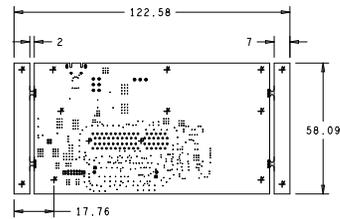


REVISIONS		
REV #	DESCRIPTION	DATE
REV #	CCN #	DDMMYY

FABRICATION NOTES:

- FABRICATE PCB IN ACCORDANCE WITH IPC-6012C, CLASS 2; PER IPC-6011. PCB SHALL BE MANUFACTURED USING 1-SPEED OR EQUIVALENT WITH ET-3-34.
- MATERIALS:**
 - LAMINATE AND PREPREG (B-STAGE) TO BE IN ACCORDANCE WITH IPC-4101/126. (MIN. TO 180)
 - COPPER FOIL TO BE IN ACCORDANCE WITH IPC-WF-150, UNLESS OTHERWISE SPECIFIED. ALL COPPER WEIGHT FOR INNER SIGNAL LAYERS AND INNER PLANE LAYERS TO BE 35UM (1 OZ.). FOR OUTER LAYERS 1.45 OZ. COPPER WEIGHT IS TO BE CONSIDERED "FINISHED". THE COPPER FOIL THICKNESS TOLERANCES SHALL BE AS PER IPC-6010B 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.
- 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 FILLED WITH NON CONDUCTIVE INK AND COVERED WITH SOLDERMASK ONLY SOLDER MASK IMAGES THAT ARE 0.085(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 ZUM [0.00079"].
- ALL HOLES SURROUNDED BY LAND $\leq 0.010^{\circ}$ SHALL BE COMPLAINT TO IPC4012, CLASS 2.
- MARKING:**
 - BOARD SHALL MEET THE REQUIREMENTS OF UL-786E WITH FLAMMABILITY RATING OF MINIMUM 94V-0. UL LOGO, UL FILE NUMBER, 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.
- ALL VIAS SHALL BE TENTER UNLESS OTHERWISE SPECIFIED.
- FINISHED PCB THICKNESS SHALL BE 0.060" +/- 0.002".
- MIN TRACE WIDTH/SPACING ON BOARD IS 0.004"/0.004".
- ALL NON FUNCTIONAL PAD'S OF VIAS AND PTH HOLES SHALL BE REMOVED.
- FOR STACKUP DETAILS PROC067_STACKUP.pdf SHALL BE REFERRED



IMPEDANCE SPECIFICATIONS

SL#	TYPE	LAYER	TRACETHICK(Mils)	SPACING(Mils)	IMPEDANCE(Ohms)	REF LAYER
01	EDGE COUPLED STRIPLINE	L4	4.3	4	90	L5/L3
02	EDGE COUPLED STRIPLINE	L4	4	5.5	100	L5/L3
03	EDGE COUPLED MICROSTRIP	L1,L6	8.2	5	100	L2,L5
04	EDGE COUPLED MICROSTRIP	L1,L6	8	5	100	L2,L5
05	STRIPLINE	L4	9.2	NA	50	L5/L3
06	MICROSTRIP	L1,L6	14	NA	50	L2,L5
07	EDGE COUPLED MICROSTRIP	L6	8.8	6.2	85	L5

LAYER STACKUP

LAYER NAME	FINISHED Cu	X-SECTION	DIELECTRIC THICKNESS [INCHES]
PRIMARY SIDE SILKSCREEN			
PRIMARY SIDE SOLDERMASK			
L01 PRIMARY SIDE	1.45oz		0.0065
L02 GROUND PLANE-1	1oz.		0.0045
L03 POWER-PLANE-1	1oz.		0.0045
L04 INNER SIGNAL-1	1oz.		0.0045
L05 GROUND PLANE-2	1oz.		0.0045
L06 SECONDARY SIDE	1.45oz		0.0065
SECONDARY SIDE SOLDERMASK			
SECONDARY SIDE SILKSCREEN			

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
-	8.0	+3.0/-4.0	PLATED	434
*	28.0	+3.0/-3.0	PLATED	74
*	34.0	+3.0/-3.0	PLATED	2
*	40.0	+3.0/-3.0	PLATED	6
*	44.0	+2.0/-2.0	PLATED	3
*	46.0	+3.0/-3.0	PLATED	2
*	32.0	+3.0/-3.0	NON-PLATED	12
*	42.0	+3.0/-3.0	NON-PLATED	2
#	56.0	+3.0/-3.0	NON-PLATED	2
#	92.0	+3.0/-3.0	NON-PLATED	2
#	108.0	+3.0/-3.0	NON-PLATED	12
*	64.0x32.0	+3.0/-3.0	PLATED	2

SIGNATURES	DATE	TEXAS INSTRUMENTS	PROC067
LAYOUT BY VU	260220		SER-PCIE2LEVM
REVIEWED BY ZA	260220		
APPROVED BY AMB	260220		
	SIZE		REV
	D		A
	SCALE: NONE		SHEET 1 OF 21