

MISTRAL SOLUTIONS.PVT.LTD,

#60, ADARSH REGENT, 100'FT RING ROAD,

DOMLUR EXTENSION, BANGALORE-560 071

TITLE: TMDSCSK388

PRDN\_ REVA

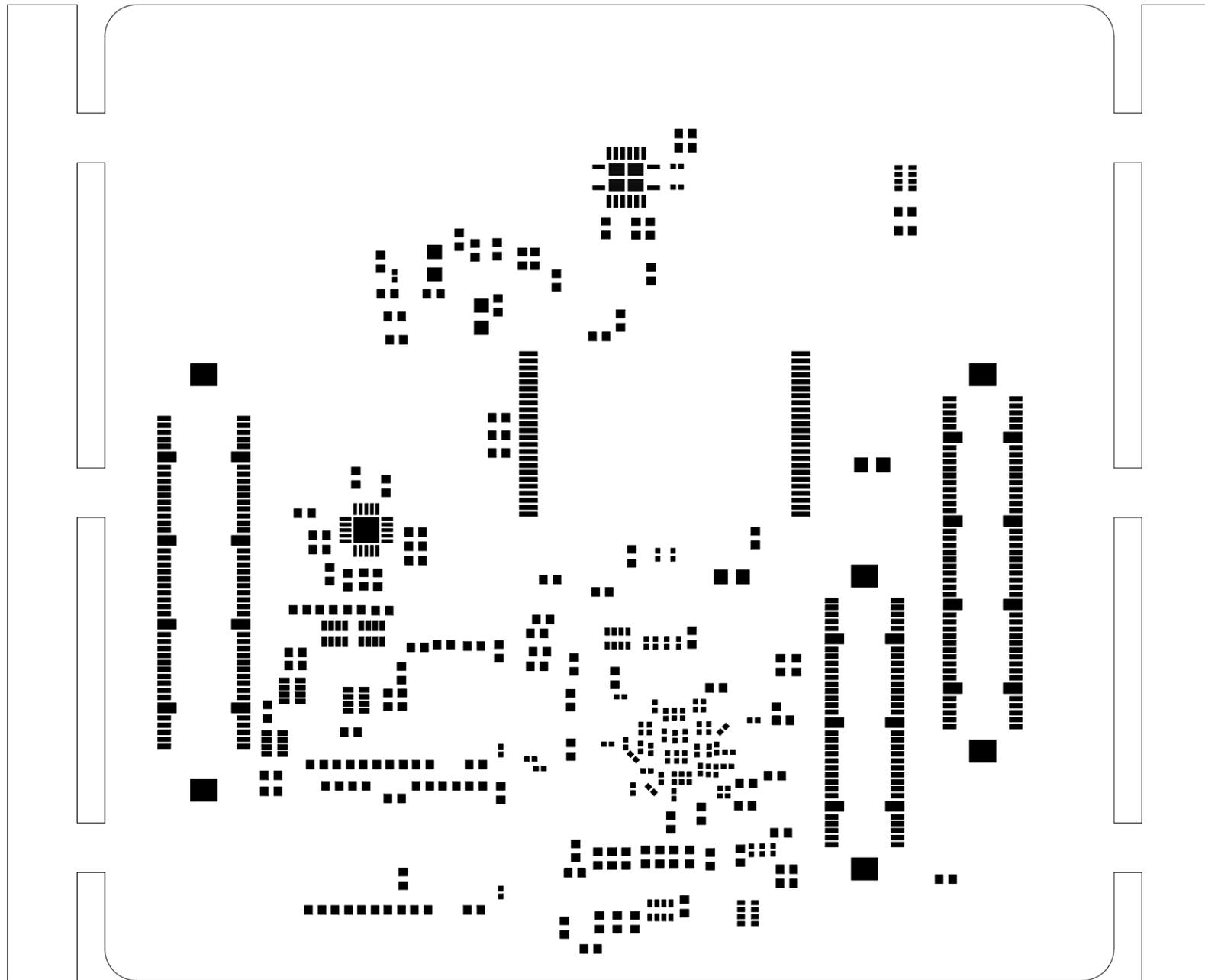
SCALE: 1

DATE: 171116

SECONDARY-SOLDERMASK

SHEET

OF 15



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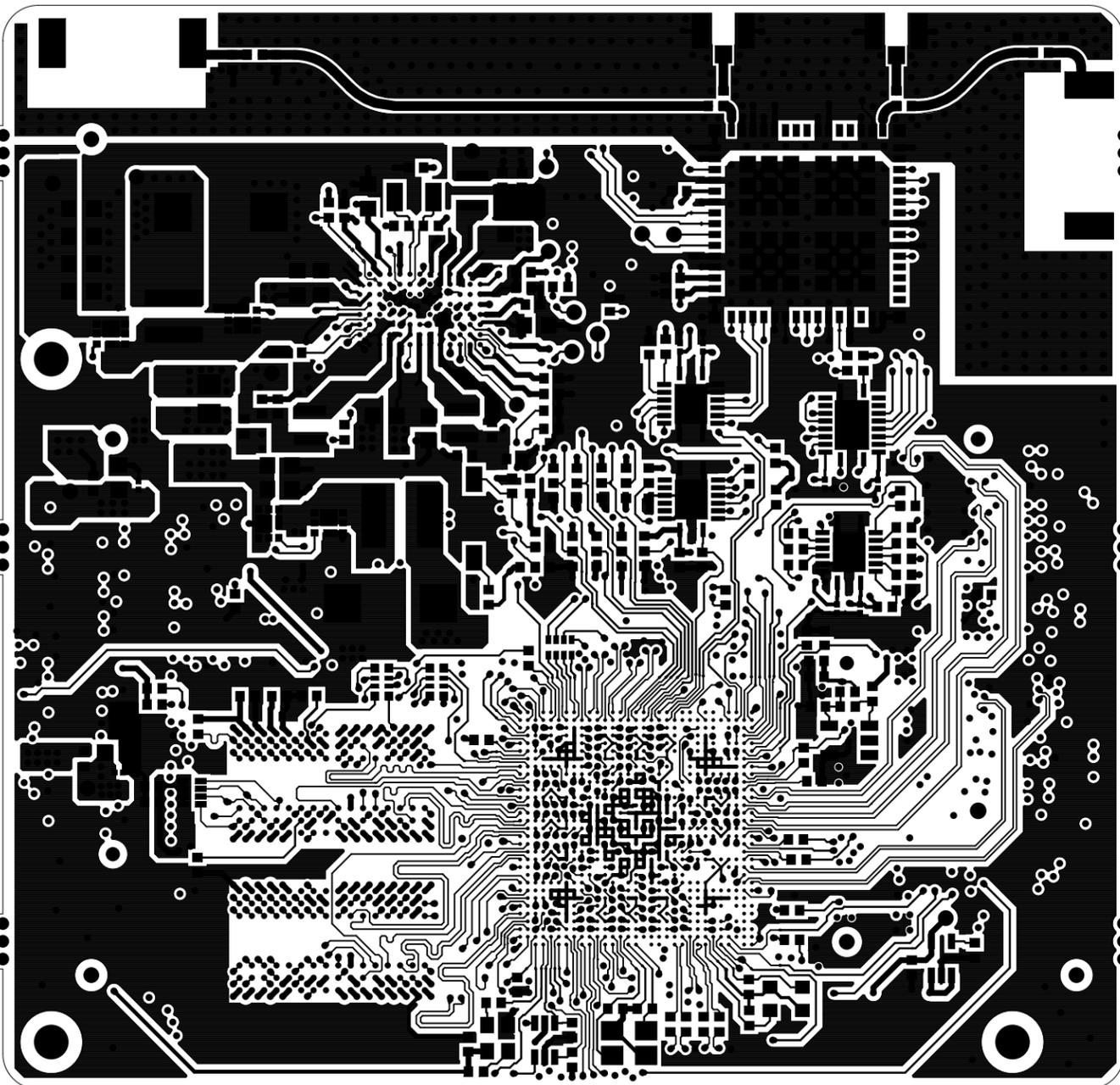
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SECONDARY-PASTEMASK

SHEET

OF 15





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PRIMARY-SIDE-SIG

SHEET

04 15

**FABRICATION NOTES:**

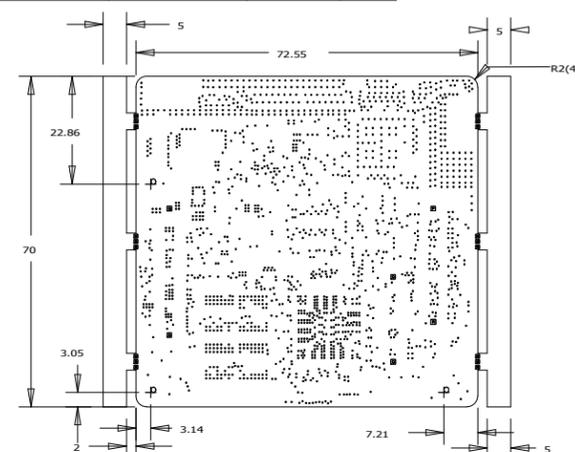
- FABRICATE PCB IN ACCORDANCE WITH IPC-6012C, CLASS 2; PER IPC-6011.
- MATERIALS:
  - LAMINATE AND PREPREG (B-STAGE) TO BE IN ACCORDANCE WITH IPC-4101/126. (MIN.TG 170)
  - COPPER FOIL TO BE IN ACCORDANCE WITH IPC-MF-150. UNLESS OTHERWISE SPECIFIED, ALL COPPER WEIGHT FOR INNER SIGNAL LAYERS AND INNER PLANE LAYERS TO BE 35UM (1 OZ.). FOR OUTER LAYERS 35UM (1.0 OZ). COPPER WEIGHT IS TO BE CONSIDERED "FINISHED". THE COPPER FOIL THICKNESS TOLERANCES SHALL BE AS PER IPC 6012B TABLE NO.3-7 AND 3-8.
- ALL HOLES SHALL BE LOCATED WITHIN 0.15MM DIAMETER OF TRUE POSITION. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.125MM.
- BOW AND TWIST SHALL NOT EXCEED MORE THAN 0.75% OF THE DESIGN LENGTH.
- CONDUCTOR WIDTH SHALL NOT BE LESS THAN 20% FROM ITS ORIGINAL DATA. INCASE FOR MATCHING IMPEDANCE MISTRAL SHALL APPROVE THE MODIFIED WIDTHS AND SPACING. TRACE WIDTH SHALL BE MEASURED ON THE SURFACE IN CONTACT WITH THE LAMINATE.
- AUTOMATED OPTICAL INSPECTION OF ALL THE LAYERS IS REQUIRED.
- FINISH:
  - ALL EXPOSED CONDUCTIVE PATTERN AREAS NOT COVERED WITH SOLDER MASK OR OTHER PLATING SHALL BE ENIG, ELECTROLESS NICKEL/IMMERSION GOLD, ELECTROLESS NICKEL SHALL BE 3-6 MICRONS, TYPICAL IMMERSION GOLD THICKNESS SHALL BE 0.04-0.06 MICRONS OF SOLDERABLE IMMERSION GOLD SURFACE.
  - APPLY LIQUID PHOTO IMAGEABLE SOLDER MASK PER IPC-SM-840, CLASS H, TO BOTH SIDES OF THE BOARD OVER BARE COPPER. VIA HOLES SHALL BE FILLED WITH NON CONDUCTIVE INK AND COVERED WITH SOLDER MASK. ONLY SOLDER MASK IMAGES THAT ARE 0.08(0.003") PER SIDE SHALL BE REDUCED IF REQUIRED. ALL OTHER SOLDER MASK IMAGES SHALL NOT BE ENLARGED. DEFAULT COLOUR OF SOLDER MASK SHALL BE RED.
  - SILKSCREEN SHALL BE WHITE, PERMANENT, ORGANIC, NON-CONDUCTIVE INK. THERE SHALL BE NO SILKSCREEN ON ANY SOLDERABLE COMPONENT PAD. CLIPPING OF SILK SCREEN SHALL BE ALLOWED IF THE SILK SCREEN FALLS ON SOLDERABLE AREAS.
  - SURFACE AND VIA HOLES FINISH SHALL NOT BE LESS THAN 20UM [0.00079"], INCASE OF LASER VIA'S, BLIND VIA'S SHALL NOT BE LESS THAN 12UM [0.00047"] AND BURIED VIA'S SHALL NOT BE LESS THAN 15UM [0.0006"].
  - ALL HOLES SURROUNDED BY LAND <=0.010" SHALL BE COMPLAIN TO IPC6012, CLASS 2.
- MARKING:
  - NOT APPLICABLE.
  - BOARD SHALL MEET THE REQUIREMENTS OF UL-796E WITH FLAMMABILITY RATING OF MINIMUM 94V-0. UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE RENDERED IN SILKSCREEN.
- TEST REQUIREMENTS:
  - 100% NET LIST ELECTRICAL VERIFICATION USING MISTRAL SUPPLIED IPC-D-356 NET LIST FOR OPENS AND SHORTS.
- FINISHED BOARD THICKNESS 0.063" +/- 10%
- MINIMUM TRACEWIDTH AND SPACING: 0.004/0.0036".

REV #	DESCRIPTION	DATE
REV #	CCN #	DDMMYY

DRILL CHART: TOP to BOTTOM

ALL UNITS ARE IN MILS

FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	10.0	+3.0/-3.0	PLATED	1748
■	32.0	+2.0/-2.0	NON-PLATED	18
■	36.0	+2.0/-2.0	NON-PLATED	2
■	38.0	+2.0/-2.0	NON-PLATED	1
■	40.0	+2.0/-2.0	NON-PLATED	2
■	42.0	+2.0/-2.0	NON-PLATED	1
⌀	88.0	+2.0/-2.0	NON-PLATED	3



**IMPEDANCE SPECIFICATIONS**

SL#	TYPE	LAYER	TRACEWIDTH(Mils)	SPACING(Mils)	IMPEDANCE(Ohms)	REF LAYER
01	EDGE COUPLED STRIPLINE	L03&L06	4	9	100	L02&L07
02	EDGE COUPLED MICROSTRIP	L01	4	4.5	90	L02
03	EDGE COUPLED MICROSTRIP	L01&L08	4	7	100	L02&L07
04	STRIPLINE	L03&L06	4.7	-	50	L02&L07
05	STRIPLINE	L03&L06	4	-	55	L02&L07
06	MICROSTRIP	L01&L08	4.01	-	55	L02&L07
07	MICROSTRIP	L01&L08	5.50	-	50	L02&L07
08	COATED COPLANAR	L01	25	7.5	50	L04

**LAYER STACKUP**

LAYER NAME	FINISHED Cu	X-SECTION	DIELECTRIC THICKNESS [INCHES]
PRIMARY SIDE SILKSCREEN			
PRIMARY SIDE SOLDERMASK			
L01 PRIMARY SIDE	1oz.		0.0037
L02 GROUND-PLANE-1	1oz.		0.0045
L03 INNER-SIGNAL-1	1oz.		0.014
L04 POWER-PLANE-1	1oz.		0.008
L05 POWER-PLANE-2	1oz.		0.014
L06 INNER-SIGNAL-2	1oz.		0.0045
L07 GROUND-PLANE-2	1oz.		0.0045
L08 SECONDARY SIDE	1oz.		0.0037
SECONDARY SIDE SOLDERMASK			
SECONDARY SIDE SILKSCREEN			



MISTRAL SOLUTIONS PVT LTD.

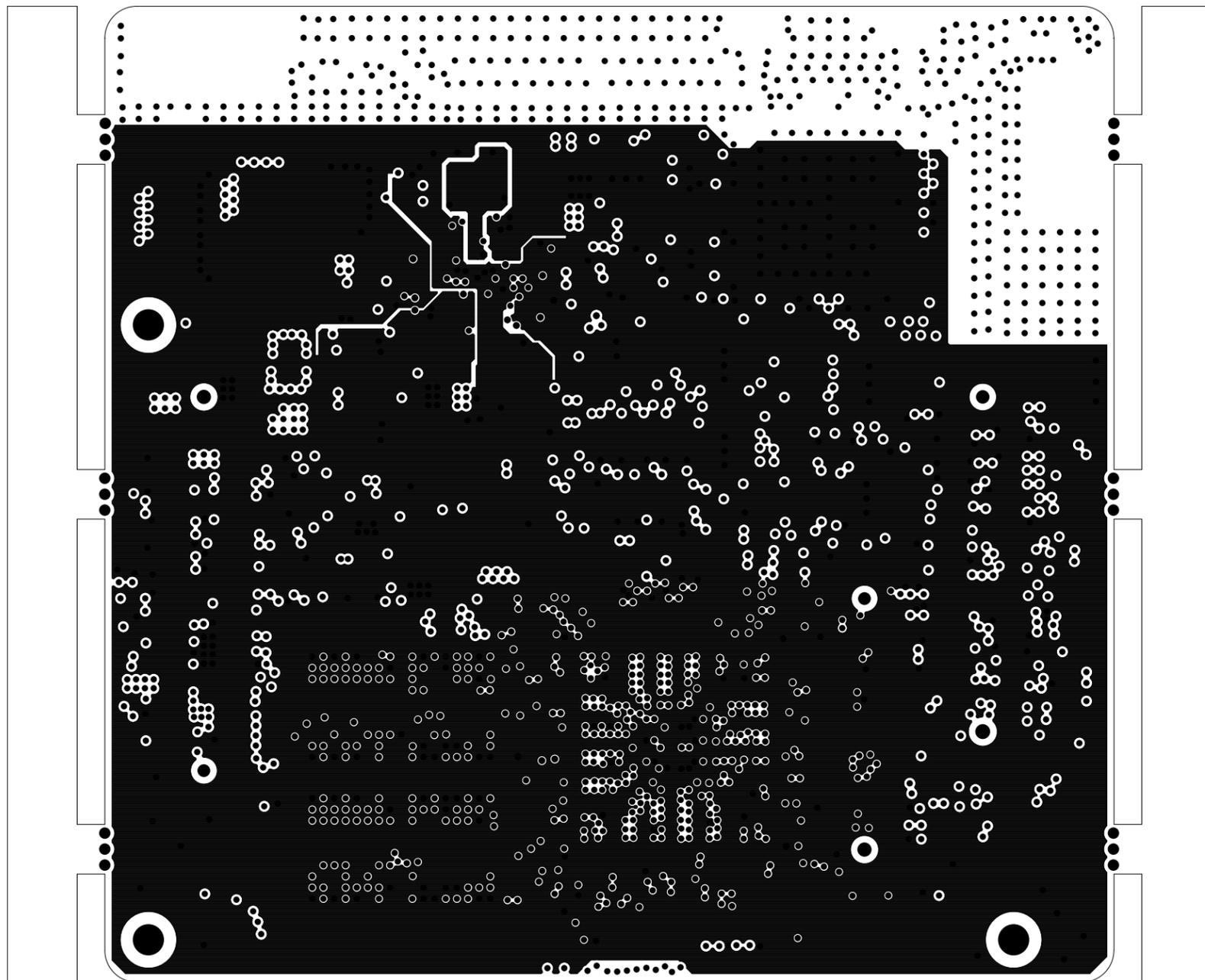
#60, ADARSH REGENT, 100' FEET RING ROAD,

DOMLUR EXTENSION, BANGALORE 560 071.

PCB,

TMDSCSK388

APPROVALS		DATE	SIZE	DRAWING NO.		REV
DRAWN	RP/SG	171116	C	FY170076000102		PRDN_REVA
CHECKED	ZA	171116	SCALE:NONE		FILE NAME:	SHEET 1 OF 15
APPROVED	AJ	171116				



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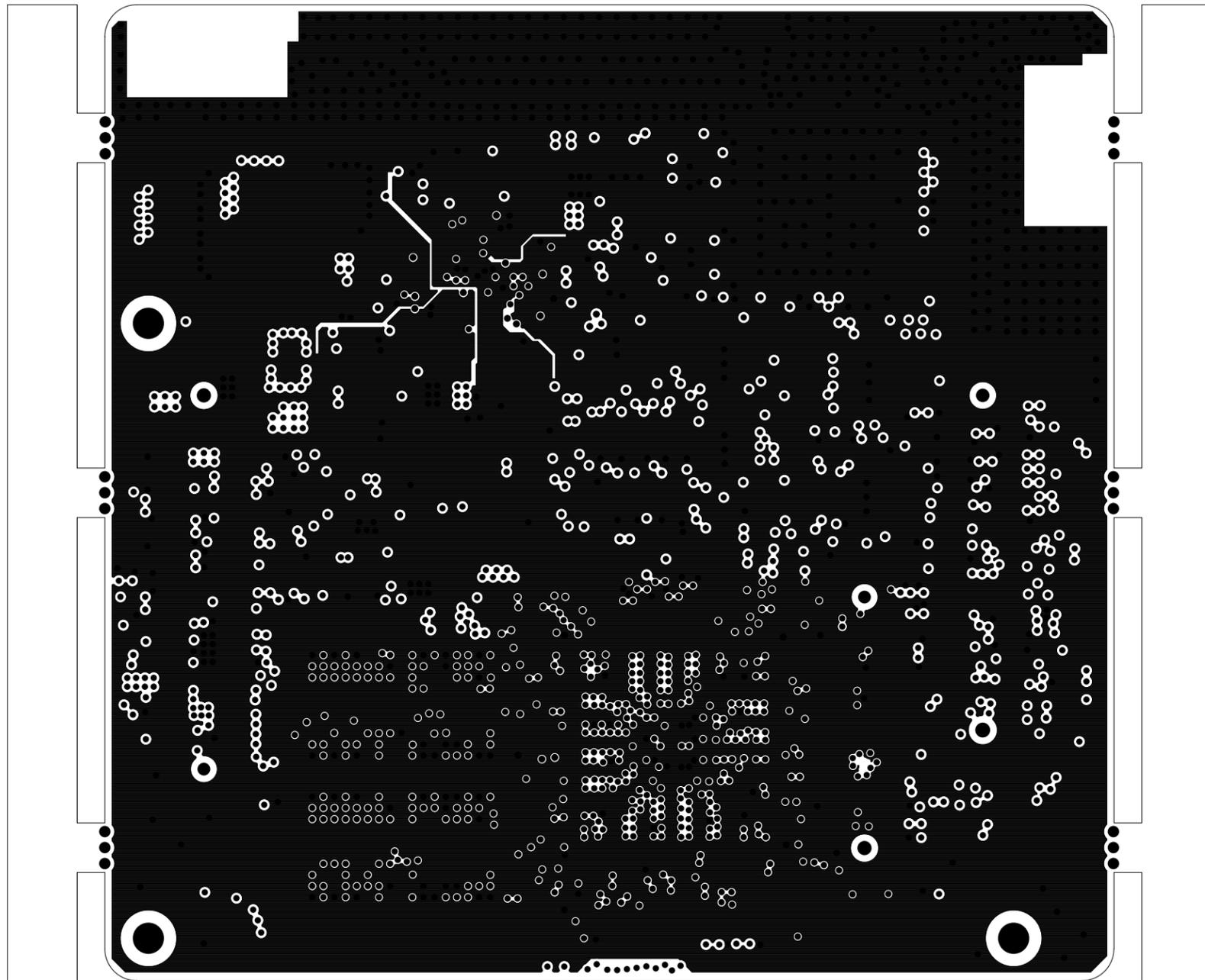
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GROUND-PLANE-01

SHEET

05 15



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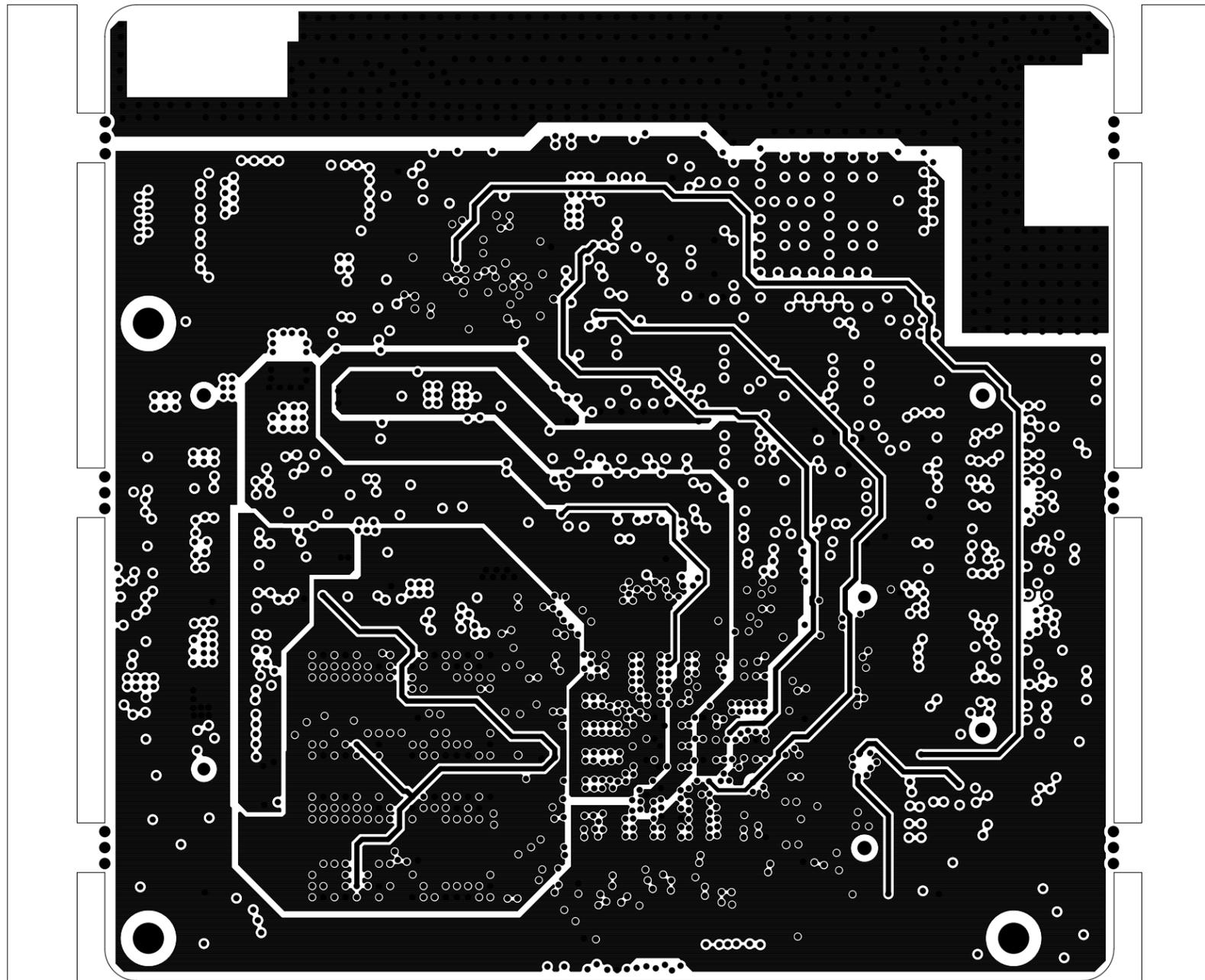
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GROUND-PLANE-02

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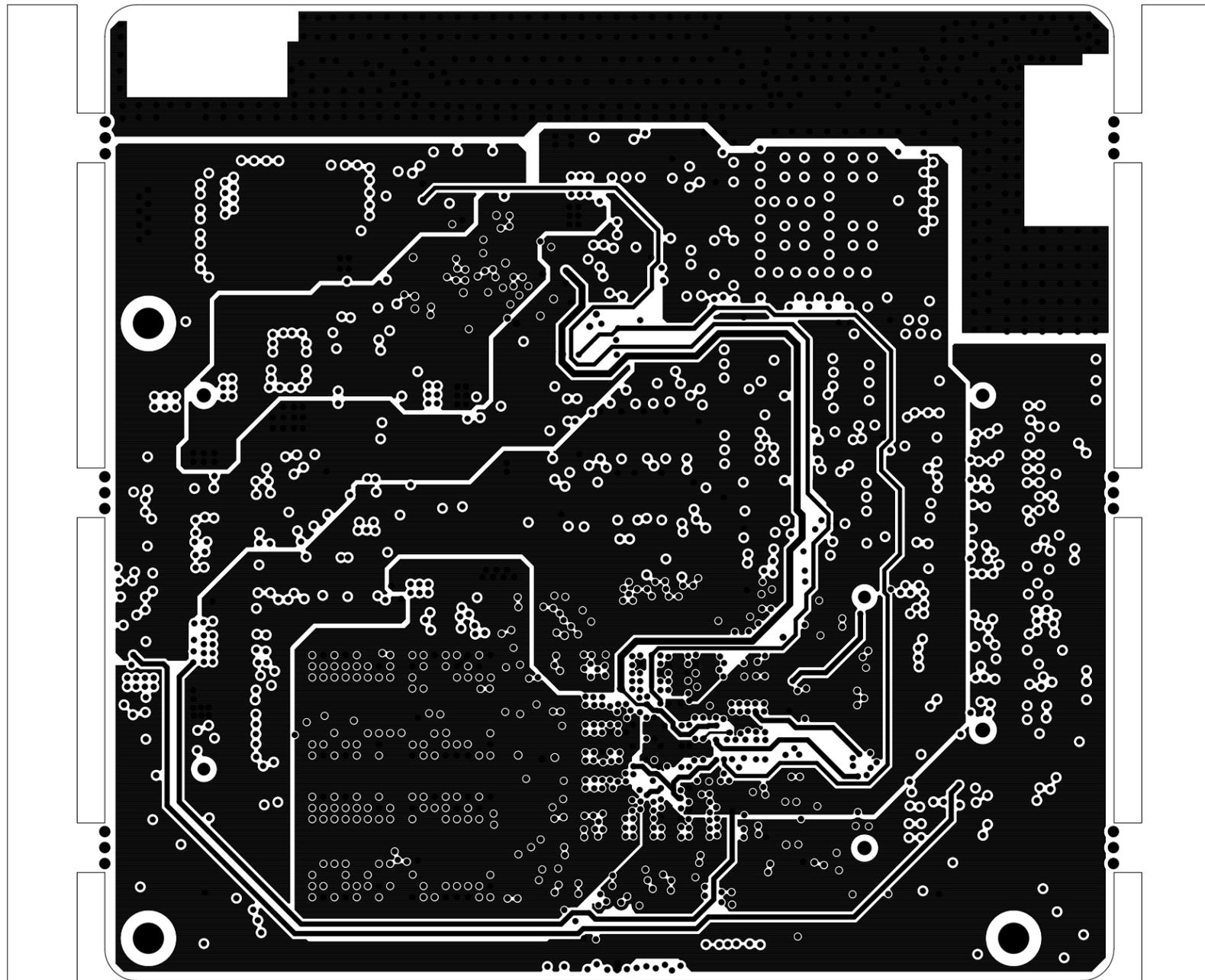
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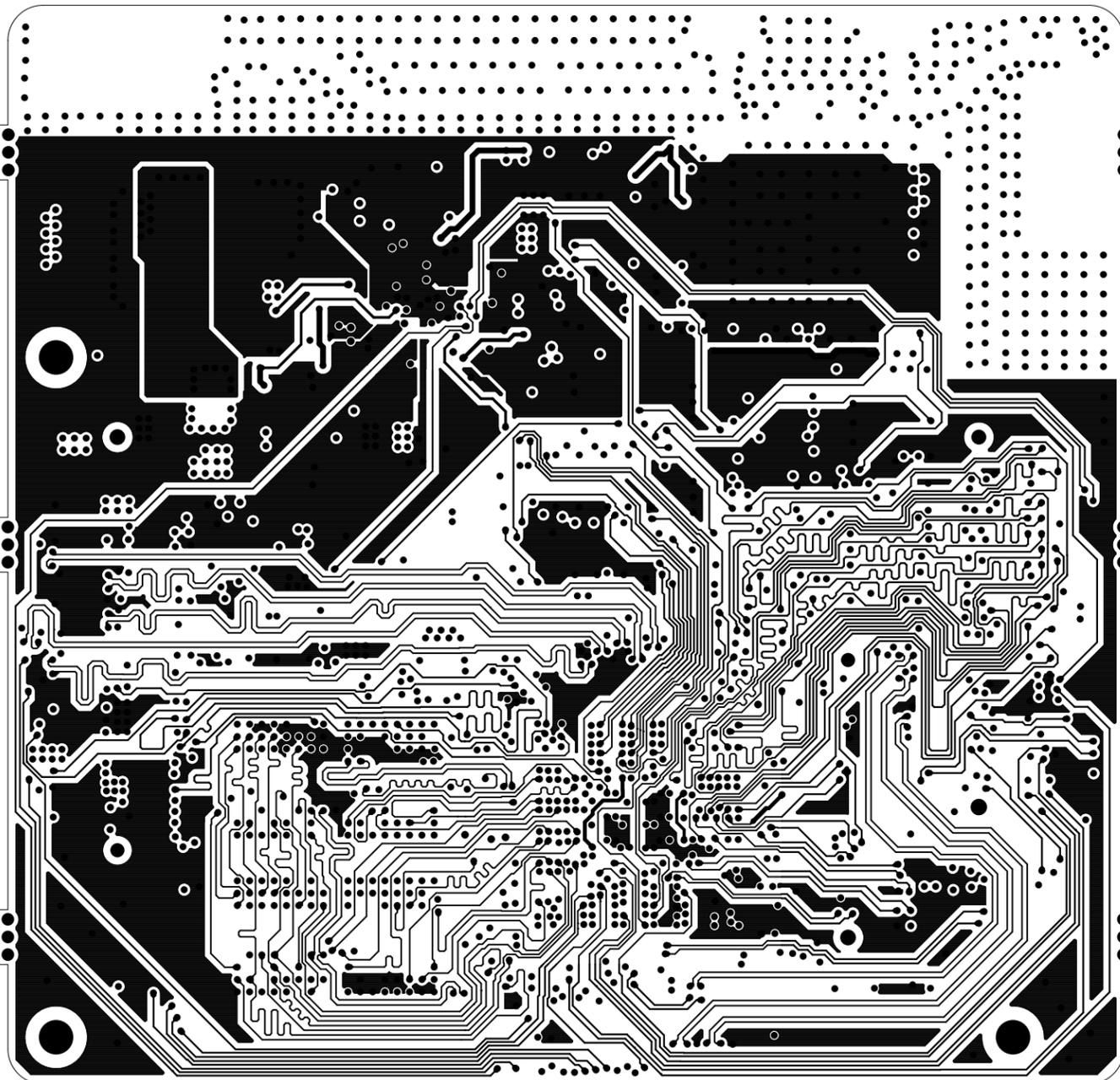
POWER-PLANE-01

SHEET 07 15



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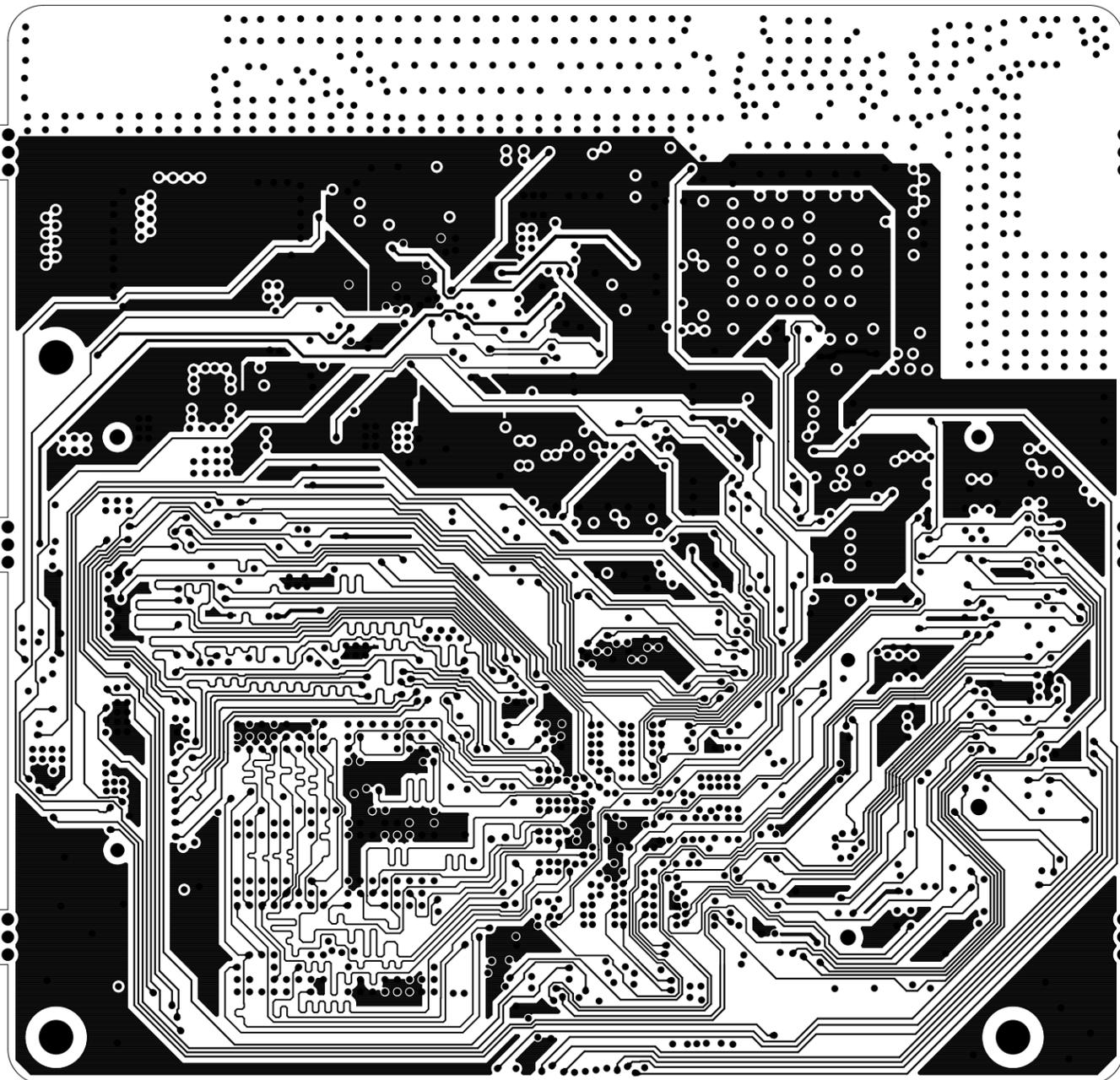
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INNER-SIGNAL-01

SHEET

006 15



<sup>®</sup> MISTRAL SOLUTIONS.PVT.LTD,

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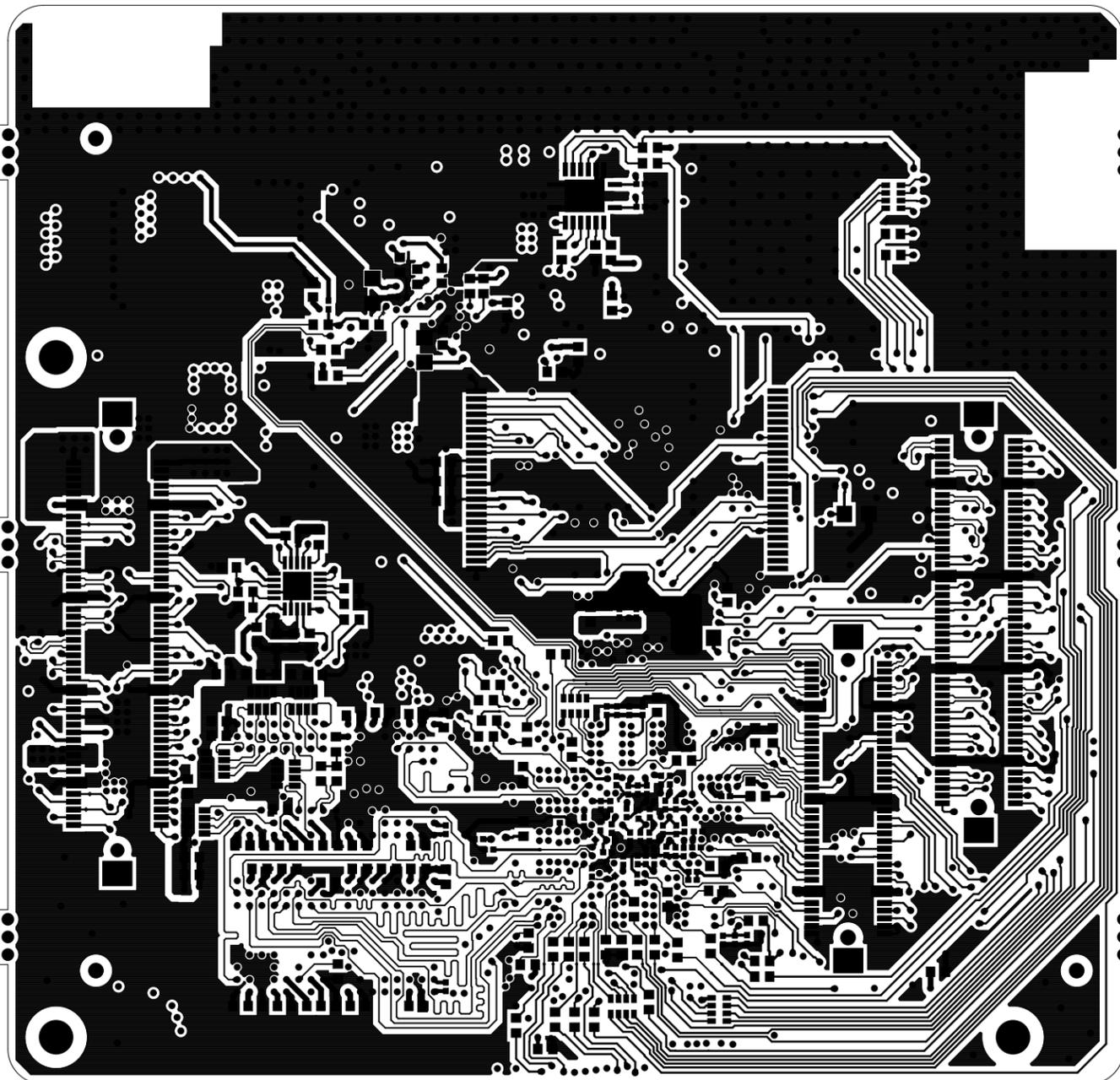
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INNER-SIGNAL-02

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09 15



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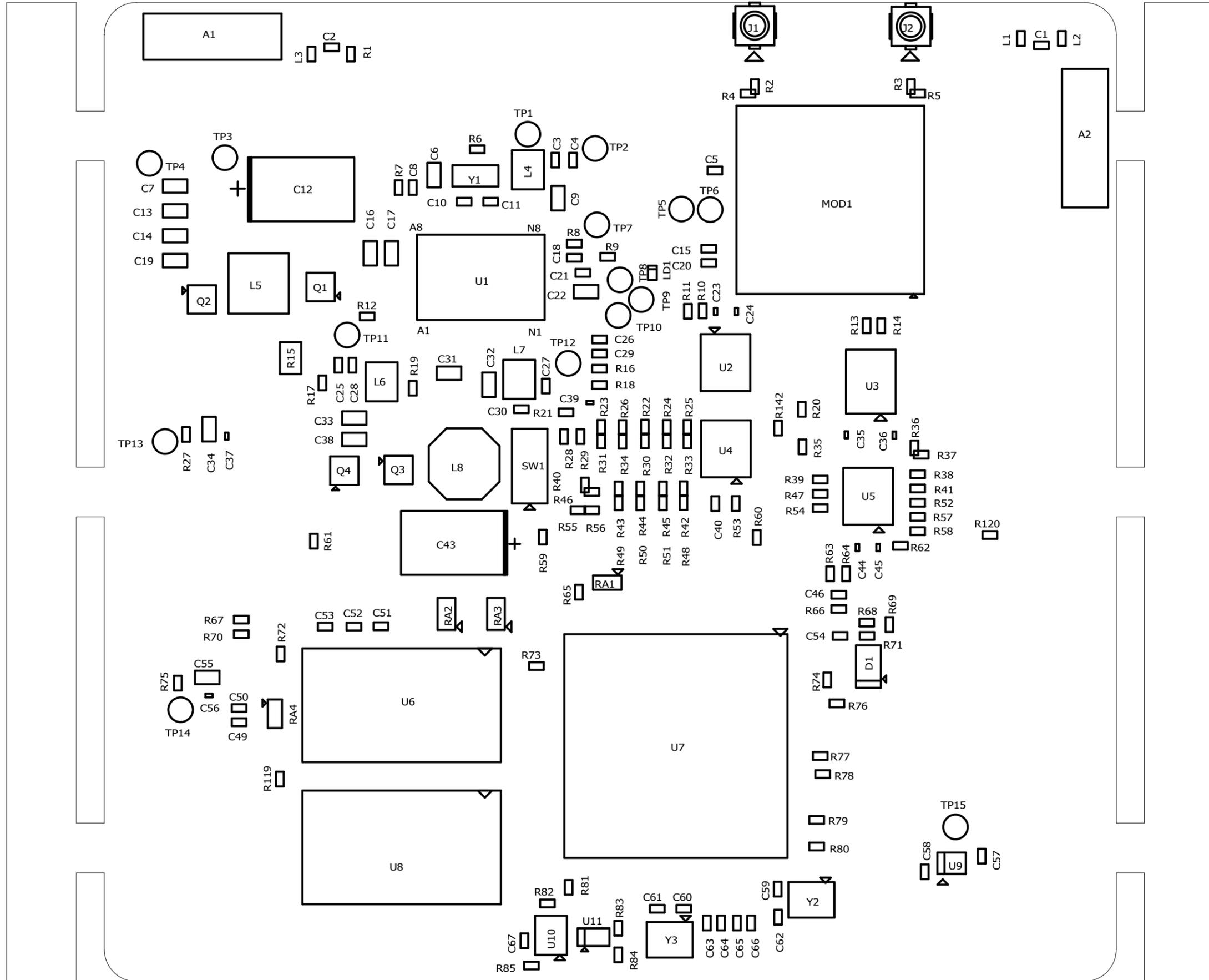
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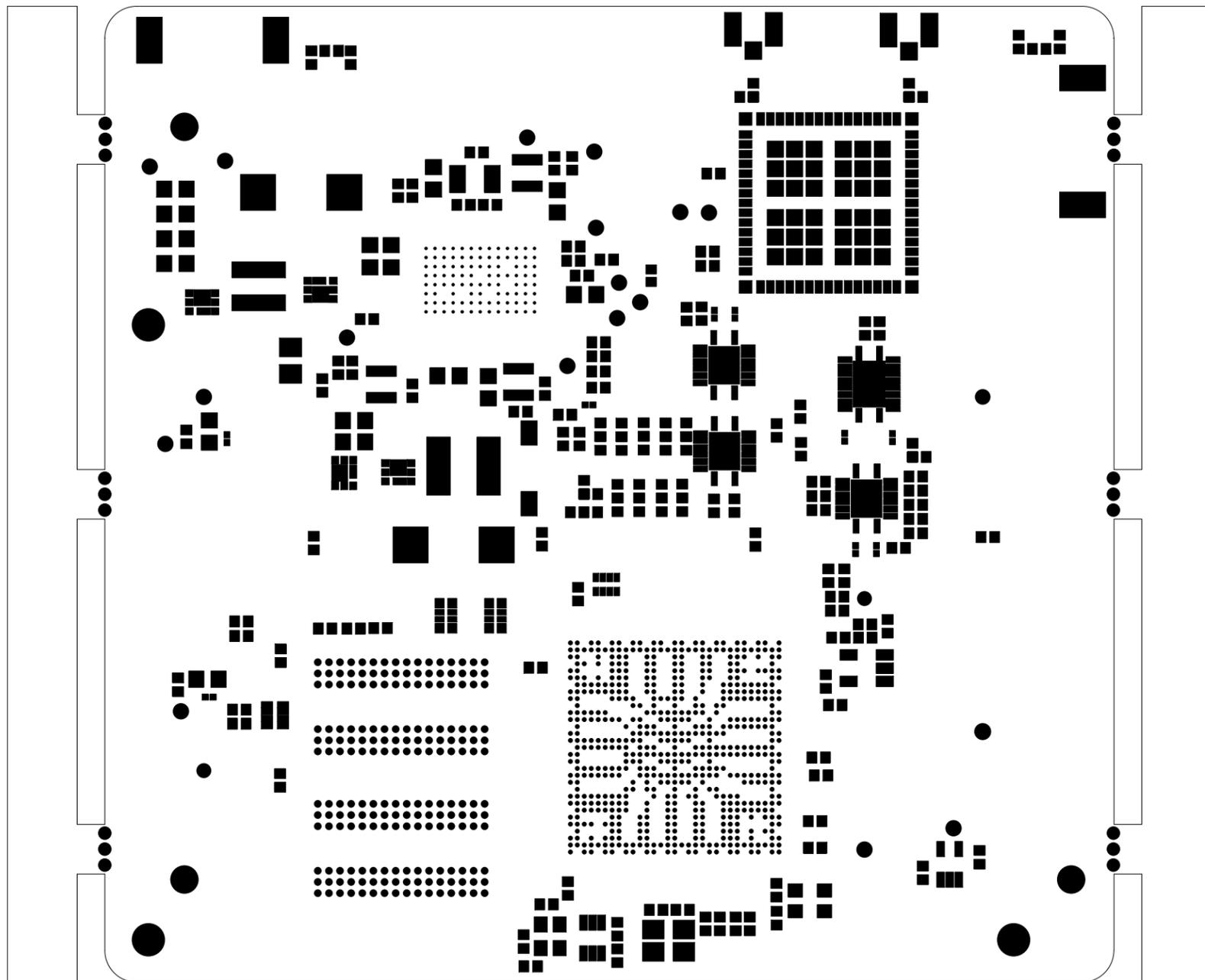
SECONDARY-SIDE-SIG

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# TMDSCSK388\_PRDN\_REVA TOP ASSEMBLY





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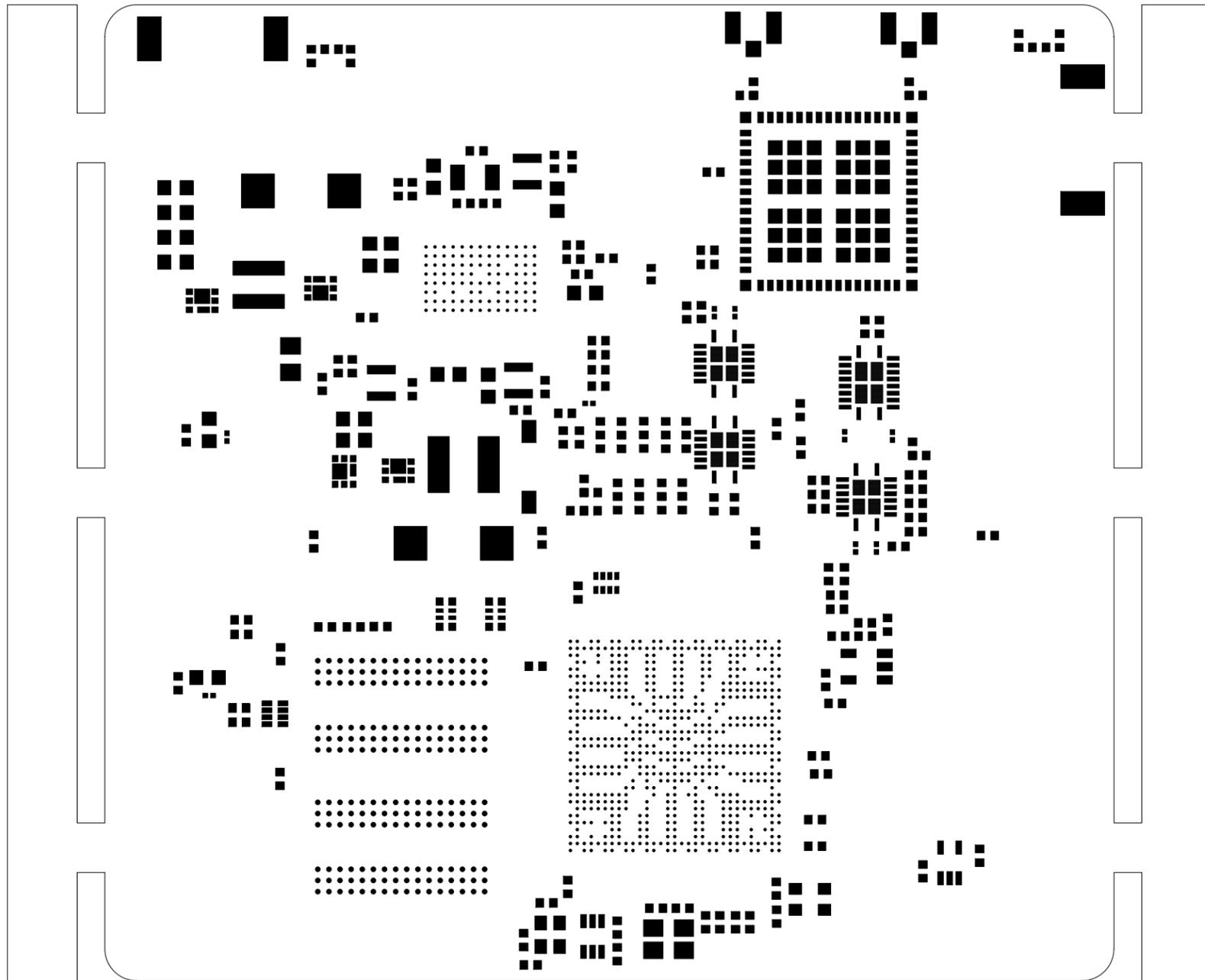
PRDN\_ REVA

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PRIMARY-SOLDERMASK

SHEET 03 15



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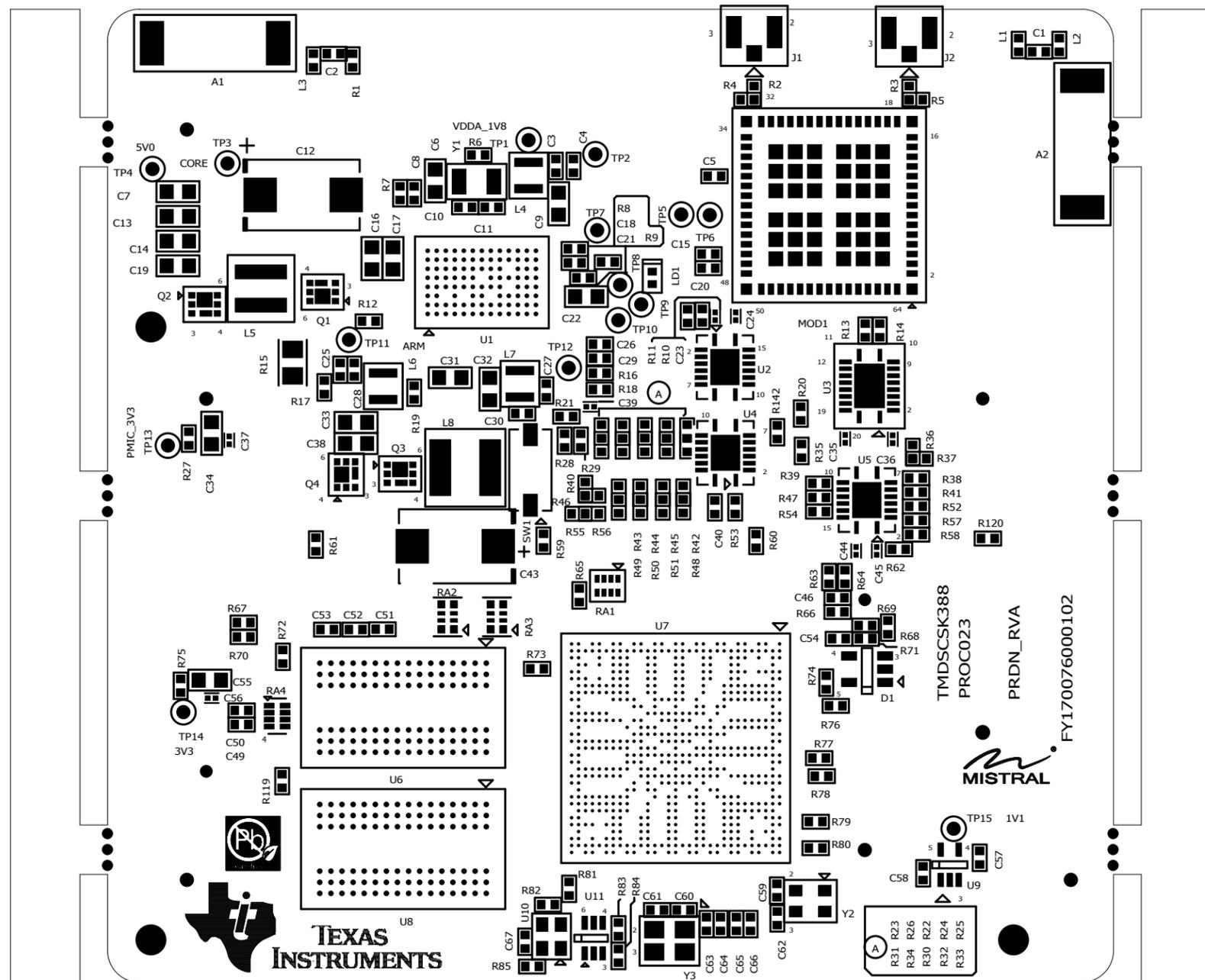
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PRIMARY-PASTEMASK

SHEET

014 15



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PRIMARY-SILKSCREEN

SHEET 02 15