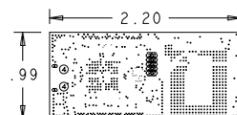


NOTES (UNLESS OTHERWISE SPECIFIED):

- THIS DRAWING SPECIFIES THE REQUIREMENTS FOR A PRINTED WIRING BOARD IN ACCORDANCE WITH SPECIFICATION IPC-A-600 CLASS 2 (LATEST REVISION).
- THE PWB MUST BE LEAD FREE ASSEMBLY PROCESS COMPATIBLE AND MUST BE ABLE TO HANDLE A MINIMUM OF 5 CYCLES AT 260 DEGREES CELSIUS FOR 10 SECONDS.
- BASE MATERIAL - LAMINATE AND PREPREG SHALL MEET IPC-4101B-26, 83 or 98  
T<sub>g</sub> - MUST BE GREATER THAN OR EQUAL TO 150 DEGREES CELSIUS.  
T<sub>d</sub> - MUST BE GREATER THAN OR EQUAL TO 330 DEGREES CELSIUS.
- COPPER FOIL WEIGHT - FINISH AT 1/2 OZ. TO 1 OZ. COPPER.
- CHARACTERISTIC IMPEDANCE - NONE
- MINIMUM CONDUCTIVE WIDTH/SPACING TO BE .00X"/.00X"
- PLATING FINISH - BOTH SIDES ENIG (ELECTROLESS NICKEL IMMERSION GOLD):  
.05080-.232 MICRON (2-8 MICROINCH) OF GOLD OVER  
2.540-6.350 MICRON (100-250 MICROINCH) OF NICKEL.
- ALL THROUGH HOLE VIAS MAY BE PLATED SHUT.
- SOLDERMASK - GREEN COLOR (TAYO OR EQUIVALENT), BOTH SIDES.  
MODIFICATION OF SOLDERMASK IS NOT ALLOWED WITHOUT WRITTEN PERMISSION FROM NXP.
- SILKSCREEN - WHITE EPOXY INK, BOTH SIDES. NO SILKSCREEN ON ANY EXPOSED COPPER FEATURE.
- ELECTRICAL TEST - 100% IPCD356.
- PRINTED WIRING BOARD IS TO BE INDIVIDUALLY BAGGED.
- DRC'S MUST BE RUN ON THE GERBER BEFORE BUILDING BOARDS,  
UNLESS PRIOR APPROVAL IS GIVEN IN WRITING BY NXP.
- TEARDROPS MAYBE ADDED AT THE FAB HOUSE TO ALL SIGNAL LAYERS.
- SOLDER SAMPLES TO BE PROVIDED.
- BASIC GRID INCREMENT AT 1:1 IS .0001.
- SUPPLIER MARKINGS - ON SOLDER SIDE ONLY, WHERE SHOWN.  
- MUST BE UL RECOGNIZED AND MUST HAVE AN ID THAT CONFORMS TO UL94V-0
- THE PWB WILL BE MARKED AS LEAD FREE BY USE OF AN INK STAMP (Pb)
- THE PWB WILL BE MARKED AS LEAD FREE PROCESS COMPATIBLE BY USE OF AN INK STAMP (260°C)
- ALL PLATED AND NON-PLATED THROUGH HOLES ARE TO BE DRILLED AT PRIMARY DRILL STEP.  
ALL HOLE LOCATION TOLERANCES ARE TO BE +/- .002 IN REFERENCE TO THE PRIMARY DATUM.
- FINISHED PCB MUST BE PANELIZED FOR ASSEMBLY ACCORDING TO CONTRACT MANUFACTURERS REQUIREMENTS. THE ADDITION OF RAILS AND .125" NON-PLATED TOOLING HOLES ARE AT THE DISCRETION OF CONTRACT MANUFACTURER. PANELIZATION MUST BE APPROVED BY CONTRACT MANUFACTURER.

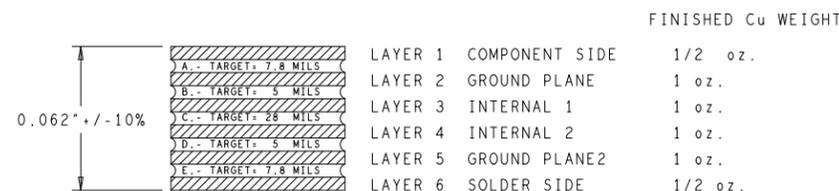
| REVISIONS |     |                                |          |          |
|-----------|-----|--------------------------------|----------|----------|
| ZONE      | REV | DESCRIPTION                    | DATE     | APPROVED |
|           | X3  | ORIGINAL RELEASE               | 08-23-17 | A.O.     |
|           | X4  | Connected Pi_0 to SPI_INT_Wifi | 10-06-17 | J.R.     |
|           | A   | PRODUCTION RELEASE             | 11-28-17 | A.O.     |

| DRILL CHART: TOP to BOTTOM |           |           |        |     |
|----------------------------|-----------|-----------|--------|-----|
| ALL UNITS ARE IN MILS      |           |           |        |     |
| FIGURE                     | SIZE      | TOLERANCE | PLATED | QTY |
| -                          | 6.0       | +0.0/-0.0 | PLATED | 21  |
| -                          | 8.0       | +0.0/-0.0 | PLATED | 242 |
| -                          | 10.0      | +0.0/-0.0 | PLATED | 412 |
| ⊙                          | 26.0      | +2.0/-2.0 | PLATED | 10  |
| ⊙                          | 40.0      | +2.0/-2.0 | PLATED | 2   |
| *                          | 59.0x33.0 | +2.0/-2.0 | PLATED | 2   |



DETAIL B  
IMPEDANCE REQUIREMENTS  
IMPEDANCE TOLERANCE IS 10%

| LAYERS   | SINGLE ENDED       |                  | DIFFERENTIAL       |                                |                  |                    |                                |                  |
|----------|--------------------|------------------|--------------------|--------------------------------|------------------|--------------------|--------------------------------|------------------|
|          | TRACE WIDTH (MILS) | IMPEDANCE (OHMS) | TRACE WIDTH (MILS) | TRACE SPACING "AIR GAP" (MILS) | IMPEDANCE (OHMS) | TRACE WIDTH (MILS) | TRACE SPACING "AIR GAP" (MILS) | IMPEDANCE (OHMS) |
| L1_PS    | xxxx               | xx               | 8.00               | 5.50                           | 90               | 6.00               | 5.50                           | 100              |
| L2_GND_1 |                    |                  |                    |                                |                  |                    |                                |                  |
| L3_INT_1 |                    |                  |                    |                                |                  |                    |                                |                  |
| L4_INT_2 |                    |                  | 8.00               | 5.50                           | 90               |                    |                                |                  |
| L5_GND_2 |                    |                  |                    |                                |                  |                    |                                |                  |
| L6_SS    |                    |                  | 8.00               | 5.50                           | 90               | 6.00               | 5.50                           | 100              |



DETAIL A  
LAYER STACKUP  
SCALE: NONE

|   |  |   |                       |
|---|--|---|-----------------------|
| PART NO.<br>170-30019   |  | THIS DOCUMENT CONTAINS INFORMATION PROPRIETARY TO FREESCALE AND SHALL NOT BE USED FOR ENGINEERING DESIGN PROCUREMENT OR MANUFACTURE IN WHOLE OR IN PART WITHOUT THE CONSENT OF FREESCALE. |                       |
| NXP SEMICONDUCTORS  |  | 6501 WILLIAM CANNON DRIVE WEST AUSTIN, TEXAS 78735 USA  |                       |
| TITLE:<br>PRINTED WIRING BOARD<br>OM40007   |  | SIZE  | CAD FILE NAME         |
| DRAWN<br>A QUIROZ   |  | DATE<br>11-28-17  | DWG. NO.<br>FAB-30019 |
| CHECKED<br>A QUIROZ   |  | DATE<br>11-28-17  | REV<br>A              |
| DESIGN ENGINEER<br>J RAMIREZ  |  | DATE<br>11-28-17  | SHEET OF              |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:<br>DECIMALS .XX .01<br>.XXX .005<br>ANGLES 0-30°<br>✓ RMS ALL MACHINED SURFACES<br>BREAK ALL SHARP EDGES AND CORNERS.<br>REMOVE BURRS.<br>UNDERLINED DIM. NOT TO SCALE.<br>THIRD ANGLE ORTHOGRAPHIC PROJECTION IS USED. |  | SCALE<br>DO NOT SCALE DRAWING   |                       |