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-FR408HR
   ( ) NELCO-4000-13 OR EQUIVALENT
   ( ) 370HR (RoHS COMPLIANT) OR EQUIVALENT
   ( ) ROGERS 4350B/FR408HR
   ( ) ROGERS 4003C/FR408HR
   ( ) OTHER _____

3. THE PCB SHALL BE FABRICATED TO IPC-6012, TYPE X, 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 RS274X OR ODB++ FORMAT FILE. DRILL LOCATION 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 THE STARTING WEIGHT CAN BE (0.5 OZ) AS LONG AS THE FINISH COPPER WEIGHT IS (1 OZ) UNLESS OTHERWISE SPECIFIED
   ( ) STARTING COPPER WEIGHT FOR OUTER LAYERS TO 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
   ( ) ELECTODEPOSITED 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-A-600(CURRENT REV) SECTION 4.0, CLASS 3 (50-100 MICROINCHES THICK) OVER ELECTRODEPOSITED NICKEL PLATE IN ACCORDANCE WITH ANSI/IPC-A-600D, SECTION 4.0, CLASS 3 (200-600 MICROINCHES THICK).
   ( ) FINISH CONDUCTOR SURFACES; IMMERSION GOLD, 2-5 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 .005 DTP. 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
   ( ) APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, WHITE EPOXY BASED INK PER ARTWORK.
   (X) 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:

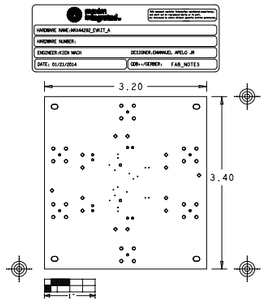
19. FOR BLIND AND BURIED VIA INFORMATION REFER TO DRILL CHART.
   ( ) NON-CONDUCTIVE EPOXY, FILL AND CAP ALL 0.XXXX INCH DRILLED VIAS.
   ( ) SILVER, FILL AND CAP ALL 0.XXXX INCH DRILLED VIAS.

21. ALL MICRO-VIAS LESS THAN 0.006 INCHES FHS WILL BE PLATED SHUT WITH COPPER, UNLESS OTHERWISE SPECIFIED.

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

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

24. 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.



LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	FINISHED CU WEIGHT (OZ)	DIELECTRIC THICKNESS (in.)	DIELECTRIC MATERIAL
1	TOP	1		FOIL
			TBD	CORE AS NEEDED
2	BOTTOM	1		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
·	15.0	+3.0/-3.0	PLATED	18
*	39.37	+3.0/-3.0	PLATED	2
*	43.31	+3.0/-3.0	PLATED	12
*	45.28	+3.0/-3.0	PLATED	6
○	57.09	+3.0/-3.0	PLATED	24
◇	66.93	+3.0/-3.0	PLATED	14
△	70.87	+3.0/-3.0	PLATED	2
○	125.0	+3.0/-3.0	PLATED	4

TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS +/- 1/64 DECIMALS .XX +/- .01 .XXX +/- .005 ANGLES +/- 1/2°

MATERIAL: SEE NOTES

FINISH: SEE NOTES

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APPR. BY: DATE:
APPR. BY: DATE:

maxim integrated™

TITLE: FABRICATION DWG. MAX44292 EVKIT

SIZE E | DRAWING NO. EPCB44292 | REV A

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