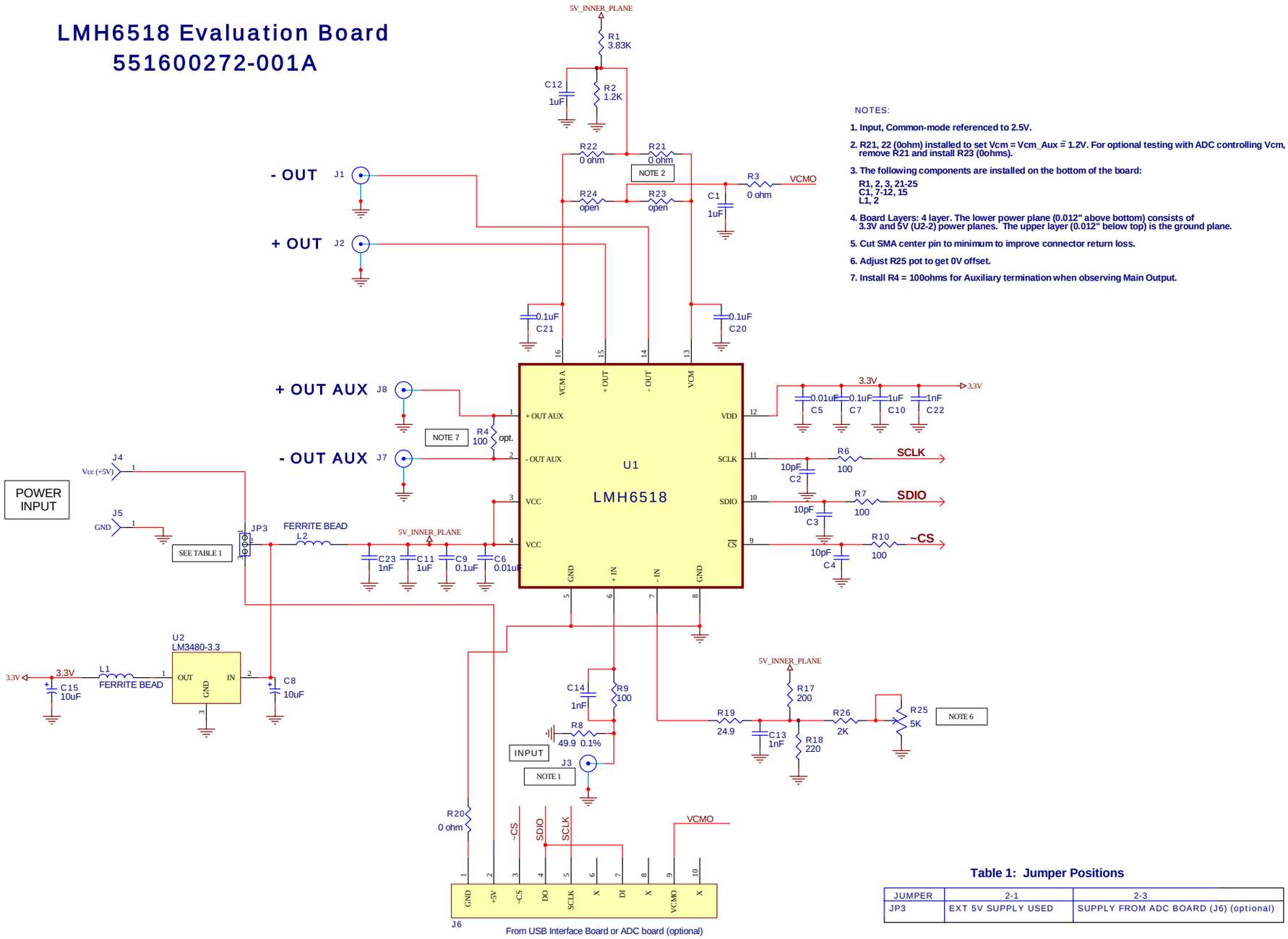
LMH6518 Evaluation Board
551600272-001A



NOTES:

1. Input, Common-mode referenced to 2.5V.
2. R21, 22 (0ohm) installed to set Vcm = Vcm_Aux ≅ 1.2V. For optional testing with ADC controlling Vcm, remove R21 and install R23 (0ohms).
3. The following components are installed on the bottom of the board:
   R1, 2, 3, 21-25
   C1, 7-12, 15
   L1, 2
4. Board Layers: 4 layer. The lower power plane (0.012" above bottom) consists of 3.3V and 5V (U2-2) power planes. The upper layer (0.012" below top) is the ground plane.
5. Cut SMA center pin to minimum to improve connector return loss.
6. Adjust R25 pot to get 0V offset.
7. Install R4 = 100ohms for Auxiliary termination when observing Main Output.

Table 1: Jumper Positions

JUMPER	2-1	2-3
JP3	EXT 5V SUPPLY USED	SUPPLY FROM ADC BOARD (J6) (optional)

National Semiconductor Corporation 9/12/2008

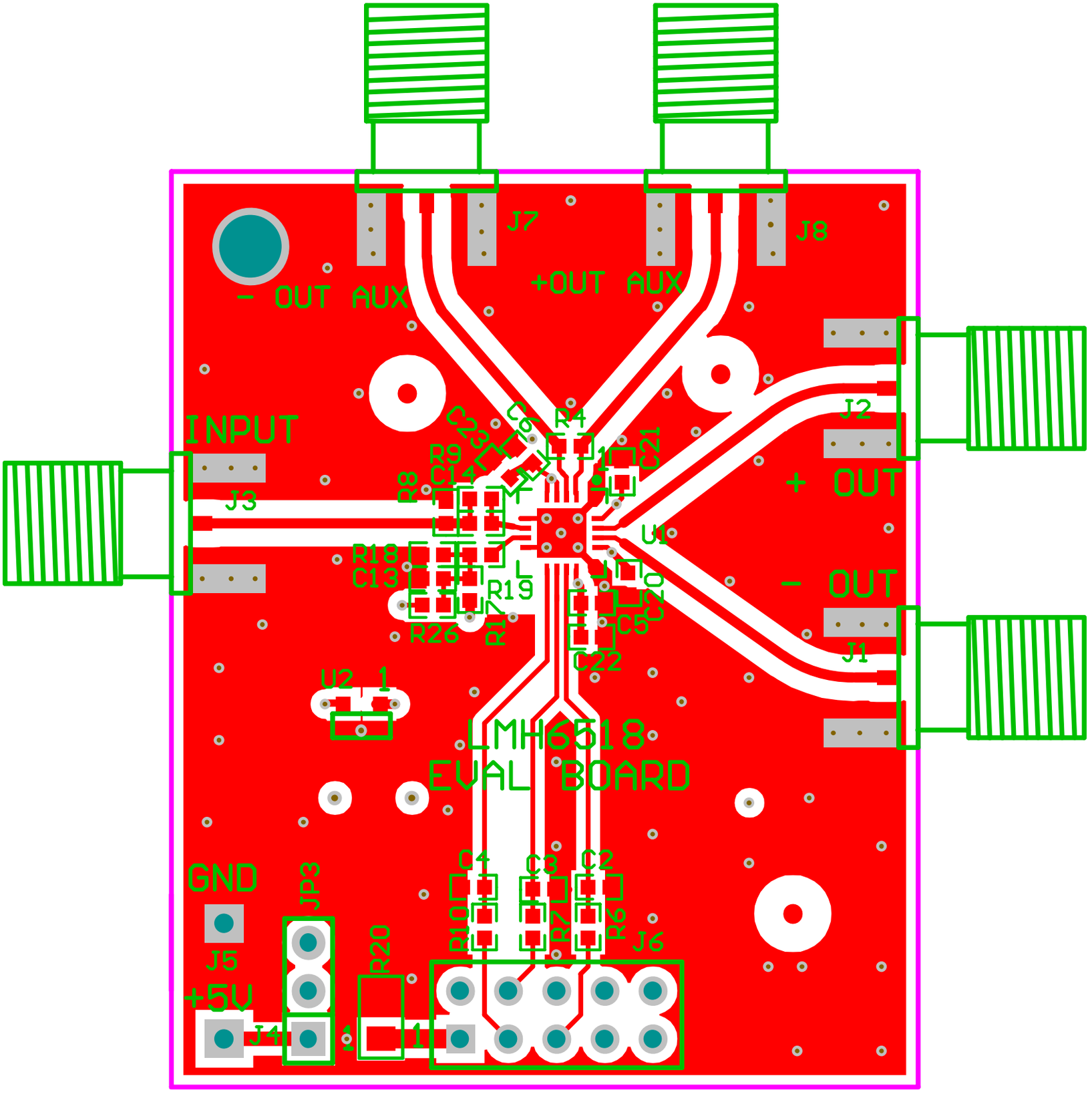
LMH6518 900 MHz VGA EVALUATION BOARD

Assembly Part Number : 980600272-100

Revision : A

Bill of Materials

Item	Part Number	Part Description	Qty	Ref Designator	Remark
1	551600272-001	LMH6518SQ 900MHz VGA EVALUATION BOARD PCB, RevA			NSC
2	LMH6518SQ	825 MHz, Digital Controlled, Variable Gain Amplifier	1	U1	NSC
3	LM3480IM3-3.3/NOPB	100 mA, SOT-23, Quasi Low-Dropout Linear Voltage Regulator	1	U2	NSC
4	GRM155R61A105KE15D	Capacitor, SMT, 1.0uF, 0402, X5R, 10%, 10V	4	C1, C10, C11, C12	Murata
5	GCM1555C1H100JZ13D	Capacitor, SMT, 10pF, 0402, NPO, 5%, 50V	3	C2, C3, C4	Murata
6	GRM155R71E103KA01D	Capacitor, SMT, 10nF, 0402, X7R, 10%, 25V	2	C5, C6	Murata
7	GRM155R71C104KA88D	Capacitor, SMT, 100nF, 0402, X7R, 10%, 16V	4	C7, C9, C20, C21	Murata
8	B45196H2106K109	Capacitor, Tantalum, 10uF, 3216, 10%, 10V	2	C8, C15	Kemet
9	GRM155R71H102KA01D	Capacitor, SMT, 1nF, 0402, X7R, 10%, 50V	4	C13, C14, C22, C23	Murata
10	LI1806E101R-10	FERRITE 500MA 100MHz 100OHM 1806 SMD	2	L1, L2	Steward
11	CRCW04023K83FKED	Resistor, SMT, 3.83K, 1%, 0402, 1/16W	1	R1	Vishay/Dale
12	CRCW04021K20FKED	Resistor, SMT, 1.20K, 1%, 0402, 1/16W	1	R2	Vishay/Dale
13	CRCW04020000Z0ED	Resistor, SMT, 0 ohm, 5%, 0402, 1/16W	3	R3, R21, R22	Vishay/Dale
14	CRCW0402100RFKED	Resistor, SMT, 100, 1%, 0402, 1/16W	3	R6, R7, R10	Vishay/Dale
15	RG1005P-49R9-B-T5	Resistor, SMT, 49.9, 0.1%, 0402, 1/16W	1	R8	Susumu
16	RG1005P-101-B-T5	Resistor, SMT, 100, 0.1%, 0402, 1/16W	1	R9	Susumu
17	CRCW0402200RFKED	Resistor, SMT, 200, 1%, 0402, 1/16W	1	R17	Vishay/Dale
18	CRCW0402220RFKED	Resistor, SMT, 220, 1%, 0402, 1/16W	1	R18	Vishay/Dale
19	CRCW040224R9FKED	Resistor, SMT, 24.9, 1%, 0402, 1/16W	1	R19	Vishay/Dale
20	CRCW08050000Z0EA	Resistor, SMT, 0 ohm, 5%, 0805, 1/8W	1	R20	Vishay/Dale
21	NO LOAD	NO LOAD	2	R23, R24	NO LOAD
22	ST4ETA502	POT, 5K, 4MM SMT	1	R25	Copal
23	CRCW04022K00FKED	Resistor, SMT, 2.00Kohm, 1%, 0402, 1/16W	1	R26	Vishay/Dale
24	142-0711-821	SMA CONNECTOR, EDGE MOUNT	5	J1, J2, J3, J7, J8	EMERSON
25	5000	Test Point, RED	1	J4	Keystone
26	5001	Test Point, Black	1	J5	Keystone
27	PBC05DAAN	HEADER 2X5	1	J6	Sullins
28	22-28-4033	HEADER 3PIN	1	JP3	Waldom/Molex
29	382811-6	Jumper Shunt, 15uin gold plated, 0.100" pitch	1	JP3_SH	Tyco/AMP



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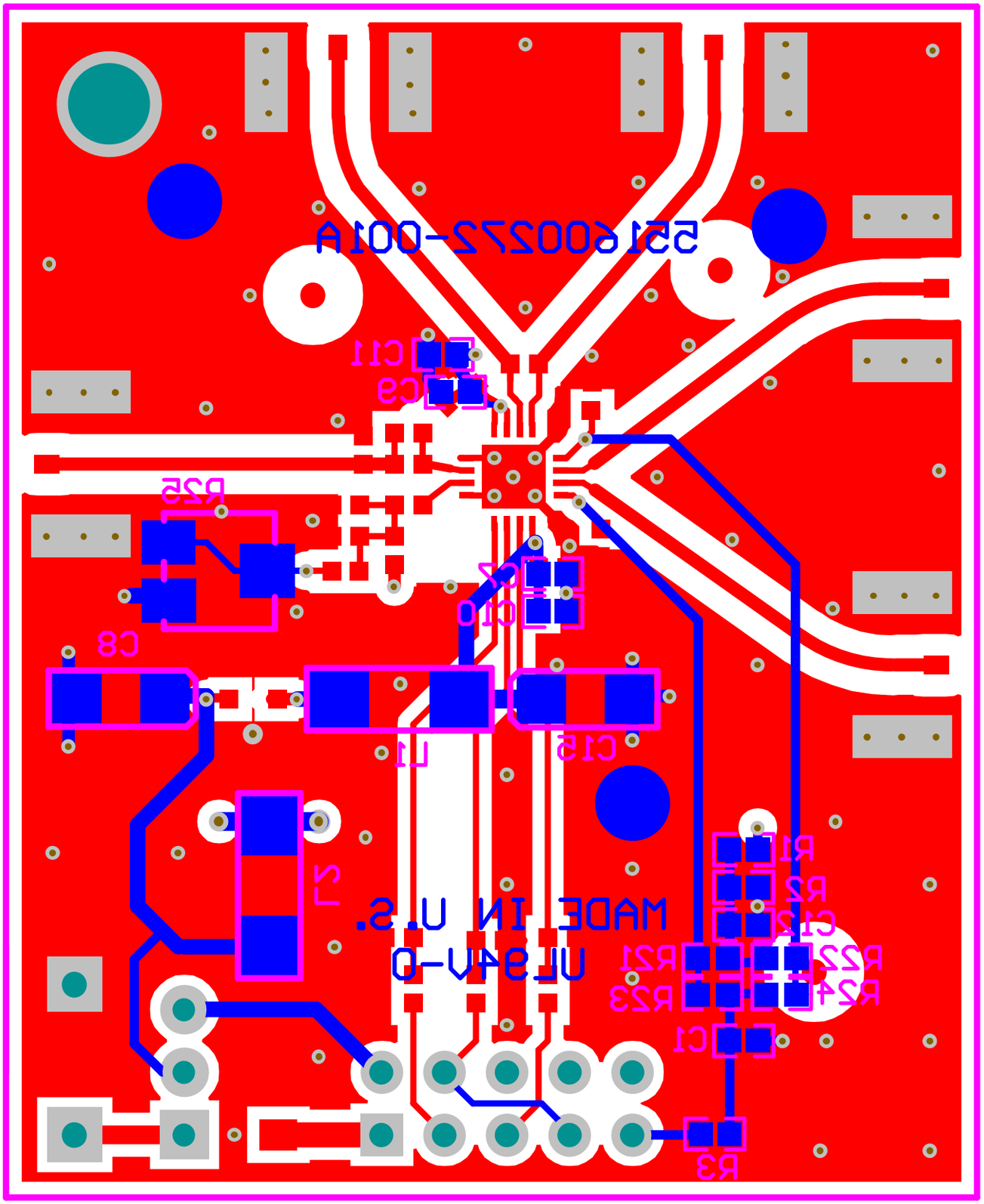

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