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NOTES (UNLESS OTHERWISE SPECIFIED):

1. THIS DRAWING SPECIFIES THE REQUIREMENTS FOR A PRINTED WIRING BOARD IN ACCORDANCE WITH SPECIFICATION IPC-6012 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 - SEE DETAIL 'B'

6. MINIMUM CONDUCTIVE WIDTH/SPACING TO BE .007"/.005"

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

8. ALL THROUGH HOLE VIAS MAY BE PLATED SHUT.

9. SOLDERMASK - TO MEET THE REQUIREMENTS OF IPC-SM-840E (OR LATEST REVISION).  
GREEN 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.

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

18. THE PWB WILL BE MARKED AS LEAD FREE PROCESS COMPATIBLE BY USE OF AN INK STAMP

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. 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-PADS MUST BE NO GREATER THAN .001".

3.505 [89.03]

3.120 [79.25]

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PRIMARY DATUM GRID ORIGIN

DETAIL B

IMPEDANCE REQUIREMENTS

IMPEDANCE TOLERANCE IS 10%

LAYERS	SE		DIFF				REFERENCE LAYER
	TRACE WIDTH	IMPEDANCE	TRACE WIDTH	TRACE SPACING	IMPEDANCE		
L1_PS	9.00	50	7.00	6.00	90	2	
L3_MIX	9.5	50					
L5_SIG	7.3	50					
L6_SS	9.00	50	7.00	6.00	90	4	

DRILL CHART: TOP to BOTTOM

ALL UNITS ARE IN MILS

FIGURE	FINISHED_SIZE	TOLERANCE_DRILL	PLATED	QTY
1	10.0	+0.0/-10.0	PLATED	344
2	10.1	+0.0/-10.1	PLATED	36
3	12.0	+0.0/-12.0	PLATED	348
4	16.0	+2.0/-2.0	PLATED	3
5	28.0	+2.0/-2.0	PLATED	10
6	40.0	+3.0/-3.0	PLATED	42
7	48.0	+3.0/-3.0	PLATED	12
8	52.0	+3.0/-3.0	PLATED	25
9	63.0	+3.0/-3.0	PLATED	13
10	73.0	+3.0/-3.0	PLATED	5
11	126.0	+3.0/-3.0	PLATED	4
12	35.0	+2.0/-2.0	NON-PLATED	2
13	63.0x52.0	+3.0/-3.0	PLATED	2
14	63.0x52.0	+3.0/-3.0	PLATED	1

TOTAL HOLES: 847

DESIGN CROSS SECTION CHART

TOTAL THICKNESS 60.36 MIL

BOARD THICKNESS TOLERANCE +/-10%

DETAIL A

LAYER STACKUP

SCALE: NONE

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	05-28-20	D.A
	B	ECO123369 Changes	07-17-20	D.A

PART NO.

170-47345

--- COMPANY PUBLIC

☒ 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.

APPROVALS

DATE

DRAWN

Guru {LnT}

07-17-20

CHECKED

Dafne JA

07-17-20

DESIGN ENGINEER

Varadha {LnT}

07-17-20

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 ANEX XVII AND ANEX XVII OF EACH DIRECTIVE 76/769/EEC AND 2002/95/EC OF COMPLIANCE IS REQUIRED UPON REQUEST.

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.

TITLE:

NXP SEMICONDUCTORS

6501 WILLIAM CANNON DRIVE WEST AUSTIN, TEXAS 78735 USA

PRINTED WIRING BOARD

KITFS84AUTEVM

SIZE

DO NOT SCALE

DO NOT SCALE

DWG. NO.

REV

LAY-47345

FAB-47345

1/1

1

OF

2

ART P11M - Fab.art

[illegible]