

D

C

B

A

D

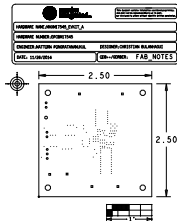
C

B

A

REVISIONS			
REV	DESCRIPTION	APPROVED	DATE
A	RELEASE		


- NOTES: UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED). MATERIAL (USE CHECKED ITEM FOR MATERIAL).
  - BOARD MATERIAL:
    - (X) FR4 (RHS COMPLIANT) OR EQUIVALENT
    - ( ) ISOLA-FR400HR
    - ( ) NEMCO-4000-13 OR EQUIVALENT
    - ( ) 370HR (RHS COMPLIANT) OR EQUIVALENT
    - ( ) ROGERS 4350B/FR400HR
    - ( ) ROGERS 4003C/FR400HR
    - ( ) OTHER \_\_\_\_\_
  - THE PCB SHALL BE FABRICATED TO IPC-6012, TYPE X, CLASS 2.
  - BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ULTRA WITH FLAMMABILITY RATING OF 94V-0.
  - 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.
  - BOW & TWIST NOT TO EXCEED 0.0075 IN. (0.193) PER LINEAR INCH. BOW & TWIST SHOULD BE MEASURED PER IPC-TM-650, METHOD 2.4.22.
- TOOLING: (USE CHECKED ITEMS FOR TOOLING)
- PHOTO ETCH CIRCUITRY PER ENCLOSED GERBER RSTAX OR ODB++ FORMAT FILE. DRILL LOCATION AND SIZE CONTROLLED BY EXCELLON CNC DRILL FILE.
  - 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  $\pm 10\%$  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.
  - ALL TRACES FILLETED OPTION TO ENHANCE RELIABILITY AT PAD JUNCTIONS WHERE SPACING PERMITS UNLESS OTHERWISE SPECIFIED:
    - ( ) FILLETED
    - (X) NOT FILLETED
  - LAYER TO LAYER REGISTRATIONS SHALL BE WITHIN .003 INCHES. LEGEND TO LEGEND  $\pm 0.007$  INCHES
- FINISH: (USE CHECKED ITEMS FOR PLATING)
- PLATING SPECIFICATION:
    - ( ) STARTING COPPER WEIGHT FOR OUTER LAYERS TO BE (1.0Z). THE FINISH COPPER WEIGHT IS (1.0Z). FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (1.0Z) AS A STARTING WEIGHT, THE STARTING WEIGHT CAN BE (0.5.0Z) AS LONG AS THE FINISH COPPER WEIGHT IS (1.0Z) UNLESS OTHERWISE SPECIFIED
    - ( ) STARTING COPPER WEIGHT FOR OUTER LAYERS TO BE (1.0Z). THE FINISH COPPER WEIGHT IS (2.0Z). FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (1.0Z) AS A STARTING WEIGHT, THE STARTING WEIGHT CAN BE (0.5.0Z) AS LONG AS THE FINISH COPPER WEIGHT IS (2.0Z). UNLESS OTHERWISE SPECIFIED
    - (X) STARTING COPPER WEIGHT FOR OUTER LAYERS TO BE (2.0Z). THE FINISH COPPER WEIGHT IS (2.0Z) MINIMUM. FOR OUTER LAYERS WHERE SPACING PREVENTS THE USE OF (2.0Z) AS A STARTING WEIGHT, THE STARTING WEIGHT CAN BE (1.0Z) AS LONG AS THE FINISH COPPER WEIGHT IS (2.0Z). UNLESS OTHERWISE SPECIFIED
    - ( ) OTHER \_\_\_\_\_
  - 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 RHS COMPLIANT OR EQUIVALENT LEAD FREE PLATING
    - ( ) ELECTRODEPOSITED HARD GOLD PLATE, TYPE 1 (99.7% MIN GOLD), GRADE C (KNOCK HARDNESS 130-200), CLASS 1 (50-100 MICRO INCHES THICK) IN ACCORDANCE WITH MIL-G-45504C. 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-600, SECTION 4.0, CLASS 3 (200-400 MICROINCHES THICK).
    - ( ) FINISH CONDUCTOR SURFACES: IMMERSION GOLD, 2-5 MICRO INCHES OVER 118-234 MICRO INCHES MINIMUM OF ELECTROLESS NICKEL.
    - ( ) FINGERS TO BE GOLD PLATED.
    - ( ) OTHER \_\_\_\_\_
  - DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN .005 STEP. MINIMUM BARREL PLATING OF .002 IN. PLATED HOLES SHALL NOT BE ROUGH OR IRREGULAR SO AS TO HINDER PROPER SOLDER WICKING.
  - CHECK ALL THAT APPLY
    - (X) GREEN SOLDERMARK OVER BARE COPPER/BARE GOLD (BOTH SIDES) WITH LIQUID PHOTO IMAGEABLE INK (LPI) PER ARTWORK.
    - ( ) GREEN TATTO PSR-4000
    - ( ) OTHER \_\_\_\_\_
  - CHECK ALL THAT APPLY
    - (X) APPLY SILKSCREEN USING A NON-CONDUCTIVE, WHITE EPOXY BASED INK PER ARTWORK.
    - ( ) OTHER \_\_\_\_\_
  - VENDOR LOGO & DATE CODE REQUIRED IN INK ON BOTTOM SIDE ONLY. DATE CODE FORMAT MUST BE YYWW ONLY
  - TESTING:
    - ( ) FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE. (REQUIRED UNLESS OTHERWISE SPECIFIED IN QUOTES)
    - THE PCB SHALL HAVE A VERIFICATION STAMP.
    - 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:
    - FOR ALL DRILL INFORMATION REFER TO DRILL CHART.
      - ( ) NON-CONDUCTIVE EPOXY, FILL AND CAP ALL 0.00XX INCH DRILLED VIAS.
      - ( ) SILVER, FILL AND CAP ALL 0.00XX INCH DRILLED VIAS.
    - IF PRESENT, ALL MICRO-VIAS LESS THAN 0.008 INCHES FHS WHEN USED AS VIA (VIA IN PAD) OR STACKED TO BE PLATED SHUT WITH COPPER, UNLESS OTHERWISE SPECIFIED.
    - FINISHED SURFACE CONTACTS AND FILLED VIAS TO BE FREE OF ANY PITS, SCRATCHES, PROBE MARKS OR OTHER DEFECTS THAT COULD EFFECT THE APPEARANCE AND PERFORMANCE OF THE CONTACT SURFACE. CONTACTS ARE TO BE AS PLAT AS POSSIBLE, NOT TO EXCEED  $\pm 0.001$  OF FLATNESS.
    - 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.
    - PERMUT
      - ( ) PERMITS TO BE INSTALLED BY SUPPLIER
      - ( ) PERMITS NOT TO BE INSTALLED BY SUPPLIER
      - (X) NOT APPLICABLE



LAMINATION DIAGRAM			
NUMBER	NAME	THICKNESS (in.)	MATERIAL
1	TOP	2	FR4/RHS/EDV
2	INTERNAL	1	FR4/RHS/EDV
3	INTERNAL	1	FR4/RHS/EDV
4	BOTTOM	2	FR4/RHS/EDV

THE FINISHED PCB THICKNESS TO BE: 0.0625"  $\pm$  0.010"

DRILL CHART: TOP to BOTTOM ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
+	7.99	$\pm 3.0/-5.99$	PLATED	130
□	39.37	$\pm 3.0/-3.0$	PLATED	12
○	43.31	$\pm 3.0/-3.0$	PLATED	7
○	66.93	$\pm 3.0/-3.0$	PLATED	1
○	125.0	$\pm 3.0/-3.0$	PLATED	4

TOLERANCES UNLESS OTHERWISE SPECIFIED			THE INFORMATION CONTAINED IN THIS DOCUMENT IS PROPRIETARY TO MAXIM. THE INFORMATION IN THIS DOCUMENT IS NOT TO BE SHOWN, REPRODUCED, OR DISCLOSED TO ANYONE OUTSIDE OF MAXIM WITHOUT PRIOR WRITTEN PERMISSION FROM MAXIM.		 maxim integrated™	
FRACTIONS	DECIMALS	ANGLES				
$\frac{XX}{YY}$	.XX $\pm$ .01	$\angle$ XX $\pm$ .005	DRAWN BY: C.BULANAGUT DATE: 11/14		TITLE: FABRICATION DWG. MAXM17545 EVKIT	
MATERIAL:	SEE NOTES		CHECKED BY:	DATE:	SIZE: HARDWARE NO. EPCBM17545	REV A
FINISH:	SEE NOTES		APPR. BY:	DATE:	NOT TO SCALE	TEMPLATE REV 1.5 SHEET 1 OF 1