

FABRICATION NOTES:

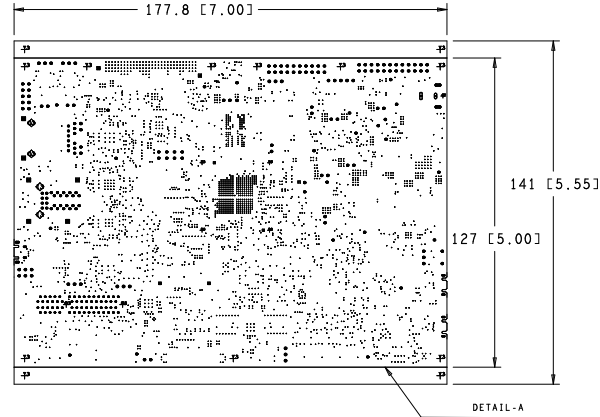
1. FABRICATE PCB IN ACCORDANCE WITH IPC-6012D, CLASS 2₁ PER IPC-6011. PCB SHALL BE MANUFACTURED USING ITEO IT 180A OR EQUIVALENT
2. MATERIALS:
 1. LAMINATE AND PREPREG (B-STAGE) TO BE IN ACCORDANCE WITH IPC-4101/126.
 2. COPPER FOIL TO BE IN ACCORDANCE WITH IPC-MF-150, UNLESS OTHERWISE SPECIFIED.
3. ALL HOLES SHALL BE LOCATED WITHIN 0.15MM DIAMETER OF TRUE POSITION. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.125MM.
4. BOW AND TWIST SHALL NOT EXCEED MORE THAN 0.75% OF THE DESIGN LENGTH.
5. CONDUCTOR WIDTH SHALL NOT BE LESS THAN 20% FROM ITS ORIGINAL DATA. INCASE FOR MATCHING IMPEDANCE MISTRAL SHALL APPROVE THE MODIFIED WIDTHS AND SPACING. TRACE WIDTH SHALL BE MEASURED ON THE SURFACE IN CONTACT WITH THE LAMINATE.
6. BOARD FINISHED SHALL BE ACCORDING TO IPC-6012D CLASS 2.
7. AUTOMATED OPTICAL INSPECTION OF ALL THE LAYERS IS REQUIRED.
8. FINISH:
 1. ALL EXPOSED CONDUCTIVE PATTERN AREAS NOT COVERED WITH SOLDER MASK OR OTHER PLATING SHALL BE ENIG.
 2. 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.
 3. 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.
 4. ALL OTHER SOLDER MASK IMAGES SHALL NOT BE ENLARGED. DEFAULT COLOUR OF SOLDER MASK SHALL BE GREEN.
 5. 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.
 6. SURFACE AND VIA HOLES FINISH SHALL NOT BE LESS THAN 20UM [0.00079"]. INCASE 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"].
 7. ALL HOLES SURROUNDED BY LAND <=0.010" SHALL BE COMPLIANCE TO IPC6012, CLASS 2.
9. MARKING:
 1. BOARD SHALL MEET THE REQUIREMENTS OF UL-796C WITH FLAMMABILITY RATING OF MINIMUM 94V-0. UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE RENDERED IN SILKSCREEN.
10. TEST REQUIREMENTS:
 1. 100% NET LIST ELECTRICAL VERIFICATION USING MISTRAL SUPPLIED IPC-D-356 NET LIST FOR OPENS AND SHORTS.
11. THIEVING IS ALLOWED ONLY IN THE PANEL FRAME, NOT IN THE CIRCUIT AREA.
12. TEAR DROPS SHALL BE ADDED ON VIA'S AND THROUGH HOLE PADS IN ALL INTERNAL AND OUTER LAYERS.
13. ALL UNCONNECTED VIA'S SHALL BE SUPPRESSED IF REQUIRED.
14. FINISHED PCB THICKNESS SHALL BE 0.045" +/-10%.
15. MIN TRACE WIDTH/SPACING ON BOARD IS 0.0032"/0.0037".
16. ENSURE THAT UL REGISTERED E-FILE NUMBER IS ON THE PCB SILKSCREEN.
17. VIA ON PAD SHALL BE RESIN FILLED AND CAP-PLATED.
18. FOR STACKUP DETAIL PROCID_STACKUP.PDF SHALL BE REFERRED.

IMPEDANCE SPECIFICATIONS

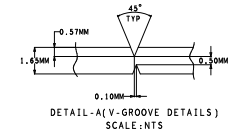
SL#	TYPE	LAYER	TRACEWIDTH(Mils)	SPACING(Mils)	IMPEDANCE(Ohms)	REF LAYER
01	EDGE COUPLED STRIPLINE	L3/L8	3.2	7.5	100	L2/L4/L7/L9
02	EDGE COUPLED MICROSTRIP	L1/L10	4.25	7.5	100	L2/L4
03	EDGE COUPLED STRIPLINE	L3/L8	4.7	8	90	L2/L4/L7/L9
04	EDGE COUPLED MICROSTRIP	L1/L10	4.2	4.2	90	L2/L4
01	EDGE COUPLED STRIPLINE	L3/L8	4.5	4.3	80	L2/L4/L7/L9
02	EDGE COUPLED MICROSTRIP	L1/L10	2.02	2.8	80	L2/L4
03	EDGE COUPLED MICROSTRIP	L1/L10	4.1	5.75	120	L3
03	STRIPLINE	L3/L8	3.6	NA	40	L2/L4/L7/L9
04	MICROSTRIP	L1/L10	9.05	NA	40	L2/L4
04	STRIPLINE	L3/L8	3.6	NA	50	L2/L4/L7/L9
05	MICROSTRIP	L1/L10	3.6	NA	50	L2/L4


LAYER STACKUP

LAYER NAME	FINISHED Cu	X-SECTION	DIELECTRIC THICKNESS
[INCHES]			
PRIMARY SIDE SILKSCREEN			
PRIMARY SIDE SOLDERMASK			
L01 PRIMARY SIDE	1oz.		0.0037
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.		0.009
L06 POWER-PLANE-2	1oz.		0.005
L07 GROUND-PLANE-3	1oz.		0.0066
L08 INNER-SIGNAL-2	1oz.		0.004
L09 GROUND-PLANE-4	1oz.		0.0037
L10 SECONDARY SIDE	1oz.		
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/-3.0	PLATED	3038
+	28.0	+3.0/-3.0	PLATED	64
+	36.0	+3.0/-3.0	PLATED	40
+	40.0	+2.0/-2.0	PLATED	29
+	40.0	+3.0/-3.0	PLATED	101
+	44.0	+2.0/-2.0	PLATED	18
+	62.0	+3.0/-3.0	PLATED	6
+	34.0	+1.0/-1.0	NON-PLATED	2
+	40.0	+3.0/-3.0	NON-PLATED	2
+	50.0	+3.0/-3.0	NON-PLATED	2
+	64.0	+2.0/-2.0	NON-PLATED	1
+	68.0	+3.0/-3.0	NON-PLATED	4
+	92.0	+3.0/-3.0	NON-PLATED	2
+	108.0	+3.0/-3.0	NON-PLATED	13
+	124.0	+3.0/-3.0	NON-PLATED	2
+	128.0	+3.0/-3.0	NON-PLATED	2
+	52.0x24.0	+3.0/-3.0	PLATED	4
+	52.0x28.0	+3.0/-3.0	PLATED	2
+	44.0x32.0	+3.0/-3.0	PLATED	2
+	90.0x40.0	+3.0/-3.0	PLATED	1
+	98.0x40.0	+3.0/-3.0	PLATED	2
+	118.0x40.0	+3.0/-3.0	PLATED	1



SIGNATURES		DATE	 TEXAS INSTRUMENTS		PROC101E2
LAYOUT BY	UD	100920			
REVIEWED BY	ZA	100920	AM64x EVM BOARD		
APPROVED BY	AMB	100920			
			SIZE		Rev
			D		E2
			SCALE: NONE		SHEET 1 OF 17