	REF LAYER
01	EDGE COUPLED MICROSTRIP	L1, L10	4.25	7.15	100	L2, L9
02	EDGE COUPLED MICROSTRIP	L1	4.4	5.75	120	L4
03	STRIPLINE	L3, L8	3.6	NA	50	L2/L4, L7/L9
04	MICROSTRIP	L1, L10	5.8	NA	50	L2, L9
05	EDGE COUPLED MICROSTRIP	L1, L10	4.2	4.4	90	L2, L9
06	EDGE COUPLED STRIPLINE	L8	3.7	6	90	L7/L9

LAYER STACKUP

LAYER NAME	FINISHED Cu	X-SECTION	DIELECTRIC THICKNESS [INCHES]
PRIMARY SIDE SILKSCREEN			
PRIMARY SIDE SOLDERMASK			
L01 PRIMARY SIDE	1.5oz.		0.00355
L02 GROUND-PLANE-1	1oz.		0.004
L03 INNER-SIGNAL-1	1oz.		0.0066
L04 GROUND-PLANE-2	1oz.		0.005
L05 POWER-PLANE-1	1oz.		0.0098
L06 POWER-PLANE-2	1oz.		0.005
L07 GROUND-PLANE-3	1oz.		0.00662
L08 INNER-SIGNAL-2	1oz.		0.004
L09 GROUND-PLANE-4	1oz.		0.00355
L10 SECONDARY SIDE	1.5oz.		
SECONDARY SIDE SOLDERMASK			
SECONDARY SIDE SILKSCREEN			

SIGNATURES	DATE	TEXAS INSTRUMENTS PROC159A
LAYOUT BY KK/ZA	080524	
REVIEWED BY ZA	080524	
APPROVED BY AMB	080524	
		SIZE D
		SCALE: NONE
		Rev A
		SHEET 1 OF 17