NOTES (UNLESS OTHERWISE SPECIFIED)

1. THIS DRAWING SPECIFIES THE REQUIREMENTS FOR A PRINTED WIRING BOARD IN ACCORDANCE WITH SPECIFICATION IPC-4012 CLASS 2 (LATEST REVISION).

2. THE PWB MUST BE LEAD FREE ASSEMBLY PROCESS COMPATIBLE AND MUST BE ABLE TO HANDLE A MINIMUM OF 5 CYCLES AT 260 DEGREES CELSIUS FOR 10 SECONDS.

3. BASE MATERIAL - LAMINATE AND PREPREG SHALL MEET IPC-4101D-26, 83 or 98
   Tg - MUST BE GREATER THAN OR EQUAL TO 150 DEGREES CELSIUS.
   Td - MUST BE GREATER THAN OR EQUAL TO 330 DEGREES CELSIUS.

4. COPPER FOIL WEIGHT - SEE STACKUP DETAIL "A"

5. CHARACTERISTIC IMPEDANCE - N/A

6. MINIMUM CONDUCTIVE WIDTH/SPACING TO BE .006"/.006"

7. PLATING FINISH: A. BOTH SIDES ENIG: TO MEET THE REQUIREMENTS OF IPC-4552 (LATEST REVISION).

8. FAB VENDOR IS NOT ALLOWED TO USE ODB FOR FABRICATION, CAN BE USED ONLY FOR REFERENCE.

9. SOLDERMASK - TO MEET THE REQUIREMENTS OF IPC-SM-840E (OR LATEST REVISION).
   ORANGE COLOR. BOTH SIDES. MODIFICATION OF SOLDERMASK IS NOT ALLOWED WITHOUT WRITTEN PERMISSION FROM NXP.
   TYPE: LPI OR EQUIVALENT.
   A. LOCATION = +/-.002" OF PLATED PADS.
   B. DIAMETER OR SIZE = +/-.002 OF ORIGINAL DATA

10. SILKSCREEN - WHITE EPOXY OR ACRYLIC INK, BOTH SIDES. NO SILKSCREEN ON ANY EXPOSED COPPER FEATURE.

11. ELECTRICAL TEST - 100% IPCD356. PCB FABRICATOR TO PERFORM A NET COMPARE AGAINST THE IPCD356 NETLIST PROVIDED BY NXP.

12. PRINTED WIRING BOARD IS TO BE INDIVIDUALLY BAGGED.

13. DFM CHECK MUST BE RUN ON BOARD DATA BEFORE BUILDING BOARDS.
    UNLESS PRIOR APPROVAL IS GIVEN IN WRITING BY NXP.

14. TEARDROPS MAY BE ADDED AT THE FAB HOUSE TO ALL SIGNAL LAYERS.

15. TWO SOLDER SAMPLES TO BE PROVIDED.

16. SUPPLIER MARKINGS - ON SECONDARY SIDE ONLY, WHERE SHOWN.
    - MUST BE UL RECOGNIZED AND MUST HAVE AN ID THAT CONFORMS TO UL94V-0

17. THE PWB WILL BE MARKED AS LEAD FREE BY USE OF AN INK STAMP (M)

18. THE PWB WILL BE MARKED AS LEAD FREE PROCESS COMPATIBLE BY USE OF AN INK STAMP (260°C)

19. ALL PLATED AND NON-PLATED THROUGH HOLES ARE TO BE DRILLED AT PRIMARY DRILL STEP.
    ALL HOLE LOCATION TOLERANCES ARE TO BE +/-.002 IN REFERENCE TO THE PRIMARY DATUM UNLESS OTHERWISE SPECIFIED.

20. FINISHED PCB MUST BE PANELIZED FOR ASSEMBLY ACCORDING TO CONTRACT MANUFACTURERS REQUIREMENTS.
    THE ADDITION OF RAILS AND .125" NON-PLATED TOOLING HOLES ARE AT THE DISCRETION OF CONTRACT MANUFACTURER. PANELIZATION MUST BE APPROVED BY CONTRACT MANUFACTURER.

21. THE MANUFACTURE HAS THE OPTION TO ADD COPPER THIEVING ON OUTER AND INNER LAYERS, KEEP A MINIMUM DISTANCE OF .100" FROM ANY BOARD FEATURES.

22. INTENTIONAL 21 SHORTS AT:

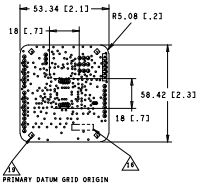
Location	RefDes	Net 1		Net 2
(-40.00 1655.00)	SH22	N16701284	&	INT1
(-15.00 205.00)	SH35	N00628	&	I2C_SCL0
(-15.00 245.00)	SH34	N00622	&	I2C_SDA0
(-15.00 500.00)	SH33	N16652889	&	SCL1_SCLK
(-15.00 600.00)	SH30	N16653001	&	SPI_CS_A
(-15.00 700.00)	SH31	N16652859	&	SDA1_MOSI
(-15.00 600.00)	SH32	N16652885	&	SA0_MISO
(-15.00 1355.00)	SH37	N16720544	&	INTF_SEL
(-15.00 1255.00)	SH38	N16720548	&	BT_MODE
(725.00 605.00)	SH1	N16711845	&	INT1
(725.00 1160.00)	SH6	N16711877	&	SCL1_SCLK
(875.00 605.00)	SH10	N16711839	&	INT2
(775.00 805.00)	SH20	N16711843	&	GND
(825.00 805.00)	SH4	N16711841	&	VDD
(825.00 1160.00)	SH9	N16711873	&	SDA1_MOSI
(875.00 1160.00)	SH8	N16711871	&	SPI_CS_A
(775.00 1160.00)	SH11	N16711875	&	SA0_MISO
(1560.00 1355.00)	SH27	INT2	&	N16559634
(1560.00 1655.00)	SH39	WAKEUP	&	N16721741
(1560.00 1755.00)	SH23	I2C_SDA1	&	N05729
(1560.00 1790.00)	SH21	I2C_SCL1	&	N05692

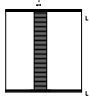
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED DE	PE	CAD
	A	ORIGINAL RELEASE	10-14-22	NICOLE	ROY	JUSTIN

DRILL CHART: TOP to BOTTOM
ALL UNITS ARE IN MILS

FIGURE	FINISHED_SIZE	TOLERANCE_DRILL	PLATED	QTY
○	10.0	+0.0/-10.0	PLATED	252
⊕	26.0	+2.0/-2.0	PLATED	2
⊕	28.0	+2.0/-2.0	PLATED	10
⊕	40.0	+3.0/-3.0	PLATED	38
⊡	41.0	+3.0/-3.0	PLATED	6
◈	125.0	+2.0/-2.0	NON-PLATED	4





- SURFACE - AIR 0 MIL
- DIELECTRIC - DRY FILM MASK 0.7 MIL
- L1 TOP CONDUCTOR - 1/2OZ_COPPER_PLATED_FOIL 2.1 MIL
- DIELECTRIC - FR-4 56.4 MIL
- L2 BOTTOM CONDUCTOR - 1/2OZ COPPER_PLATED_FOIL 2.1 MIL
- DIELECTRIC - DRY FILM MASK 0.7 MIL
- SURFACE - AIR 0 MIL

DESIGN CROSS SECTION CHART
TOTAL THICKNESS 62 MIL

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COMPANY INTERNAL
COMPANY CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMALS ANGLES
XX ±.02 ±.50°
XXX ±.005

PWB ALL MACHINED SURFACES SHALL ALL SHARP EDGES AND CORNERS REMOVE BURRS.
DRAWN SHEET ON, NOT TO SCALE.
DRAWING IS IN ISOMETRIC PROJECTION UNLESS.

APPROVALS	DATE
DRAWN JUSTIN XIANG	10-14-22
CHECKED ROY YANG	10-14-22
DESIGN ENGINEER NICOLE YU	10-14-22

PART NO. 170-87680

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NXP SEMICONDUCTORS
4501 WILLIAM CANNON DRIVE WEST AUSTIN, TEXAS 78735 USA

TITLE: PRINTED WIRING BOARD
FRDM-STBA-A8961

SIZE	CAD FILE NAME	DWG. NO.	REV
D	LAY-87680	FAB-87680	A

SCALE 1/1 | DO NOT SCALE DRAWING | SHEET 1 OF 1