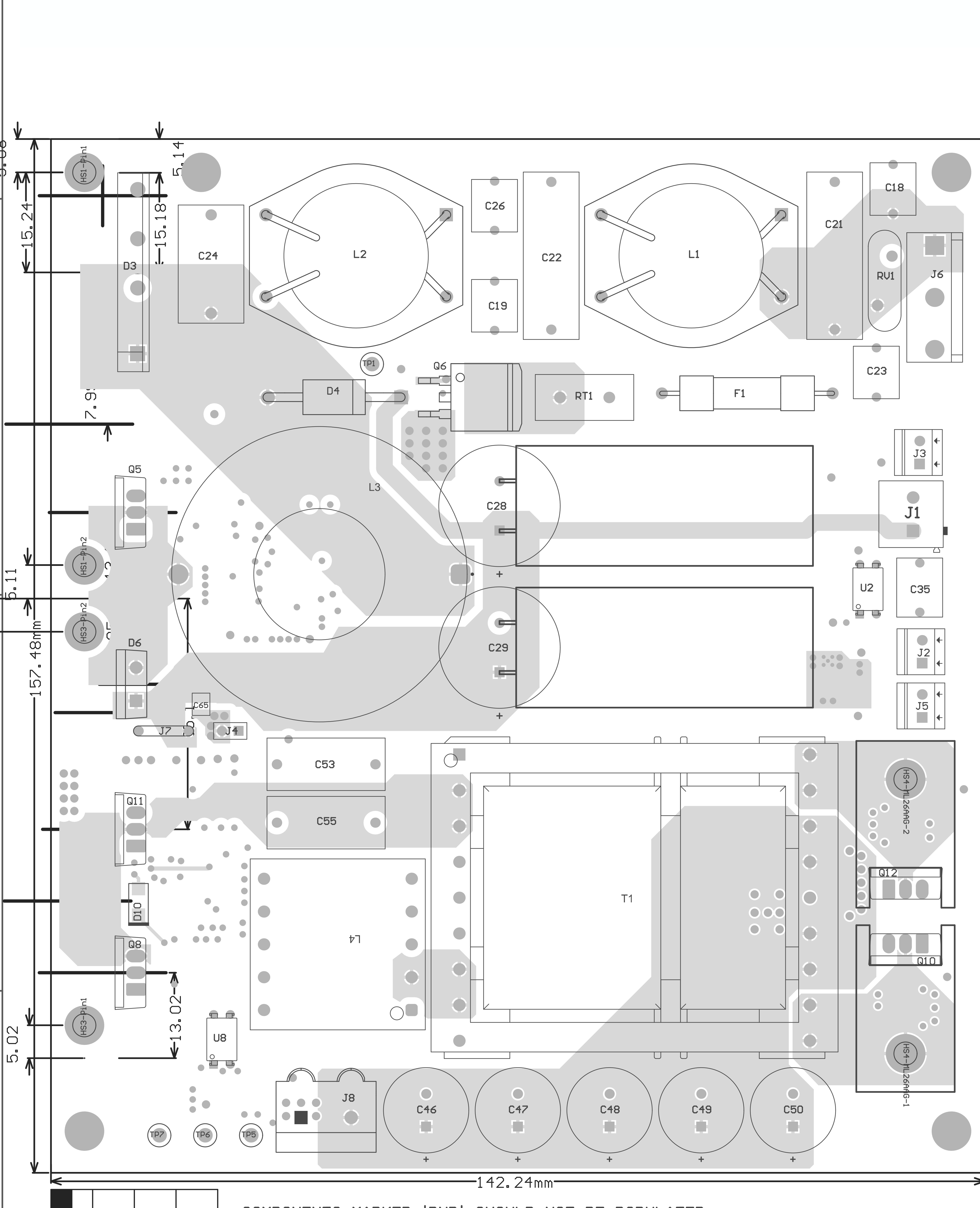


The Reference Design PMP30192 Rev_B has been built on PMP30192 Rev_A PCB

A
B
C
D



COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: [No Variations]

DESIGN INFORMATION	
MIN. TRACK WIDTH:	<u>8</u> MIL
MIN. CLEARANCE:	<u>0.2</u> mm
MIN. VIA PAD SIZE:	<u>24</u> MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL PER IPC-D-275 CLASS 2 LEVEL C	
REGISTRATION TOLERANCES: METAL +/- <u>5</u> MIL, HOLES +/- <u>3</u> MIL HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- <u>3</u> MIL	
MATERIAL:	
	<input type="checkbox"/> FR-408 <input checked="" type="checkbox"/> FR-4 High Tg <input type="checkbox"/> OTHER _____
THICKNESS:	<input checked="" type="checkbox"/> 62 MIL (1.6mm) +/-10% <input type="checkbox"/> OTHER _____
TOLERANCE:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
BOW & TWIST:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
DRILLING:	
REFERENCE:	<input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES
PTH COPPER THICKNESS:	<input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER _____
BOARD FINISH:	
SILKSCREEN:	<input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM
SILKSCREEN COLOR:	<input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER _____
SOLDER RESIST COLOR:	<input checked="" type="checkbox"/> GREEN <input type="checkbox"/> OTHER _____ <input checked="" type="checkbox"/> MATTE <input type="checkbox"/> SEMI-GLOSS
SURFACE FINISH:	<input checked="" type="checkbox"/> IMMERSION GOLD (ENIG) <input type="checkbox"/> ENEPIG <input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input type="checkbox"/> OTHER _____
ARRAY/PANEL:	<input type="checkbox"/> CUT AND TRIM PER M1 BOARD OUTLINE <input type="checkbox"/> N.C. ROUTE <input checked="" type="checkbox"/> V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF:	
	<input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS. PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER	
ADDITIONAL REQUIREMENTS:	
MICROSECTION:	<input type="checkbox"/> YES
BARE BOARD ELEC. TEST:	<input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER

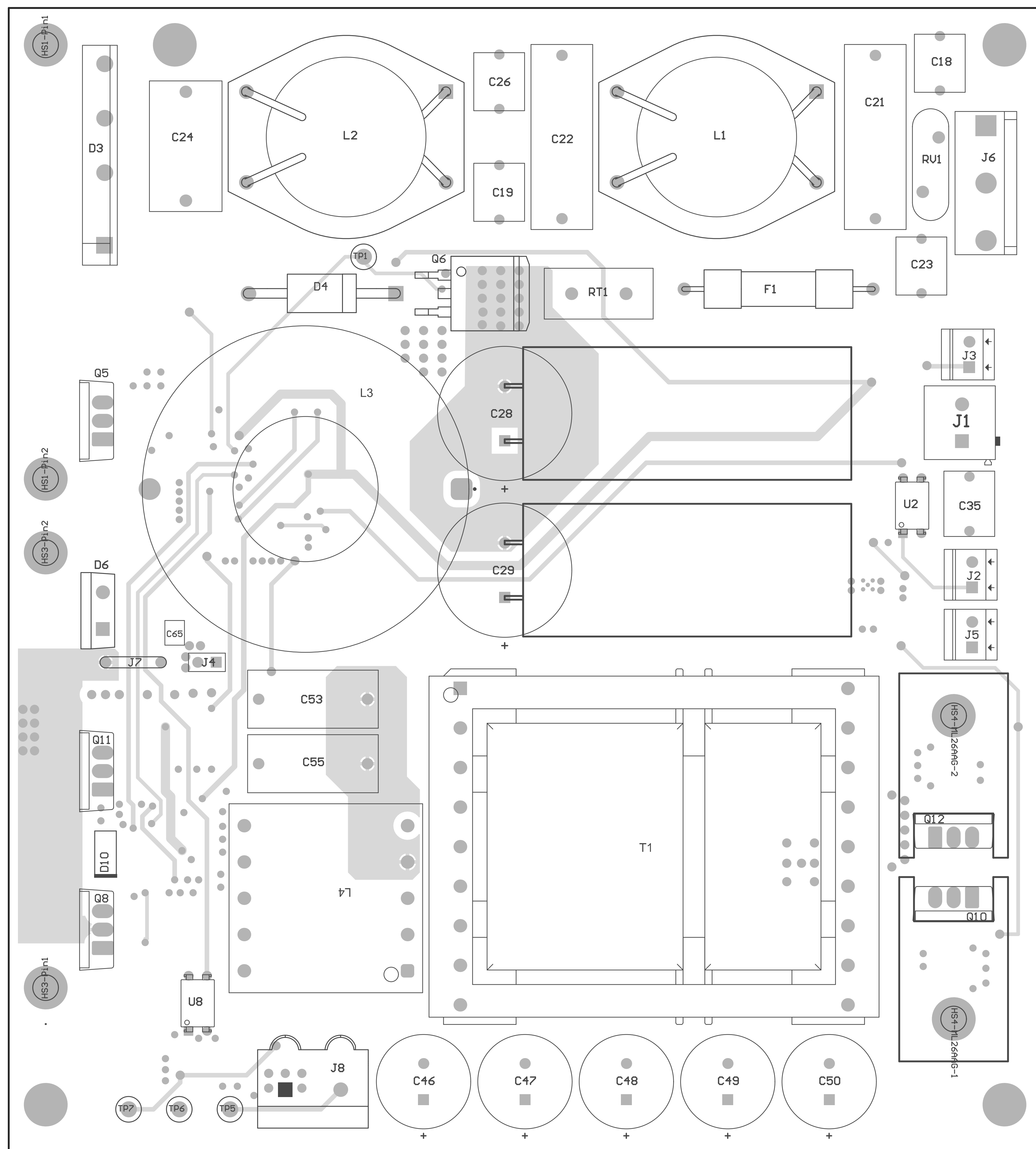


PROJECT TITLE:	90U...264U to 24U&12U 350W PFC + sync. LLC
DESIGNED FOR:	Public Release
FILE NAME:	PMP30192 Rev_A PCB.PcbDoc

BOARD #:	PMP30192	REV:	A	SUN REV:	Not In VersionControl
TID #:		GENERATED	: 11/7/2017 2:21:01 PM	TEXAS INSTRUMENTS	
PLOT NAME =	Top Layer				

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ENGINEER:	R. Scibilia	LAYOUT BY:	R. Scibilia
SCALE:	1.00	ALTIUM DESIGNER VERSION:	17.1.5.472



COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: [No Variations]

DESIGN INFORMATION	
MIN. TRACK WIDTH:	<u>8</u> MIL
MIN. CLEARANCE:	<u>0.2</u> mm
MIN. VIA PAD SIZE:	<u>24</u> MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL PER IPC-D-275 CLASS 2 LEVEL C	
REGISTRATION TOLERANCES: METAL +/- <u>5</u> MIL, HOLES +/- <u>3</u> MIL HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- <u>3</u> MIL	
MATERIAL:	
<input type="checkbox"/> FR-408 <input checked="" type="checkbox"/> FR-4 High Tg <input type="checkbox"/> OTHER _____	
THICKNESS:	<input checked="" type="checkbox"/> 62 MIL (1.6mm) +/-10% <input type="checkbox"/> OTHER _____
TOLERANCE:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
BOW & TWIST:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
DRILLING:	
REFERENCE:	<input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES
PTH COPPER THICKNESS:	<input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER _____
BOARD FINISH:	
SILKSCREEN: <input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM	
SILKSCREEN COLOR: <input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER _____	
SOLDER RESIST COLOR: <input checked="" type="checkbox"/> GREEN <input type="checkbox"/> OTHER _____ <input checked="" type="checkbox"/> MATTE <input type="checkbox"/> SEMI-GLOSS	
SURFACE FINISH: <input checked="" type="checkbox"/> IMMERSION GOLD (ENIG) <input type="checkbox"/> ENEPIG <input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input type="checkbox"/> OTHER _____	
ARRAY/PANEL: <input type="checkbox"/> CUT AND TRIM PER M1 BOARD OUTLINE <input type="checkbox"/> N.C. ROUTE <input checked="" type="checkbox"/> V. SCORE	
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF: <input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER	
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS. PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER	
ADDITIONAL REQUIREMENTS:	
MICROSECTION: <input type="checkbox"/> YES	
BARE BOARD ELEC. TEST: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER	



PROJECT TITLE:
90U...264U to 24U&12U 350W PFC + sync. LLC

DESIGNED FOR:
Public Release

FILE NAME:
PMP30192 Rev_A PCB.PcbDoc

ENGINEER:
R. Scibilia

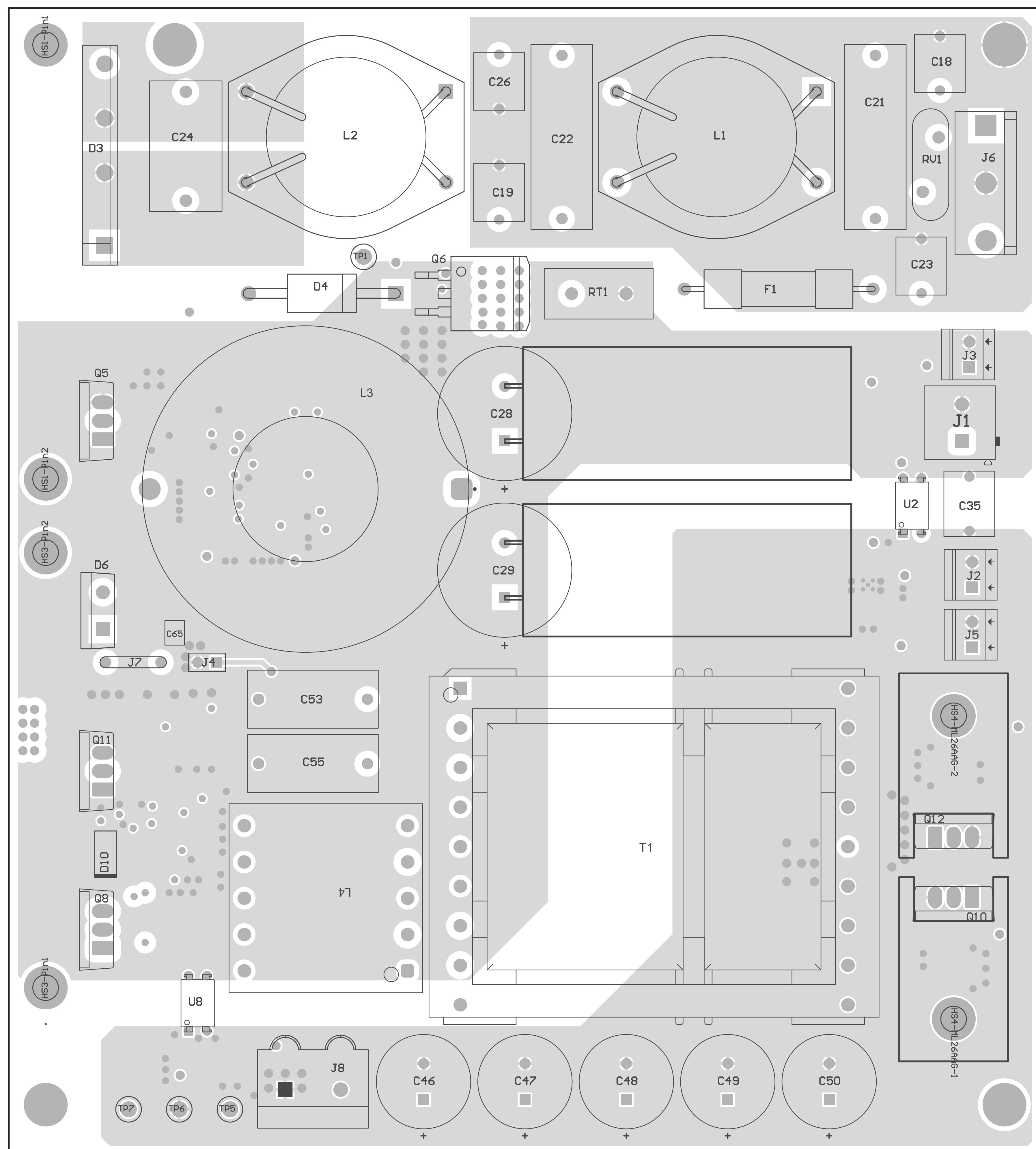
LAYOUT BY:
R. Scibilia

SCALE: 1.00

ALTIUM DESIGNER VERSION:
17.1.5.472

BOARD #: PMP30192	REV: A	SUN REV: Not In VersionControl
TID #:		
GENERATED : 11/7/2017 2:21:02 PM	TEXAS INSTRUMENTS	

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COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: [No Variations]

DESIGN INFORMATION	
MIN. TRACK WIDTH:	<u>8</u> MIL
MIN. CLEARANCE:	<u>0.2</u> mm
MIN. VIA PAD SIZE:	<u>24</u> MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL PER IPC-D-275 CLASS 2 LEVEL C	
REGISTRATION TOLERANCES: METAL +/- <u>5</u> MIL, HOLES +/- <u>3</u> MIL HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- <u>3</u> MIL	
MATERIAL:	
<input type="checkbox"/> FR-408 <input checked="" type="checkbox"/> FR-4 High Tg <input type="checkbox"/> OTHER _____	
THICKNESS:	<input checked="" type="checkbox"/> 62 MIL (1.6mm) +/-10% <input type="checkbox"/> OTHER _____
TOLERANCE:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
BOW & TWIST:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2 <input type="checkbox"/> OTHER +/- _____
DRILLING:	
REFERENCE:	<input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES
PTH COPPER THICKNESS:	<input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER _____
BOARD FINISH:	
SILKSCREEN: <input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM	
SILKSCREEN COLOR: <input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER _____	
SOLDER RESIST COLOR: <input checked="" type="checkbox"/> GREEN <input type="checkbox"/> OTHER _____ <input checked="" type="checkbox"/> MATTE <input type="checkbox"/> SEMI-GLOSS	
SURFACE FINISH: <input checked="" type="checkbox"/> IMMERSION GOLD (ENIG) <input type="checkbox"/> ENEPIG <input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input type="checkbox"/> OTHER _____	
ARRAY/PANEL: <input type="checkbox"/> CUT AND TRIM PER M1 BOARD OUTLINE <input type="checkbox"/> N.C. ROUTE <input checked="" type="checkbox"/> V. SCORE	
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF: <input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER	
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS. PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER	
ADDITIONAL REQUIREMENTS:	
MICROSECTION: <input type="checkbox"/> YES	
BARE BOARD ELEC. TEST: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER	



PROJECT TITLE:
90U...264U to 24U&12U 350W PFC + sync. LLC

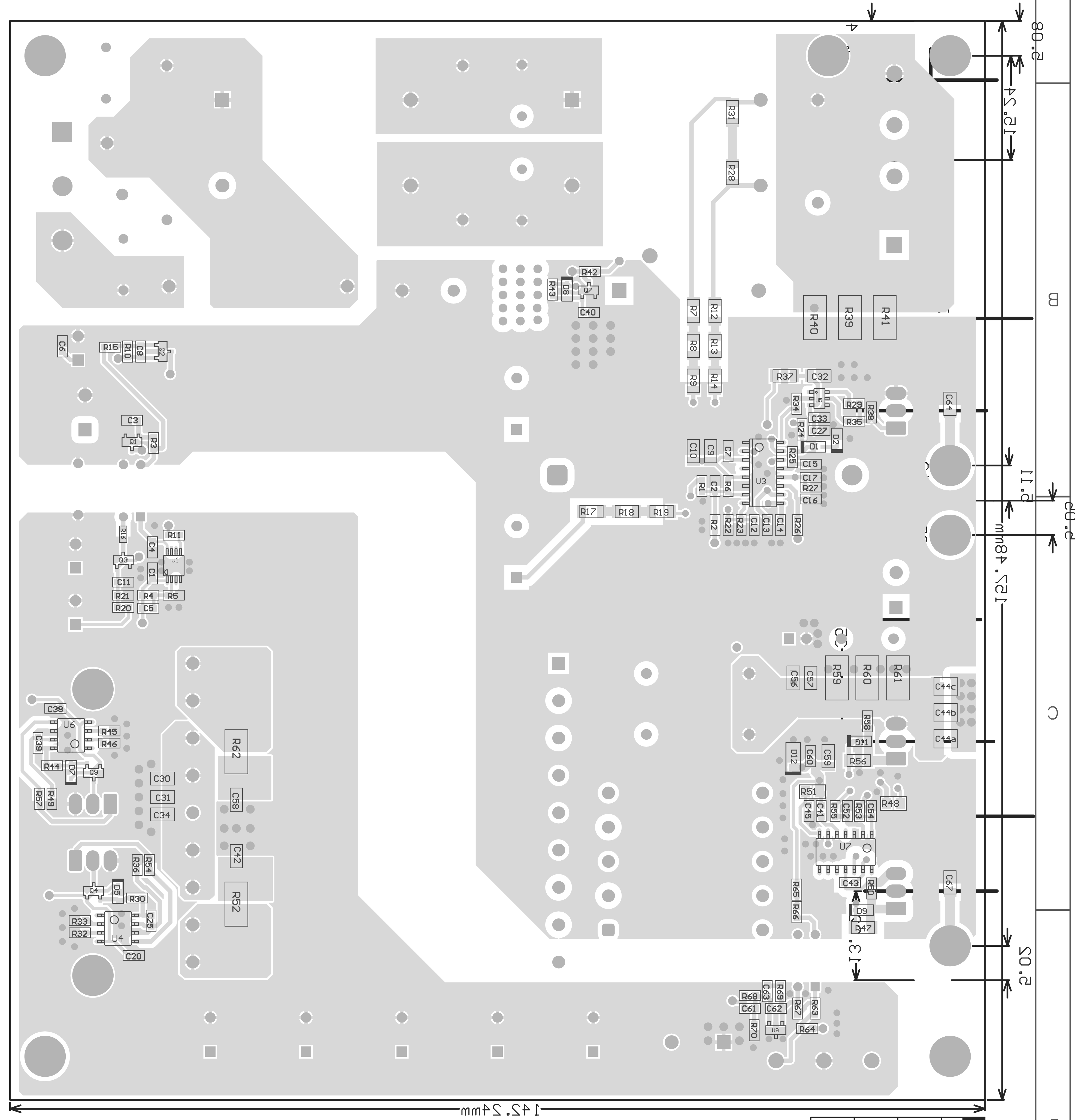
DESIGNED FOR:
Public Release

FILE NAME:
PMP30192 Rev_A PCB.PcbDoc

BOARD #: PMP30192	REV: A	SUN REV: Not In VersionControl
TID #:		
GENERATED : 11/7/2017 2:21:04 PM	TEXAS INSTRUMENTS	

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ENGINEER: R. Scibilia	LAYOUT BY: R. Scibilia
SCALE: 1.00	ALTIUM DESIGNER VERSION: 17.1.5.472



COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
 ASSEMBLY VARIANT: [No Variations]

PCB VIEWED FROM BOTTOM SIDE	BOARD #: PMP30192	REV: A	SUN REV: Not In VersionControl
	TID #:		
PLOT NAME = Bottom Layer	GENERATED : 11/7/2017	2:21:06 PM	TEXAS INSTRUMENTS

DESIGN INFORMATION

MINIMUM ANNUAL RING 0.025mm (2MIL) EXTERNAL
 PER IPC-D-275 CLASS 2 LEVEL C
 REGISTRATION TOLERANCES: METAL +/- 0.1 MIL HOLES +/- 0.3 MIL
 HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 0.3 MIL

MATERIAL:
 FR-408 FR-4 High Tg OTHER
 THICKNESS: 0.8 MIL (1.6mm) +/- 10% OTHER
 TOLERANCE: ANSI IPC-6012 TYPE 3 CLASS 2 OTHER +/-

BOW & TWIST: ANSI IPC-6012 TYPE 3 CLASS 2 OTHER +/-

DRILLING:
 REFERENCE: AS SHOWN NC DRILL FILES
 PTH COPPER THICKNESS: 20-30 nm OTHER

BOARD FINISH:
 SILKSCREEN: TOP BOTTOM OTHER
 SILKSCREEN COLOR: WHITE OTHER
 SOLDER RESIST COLOR: GREEN OTHER
 MATTE SEMI-GLOSS ENERPIC

SURFACE FINISH: IMMERSION GOLD (ENIG) OTHER
 1MM. TIN/SILVER OR EQUIV OTHER

ARRAY/PANEL: CUT AND TRIM PER M1 BOARD OUTLINE
 N.C. ROUTE V. SCORE

CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs
 TO MEET OR EXCEED THE REQUIREMENTS OF:
 ANSI IPC-A-600F CLASS -< 1 2 3
 ROHS OTHER PER ORDER

ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.
 PCB MUST BEAR THE UL94-V0 UL REGISTERED MATERIAL ID NUMBER

ADDITIONAL REQUIREMENTS:
 MICROSECTION: YES NO
 BARE BOARD ELEC. TEST: NONE REQUIRED PER ORDER

TEXAS INSTRUMENTS

PROJECT TITLE: 90U...264U to 24U812U 350M PFC + sduc. LLC

DESIGNED FOR: Public Release

FILE NAME: PMP30192 Rev_A PCB.pcbDoc

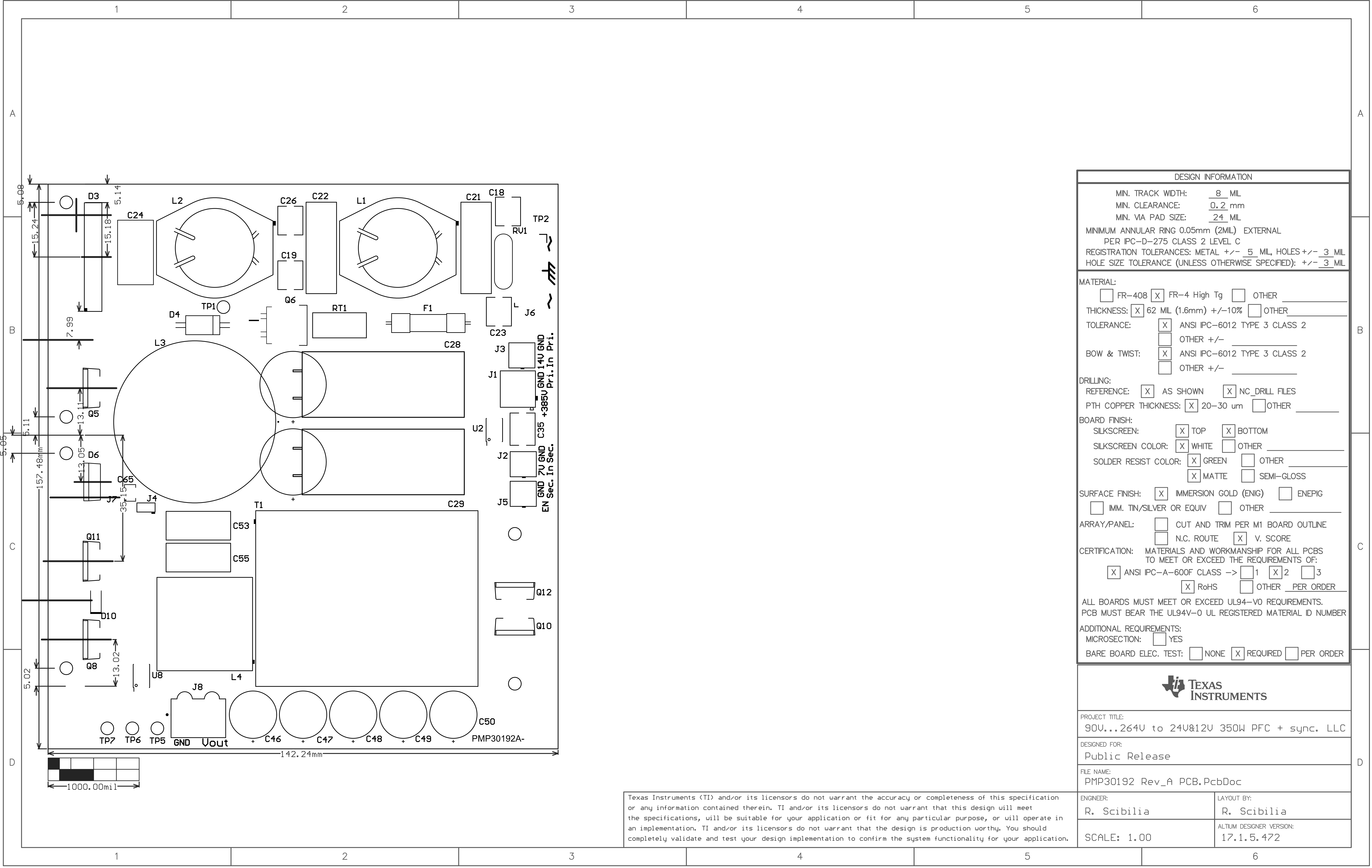
ENGINEER: R. Scidilia

LAYOUT BY: R. Scidilia

SCALE: 1:00

ALTIM DESIGNER VERSION: 12.1.2.422

completely validated and test your design implementation to confirm the system's functionality for your application.
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 or any other manner contained therein. IT and/or its licensors do not warrant that this design will meet
 Texas Instruments (TI) and/or its licensors do not warrant the accuracy or completeness of this specification



DESIGN INFORMATION	
MIN. TRACK WIDTH:	<u>8</u> MIL
MIN. CLEARANCE:	<u>0.2</u> mm
MIN. VIA PAD SIZE:	<u>24</u> MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL PER IPC-D-275 CLASS 2 LEVEL C	
REGISTRATION TOLERANCES: METAL +/- <u>5</u> MIL, HOLES +/- <u>3</u> MIL	
HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- <u>3</u> MIL	
MATERIAL:	
<input type="checkbox"/> FR-408	<input checked="" type="checkbox"/> FR-4 High Tg
<input type="checkbox"/> OTHER _____	
THICKNESS:	<input checked="" type="checkbox"/> 62 MIL (1.6mm) +/-10%
<input type="checkbox"/> OTHER _____	
TOLERANCE:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2
<input type="checkbox"/> OTHER +/- _____	
BOW & TWIST:	<input checked="" type="checkbox"/> ANSI IPC-6012 TYPE 3 CLASS 2
<input type="checkbox"/> OTHER +/- _____	
DRILLING:	
REFERENCE:	<input checked="" type="checkbox"/> AS SHOWN <input checked="" type="checkbox"/> NC_DRILL FILES
PTH COPPER THICKNESS:	<input checked="" type="checkbox"/> 20-30 um <input type="checkbox"/> OTHER _____
BOARD FINISH:	
SILKSCREEN:	<input checked="" type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM
<input type="checkbox"/> OTHER _____	
SILKSCREEN COLOR:	<input checked="" type="checkbox"/> WHITE <input type="checkbox"/> OTHER _____
SOLDER RESIST COLOR:	<input checked="" type="checkbox"/> GREEN <input type="checkbox"/> OTHER _____
<input checked="" type="checkbox"/> MATTE <input type="checkbox"/> SEMI-GLOSS	
SURFACE FINISH:	
<input checked="" type="checkbox"/> IMMERSION GOLD (ENIG)	<input type="checkbox"/> ENEPIG
<input type="checkbox"/> IMM. TIN/SILVER OR EQUIV <input type="checkbox"/> OTHER _____	
ARRAY/PANEL:	
<input type="checkbox"/> CUT AND TRIM PER M1 BOARD OUTLINE	
<input type="checkbox"/> N.C. ROUTE <input checked="" type="checkbox"/> V. SCORE	
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF:	
<input checked="" type="checkbox"/> ANSI IPC-A-600F CLASS -> <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	
<input checked="" type="checkbox"/> RoHS <input type="checkbox"/> OTHER PER ORDER	
ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS. PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER	
ADDITIONAL REQUIREMENTS:	
MICROSECTION: <input type="checkbox"/> YES	
BARE BOARD ELEC. TEST: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> REQUIRED <input type="checkbox"/> PER ORDER	



PROJECT TITLE:
90U...264U to 24U&12U 350W PFC + sync. LLC

DESIGNED FOR:
Public Release

FILE NAME:
PMP30192 Rev_A PCB.PcbDoc

ENGINEER:
R. Scibilia

LAYOUT BY:
R. Scibilia

SCALE: 1.00

ALTIUM DESIGNER VERSION:
17.1.5.472

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SCALE: 1:00

LAYOUT DESIGNER VERSION: 12.1.2.422

ENGINEER: R. Scidilia

LAYOUT BY: R. Scidilia

FILE NAME: PMP30192 Rev_A PCB.pcbDoc

DESIGNED FOR: Public Release

PROJECT TITLE: 90U...264U to 24U812U 350M PFC + sduc. LLC

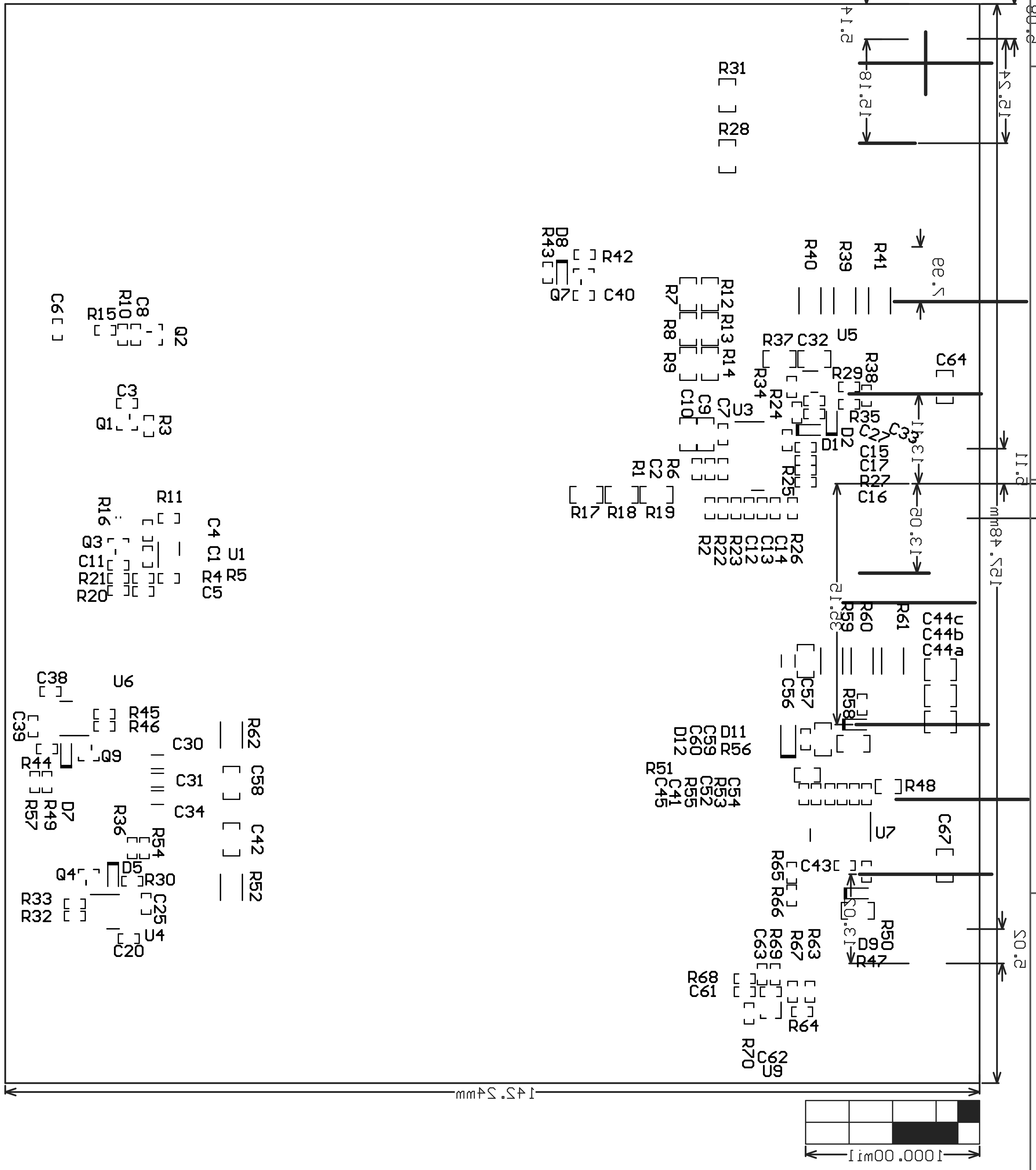


BARE BOARD ELEC. TEST: NONE REQUIRED PER ORDER
 MICROSECTION: YES NO
 ADDITIONAL REQUIREMENTS:

PCB MUST BEAR THE U94-V-0 UL REGISTERED MATERIAL ID NUMBER
 ALL BOARDS MUST MEET OR EXCEED U94-V0 REQUIREMENTS.
 ANSI IPC-A-600F CLASS -< 1 2 3
 TO MEET OR EXCEED THE REQUIREMENTS OF:
 CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs
 N.C. ROUTE V. SCORE
 ARRAY/PANEL: CUT AND TRIM PER M1 BOARD OUTLINE
 IMMERSION GOLD (ENG) ENERPIC
 MATTE SEMI-GLOSS
 SOLDER RESIST COLOR: GREEN OTHER
 SILKSCREEN COLOR: WHITE OTHER

BOARD FINISH: TOP BOTTOM
 SILKSCREEN: OTHER
 PTH COPPER THICKNESS: 20-30 um OTHER
 REFERENCE: AS SHOWN INC_DRILL_FILES
 DRILLING: OTHER +\-
 BOW & TWIST: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER +\-
 TOLERANCE: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER
 THICKNESS: 62 MIL (1.6mm) +\ -10% OTHER
 MATERIAL: FR-408 FR-4 High Tg OTHER

DESIGN INFORMATION
 HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +\ - 0.3 MIL
 REGISTRATION TOLERANCES: METAL +\ - 0.5 MIL HOLES +\ - 0.3 MIL
 PER IPC-D-275 CLASS 2 LEVEL C
 MINIMUM ANNULAR RING 0.025mm (2MIL) EXTERNAL
 MIN. VIA PAD SIZE: 24 MIL
 MIN. CLEARANCE: 0.2 mm
 MIN. TRACK WIDTH: 8 MIL



A

B

C

D

6

2

4

2

2

1

A

B

C

D

1

2

2

4

2

6

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