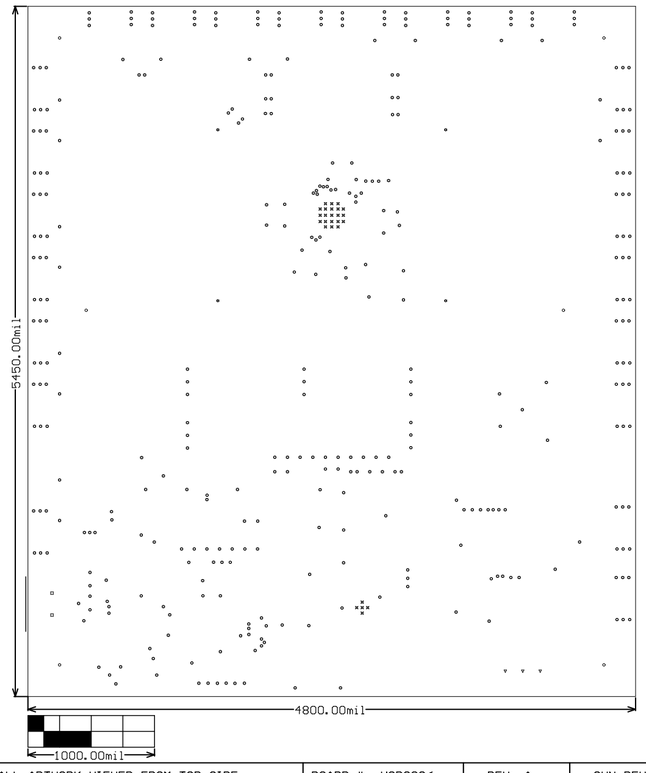
Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric1	FR-4 High Tg	7.00mil	4.1	
5	L2 Mid Layer 1 - GND	Copper	1.40mil		
6	Dielectric2	FR-4 High Tg	14.00mil	4.1	
7	L3 Mid Layer 2 - SIG	Copper	1.40mil		
8	Dielectric3	FR-4 High Tg	10.80mil	4.1	
9	L4 Mid Layer 3 - PWR	Copper	1.40mil		
10	Dielectric6	FR-4 High Tg	14.00mil	4.1	
11	L5 Mid Layer 4 - GND	Copper	1.40mil		
12	Dielectric8	FR-4 High Tg	7.00mil	4.1	
13	Bottom Layer	Copper	1.40mil		
14	Bottom Solder	Solder Resist	0.40mil	3.5	
15	Bottom Overlay				



Controlled Impedance				
Layer	Single-Ended	Ω	+/- %	Reference Layers
1	11mils	50	10	2
6	11mils	50	10	2

Symbol	Quantity	Finished Hole Size	Plated	Hole Type	Drill Layer Pair	Hole Tolerance
□	2	35.43mil (0.900mm)	NPTH	Round	Top Layer - Bottom Layer	
⌘	26	7.87mil (0.200mm)	PTH	Round	Top Layer - Bottom Layer	
⌖	358	10.00mil (0.254mm)	PTH	Round	Top Layer - Bottom Layer	
✡	4	40.00mil (1.016mm)	PTH	Round	Top Layer - Bottom Layer	
▽	3	50.00mil (1.270mm)	PTH	Round	Top Layer - Bottom Layer	
○	6	125.98mil (3.200mm)	PTH	Round	Top Layer - Bottom Layer	
	399 Total					

DESIGN INFORMATION

MIN. TRACK WIDTH: 9 MIL
MIN. CLEARANCE: 0.127mm
MIN. VIA PAD SIZE: 20 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL
HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL

MATERIAL:
☐ FR-408 ☒ FR-4 High Tg ☐ OTHER _____
THICKNESS: ☒ 62 MIL (1.6mm) +/-10% ☐ OTHER _____
TOLERANCE: ☒ ANSI IPC-6012 TYPE 3 CLASS 2
☐ OTHER +/- _____
BOW & TWIST: ☒ ANSI IPC-6012 TYPE 3 CLASS 2
☐ OTHER +/- _____

DRILLING:
REFERENCE: ☒ AS SHOWN ☒ NC_DRILL FILES
PTH COPPER THICKNESS: ☒ 20-30 um ☐ OTHER _____

BOARD FINISH:
SILKSCREEN: ☒ TOP ☒ BOTTOM
SILKSCREEN COLOR: ☒ WHITE ☐ OTHER _____
SOLDER RESIST COLOR: ☒ GREEN ☐ OTHER _____
☒ MATTE ☐ SEMI-GLOSS

SURFACE FINISH: ☒ IMMERSION GOLD (ENIG) ☐ ENEPIG
☐ IMM. TIN/SILVER OR EQUIV ☐ OTHER _____

ARRAY/PANEL: ☐ CUT AND TRIM PER M1 BOARD OUTLINE
☐ N.C. ROUTE ☒ V. SCORE

CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
☒ ANSI IPC-A-600F CLASS -> ☐ 1 ☒ 2 ☐ 3
☒ RoHS ☐ OTHER PER ORDER

ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.
PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER

ADDITIONAL REQUIREMENTS:
MICROSECTION: ☐ YES
BARE BOARD ELEC. TEST: ☐ NONE ☒ REQUIRED ☐ PER ORDER
☐ XX MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE
☐ XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE
☐ OUTER XX MIL TRACES REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE
☐ LAYER 2 & 3 (INNER LAYERS) XX MIL WIDE, XX MIL SPACE TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE

TEXAS INSTRUMENTS

PROJECT TITLE: LMK05318BEVM
DESIGNED FOR: Public Release
FILE NAME: HSDC086A.PcbDoc
ENGINEER: Hao Zheng
LAYOUT BY: Krypton
SCALE: 1.08
ALTIUM DESIGNER VERSION: 17.1.5.472

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: HSDC086	REV: A	SVN REV: Not In VersionControl
LAYER NAME = [illegible]ons			
PLOT NAME = Fabrication Drawing	GENERATED : 3/26/2020 11:50:50 PM	TEXAS INSTRUMENTS	

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