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Hole Length = Plated Hole Length + Tool Size + Drill length as defined in the PCB layout.</p> <p>FOR 7.87MIL DRILL +0/-7.87MIL FOR 12.20 MIL DRILL +0/-12.20MIL FOR PTH +/-3MIL FOR NPTH +/-2MIL</p>		Symbol	Count	Hole Size	Hole Length	Plated	Drill Layer Pair	▽	9	7.87mil (0.200mm)	-	PTH	TOP - BOTTOM	✱	1048	12.20mil (0.310mm)	-	PTH	TOP - BOTTOM	◇	2	25.42mil (0.650mm)	51.18mil (1.300mm)	PTH	TOP - BOTTOM	Σ	2	35.47mil (0.900mm)	-	PTH	TOP - BOTTOM	⊗	2	36.27mil (1.000mm)	116.17mil (3.000mm)	PTH	TOP - BOTTOM	⊙	1	36.27mil (1.000mm)	137.80mil (3.500mm)	PTH	TOP - BOTTOM	□	10	40.00mil (1.016mm)	-	PTH	TOP - BOTTOM	▽	2	40.16mil (1.020mm)	-	NPTH	TOP - BOTTOM	○	3	40.16mil (1.020mm)	-	PTH	TOP - BOTTOM	⊗	3	47.34mil (1.200mm)	-	PTH	TOP - BOTTOM	⊙	2	107.48mil (2.730mm)	-	PTH	TOP - BOTTOM	⊙	5	180.00mil (4.570mm)	-	NPTH	TOP - BOTTOM	<table><thead><tr><th>Layer</th><th>Name</th><th>Material</th><th>Thickness</th><th>Constant</th><th>Board Layer Stack</th></tr></thead><tbody><tr><td>1</td><td>Top Overlay</td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td>Top Solder</td><td>Solder Resist</td><td>0.80mil</td><td>0</td><td></td></tr><tr><td>3</td><td>TOP</td><td>Copper</td><td>1.60mil</td><td></td><td></td></tr><tr><td>4</td><td>Dielectric1</td><td>R04835 LOPRO</td><td>4.00mil</td><td>3.66</td><td></td></tr><tr><td>5</td><td>L2-GND1</td><td>Copper</td><td>1.40mil</td><td></td><td></td></tr><tr><td>6</td><td>Dielectric2</td><td>370HR</td><td>5.67mil</td><td>3.9</td><td></td></tr><tr><td>7</td><td>L3-GND/SIG</td><td>Copper</td><td>1.20mil</td><td></td><td></td></tr><tr><td>8</td><td>Dielectric3</td><td>370HR</td><td>28.00mil</td><td>4.36</td><td></td></tr><tr><td>9</td><td>L4-GND/SIG</td><td>Copper</td><td>1.20mil</td><td></td><td></td></tr><tr><td>10</td><td>Dielectric4</td><td>370HR</td><td>5.90mil</td><td>3.9</td><td></td></tr><tr><td>11</td><td>L5-GND2</td><td>Copper</td><td>1.20mil</td><td></td><td></td></tr><tr><td>12</td><td>Dielectric5</td><td>370HR</td><td>4.00mil</td><td>4.26</td><td></td></tr><tr><td>13</td><td>BOTTOM</td><td>Copper</td><td>1.60mil</td><td></td><td></td></tr><tr><td>14</td><td>Bottom Solder</td><td>Solder Resist</td><td>0.80mil</td><td>0</td><td></td></tr><tr><td>15</td><td>Bottom Overlay</td><td></td><td></td><td></td><td></td></tr></tbody></table> <table><thead><tr><th>Symbol</th><th>Count</th><th>Hole Size</th><th>Hole Length</th><th>Plated</th><th>Drill Layer Pair</th></tr></thead><tbody><tr><td>⊗</td><td>700</td><td>6.80mil (0.173mm)</td><td>-</td><td>PTH</td><td>TOP - L3-GND1</td></tr></tbody></table> <p>FOR 5.90 MIL DRILL +0/-5.90MIL</p>		Layer	Name	Material	Thickness	Constant	Board Layer Stack	1	Top Overlay					2	Top Solder	Solder Resist	0.80mil	0		3	TOP	Copper	1.60mil			4	Dielectric1	R04835 LOPRO	4.00mil	3.66		5	L2-GND1	Copper	1.40mil			6	Dielectric2	370HR	5.67mil	3.9		7	L3-GND/SIG	Copper	1.20mil			8	Dielectric3	370HR	28.00mil	4.36		9	L4-GND/SIG	Copper	1.20mil			10	Dielectric4	370HR	5.90mil	3.9		11	L5-GND2	Copper	1.20mil			12	Dielectric5	370HR	4.00mil	4.26		13	BOTTOM	Copper	1.60mil			14	Bottom Solder	Solder Resist	0.80mil	0		15	Bottom Overlay					Symbol	Count	Hole Size	Hole Length	Plated	Drill Layer Pair	⊗	700	6.80mil (0.173mm)	-	PTH	TOP - L3-GND1	<p>DESIGN INFORMATION</p> <p>MIN. TRACK WIDTH: 4 MIL MIN. CLEARANCE: 4 MIL MIN. VIA PAD SIZE: 13.27 MIL MINIMUM ANNUAL RING 0.05mm (2MIL) EXTERNAL PER IPC-D-275 CLASS 2 LEVEL C REGISTRATION TOLERANCES: METAL +/- 2 MIL, HOLES +/- 3 MIL HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL</p> <p>MATERIAL:</p> <p><input type="checkbox"/> FR-408 <input type="checkbox"/> FR-4 High Tg <input checked="" type="checkbox"/> OTHER REFER STACKUP</p> <p>THICKNESS: <input checked="" type="checkbox"/> 56.21 MIL (1.43mm) +/-10% <input type="checkbox"/> OTHER</p> <p>TOLERANCE: <input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/-</p> <p>BOW & TWIST: <input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/-</p> <p>DRILLING:</p> <p>REFERENCE: <input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES PTH COPPER THICKNESS: <input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER</p> <p>BOARD FINISH:</p> <p>SILKSCREEN: <input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM SILKSCREEN COLOR: <input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER SOLDER RESIST COLOR: <input type="checkbox"/> GREEN <input checked="" type="checkbox"/> OTHER RED <input checked="" type="checkbox"/> MATTIE <input type="checkbox"/> SEMI-GLOSS</p> <p>SURFACE FINISH: <input type="checkbox"/> IMMERSION GOLD (ENIG) <input type="checkbox"/> ENERPIG <input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input checked="" type="checkbox"/> OTHER IMM SILVER</p> <p>ARRAY/PANEL: <input checked="" type="checkbox"/> CUT AND TRM PER M1 BOARD OUTLINE <input type="checkbox"/> N.C. ROUTE <input type="checkbox"/> V. SCORE</p> <p>CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF: <input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER</p> <p>ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS. PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER</p> <p>ADDITIONAL REQUIREMENTS:</p> <p>MICROSECTION: <input type="checkbox"/> YES</p> <p>BARE BOARD ELEC. TEST: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER</p> <p><input type="checkbox"/> XX MIL VAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE <input type="checkbox"/> XX MIL VAS REQUIRE CONDUCTIVE FILL AND PLANARIZE <input type="checkbox"/> OUTER XX MIL TRACES REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE <input type="checkbox"/> OUTER XX MIL TRACES REQUIRE 100 OHM DIFFERENTIAL PAIR IMPEDANCE CONTROL TRACES</p> <p></p> <p>PROJECT TITLE: x4R1642800ST</p> <p>DESIGNED FOR: Public Release</p> <p>FILE NAME: PROC011B.PcbDoc</p> <p>ENGINEER: Uivek Dham</p> <p>LAYOUT BY: TESSOLUE</p> <p>ALTIM DESIGNER VERSION: 17.1.9.592</p> <p>SCALE: 1.00</p>	
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<p>ALL ARTWORK VIEWED FROM TOP SIDE</p> <p>LAYER NAME = FAB_DWG</p> <p>PLOT NAME =PROC011B.GDI</p>		<p>BOARD #: PROC011</p> <p>TID #: N/A</p> <p>GENERATED : 4/12/2018 4:09:34 PM</p>	<p>REV: B</p> <p>SUN REV: Not In VersionControl</p> <p>TEXAS INSTRUMENTS</p>	<p>Texas Instruments (TI) and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. TI and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. TI and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.</p>																																																																																																																																																																																											
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3.30in

2.56in

R 0.07in
AT 4 PLACES

NOTES: UNLESS OTHERWISE SPECIFIED.

- ALL VAS ARE TENDED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
- ALL VAS ON PAD INCLUDING BGA AREA SHOULD BE FILLED WITH NON CONDUCTIVE EPOXY AND SURFACE SHOULD BE FLAT BGA AREA VAS SHOULD BE CAPPED WITH COPPER PLATING TO ENSURE FLAT SURFACE REFER VAS FILL DOCUMENT TO IDENTIFY THE VAS TO BE FILLED FLATNESS TOLERANCE FOR VIA ON PADS: +0.000 /- 0.001 INCHES ON BOTH SIDES.
- MANUFACTURER'S IDENTIFICATION/DATECODE LETTER SHALL BE SILKSCREENED ON SOLDER SIDE OF THE BOARD.
- TRACE WIDTH SHOULD BE ACCURATELY ETCHED. MAX TOLERANCE +/- 1 MIL
- REFER STACKUP DOCUMENT FOR IMPEDANCE CONTROL TRACES ON LAYER 1.
50 OHM SINGLE ENDED AND 100 OHM DIFFERENTIAL IMPEDANCE CONTROL TRACES.
- SOLDER MASK OPENING IS KEPT SAME SIZE AS PAD (1:1).

THE MANUFACTURER IS REQUESTED TO RESIZE IT AS PER THEIR SOLDERMASK TOLERANCE EXCEPT NPTH DRILL AND FIDUCIALS.