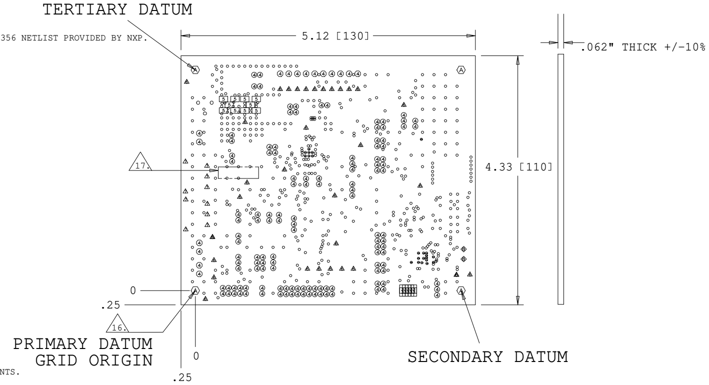
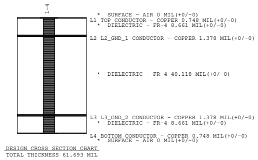
NOTES (UNLESS OTHERWISE SPECIFIED):

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 - SEE DETAIL 'B'
6. MINIMUM CONDUCTIVE WIDTH/SPACING TO BE .004"/.004"
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 - GREEN 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 IPCD356 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 NXP.
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 (Pb)
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. THIS BOARD USES VIA-IN-PAD: SEE FAB_VIAFILL.ART.
   A. ALL VIAS USING X.1 DRILL SIZES ARE TO BE FILLED WITH NON-CONDUCTIVE VIA FILL. LACKWERKE-PETERS PP2795 OR EQUIVALENT AND MADE PLANAR TO THE PADS.
   B. OVERPLATE THE FILLED VIA AND APPLY FINISH METAL TREATMENT.
   C. DIMPLE OR PROTRUSION ON VIA-IN-PAD MUST BE NO GREATER THAT 0.001".
22. 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.



DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	FINISHED_SIZE	TOLERANCE_DRILL	PLATED	QTY
○	10.0	+0.0/-10.0	PLATED	538
⊖	10.1	+0.0/-10.1	PLATED	22
▢	31.0	+2.0/-2.0	PLATED	10
◎	40.0	+3.0/-3.0	PLATED	125
◎	48.0	+3.0/-3.0	PLATED	16
▢	52.0	+3.0/-3.0	PLATED	10
▲	63.0	+3.0/-3.0	PLATED	32
△	73.0	+3.0/-3.0	PLATED	10
◎	126.0	+3.0/-3.0	PLATED	4
◈	35.0	+2.0/-2.0	NON-PLATED	2
○	63.0x52.0	+3.0/-3.0	PLATED	2
○	63.0x52.0	+3.0/-3.0	PLATED	1



DETAIL A
LAYER STACKUP
SCALE: NONE

DETAIL B
IMPEDANCE REQUIREMENTS
IMPEDANCE TOLERANCE IS 10%

Layers	Single Ended		Differential		
	Trace Width (Mils)	Impedance (Ohms)	Trace Width (Mils)	Trace Spacing "Airgap" (Mils)	Impedance (Ohms)
L1_PS	10.00	50			
L4_SS	10.00	50			

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	03-01-21	J.H.

ALL PARTS, MATERIALS AND FINISHED ASSEMBLY SHALL MEET THE RoHS COMMISSION DELEGATED DIRECTIVE (EU) 2015/863 OF 31 MARCH 2015 AMENDING ANNEX II TO DIRECTIVE 2011/65/EU. A CERTIFICATE OF COMPLIANCE IS REQUIRED UPON REQUEST.

ALL PARTS, MATERIALS AND FINISHED ASSEMBLY SHALL NOT CONTAIN ANY OF THE SUBSTANCES OF VERY HIGH CONCERN (SVHC) ABOVE THE THRESHOLD VALUE PER THE CURRENT ECHA LIST OF SVHC'S AND WITH ANNEX XIV AND ANNEX XVII OF REACH DIRECTIVE 76/769/EEC. A CERTIFICATE OF COMPLIANCE IS REQUIRED UPON REQUEST.

___ COMPANY PUBLIC
X COMPANY INTERNAL
___ COMPANY CONFIDENTIAL

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.

PART NO. 170-48221

APPROVALS	DATE
DRAWN MARTIN V.	03-01-21
CHECKED JONATHAN HERNZ.	03-01-21
DESIGN ENGINEER FERNANDA ISLAS	02-16-21

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

TITLE: PRINTED WIRING BOARD KITFS4508CAEEVM

SIZE	CAD FILE NAME	DWG. NO.	REV
D	LAY-48221	FAB-48221	A

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