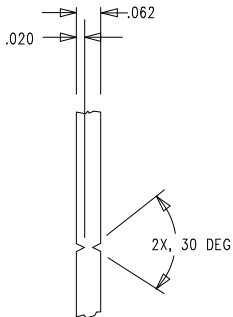
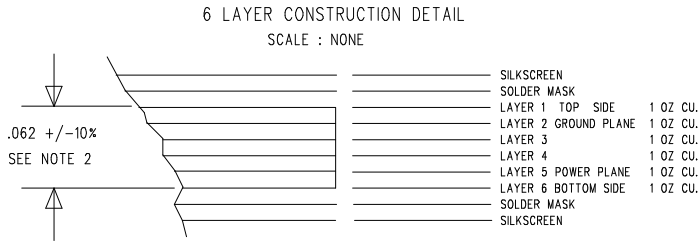
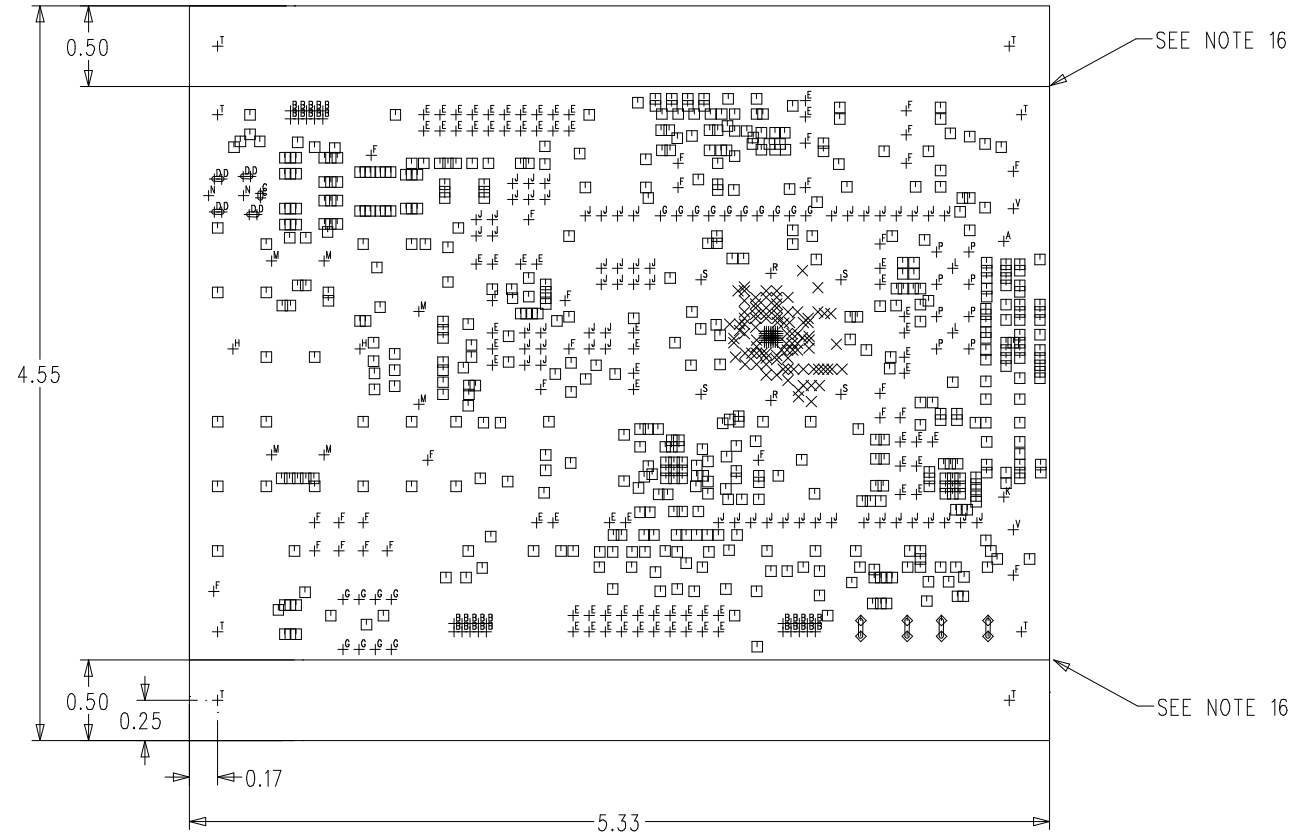
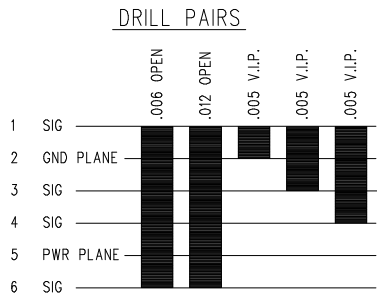


SIZE	QTY	SYM	PLATED	TOL
0.005	42	+	YES	+0.000/-0.005
0.006	93	×	YES	+0.000/-0.006
0.012	535	□	YES	+/-0.003
0.028 x 0.126	4	◇	YES	+/-0.003
0.028	1	⊥ <sup>A</sup>	NO	+/-0.003
0.029	30	⊥ <sup>B</sup>	YES	+/-0.003
0.032 x 0.06	1	⊥ <sup>C</sup>	YES	+/-0.003
0.032 x 0.078	4	⊥ <sup>D</sup>	YES	+/-0.003
0.038	70	⊥ <sup>E</sup>	YES	+/-0.003
0.04	29	⊥ <sup>F</sup>	YES	+/-0.005
0.041	18	⊥ <sup>G</sup>	YES	+/-0.003
0.042	2	⊥ <sup>H</sup>	YES	+/-0.003
0.043	56	⊥ <sup>J</sup>	YES	+/-0.003
0.044	1	⊥ <sup>K</sup>	NO	+/-0.003
0.047	2	⊥ <sup>L</sup>	YES	+/-0.003
0.053	6	⊥ <sup>M</sup>	NO	+/-0.003
0.063	2	⊥ <sup>N</sup>	NO	+/-0.003
0.067	8	⊥ <sup>P</sup>	YES	+/-0.003
0.079	2	⊥ <sup>R</sup>	NO	+/-0.003
0.095	4	⊥ <sup>S</sup>	NO	+/-0.003
0.125	8	⊥ <sup>T</sup>	NO	+/-0.005
0.144	2	⊥ <sup>V</sup>	NO	+/-0.005



SCORING DETAIL  
2 PLACES



REVISIONS				
REV	DESCRIPTION OF CHANGE	DRFTR	DATE	APPROVED
0.1	NEW RELEASE	C.C.D.	8/26/16	
1.0	UPDATED PER ECO2017-001	C.C.D.	1/09/17	

- UNLESS OTHERWISE SPECIFIED
- BOARD TO BE FABRICATED PER IPC-6012B, CLASS 2.
  - MATERIAL: FR-370HR OR EQUIVALENT. OUTER LAYERS 1 OZ/SQFT CU INNER LAYERS 1 OZ/SQFT CU FINISHED .062 +/-10%. VENDOR MAY ADJUST THICKNESS TO FULFILL NOTE 9.
  - PLATING: ADDITIONAL CU PLATING 1 OZ/SQFT  
ALL HOLES PLATED THROUGH, EXCEPT AS NOTED IN HOLE LEGEND.  
MINIMUM PTH BARREL THICKNESS = 0.0008" MINIMUM AVERAGE PER IPC-6012B WITH AMENDMENT 1, CLASS 2 REQUIREMENTS. WITH NO SINGLE MEASUREMENT LESS THAN 0.00071 IN THE PLATED HOLES.
  - FINISH: SURFACES TO BE COATED BY ENIG OF 3 TO 5 MICROINCHES OVER A MINIMUM OF 150-200 MICROINCHES OF LOW STRESS NICKEL.
  - SOLDERMASK: SOLDER MASK TO BE TRANSPARENT GREEN LPI BOTH SIDES PER GERBER FILES. VENDOR MAY ADJUST SOLDERMASK PAD SIZE AS NEEDED.
  - SILKSCREEN: WHITE EPOXY INK, APPLY TO BOTH SIDES PER GERBER FILES.
  - ARTWORK: MINIMUM FEATURE SIZE = 0.005  
MINIMUM AIR GAP = 0.004
  - ALL DIMENSIONS ARE IN INCHES.
  - CONTROLLED IMPEDANCE (+/-10%):  
ALL .007" TRACES TO BE 90 OHM DIFFERENTIAL PAIRS.  
ALL .005" TRACES TO BE 50 OHM SINGLE ENDED.
  - NON-FUNCTIONAL COPPER THIEVING IS ALLOWED ON OPEN AREAS.
  - VIAS SHOULD BE COVERED ACCORDING TO ONE OF THE FOLLOWING METHODS.  
METHOD 1 IS PREFERRED.  
METHOD 1: VIAS MUST BE FILLED WITH SOLDERMASK MATERIAL AFTER ELECTROLESS NICKEL/IMMERSION GOLD AND BEFORE PRIMARY LPI MASK. AFTER THE FILL IS CURED, THE PRIMARY MASK IS THEN APPLIED WITH NO VIA APERTURES BOTH SIDES.  
METHOD 2: AFTER APPLICATION OF FULL BODY ELECTROLESS NICKEL/IMMERSION GOLD, APPLY PRIMARY MASK WITH REDUCED VIA APERTURES THAT ARE 6 MILS LARGER THAN DRILLED HOLE DIAMETER BOTH SIDES. THEN APPLY SOLDER MASK PLUG ON COMPONENT SIDE.
  - VIA HOLES (.012) REQUIRE TANGENCY ONLY, INSTEAD OF ANNULAR RING.
  - TEARDROP PADS ARE ACCEPTABLE WHERE NEEDED.
  - REMOVAL OF NON-FUNCTIONAL PADS ON LAYERS 3 AND 4 IS ACCEPTABLE.
  - USE IPC-D-356A NETLIST AS SUPPLIED FOR CHECKING.
  - V SCORE 1 LINE ON BOTH SIDES OF THE BOARD. SEE DETAIL.
  - BUILD AS 1-UP PCB.
  - ALL .005" HOLES TO BE FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER (VIA-IN-PAD).

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE : .xx +/- .010 .xxx +/- .005	CONTRACT NO.		2 Elizabeth Drive Chelmsford, MA 01824		
	APPROVALS	DATE			
MATERIAL SEE NOTES	DRAWN C.C.D.	1/09/17	FABRICATION DRAWING ADuCM4050 WL CSP EZ-KIT		
FINISH SEE NOTES	ENGINEERING CHECKED				
DO NOT SCALE THIS DRAWING	MANUFACTURING		SIZE B	DWG. NO. A0919-2016	REV. 1.0
			SCALE 1 : 1	SHEET 1 OF 1	