

ROUTING SLIP

PLEASE FORWARD TO THE NEXT PERSON INDICATED BELOW
DO NOT RETURN TO **REQUESTOR**. UNLESS ALL APPROPRIATE
SIGNATURES ARE PRESENT.

REQUESTOR: KEVIN CHAN

DATE REQUEST SENT OUT: 5/21/21

APPS ENG. Sanzhong Bai

APPS DIR. Keith Szolusha

ANALOG DEVICES

MANUFACTURING BILL OF MATERIALS

SKU# = EVAL-LT8391D-AZ

IC NO. = LT8391D

PCA BOM = 700-EVAL-LT8391D-AZ_REV03

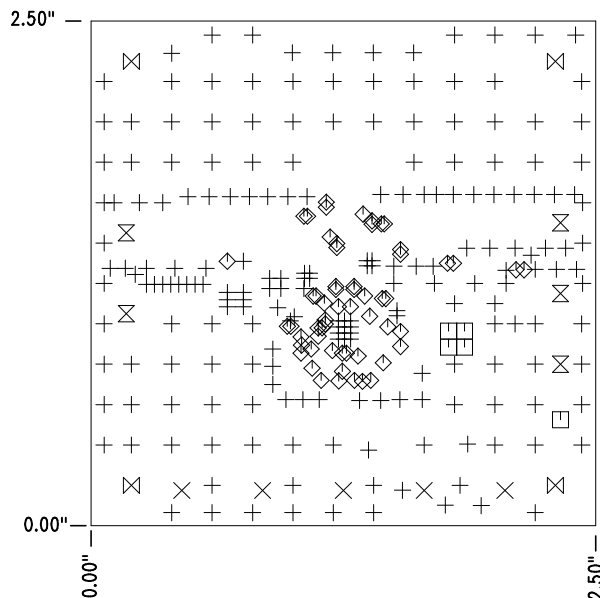
PCA ASS'Y DWG = 705-EVAL-LT8391D-AZ_REV03

PCA SCHEMATIC = 710-EVAL-LT8391D-AZ_REV03

Item Number	Quantity	Part Reference	Description	Manufacturer	Manufacturer PN	Value	BOM Notes
1	1	C1	CAP., 0.1uF, X7R, 50V, 10%, 0402, AEC-Q200	MURATA TAIYO YUDEN TDK	GCM155R71H104KE02D UMK105B7104KVHF CGA2B3X7R1H104K050BB	0.1uF	
2	6	C2, C3, C4, C5, C7, C8	CAP., 10uF, X5R, 50V, 10%, 1206, AEC-Q200	MURATA TDK	GRT31CR61H106KE01L CGA5L3X5R1H106K160AB	10uF	
3	1	C6	CAP., 47uF, ALUM ELECT, 50V, 20%, 6.3x5.8mm SMD, RADIAL, AEC-Q200	PANASONIC	EEFT1H470AP	47uF	
4	1	C9	CAP., 1uF, X7R, 50V, 10%, 0805, AEC-Q200	MURATA TDK TDK	GCM21BR71H105KA03L CGA4J3X7R1H105K125AB CGJ4J3X7R1H105K125AB	1uF	
5	2	C10, C11	CAP., 4.7uF, X7S, 100V, 20%, 1206	AVX MURATA	12061Z475MAT2A GRM31CC72A475ME11L	4.7uF	
6	1	C12	CAP., 1uF, X7S, 100V, 10%, 0805, AEC-Q200, NO SUBS. ALLOWED	MURATA	GCM21BC72A105KE36L	1uF	
7	3	C13, C17, C20	CAP., 0.1uF, X7R, 16V, 10%, 0402, AEC-Q200	MURATA TAIYO YUDEN	GCM155R71C104KA55D EMK105B7104KVHF	0.1uF	
8	1	C14	CAP., 4.7uF, X5R, 6.3V, 20%, 0402, AEC-Q200	Taiyo Yuden	JMK105BBJ475MVHF	4.7uF	
9	1	C16	CAP., 0.1uF, X7S, 100V, 10%, 0603, AEC-Q200	TDK	CGA3E3X7S2A104K080AB	0.1uF	
10	1	C18	CAP., 2.2uF, X5R, 6.3V, 20%, 0402, AEC-Q200	Taiyo Yuden	JMK105BJ225MVHF	2.2uF	
11	1	C19	CAP., 0.47uF, X7R, 6.3V, 10%, 0402, AEC-Q200	TAIYO YUDEN	JMK105B7474KVHF	0.47uF	
12	1	C21	CAP., 6800pF, X7R, 50V, 10%, 0402, AEC-Q200	MURATA	GCM155R71H682KA55D	6800pF	
13	0	C22, C23	CAP., OPTION, 0402			OPT	NO STUFF
14	5	E1, E2, E7, E9, E10	TEST POINT, TURRET, 0.094" MTG. HOLE, PCB 0.062" THK	MILL-MAX	2501-2-00-80-00-00-07-0	TEST POINT	
15	5	E3, E4, E5, E6, E8	TEST POINT, TURRET, 0.064" MTG. HOLE, PCB 0.062" THK	MILL-MAX	2308-2-00-80-00-00-07-0	TEST POINT	

16	2	FB1, FB2	IND., 470 OHMS@100MHz, FERRITE BEAD, 25%, 4A, 20mOHMS, 1206, AEC-Q200	MURATA	BLM31KN471SZ1L	470 OHMS@100MHz	
17	2	FB4, FB5	IND., 1k OHM@100MHz, FERRITE BEAD, 25%, 1.5A, 150mOHMS, 0805, AEC-Q200	TDK	MPZ2012S102ATD25	1k OHM@100MHz	
18	1	JP1	CONN., HDR, MALE, 2x2, 2mm, VERT, STR, THT	WURTH ELEKTRONIK	62000421121	HDR	
19	1	L1	IND., 10uH, SHIELDED PWR, 20%, 7A, 29.82mOHMS, 6.56x6.36mm, AEC-Q200	COILCRAFT COILCRAFT	XAL6060-103MEB XAL6060-103MEC	10uH	
20	1	L2	IND., 3.3uH, PWR, SHIELDED, 20%, 10.6A, 14.6mOHMS, 5.48x5.28mm, XEL5050, AEC-Q200	COILCRAFT COILCRAFT	XEL5050-332MEB XEL5050-332MEC	3.3uH	
21	1	LB1	LABEL SPEC, DEMO BOARD SERIAL NUMBER	BRADY	THT-96-717-10	LABEL	
22	4	M1, M2, M3, M4	XSTR., MOSFET, N-CH, 60V, 38A, LFPK33, AEC-Q101	NEXPERIA	BUK9M19-60EX	BUK9M19-60E	
23	4	MH1, MH2, MH3, MH4	STANDOFF, NYLON, SNAP-ON, 0.375"	KEYSTONE	8832	STANDOFF, NYLON, SNAP-ON	
24	1	PCB1	PCB, EVAL-LT8391D-AZ	ADI APPROVED SUPPLIER	600-EVAL-LT8391D-AZ	PCB, EVAL-LT8391D-AZ	REV03
25	1	R1	RES., 383k OHMS, 1%, 1/16W, 0402, AEC-Q200	VISHAY	CRCW0402383KFKED	383k	
26	1	R2	RES., 165k OHMS, 1%, 1/16W, 0402, AEC-Q200	VISHAY STACKPOLE ELECTRONICS, INC.	CRCW0402165KFKED RMC0402FT165K	165k	
27	2	R3, R17	RES., 100k OHMS, 1%, 1/16W, 0402, AEC-Q200	VISHAY NIC	CRCW0402100KFKED NRC04F1003TRF	100k	
28	1	R4	RES., 0.068 OHM, 1%, 3/4W, 1206, SHORT-SIDE TERM, AEC-Q200	SUSUMU	KRL1632E-M-R068-F-T5	0.068	
29	4	R5, R7, R11, R14	RES., 2 OHMS, 1%, 1/16W, 0402, AEC-Q200	VISHAY	CRCW04022R00FKED	2	
30	1	R6	RES., 0.007 OHM, 1%, 1.5W, 1206, LONG-SIDE TERM, METAL, SENSE, AEC-Q200	SUSUMU	KRL3216E-M-R007-F-T1	0.007	
31	2	R8, R13	RES., 100k OHMS, 5%, 1/16W, 0402, AEC-Q200	NIC ROHM VISHAY	NRC04J104TRF MCR01MZPJ104 CRCW0402100KJNED	100k	NO STUFF R19
32	2	R9, R10	RES., 0 OHM, 1/10W, 0402, AEC-Q200	PANASONIC	ERJ2GE0R00X	0	
33	0	R12, R21, R22, R23, R24	RES., OPTION, 0402			OPT	NO STUFF

34	1	R15	RES., 1M OHM, 1%, 1/16W, 0402, AEC-Q200	STACKPOLE ELECTRONICS, INC. VISHAY NIC	RMCF0402FT1M00 CRCW04021M00FKED NRC04F1004TRF	1M	
35	1	R16	RES., 17.4k OHMS, 1%, 1/16W, 0402, AEC-Q200	NIC VISHAY	NRC04F1742TRF CRCW040217K4FKED	17.4k	
36	1	R18	RES., 2.2k OHMS, 1%, 1/10W, 0402, AEC-Q200	PANASONIC	ERJ2RKF2201X	2.2k	
37	0	R20	RES., OPTION, 1206			OPT	NO STUFF
38	1	U1	IC, 4-SWITCH BUCK-BOOST CTRLR, QFN-28, WETTABLE	ANALOG DEVICES ANALOG DEVICES	LT8391DJUFDM#WPBF LT8391DJUFDM#WTRPBF	LT8391DJUFDM	
39	1	XJP1	CONN., SHUNT, FEMALE, 2 POS, 2mm	Würth Elektronik	60800213421	SHUNT	



SIZE	QTY	SYM	PLATED	TOL
0.01	207	+	YES	+/-0.003
0.065	5	×	YES	+/-0.003
0.035	5	□	YES	+/-0.003
0.006	58	◇	YES	+/-0.003
0.094	5	⊗	YES	+/-0.003
0.187	4	⊗	NO	+/-0.003

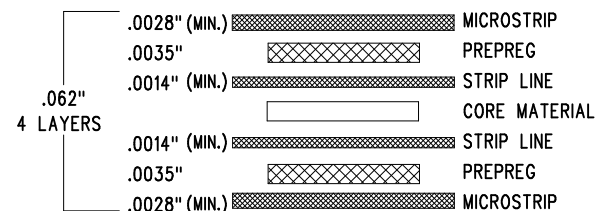
ADDITIONAL REQUIREMENT FOR PROTOTYPE FAB ONLY:

1. OUTGOING INSPECTION REPORT (BASED ON ACTUAL MEASUREMENTS AND CROSS SECTION).

ADDITIONAL REQUIREMENTS FOR PRODUCTION FAB ONLY:

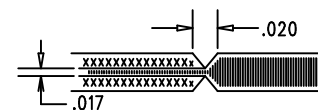
1. PROVIDE COMPLIANCE CERTIFICATES FOR RoHS, REACH AND CONFLICT-FREE MINERALS.
2. SOLDERABILITY BOARD WITH TEST RESULTS.
3. OUTGOING INSPECTION REPORT (BASED ON ACTUAL MEASUREMENTS AND CROSS SECTION).
4. VACUUM PACKED WITH DESICCANT.
5. FULL PANEL WITH NO REJECT



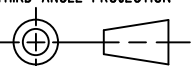
LAYER STRUCTURE

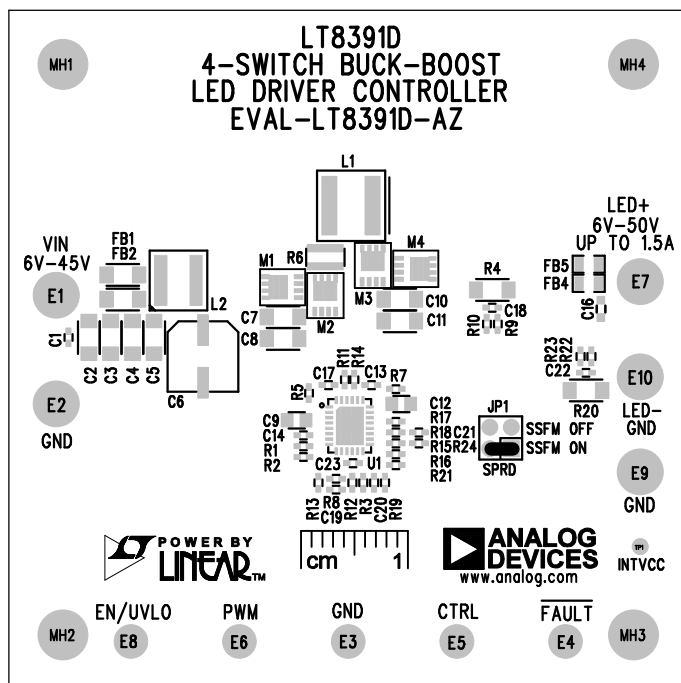


NOTES: UNLESS OTHERWISE SPECIFIED

1. FAB PER IPC-A-600.
2. MATERIAL: -EPOXY FIBERGLASS, NEMA GRADE FR-4
-FINISHED THICKNESS TO BE 0.062" +/- .005"
-TOTAL OF 4 LAYERS WITH 2 OZ. CU ON THE OUTER LAYERS AND 1 OZ. CU ON THE INNER LAYERS.
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
3. SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.
0.00" ARE PRIMARY DATUMS.
4. DRILLING: -DRILL HOLES PER SCHEDULE. PLATE THROUGH HOLES WITH COPPER, 0.001" THICK MIN.
-ALL HOLE SIZES ARE SPECIFIED AFTER PLATING.
-HOLE LOCATION TOLERANCES ARE +/-0.003" IN RELATION TO CENTER
-FOR VIAS SIZE LESS THAN 0.012", VIAS HOLES NEED TO BE PLUGGED AND COVERED WITH SOLDERMASK.
5. FINISH: -SMOBC USING LPI BOTH SIDES, COLOR GLOSS RED
-GOLD IMMERSION BOTH SIDES.
(LEAD FREE SOLDER CAN BE USED FOR PROTOTYPE)
-FOR SILKSCREEN: BOTH SIDES USE WHITE NON-CONDUCTIVE INK.
6. DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.
PAD SIZE CAN BE MODIFIED TO MEET END FINISH.
7. PCBs ARE TO BE RoHS COMPLIANT.
8. SCORING FOR PANELIZED PCB:

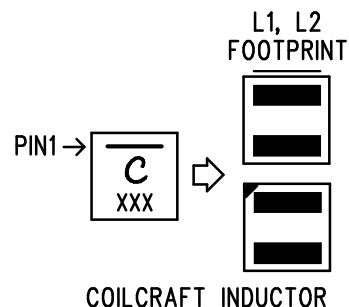
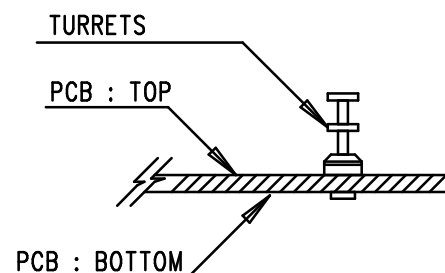
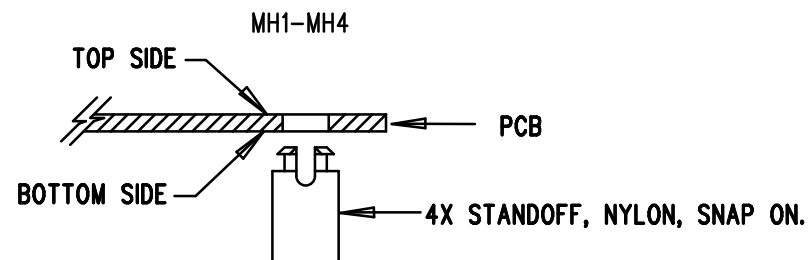


UNLESS OTHERWISE SPECIFIED		 ANALOG DEVICES		 POWER BY LINEAR™	
DIMENSIONS ARE IN INCHES		www.analog.com			
TOLERANCES:		TITLE: FABRICATION DRAWING			
0.XX" = ±0.01"		4-SWITCH BUCK-BOOST			
0.XXX" = ±0.005"		LED DRIVER CONTROLLER			
INTERPRET DIM AND TOL PER ASME Y14.5M-1994					
THIRD ANGLE PROJECTION					
		SIZE		REV	
		IC NO.		3	
		LT8391DJUFDM			
		EVAL-LT8391D-AZ			
				SHT 1 OF 1	



NOTES: UNLESS OTHERWISE SPECIFIED

1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610.
MAXIMUM SOLDER TEMPERATURE IS 240 DEG C.
2. ASSEMBLY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS.
LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER.
MASK THE SOLDER STENCIL WHERE SMT PARTS ARE OMITTED.
4. INSTALL SHUNTS AS SHOWN ON ASSY DRAWING.
5. DEPANELIZE BOARDS AFTER ASSEMBLY AND ROUTE-OUT THE
BREAKOUT TABS ON FOUR SIDES OF THE BOARD EDGE.
6. DO NOT APPLY ANY KIND OF ASSEMBLY STAMP OR QA STAMP
TO ANY BOARD.
7. INSTALL 4 STANDOFFS AT 4 LOCATIONS AS SHOWN BELOW:



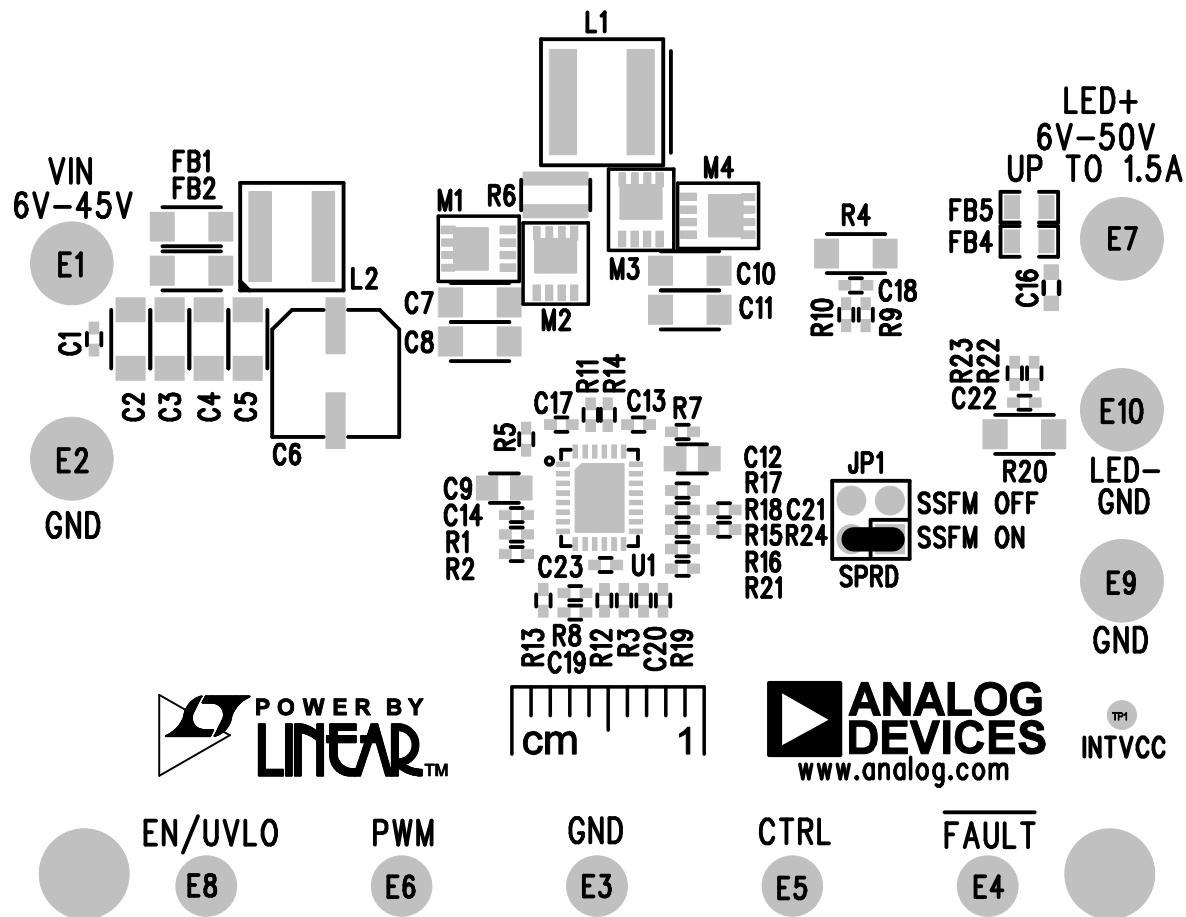
TITLE: TOP ASSEMBLY DRAWING

4-SWITCH BUCK-BOOST
LED DRIVER CONTROLLER

SIZE N/A	IC NO. LT8391DJUFDM EVAL-LT8391D-AZ	REV. 3
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SHT 1 OF 1

LT8391D 4-SWITCH BUCK-BOOST LED DRIVER CONTROLLER EVAL-LT8391D-AZ

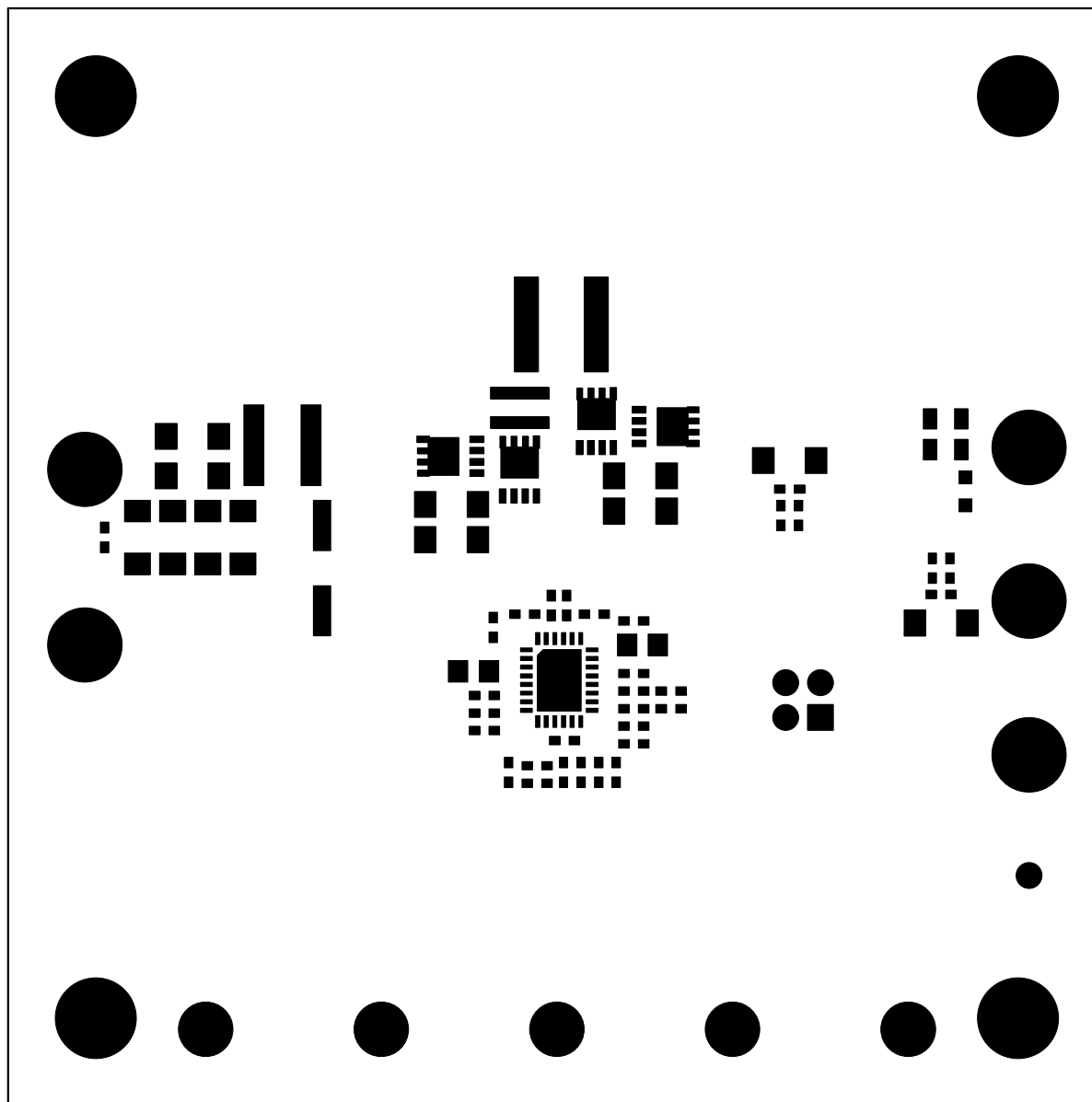


TOP SILKSCREEN

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

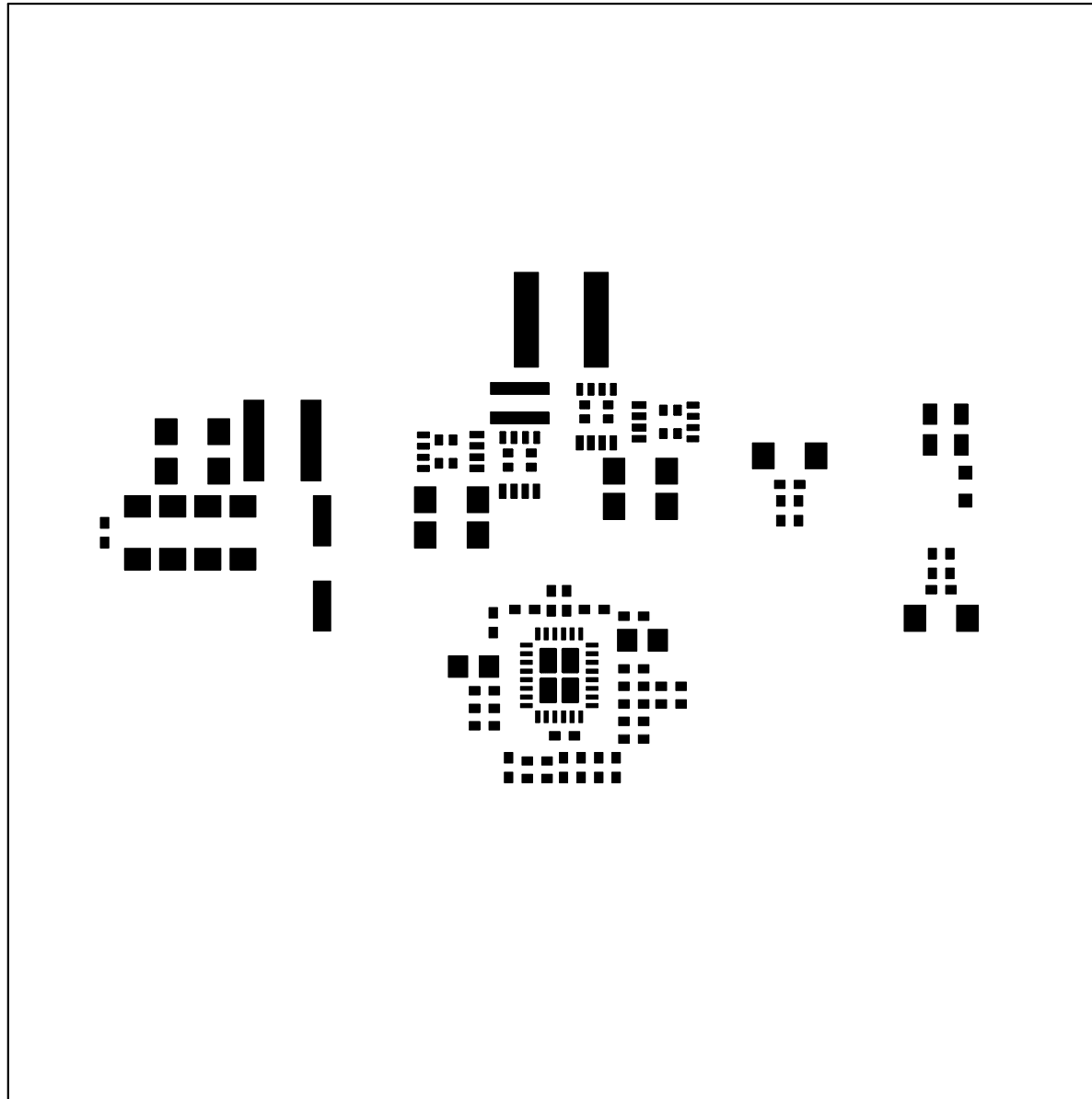


TOP SOLDER MASK

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

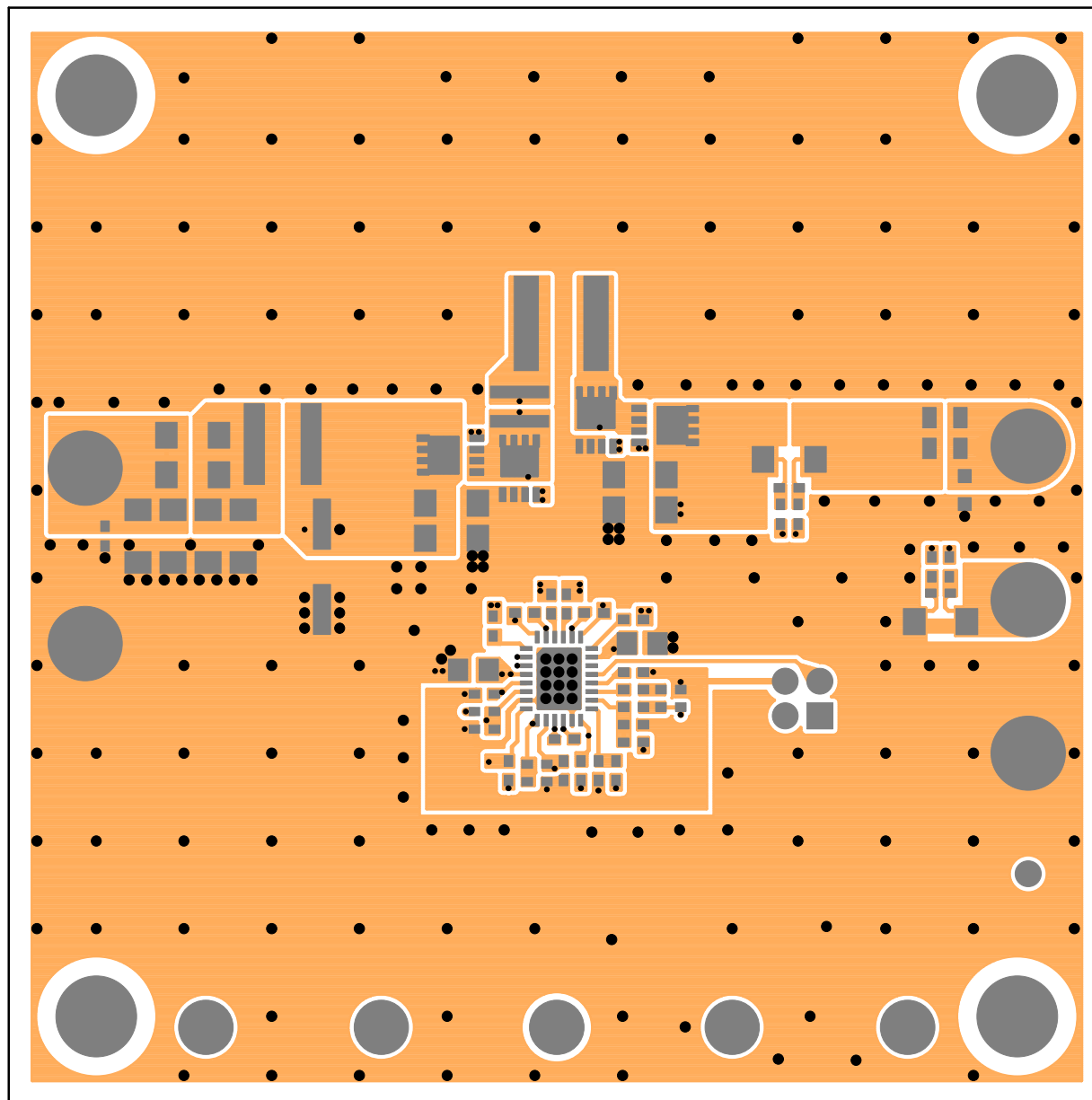


TOP SOLDER PASTE

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

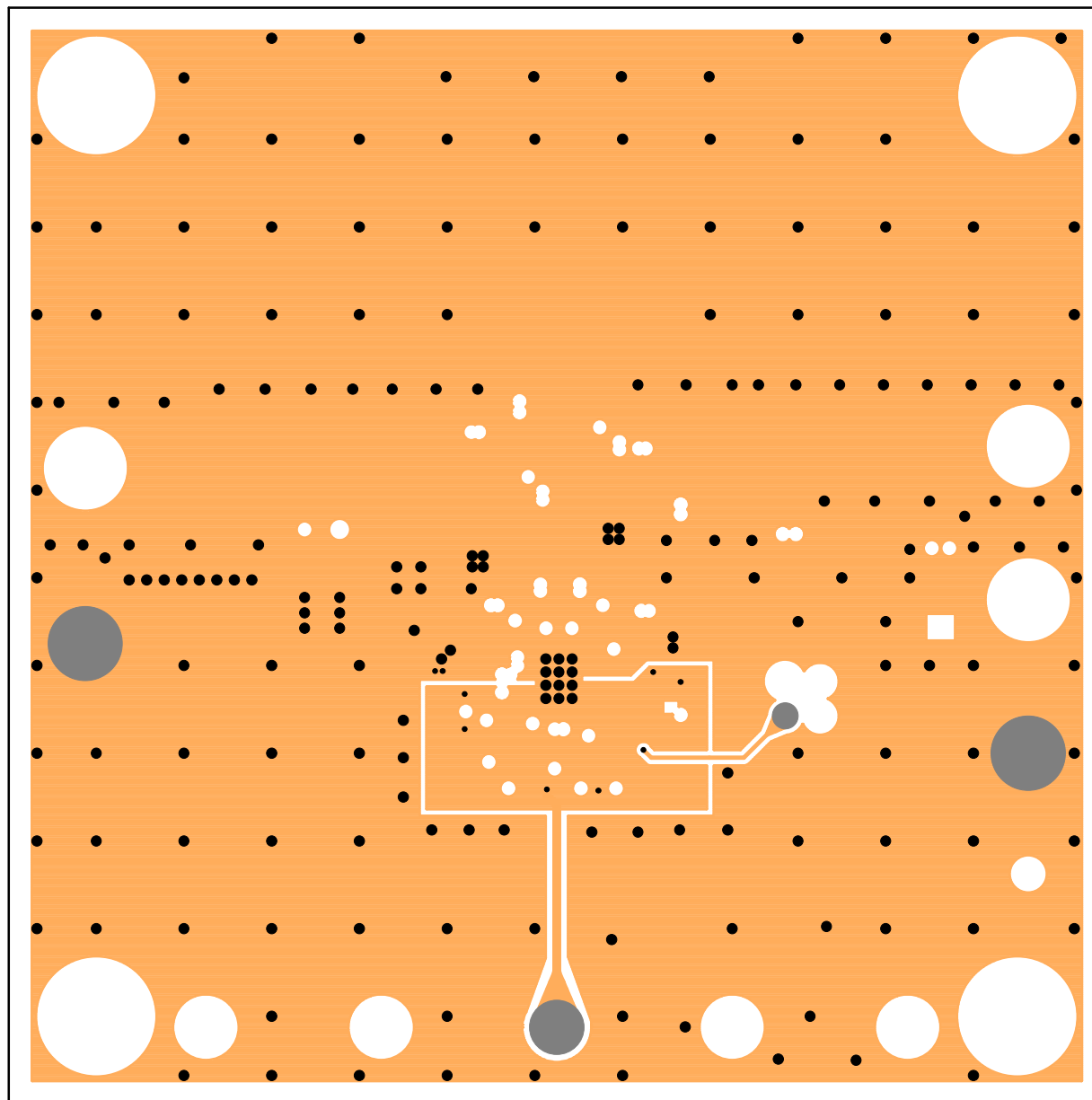


LAYER 1 – TOP LAYER

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

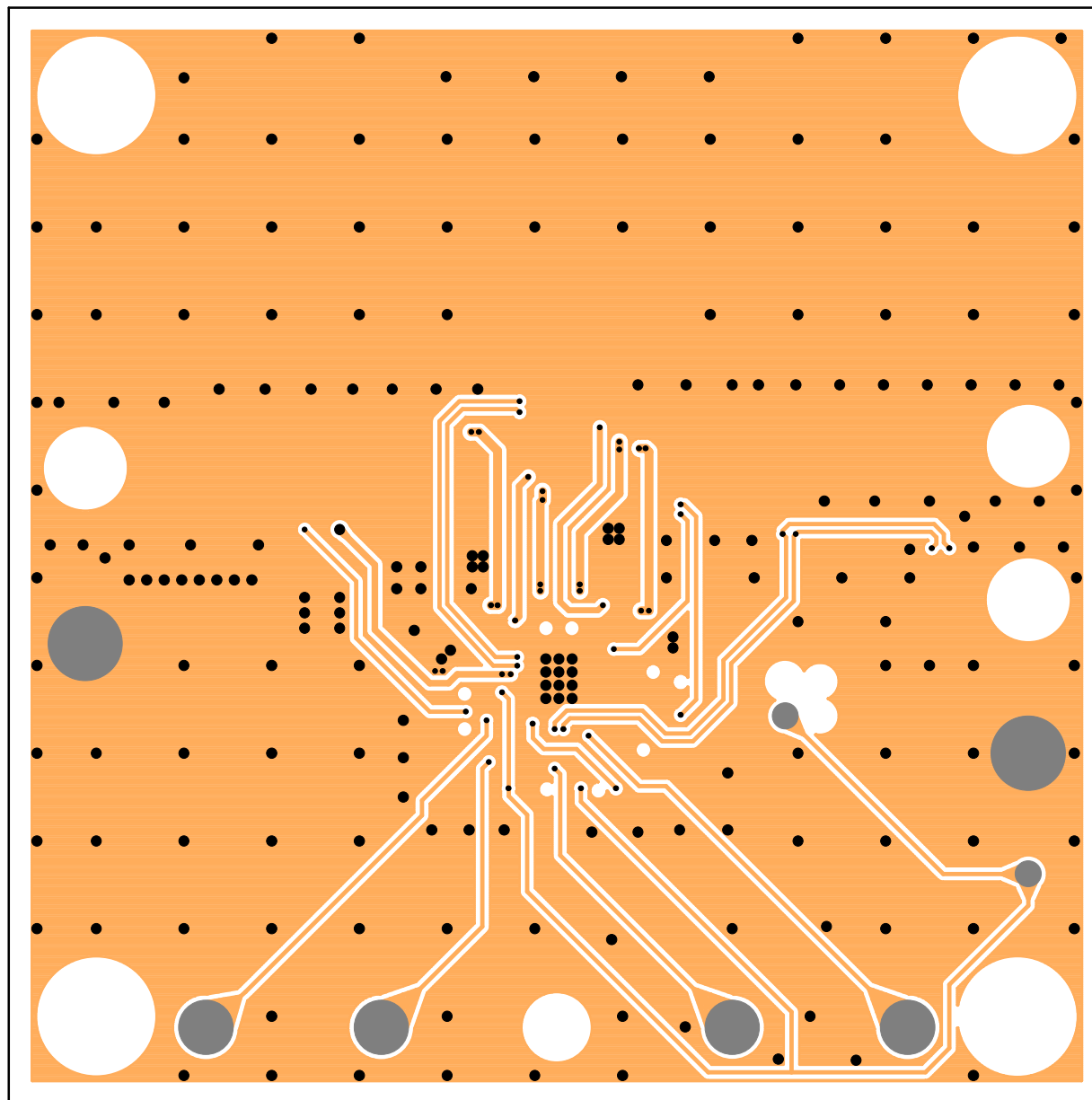


LAYER 2 – GND PLANE 1

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

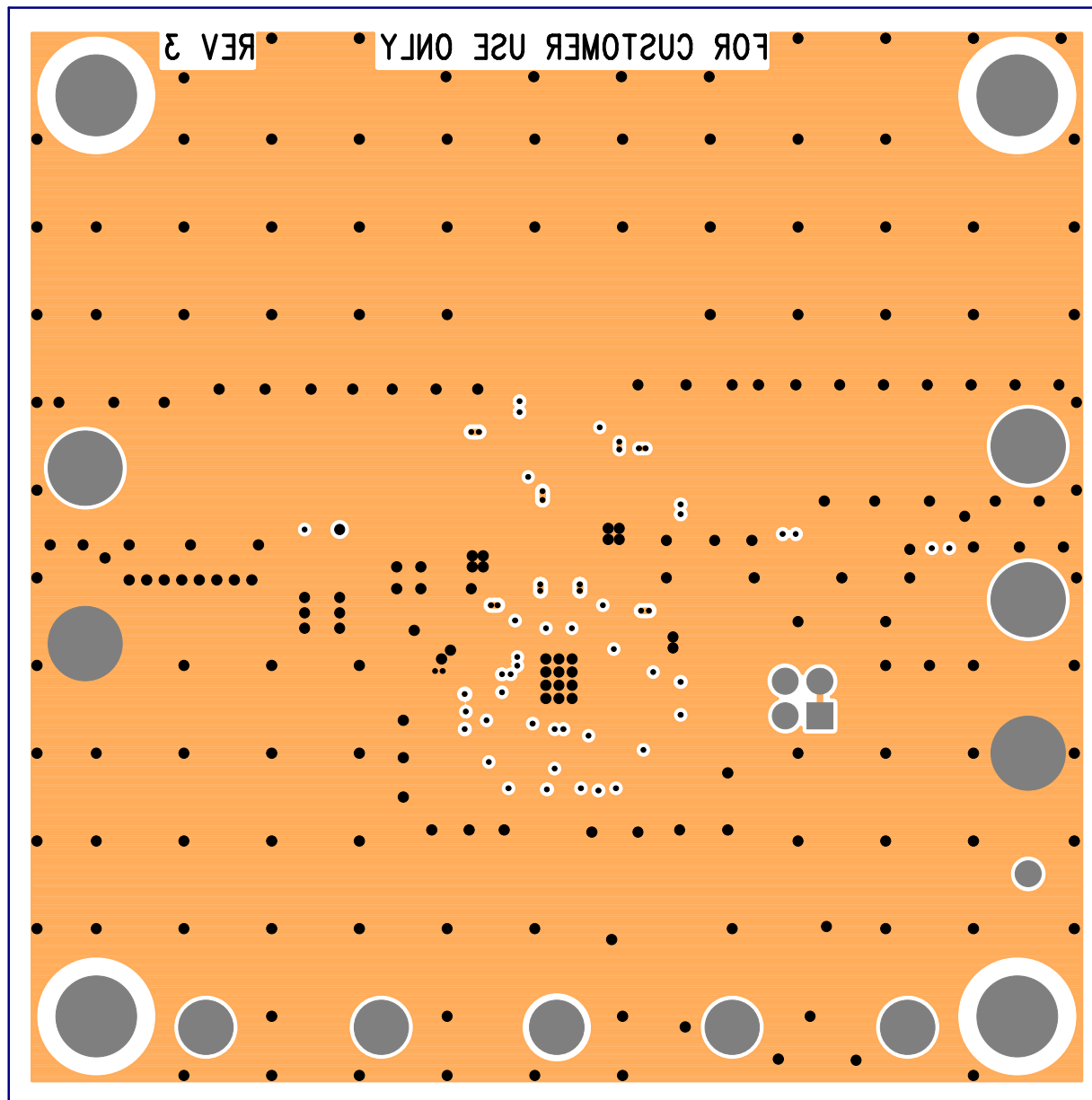


LAYER 3 – GND PLANE 2

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ

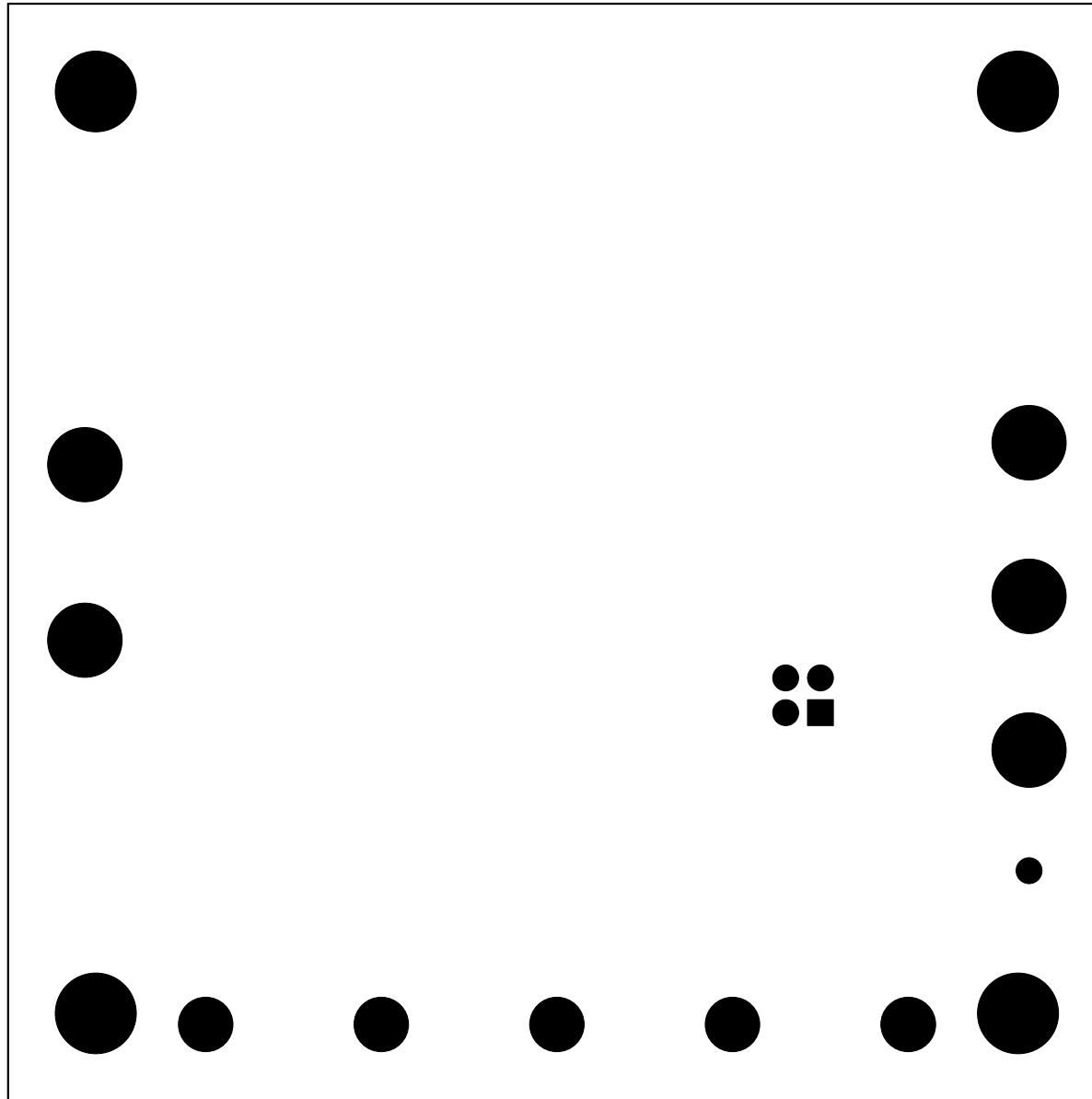


LAYER 4 – BOTTOM LAYER

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ



BOTTOM SOLDER MASK

ANALOG DEVICES

DATE: 5-4-21

EVAL-LT8391D-AZ REV3, LT8391DJ