NOTES (UNLESS OTHERWISE SPECIFIED):

1. THIS DRAWING SPECIFIES THE REQUIREMENTS FOR A PRINTED WIRING BOARD IN ACCORDANCE WITH SPECIFICATION IPC-A-600 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-4101B-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 - NOT APPLICABLE

6. MINIMUM CONDUCTIVE WIDTH/SPACING TO BE .008"/.005"

7. PLATING FINISH - BOTH SIDES ENIG (ELECTROLESS NICKEL IMMERSION GOLD):
   .05080-.232 MICRON (2-8 MICROINCH) OF GOLD OVER
   2.540-6.350 MICRON (100-250 MICROINCH) OF NICKEL.

△8 ALL THROUGH HOLE VIAS MAY BE PLATED SHUT.

9. SOLDERMASK - ORANGE COLOR (TAIYO OR EQUIVALENT), BOTH SIDES.
   MODIFICATION OF SOLDERMASK IS NOT ALLOWED WITHOUT WRITTEN PERMISSION FROM NXP.

10. SILKSCREEN - WHITE EPOXY INK, BOTH SIDES. NO SILK ON PADS.

11. ELECTRICAL TEST - 100% IPCD356. PCB FABRICATOR TO PERFORM A NET COMPARE AGAINST THE IPC356 NETLIST PROVIDED BY NXP.

12. PRINTED WIRING BOARD IS TO BE INDIVIDUALLY BAGGED.

13. DRC'S MUST BE RUN ON THE GERBER BEFORE BUILDING BOARDS,
    UNLESS PRIOR APPROVAL IS GIVEN IN WRITING BY FREESCALE.

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

15. TWO SOLDER SAMPLES TO BE PROVIDED.

△16 BASIC GRID INCREMENT AT 1:1 IS .0001.

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

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

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

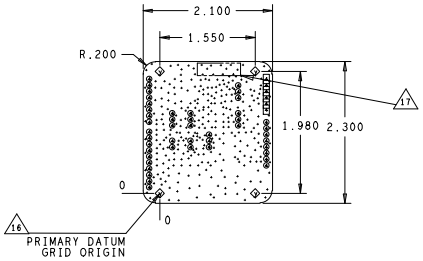
20. ALL PLATED AND NON-PLATED THROUGH HOLES ARE TO BE DRILLED AT PRIMARY DRILL STEP.
    ALL HOLE LOCATION TOLERANCES ARE TO BE +/-.002 IN REFERENCE TO THE PRIMARY DATUM.

21. 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.

22. INTENTIONAL 5 SHORTS AT:

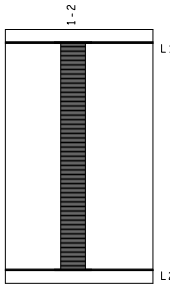
Location	RefDes	Net 1		Net 2
(-40.50 1156.01)	SH1	N16711572	&	OUT_41
(-40.50 250.00)	SH2	N16711688	&	SDA
(-40.50 150.00)	SH3	N16711714	&	SCL
(1594.50 1656.50)	SH4	N16711987	&	OUT_36
(1594.50 553.74)	SH5	N16712049	&	VDD

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	12-17-20	R.Y.
	A1	SILKSCREEN & MINOR CHANGE	02-07-21	R.Y.
	A2	SILKSCREEN CHANGE	07-21-21	R.Y.



△8

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	FINISHED_SIZE	TOLERANCE_DRILL	PLATED	QTY
+	8.0	+0.0/-8.0	PLATED	305
⊕	40.0	+3.0/-3.0	PLATED	45
⊞	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 3 MIL
L1 TOP CONDUCTOR - 1OZ_COPPER 1.2 MIL

* DIELECTRIC - FR-4 54 MIL

L2 BOTTOM CONDUCTOR - 1OZ_COPPER 1.2 MIL
* DIELECTRIC - DRY_FILM_MASK 3 MIL
* SURFACE - AIR 0 MIL

DESIGN CROSS SECTION CHART
TOTAL THICKNESS 62.4 MIL

DETAIL △A
LAYER STACKUP
SCALE NONE

ALL PARTS, MATERIALS AND FINISHED ASSEMBLY SHALL MEET THE RoHS DIRECTIVE (EU) 2011/65 OF 21 JULY 2011 AMENDING DIRECTIVE 2002/95/EC. A CERTIFICATE OF CONFORMANCE IS REQUIRED UPON REQUEST.

ALL PARTS, MATERIALS AND FINISHED ASSEMBLY SHALL NOT EXCEED THE CONCENTRATION LEVEL OF VERY HIGH CONCERN (SVHC) ABOVE THE THRESHOLD VALUE PER WEIGHT (0.1%) AS OF SVHC'S AND CURRENT ECHA LIST OF SVHC'S AND REACH ANNEX XIV. A CERTIFICATE OF COMPLIANCE IS REQUIRED UPON REQUEST.

___ COMPANY PUBLIC
X COMPANY INTERNAL
___ COMPANY CONFIDENTIAL

THIS DOCUMENT CONTAINS INFORMATION PROPRIETARY TO NXP AND SHALL NOT BE USED FOR ENGINEERING DESIGN PROCUREMENT OR MANUFACTURE IN WHOLE OR IN PART WITHOUT THE CONSENT OF NXP.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMALS ANGLES
.XX ±.01 ±0.30°
.XXX ±.005
✓ RMS ALL MACHINED SURFACES
BREAK ALL SHARP EDGES AND CORNERS. REMOVE BURRS.
UNDERLINED DIM. NOT TO SCALE.
THIRD ANGLE ORTHOGRAPHIC PROJECTION IS USED.

APPROVALS	DATE
DRAWN XIAOWEI XU	07-21-21
CHECKED ROY YANG	07-21-21
DESIGN ENGINEER RICK YU	07-21-21

PART NO. 170-48021

NXP SEMICONDUCTORS
6501 WILLIAM CANNON DRIVE WEST AUSTIN, TEXAS 78735 USA

TITLE: PRINTED WIRING BOARD
FRDMSTBI-NMH1000

SIZE	CAD FILE NAME	DWG. NO.	REV
D	LAY-48021	FAB-48021	A2

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