



THEVA254-SMA-V1 User's Guide

THCS254A Evaluation kit

THine Electronics, Inc.

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1. Contents of evaluation kit

This kit contains two boards with THCS254A. Use each as primary and secondary.

Product	Article	Quantity
THEVA254-SMA-V1	THEVA254-SMA-V1 Board	2

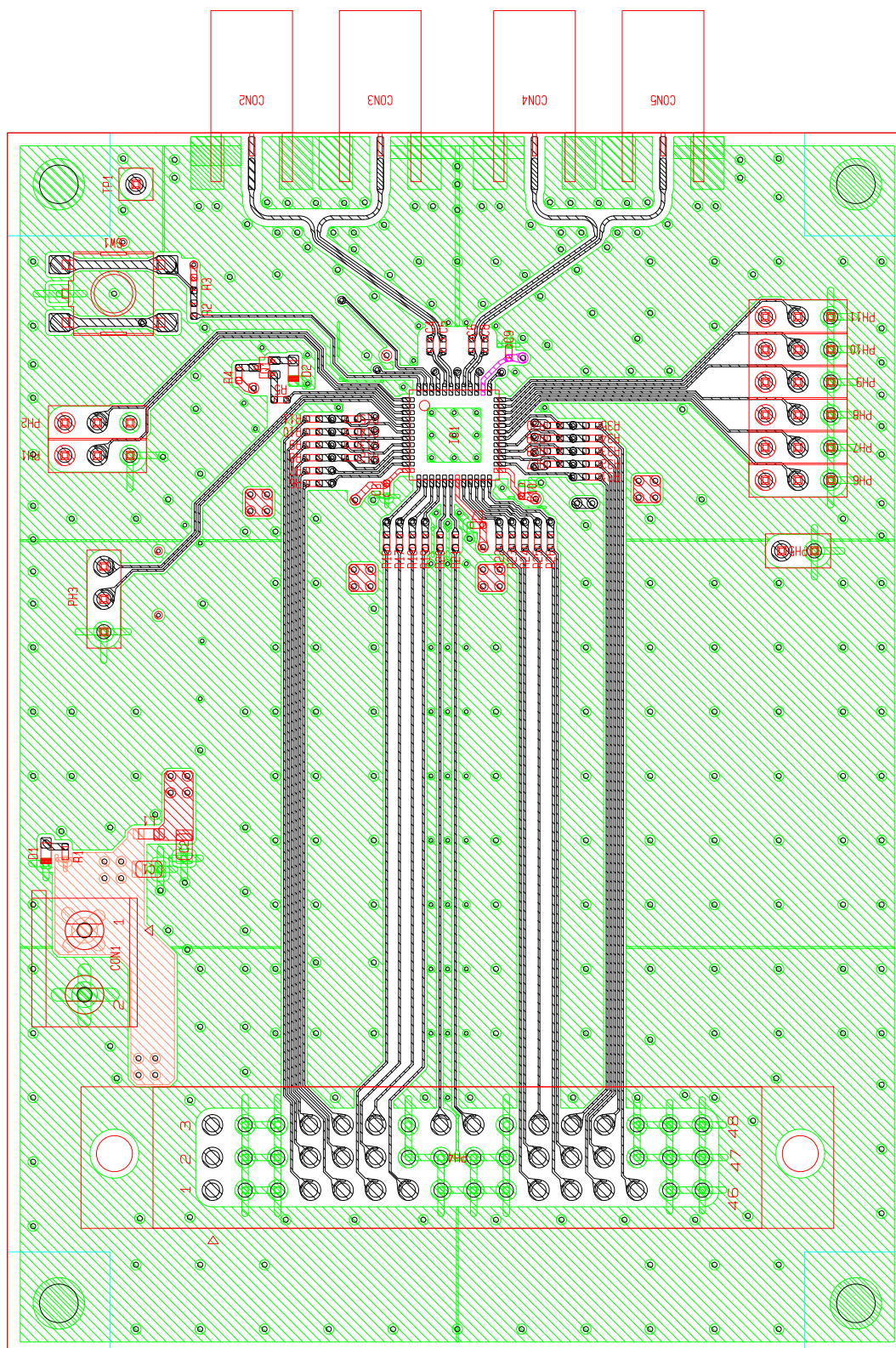
The image shows a detailed PCB layout for the TH6S24 microcontroller. The layout is organized into several functional blocks:

- Power Supply Section:** Located at the top left, it includes a 3.3V power supply section with a 3.3V regulator, decoupling capacitors, and a 100k pull-up resistor. A 1.8V power supply section is also present.
- Microcontroller Section:** The TH6S24 microcontroller is shown in the center, with its pins connected to various components. The layout includes pin numbers and component values for each connection.
- Test Point Section:** A test point is located at the bottom right, connected to the microcontroller's output pins.
- Component Values:** Various component values are specified throughout the layout, including resistors (e.g., 100k, 10k, 1k), capacitors (e.g., 100nF, 10nF, 1uF), and diodes (e.g., 1N4148).

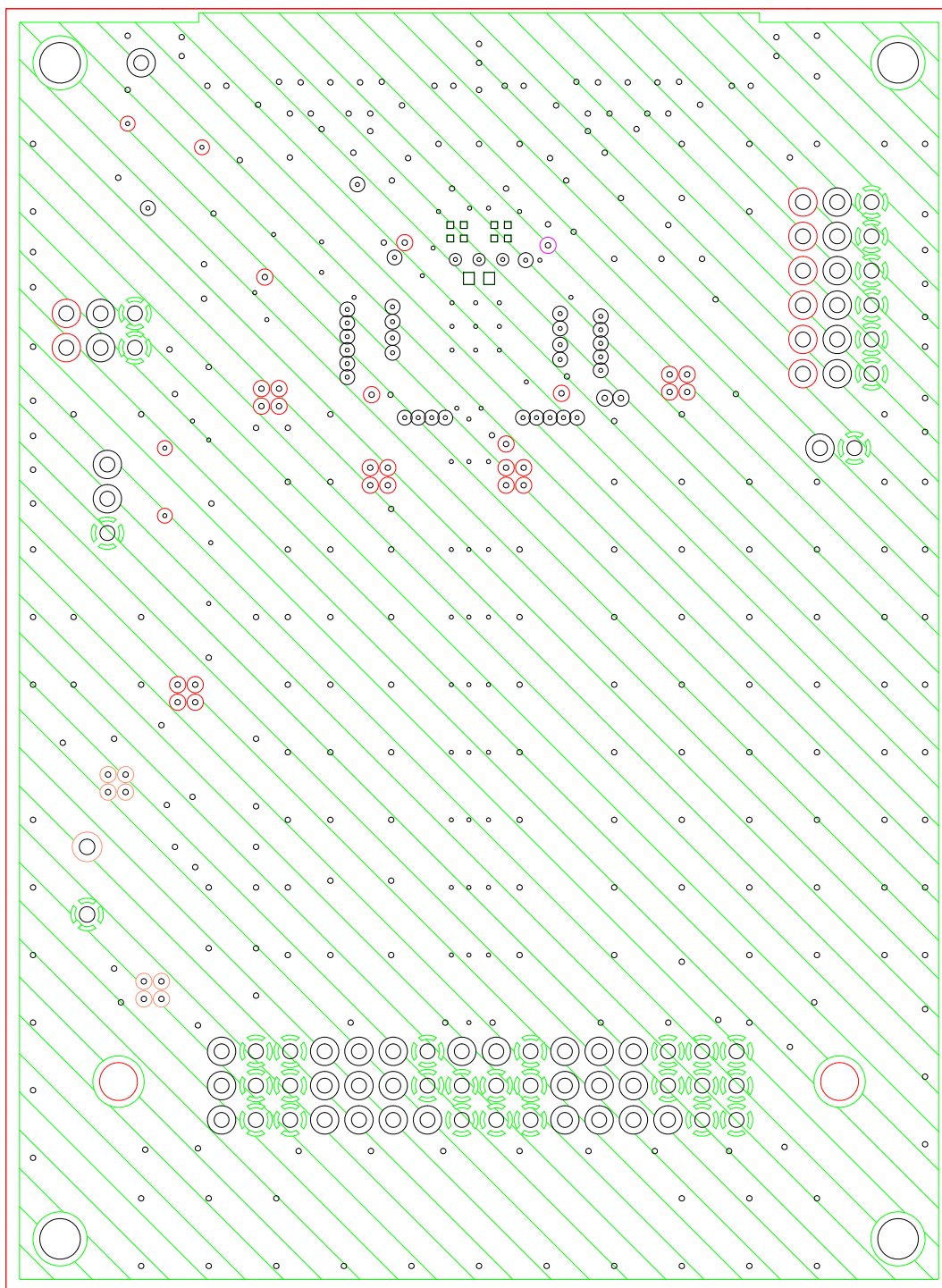
The layout is labeled with component values and pin numbers, providing a comprehensive guide for the PCB design.

3. PCB layout

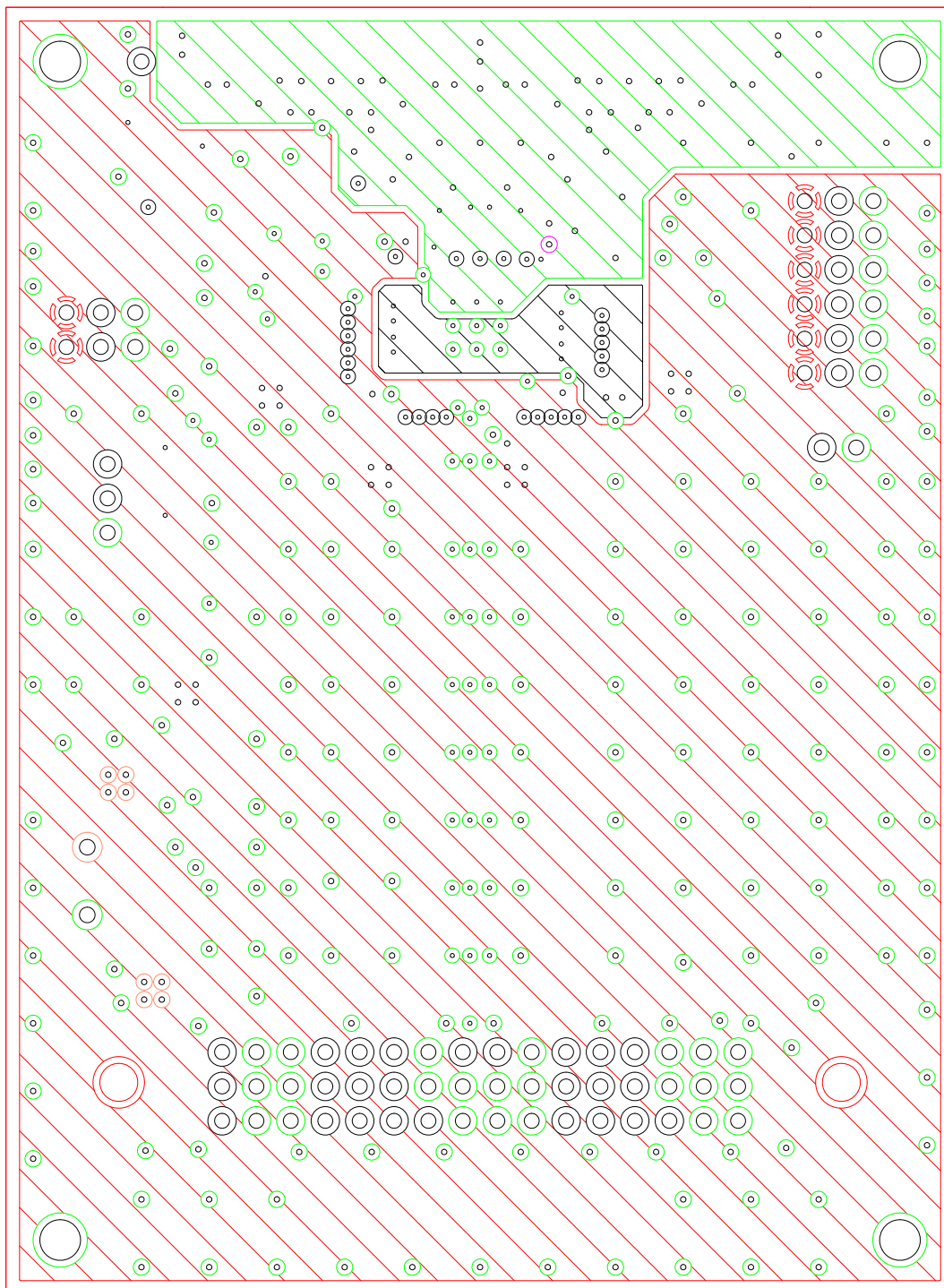
3.1 L1(TOP) layer



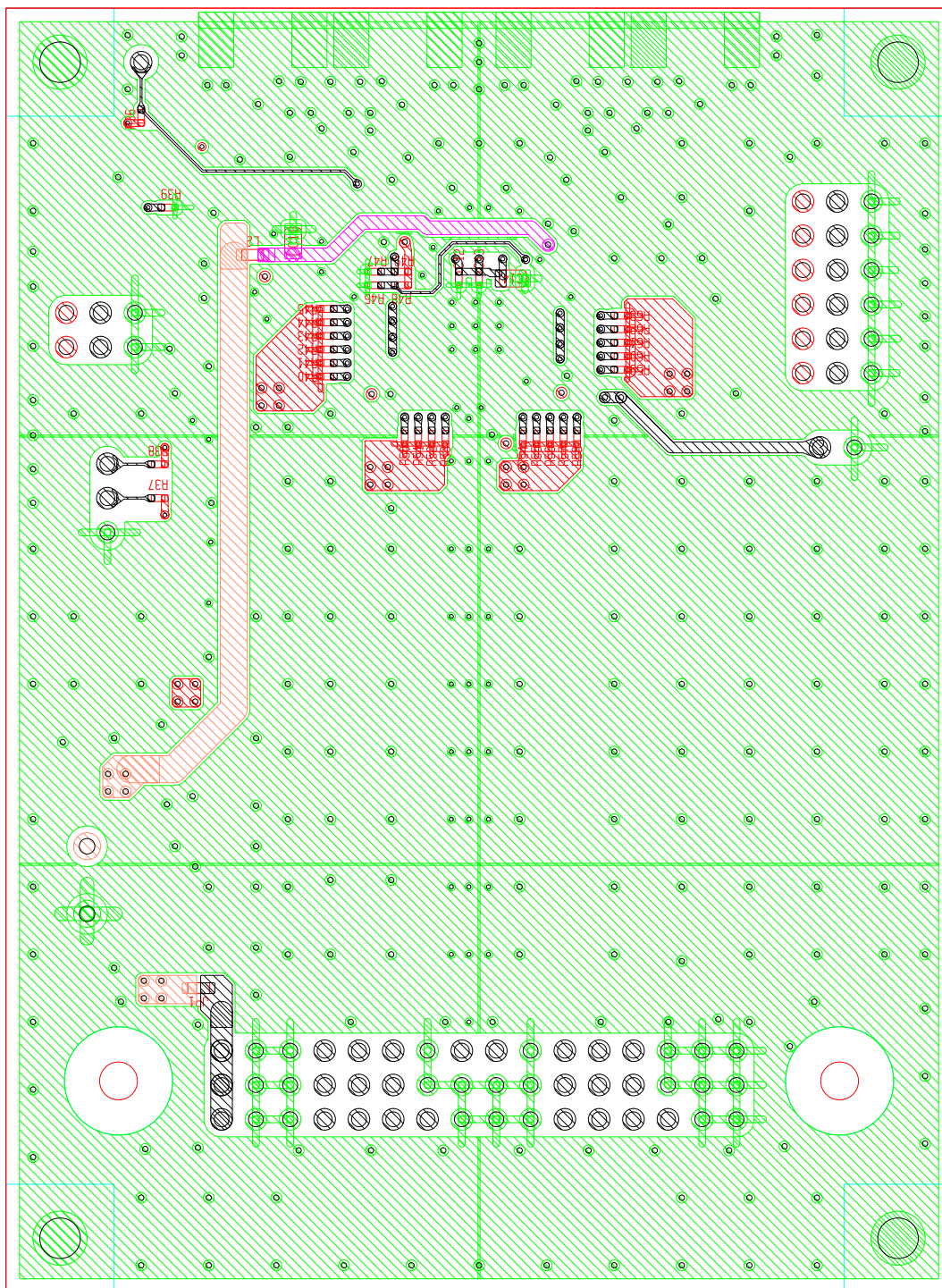
3.2 L2 layer



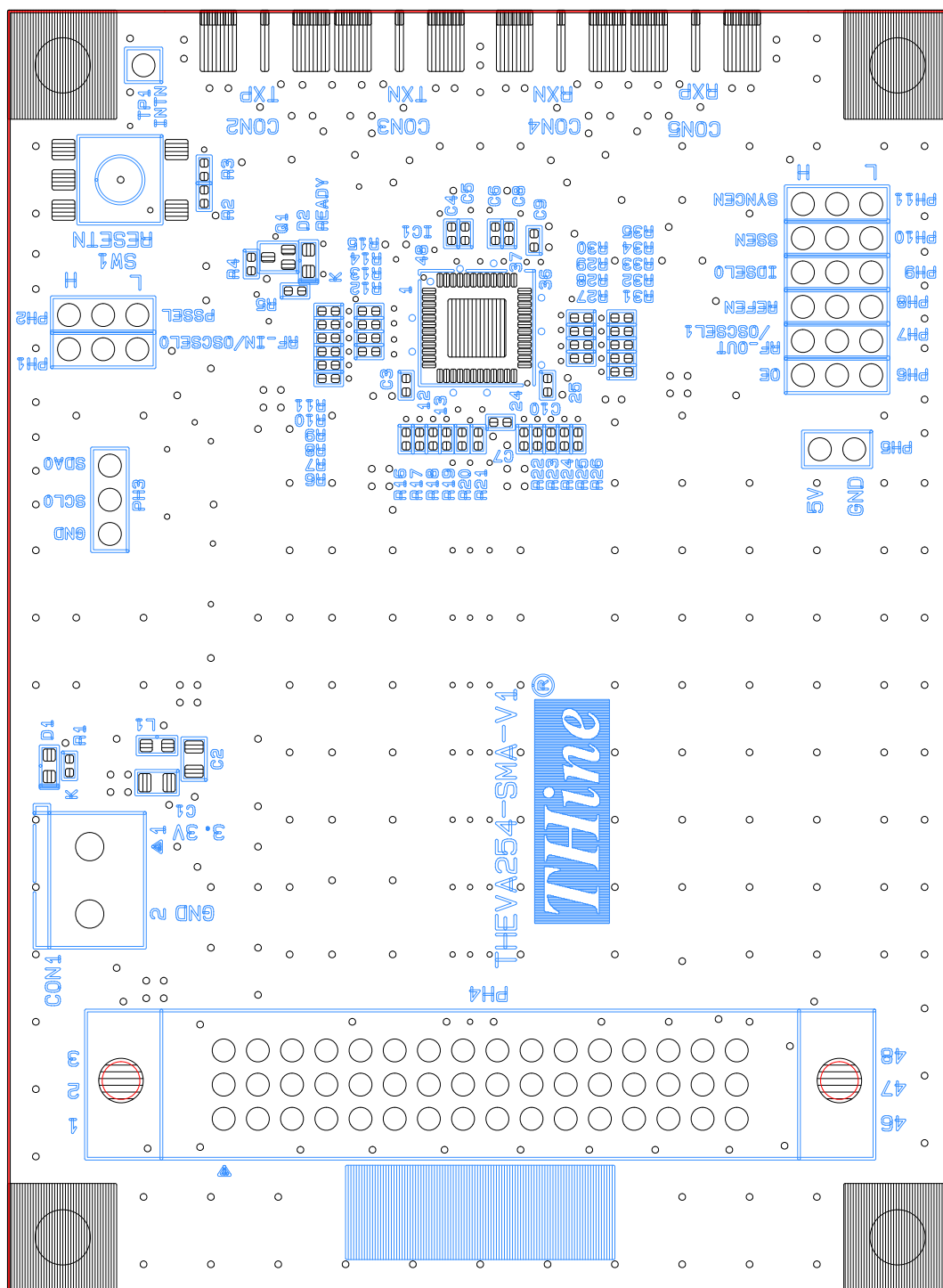
3.3 L3 layer



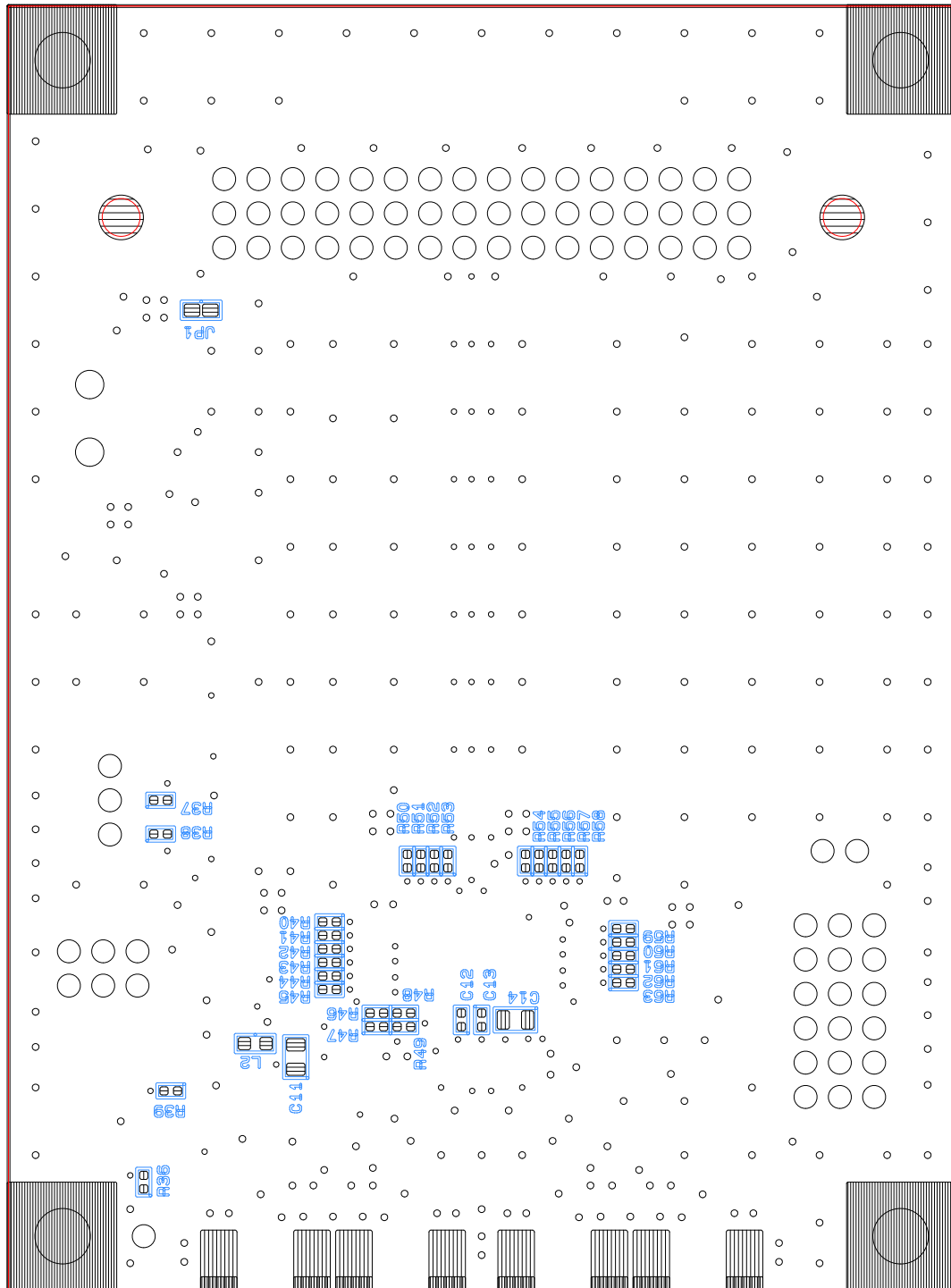
3.4 L4 layer



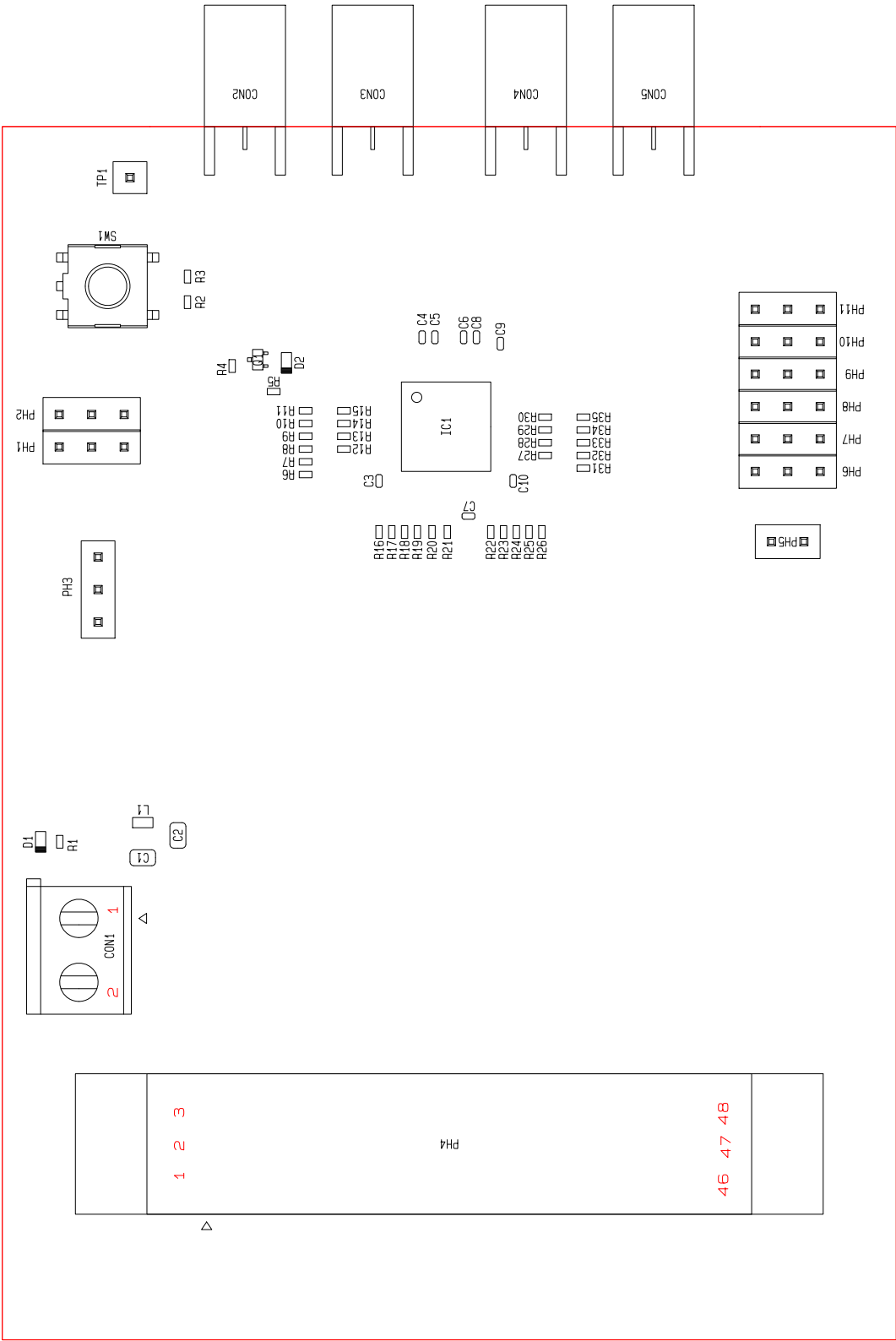
3.5 Top side silk



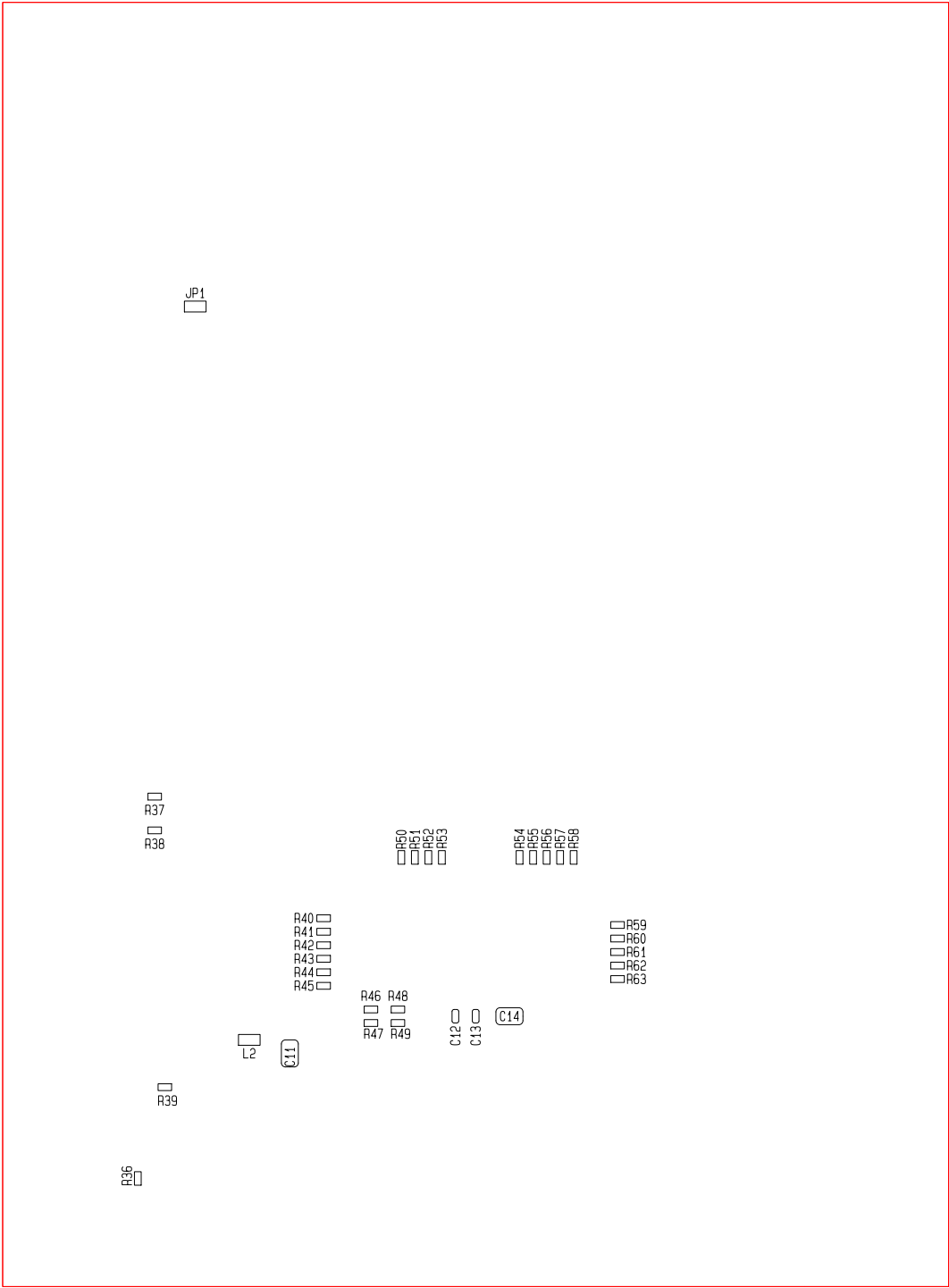
3.6 Bottom side silk



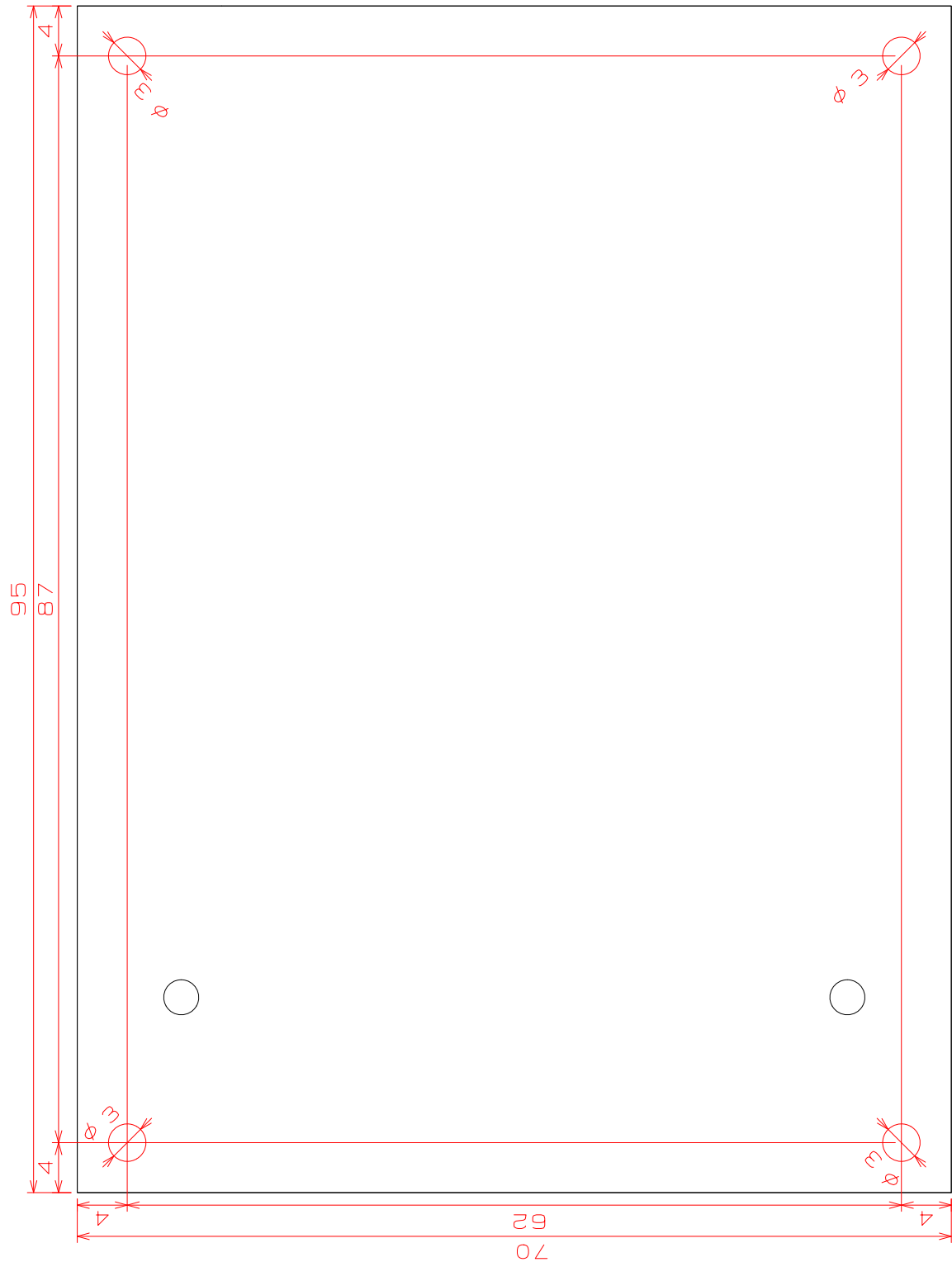
3.7 TOP side implementation



3.8 Bottom side implementation



4. Dimensions



5. Bill of material

Designator	Description	Value	Quantity	P/N
C1, C2, C11, C14	Cap. 2012	10uF	4	GPM21BB31C106KE15L
C3, C4, C5, C6, C7, C8, C9, C10, C12, C13	Cap. 1005	0.1uF	10	GPM155B31E104KA87D
CON1	Terminal_Block	2pin	1	282836-2
CON2, CON3, CON4, CON5	SMA(NC)	50ohm	4	SMA103-T16
D1, D2	LED	GREEN	2	SML-D12P8WT86
IC1	QFN48	Max. 4Gbps	1	THCS254A
JP1	Jumper(NC)	Solder Jumper	1	
L1, L2	Coil. 1608	470ohm@100MHz	2	MPZ1608B471ATA00
PH1, PH2, PH3, PH6, PH7, PH8, PH9, PH10, PH11	Header 3	1x3	9	TCHM13-70-003S-803R
PH4	Header 48(NC)	3x16	1	PCN10-48P-2.54DSA(72)
PH5	Header 2	1x2	1	TCHM13-70-002S-803R
Q1	MOSFET	N-ch	1	SSM3K16FS
R1, R4	Res. 1005	150Ω	2	RK73H1ETTP1500F
R2, R5, R20, R39, R46, R47	Res. 1005	0Ω	6	RK73Z1ETTP0
R3, R12, R13, R14, R15, R27, R28, R29, R30, R36, R37, R38, R40, R41, R42, R43, R44, R45, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63	Res. 1005	10kΩ	32	RK73H1ETTP1002F
R6, R7, R8, R9, R10, R11, R16, R17, R18, R19, R21, R22, R23, R24, R25, R26, R31, R32, R33, R34, R35	Res. 1005	33Ω	21	RK73H1ETTP33R0F
R48, R49	Res. 1005(NC)	0Ω(NC)	2	RK73Z1ETTP0
SW1	SW	Top Push	1	SKHMQKE010
TP1	Test Point(NC)	Through hole	1	

※Parts marked "(NC)" in the Description are not mounted and not included in this evaluation kit.

6. Notices and requests

Please kindly read, understand and accept this “Notices and Requests” before using this product.

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1. The product specifications described in this material are subject to change without prior notice.
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