

REV	DESCRIPTION	APPROVED	DATE
P1	INITIAL RELEASE	VL	02/03/16
A	PRODUCTION RELEASE	VL	04/15/16

NOTES:

UNLESS OTHERWISE SPECIFIED  
1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).  
MATERIAL: (USE CHECKED ITEMS FOR MATERIAL)

2. BOARD MATERIAL:

(X) ISOLA 370HR OR EQUIVALENT

( ) ISOLA-FR408HR OR EQUIVALENT

( ) NELCO-4000-13

( ) MEGTRON 6

( ) ROGERS 4350B

( ) ROGERS 4003C

( ) OTHER \_\_\_\_\_

3. THE PCB SHALL BE FABRICATED TO IPC-A-6012, TYPE X, CLASS 2.
4. WORKMANSHIP SHALL CONFORM TO IPC-A-610, CLASS 2, CURRENT REVISIONS.
5. BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF UL796 WITH FLAMMABILITY RATING OF 94V-0.
6. 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.
7. BOW & TWIST NOT TO EXCEED 0.0075 IN. (0.75%) PER LINEAR INCH.
8. BOW & TWIST SHOULD BE MEASURED PER IPC-1160, METHOD 2.4.22.

TOOLING: (USE CHECKED ITEMS FOR TOOLING)

7. PHOTO ETCH CIRCUITRY PER ENCLOSED GERBER 82574X OR DBB. FORMAT FILE.  
DRILL LOCATION AND SIZE CONTROLLED BY EXCELLEN GUN DRILL.

8. IF STATED IN THE LAMINATION DIAGRAM, THE DIELECTRIC THICKNESS OF AN  
UNCONTROLLED LAYER IS 15% FOR REFERENCE ONLY. FINAL ACCEPTANCE  
MAY BE DETERMINED BY THESE LAYERS HAVING A CHARACTERISTIC  
IMPEDANCE OF  $\pm .100$  OHMS AS STATED IN THE LAMINATION DIAGRAM.  
THE VENDOR CAN MAKE ADJUSTMENTS AS LONG AS THE STATED IMPEDANCE AND  
MATERIAL BOUNDS ARE NOT VIOLATED. THE VENDOR MUST BE ABLE 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

( ) NOT FILLETED

10. LAYER TO LAYER REGISTRATIONS SHALL BE WITHIN .003 INCHES.  
LEGEND TO LEGEND  $\pm .007$  INCHES

FINISH: (USE CHECKED ITEMS FOR PLATING)

11. PLATING SPECIFICATION:

( ) STARTING COPPER WEIGHT FOR OUTER LAYERS TO BE (1 OZ), THE FINISH COPPER WEIGHT IS (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

(X) 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 (2 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

( ) 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-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).

(X) FINISH CONDUCTOR SURFACES; IMMERSION GOLD, 3-8 MICRO INCHES OVER 100 MICRO INCHES MINIMUM OF ELECTROLESS NICKEL.

( ) FINISH CONDUCTOR SURFACES: IMMERSION GOLD, 2-5 MICRO INCHES OVER  
118-236 MICRO INCHES MINIMUM OF ELECTROLESS NICKEL.

( ) FINGERS TO BE GOLD PLATED.  
( ) LEAD FREE AND RoHS COMPLIANT PLATING.  
( ) 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

☐ GREEN SOLDER MASK OVER BARE COPPER/BARE GOLD (BOTH SIDES) WITH LIQUID PHOTO IMAGEABLE INK (LPI) PER ARTWORK.

☒ GREEN TAIYO PSR-4000

☐ OTHER \_\_\_\_\_

15. CHECK ALL THAT APPLY

(X) APPLY SILKSCREEN USING A NON-CONDUCTIVE, WHITE EPOXY  
BASED INK PER ARTWORK.

( ) OTHER

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

7. 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.

8. 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. IF PRESENT, ALL BLIND/BURIED VIAS WITH AN ASPECT RATIO  $<1:1$  TO BE PLATED SHUT WITH COPPER WHEN USED AS VIA-IN PAD OR AS A STACKED VIA. BLIND/BURIED VIAS WITH AN ASPECT RATIO  $>1:1$  TO BE FILLED WITH NON-CONDUCTIVE EPOXY, UNLESS OTHERWISE SPECIFIED.

20. FOR ALL DRILL 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. FINISHED SURFACE CONTACTS AND FILLED VIAS TO BE FREE OF ANY PITS, SCRATCHES PROBE MARKS OR OTHER DEFORMITIES THAT COULD EFFECT THE APPERANCE 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. PEMNUT



☐ PEMNUTS TO BE INSTALLED BY SUPPLIER.

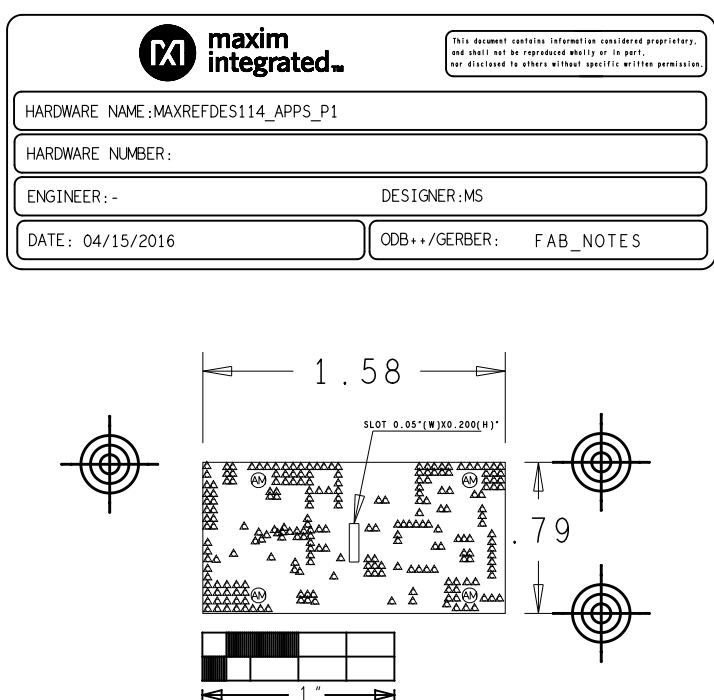
☐ PEMNUTS NOT TO BE INSTALLED BY SUPPLIER.


☒ NOT APPLICABLE

24. INTENTIONAL SHORTS PRESENT. REFER TO SHORT REPORT IN FAB PACKAGE.

LAMINATION DIAGRAM					
LAYER NUMBER	LAYER NAME	FINISHED CU WEIGHT (OZ)		DIELECTRIC THICKNESS (in.)	DIELECTRIC MATERIAL
1	TOP	2			FOIL
2	INTERNAL2	1		TBD	ISOLA 370HR/EQUIVALENT
3	INTERNAL3	1		TBD	ISOLA 370HR/EQUIVALENT
4	BOTTOM	2		TBD	ISOLA 370HR/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	NOTES
	10.0	+3.0/-8.0	PLATED	226	
	68.9	+3.0/-3.0	PLATED	4	



TOLERANCES UNLESS OTHERWISE SPECIFIED		 <b>maxim integrated™</b>	
FRACTIONS                  DECIMALS                  ANGLES $\frac{.}{.} / \text{---}$ .XX +/- .01                  +/- --- .XXX +/- .005		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.	
MATERIAL:		HARDWARE NAME:	
SEE NOTES		MAXREFDES114_APPS	
FINISH:		HARDWARE NUMBER:	
SEE NOTES		XX - XXXXX - XXX	
DRAWN BY: MANIKANDAN S      DATE: 04/15/16		NOT TO SCALE      TEMPLATE REV: 2.1	
CHECKED BY: VINCENT LI      DATE: 04/15/16		SHEET 1 OF 4	
APPR. BY: VINCENT LI      DATE: 04/15/16			
APPR. BY:      DATE:			