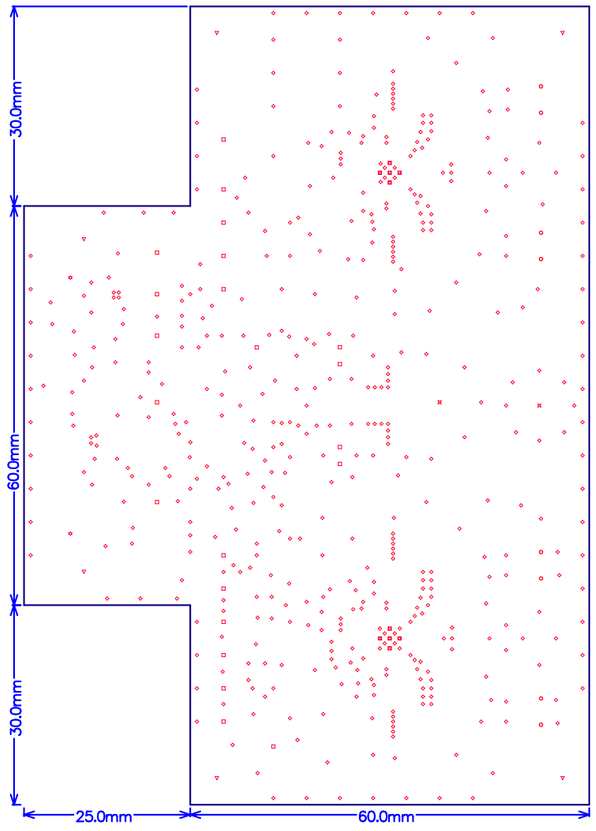


M12 Stackup

| Layer | Name | Material | Thickness | Constant | Board Layer Stack |
|---|---|---|---|---|---|
| 1 | Top Overlay | | | | |
| 2 | Top Solder | Solder Resist | 0.40mil | 3.5 | |
| 3 | Top Layer | Copper | 2.74mil | | |
| 4 | Dielectric 1 | FR-4 | 8.00mil | 4.2 | |
| 5 | Signal Layer 1 | Copper | 1.40mil | | |
| 6 | Dielectric 2 | FR-4 | 37.42mil | 4.2 | |
| 7 | Signal Layer 2 | Copper | 1.40mil | | |
| 8 | Dielectric 3 | FR-4 | 8.00mil | 4.2 | |
| 9 | Bottom Layer | Copper | 2.74mil | | |
| 10 | Bottom Solder | Solder Resist | 0.40mil | 3.5 | |
| 11 | Bottom Overlay | | | | |

Drill Guide

| Symbol | Quantity | Finished Hole Size | Plated | Hole Type | Drill Layer Pair |
|---|---|---|---|---|---|
| | 2 | 40.00mil (1.016mm) | NPTH | Round | Top Layer - Bottom Layer |
| | 10 | 7.87mil (0.200mm) | PTH | Round | Top Layer - Bottom Layer |
| | 495 | 10.00mil (0.254mm) | PTH | Round | Top Layer - Bottom Layer |
| | 22 | 40.00mil (1.016mm) | PTH | Round | Top Layer - Bottom Layer |
| | 8 | 70.00mil (1.778mm) | PTH | Round | Top Layer - Bottom Layer |
| | 6 | 127.95mil (3.250mm) | PTH | Round | Top Layer - Bottom Layer |
| | 2 | 144.00mil (3.658mm) | PTH | Round | Top Layer - Bottom Layer |
| | 545 Total | | | | |

M10 Fab Notes

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
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 [X] FR-4 High Tg [ ] OTHER
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/-

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH COPPER THICKNESS: [X] 20-30 um [ ] OTHER

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER
SOLDER RESIST COLOR: [X] BLUE [ ] OTHER
[X] MATTE [ ] SEMI-GLOSS
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER
ARRAY/PANEL: [ ] CUT AND TRIM PER M1 BOARD OUTLINE
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] 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 [X] REQUIRED [ ] PER ORDER
[ ] XX MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE
[ ] XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE
[ ] OUTER XX MIL VIAS 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: TAS5825MRHB Evaluation Module
DESIGNED FOR: Public Release
FILE NAME: AMPS023A_PCB.PcbDoc

ALL ARTWORK VIEWED FROM TOP SIDE | BOARD #: AMPS023 | REV: A | SVN REV: Not In VersionControl
LAYER NAME = Drill Drawing | M1 Board Outline M2 Board Dimensions
PLOT NAME = Fabrication Drawing | GENERATED : 2/8/2018 10:38:30 AM | TEXAS INSTRUMENTS

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ENGINEER: ANDY LIU | LAYOUT BY: LDN
SCALE: 1.12 | ALTIUM DESIGNER VERSION: 17.1.5.472