

1

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3

4

REV

DESCRIPTION

DATE

A

FIRST RELEASE

13Jun,2018

D

Release for Vision and Vibration Base Board

03Dec,2019

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL:FR-4 EPOXY GLASS. FLAMMABILITY GRADE SHALL MEET OR EXCEED 94V-0. SEE LAYER STACKUP FOR NUMBER OF LAYERS AND STARTING COPPER WEIGHTS.

2. LAMINATE AND PRE-PREG MATERIAL SHALL BE IN ACCORDANCE WITH IPC4101/24, MINIMUM Tg = 150 C.

3. PLATED THRU HOLES SHALL HAVE A MINIMUM OF 0.001" THICK PLATING.

4. SOLDERMASK TO BE IN ACCORDANCE WITH IPC-SM-840, CLASS T, LIQUID PHOTOIMAGABLE, COLOR BLUE. USE APPROPRIATE SOLDER MASK ARTWORK.

5. APPLY SILKSCREEN (LEGEND) OVER SOLDERMASK USING A NON-CONDUCTIVE EPOXY INK, COLOR WHITE. VENDOR HAVE TO CLIP SILKSCREEN FROM ANY EXPOSED COPPER FEATURE.

6. CONDUCTIVE FEATURES TO BE FINISHED WITH ELECTROLESS NICKEL/IMMERSION GOLD PER IPC-4552. THICKNESS 2-10 MICROINCHES Au OVER 150-250 MICROINCHES NICKEL.

7. LAYER TO LAYER REGISTRATION TO BE WITHIN +/-0.003".

8. WARP AND TWIST SHALL NOT EXCEED 0.010"/1".

9. ALL FAB NOTESS ARE IN INCHES.

10. DESIGN RULES:

A. MINIMUM COPPER WIDTH IS .004".

B. MINIMUM COPPER-TO-COPPER IS .0036".

11. FABRICATE BOARDS IN ACCORDANCE WITH IPC-6012, CLASS 2. FINISHED BOARDS MUST MEET QUALITY CONFORMANCE TESTING AND INSPECTION AS SPECIFIED THEREIN. BOARD FABRICATOR SHALL APPLY DATE CODE AND UL-796 APPROVAL

12. NO CHANGES TO GERBER DATA PACKAGE ALLOWED WITHOUT PRIOR APPROVAL.

13. GERBER FILES MUST BE 100% NETLIST TESTED TO INCLUDED IPC-356 FILE.

14. DIELECTRICS AND LINEWIDTHS CAN BE ADJUSTED TO MEET THE IMPEDANCE REQUIREMENTS WITH APPROVALS.

15. ADD 5MM ROVER STRIP AT LONGER SIDES OF THE PCB WITH FIDUCIALS.

16. FOR PANELIZATION PLS CONTACT US AND TAKE APPROVAL.

IMPEDANCE CHART

LAYER#

50ohm SINGLE ENDED Tol :+/- 10%

TRACE WIDTH 90ohm DIFFERENTIAL Tol :+/- 10%

50ohm CPW Tol :+/- 10%

REFERENCE LAYER

TRACE WIDTH / SPACE

TRACE WIDTH / SPACE

LAYER 1

4.5 MIL

LAYER 2

LAYER 3

4.00 MIL

LAYER 2

LAYER 4

4.00 MIL

4.01 / 6.00

LAYER 5

LAYER 6

4.5 MIL

LAYER 5

LAYER 1

11 / 10

LAYER 3

1.18

[30]

1.57

[40]

DRILL CHART: TOP to BOTTOM

ALL UNITS ARE IN MILS

FIGURE

FINISHED SIZE

TOLERANCE DRILL

PLATED

QTY

A

8.0

+3.0/-3.0

PLATED

675

B

28.0

+3.0/-3.0

PLATED

2

LAYER 1

LAYER 2

LAYER 3

LAYER 4

LAYER 5

LAYER 6

1-6

L1: TOP CONDUCTOR - COPPER 1.6 MIL

* DIELECTRIC - FR-4 2.98 MIL

L2: L2 GND PLANE - COPPER 1.1 MIL

* DIELECTRIC - FR-4 2.98 MIL

L3: L3 SIGNAL 2 CONDUCTOR - COPPER 1.1 MIL

* DIELECTRIC - FR-4 41.4 MIL

L4: L4 SIGNAL 3 CONDUCTOR - COPPER 1.1 MIL

* DIELECTRIC - FR-4 2.98 MIL

L5: L5 PWR PLANE - COPPER 1.1 MIL

* DIELECTRIC - FR-4 2.98 MIL

L6: BOTTOM CONDUCTOR - COPPER 1.6 MIL

DESIGN CROSS SECTION CHART

TOTAL THICKNESS 60.92 MIL +/- 10%

NXP SEMICONDUCTORS

DATE: 03Dec, 2019

Rev: D

PART NO/CARD REF: iMXRT Connected Module

FILM LAYER:FAB FABRICATION DRAWING AND NOTES

PROPRIETARY NOTICE

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND IS LOANED TO THE RECEIVER IN CONFIDENCE ITS CONTENTS MAY NOT BE DISCLOSED WITHOUT THE PRIOR WRITTEN PERMISSION OF NXP SEMICONDUCTORS

NXP SEMICONDUCTORS

SIGNATURES

DATE

03Dec,2019

DRAWN

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03Dec,2019

CHECKED

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03Dec,2019

RELEASED

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03Dec,2019

SIZE-B

DWG NO:

SCALE:NONE

SHEET:

Rev- D

iMXRT Connected Module