FAB_DWG.art Scale=0.18 Mon Mar 16 14:28:20 2015

REVISIONS			
REV	DESCRIPTION	APPROVED	DATE
A	RELEASE		

NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).

MATERIAL:
(USE CHECKED ITEMS FOR MATERIAL)

2. BOARD MATERIAL:
   - [X] FR4 (RoHS COMPLIANT) OR EQUIVALENT
   - [ ] ISOLA-FR4006M
   - [ ] NELCO-4000-13 OR EQUIVALENT
   - [ ] 370HR (RoHS COMPLIANT) OR EQUIVALENT
   - [ ] ROGERS 4350B/FR4006M
   - [ ] ROGERS 4003C/FR4006M
   - [ ] OTHER _____

3. THE PCB SHALL BE FABRICATED TO IPC-6012, TYPE 2, CLASS 2. WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2, CURRENT REVISIONS.

4. BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF UL796 WITH FLAMMABILITY RATING OF 94V-0.

5. OVERALL BOARD THICKNESS REFER TO LAMINATION DIAGRAM. TOLERANCE APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES. IT IS TO BE MEASURED FROM TOP PCB METAL TO BOTTOM PCB METAL UNLESS OTHERWISE SPECIFIED.

6. BOW & TWIST NOT TO EXCEED 0.0075 IN. (0.75%) PER LINEAR INCH. BOW & TWIST SHOULD BE MEASURED PER IPC-TM-650, METHOD 2.4.22.

TOOLING:
(USE CHECKED ITEMS FOR TOOLING)

7. PHOTO ETCH CIRCUITRY PER ENCLOSED GERBER PREPAX OR ODB++ FORMAT FILE. DRILL LOCATIONS AND SIZE CONTROLLED BY EXCELLON CNC DRILL FILE.

8. IF STATED IN THE LAMINATION DIAGRAM, THE DIELECTRIC THICKNESS OF ANY CONTROLLED IMPEDANCE LAYER IS FOR REFERENCE ONLY. FINAL ACCEPTANCE SHALL BE DETERMINED BY THESE LAYERS HAVING A CHARACTERISTIC IMPEDANCE OF +/-10% OHMS AS STATED IN THE LAMINATION DIAGRAM. THE VENDOR CAN MAKE ADJUSTMENTS AS LONG AS THE STATED IMPEDANCE AND OVERALL BOARD THICKNESS IS MAINTAINED. ANY ADJUSTMENT MADE TO TRACE WIDTH OR SPACING MUST HAVE PRIOR WRITTEN APPROVAL FROM MAXIM.

9. ALL TRACES FILLETED OPTION TO ENHANCE RELIABILITY AT PAD JUNCTIONS WHERE SPACING PERMITS.UNLESS OTHERWISE SPECIFIED:
   - [ ] FILLETED
   - [X] NOT FILLETED

10. LAYER TO LAYER REGISTRATIONS SHALL BE WITHIN .003 INCHES. LEGEND TO LEGEND +/- 0.007 INCHES

FINISH:
(USE CHECKED ITEMS FOR PLATING)

11. PLATING SPECIFICATION:
    - [X] STARTING AND FINISH COPPER WEIGHT FOR OUTER LAYERS TO BE (1 OZ). FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (1 OZ) AS A STARTING WEIGHT (3). STARTING COPPER WEIGHT FOR OUTER LAYERS CAN BE (0.5 OZ). THE FINISH COPPER WEIGHT IS (1 OZ). UNLESS OTHERWISE SPECIFIED
    - [ ] STARTING COPPER WEIGHT FOR OUTER LAYERS CAN BE (1 OZ). THE FINISH COPPER WEIGHT IS (2 OZ). FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (1 OZ) AS A STARTING WEIGHT. THE STARTING WEIGHT CAN BE (0.5 OZ) AS LONG AS THE FINISH COPPER WEIGHT IS (2 OZ). UNLESS OTHERWISE SPECIFIED
    - [ ] STARTING COPPER WEIGHT FOR OUTER LAYERS TO BE (2 OZ). THE FINISH COPPER WEIGHT IS (2 OZ)MINIMUM. FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (1 OZ) AS A STARTING WEIGHT. THE STARTING WEIGHT CAN BE (=2 OZ) AS LONG AS THE FINISH COPPER WEIGHT IS (2 OZ). UNLESS OTHERWISE SPECIFIED
    - [ ] OTHER _____

12. CHECK ALL THAT APPLY
    - [ ] FINISH CONDUCTOR SURFACES: IMMERSION GOLD, 3-8 MICRO INCHES OVER 100 MICRO INCHES MINIMUM OF ELECTROLESS NICKEL.
    - [X] LEAD FREE AND RoHS COMPLIANT OR EQUIVALENT LEAD FREE PLATING
    - [ ] ELECTRODEPOSITED HARD GOLD PLATE, TYPE 1 [99.7% MIN GOLD], GRADE C (KNOOP HARDNESS 130-200). CLASS 1 [50-100 MICRO INCHES THICK] IN ACCORDANCE WITH MIL-G-45204C. GENERAL SURFACING REQUIREMENTS MUST MEET ANSI/IPC-4-600(CURRENT REV) SECTION 4.0. CLASS 3 [30-100 MICROINCHES THICK] OVER ELECTRODEPOSITED NICKEL PLATE IN ACCORDANCE WITH ANSI/IPC-4-6000, SECTION 4.2. CLASS 3 [200-300 MICROINCHES THICK].
    - [ ] FINISH CONDUCTOR SURFACES: IMMERSION GOLD, 3-8 MICRO INCHES OVER 118-236 MICRO INCHES MINIMUM OF ELECTROLESS NICKEL.
    - [ ] FINGERS TO BE GOLD PLATED.
    - [ ] OTHER _____

13. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN .003 DYP. MINIMUM BARREL PLATING OF .001 IN. PLATED HOLES SHALL NOT BE ROUGH OR IRREGULAR SO AS TO HINDER PROPER SOLDER WICKING.

14. CHECK ALL THAT APPLY
    - [X] GREEN SOLDERMASK OVER BARE COPPER/BARE GOLD (BOTH SIDES) WITH LIQUID PHOTO IMAGEABLE INK (LPI) PER ARTWORK.
    - [ ] GREEN TAIYO PSR-4000

15. CHECK ALL THAT APPLY
    - [X] APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, WHITE EPOXY BASED INK PER ARTWORK.
    - [ ] APPLY SILKSCREEN TO TOP SIDE USING A NON-CONDUCTIVE, WHITE EPOXY BASED INK PER ARTWORK.
    - [ ] OTHER _____

16. VENDOR LOGO & DATE CODE REQUIRED IN INK ON BOTTOM SIDE ONLY. DATE CODE FORMAT MUST BE YYWW ONLY

TESTING:

17. FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE. (REQUIRED UNLESS OTHERWISE SPECIFIED IN QUOTE) THE PCB SHALL HAVE A VERIFICATION STAMP.

18. A TIME DOMAIN REFLECTOMETER REPORT FOR EACH IMPEDANCE CONTROLLED LAYER AND A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED BY VENDOR AT TIME OF SHIPMENT.

MISCELLANEOUS:
(USE CHECKED ITEMS)

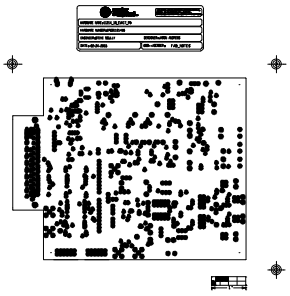
19. FOR BLIND AND BURIED VIA INFORMATION REFER TO DRILL CHART.
    - [ ] NON-CONDUCTIVE EPOXY, FILL AND CAP ALL BLOCK INCH DRILLED VIAS.
    - [ ] SILVER, FILL AND CAP ALL 0.XXXX INCH DRILLED VIAS.

21. FOR VIA SIZES XX.XX INCH USE NON CONDUCTIVE VIA FILL AND CAP

20. FINISHED SURFACE CONTACTS AND FILLED VIAS TO BE FREE OF ANY PITS, SCRATCHES PROBE MARKS OR OTHER IMPERFECTIONS THAT COULD EFFECT THE APPEARANCE AND PERFORMANCE OF THE CONTACT SURFACE. CONTACTS ARE TO BE AS FLAT AS POSSIBLE, NOT TO EXCEED +/- 0.001" OF FLATNESS.

22. THIEVING:
    - ( ) SUPPLIER MAY ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN.
    - (X) SUPPLIER MAY NOT ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN.

23. ASSEMBLY: USE CENTROID.RPT FOR LOCATIONS



LAMINATION DIAGRAM

LAYER NUMBER	LAYER NAME	FINISHED Cu WEIGHT (oz)	DIELECTRIC THICKNESS (in.)	DIELECTRIC MATERIAL
1	TOP	1		FOIL
2	INTERNAL2	1	6 MIL	FR-4/EQUIVALENT
3	INTERNAL3	1	TBD	FR-4/EQUIVALENT
4	INTERNAL4	1	TBD	FR-4/EQUIVALENT
5	INTERNAL5	1	TBD	FR-4/EQUIVALENT
6	BOTTOM	1	6 MIL	FR-4/EQUIVALENT
				FOIL

THE FINISHED PCB THICKNESS TO BE: 0.0625" +/- 0.010"

DRILL CHART: TOP to BOTTOM
ALL UNITS ARE IN MILS

FIGURE	SIZE	TOLERANCE	PLATED	QTY
●	10.0	+3.0/-8.0	PLATED	96
●	12.0	+3.0/-10.0	PLATED	331
●	18.0	+3.0/-16.0	PLATED	2
●	39.37	+3.0/-3.0	PLATED	1
●	41.34	+3.0/-3.0	PLATED	24
●	43.31	+3.0/-3.0	PLATED	10
●	45.28	+3.0/-3.0	PLATED	129
●	51.18	+3.0/-3.0	PLATED	10
●	59.06	+3.0/-3.0	PLATED	25
●	62.99	+3.0/-3.0	PLATED	41
●	70.87	+3.0/-3.0	PLATED	13
▪	125.0	+3.0/-3.0	PLATED	4
●	138.0	+3.0/-3.0	PLATED	2
●	50.0	+3.0/-3.0	NON-PLATED	2
⬭	118.11x31.5	+3.0/-3.0	PLATED	1
⬭	118.11x31.5	+3.0/-3.0	PLATED	1
⬭	137.8x31.5	+3.0/-3.0	PLATED	1

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRACTIONS	DECIMALS	ANGLES
+/-	.XX +/- .01 .XXX +/- .005	+/-

MATERIAL:
SEE NOTES

FINISH:
SEE NOTES

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DRAWN BY: JOHANN DATE: 10/3/13
CHECKED BY: DATE:
APPR. BY: DATE:
APPR. BY: DATE:

maxim integrated

TITLE: FABRICATION DWG.
MAX11214_16 EVKIT

SIZE: E | DRAWING NO. | REV: B5

NOT TO SCALE | TEMPLATE REV 1.3 | SHEET 1 OF 1