

- 1 Material: Isola IS400 or similar recommended
- 2 Finish: ENIG (Electroless Nickel Immersion Gold), nickel layer $1 \div 4 \mu\text{m}$, gold layer $0.076 \div 0.2 \mu\text{m}$
- 3 Plating thicknes needs to be $\geq 25 \mu\text{m}$!
- 4 All gerber files generated as a top view
5. Fabricate according IPC-6012 / IPC-A-600, class 2
6. Non-conductive epoxy ink recommended for silkscreen
7. Silkscreen should not cover any exposed copper, silkcren gerber data have to be trimmed eventually
- 8 All holes diameter refer to final diameter after eventual plating

Gerber and drill file extensions table

Gerber files	Description
.GTO	Top side silkscreen
.GTP	Top side solder paste mask
.GTS	Top side solder mask
.GTL	L1_TOP - Top Layer
.G1	L2_MID_TOP - Upper internal signal layer
.G2	L3_MID_BOT - Lower internal signal layer
.GBL	L4_BOTTOM - Bottom Layer
.GBS	Bottom side solder mask
.GBP	Bottom side solder paste mask
.GBO	Botom side silkscreen
.GM1	Board outline
Drill files	
.TXT	Layer pair L1_TOP to L4_BOTTOM Layer

SEC-DAB-25KW-SIC-PIM-GEVK

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PCB fabrication notes and requirements

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1

2















3

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A

Layer Stack

	Material	Layer	Thickness	Dielectric Material	Type	Gerber
		Top Overlay			Legend	GTO
	Surface Material	Top Solder	0.0150mm(0.591mil)	Solder resist	Solder Mask	GTS
					Surface Finish	
	copper, nickel, gold	Top Surface plating and finish	0.0250mm(0.984mil)		Signal	GTL
	Copper foil 70 um	L1_TOP	0.0700mm(2.756mil)			
	Prepreg		0.3106mm(12.228mil)	Prepreg IS 400 ML: 1 x 7628 FZ 01 + 2 x 1080 FZ 01	Dielectric	
	Copper foil 70 um	L2_MID_TOP	0.0700mm(2.756mil)		Signal	G1
	Core		1.0060mm(39.606mil)	IS 400 ML: 5x7628M	Dielectric	
	Copper foil 70 um	L3_MID_BOT	0.0700mm(2.756mil)		Signal	G2
	Prepreg		0.3106mm(12.228mil)	Prepreg IS 400 ML: 1 x 7628 FZ 01 + 2 x 1080 FZ 01	Dielectric	
	Copper foil 70 um	L4_BOTTOM	0.0700mm(2.756mil)		Signal	GBL
	copper, nickel, gold	Bottom Surface plating and finish	0.0250mm(0.984mil)		Surface Finish	
	Surface Material	Bottom Solder	0.0150mm(0.591mil)	Solder resist	Solder Mask	GBS
		Bottom Overlay			Legend	GBO
Total thickness: 1.9872mm(78.236mil)						

B

C

D

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Layer stack details

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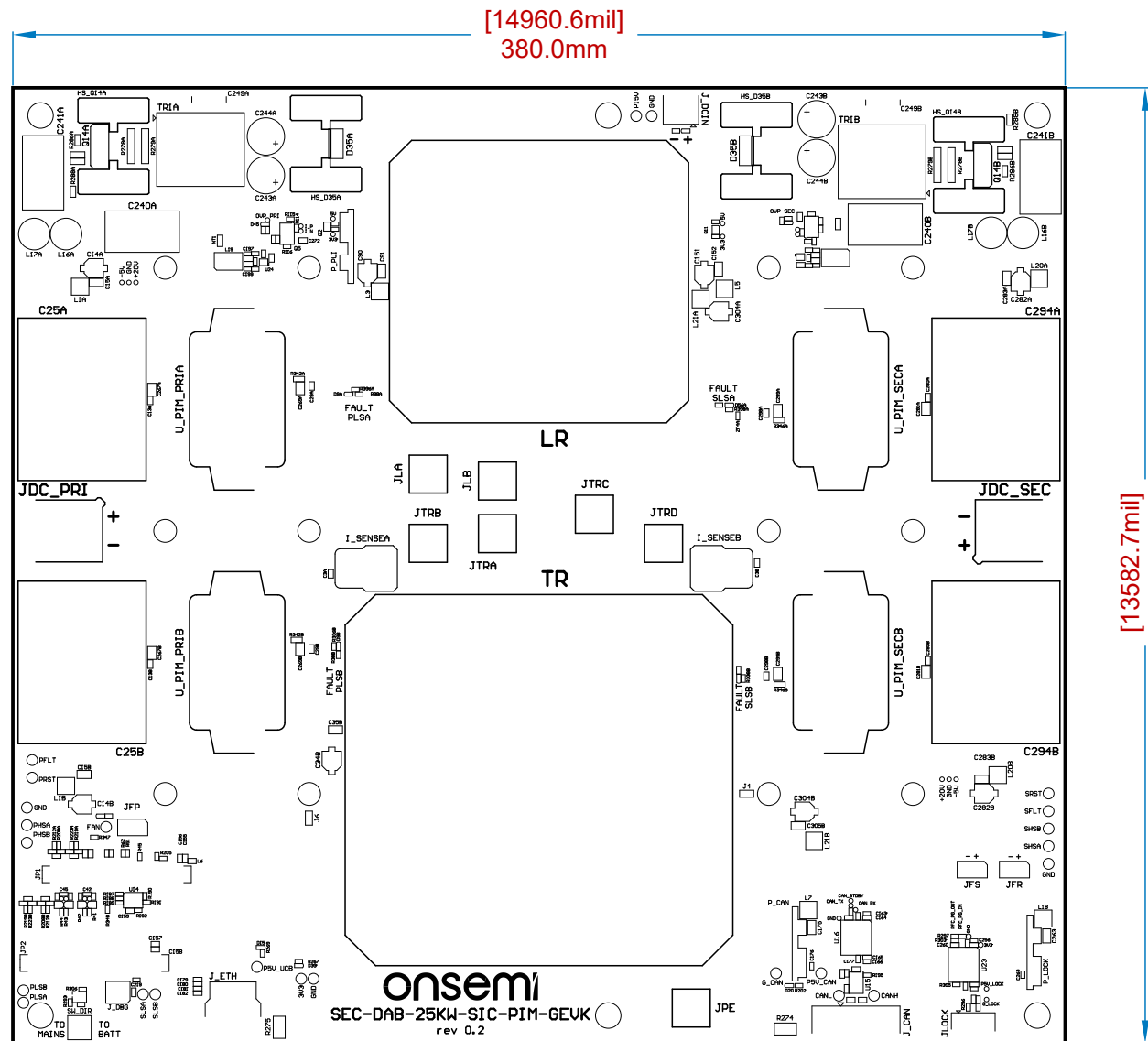
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Board outline definition - top view 1:2.5

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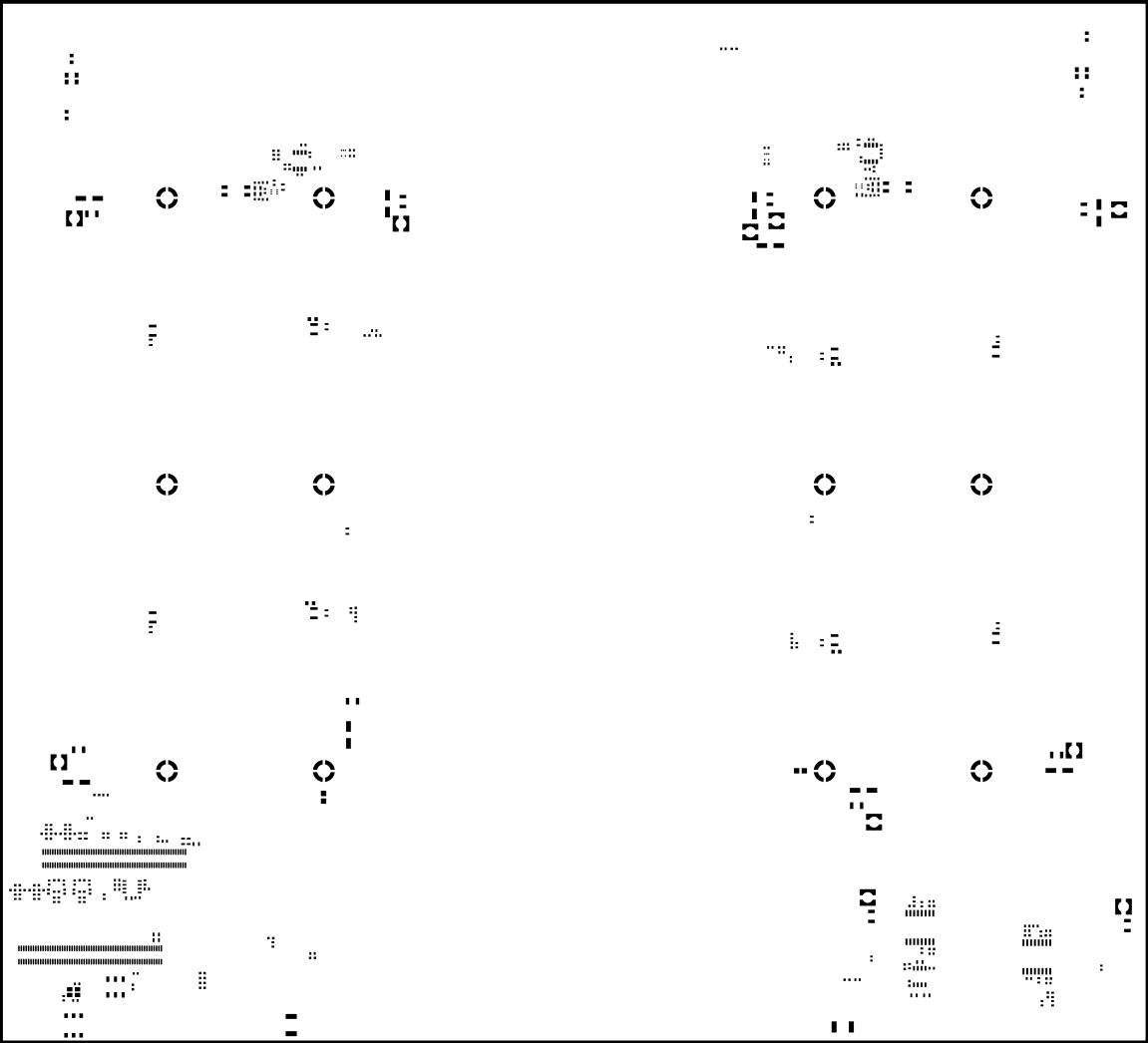
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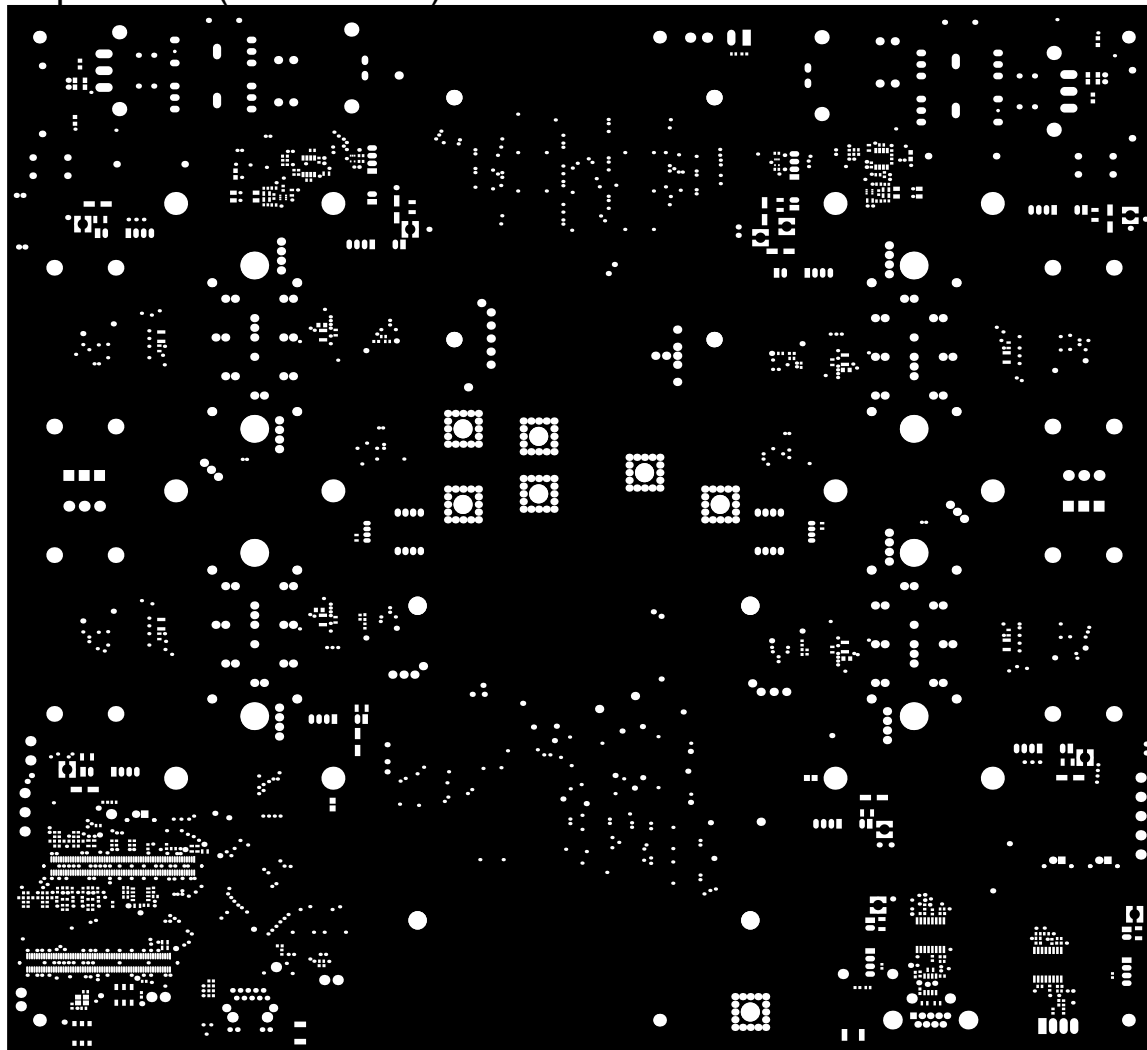
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Top Paste (Scale 1:2.5)



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Top side solder paste - top view		Fabrication document	Sheet 5 / 15
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Top Solder (Scale 1:2.5)

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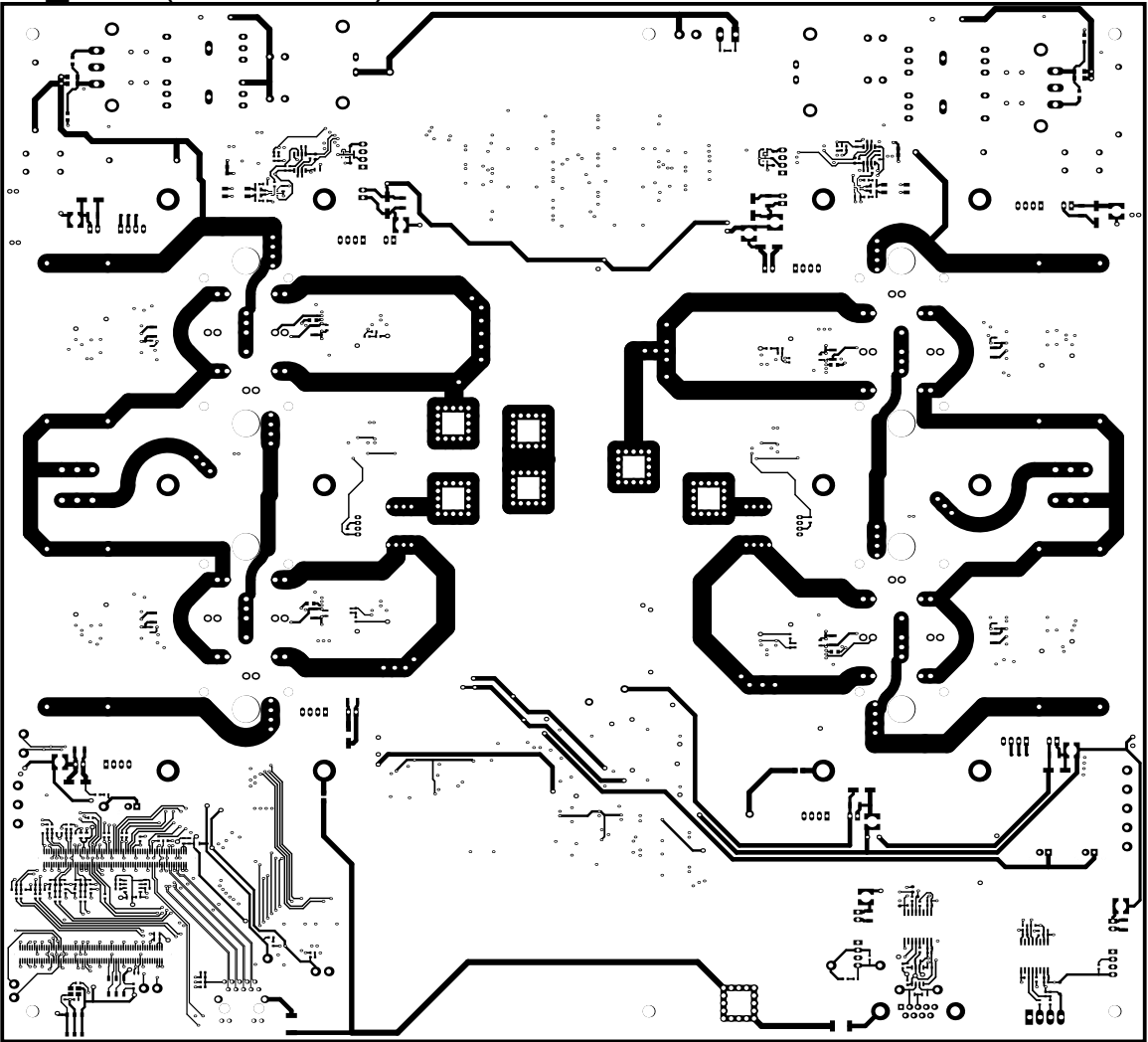
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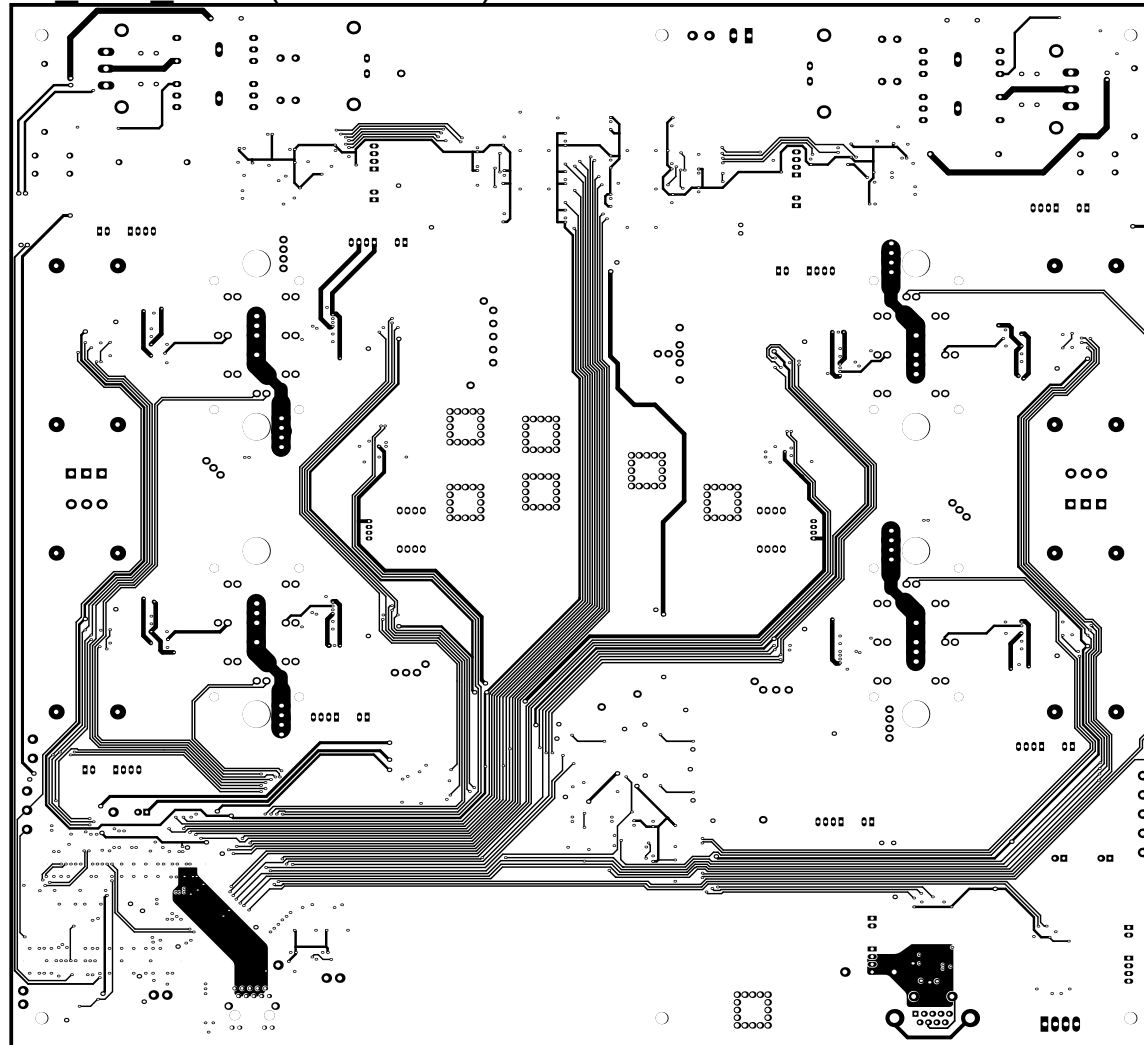
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L1 TOP (Scale 1:2.5)



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L2 MID TOP (Scale 1:2.5)



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L2_MID_TOP - upper internal layer - top view

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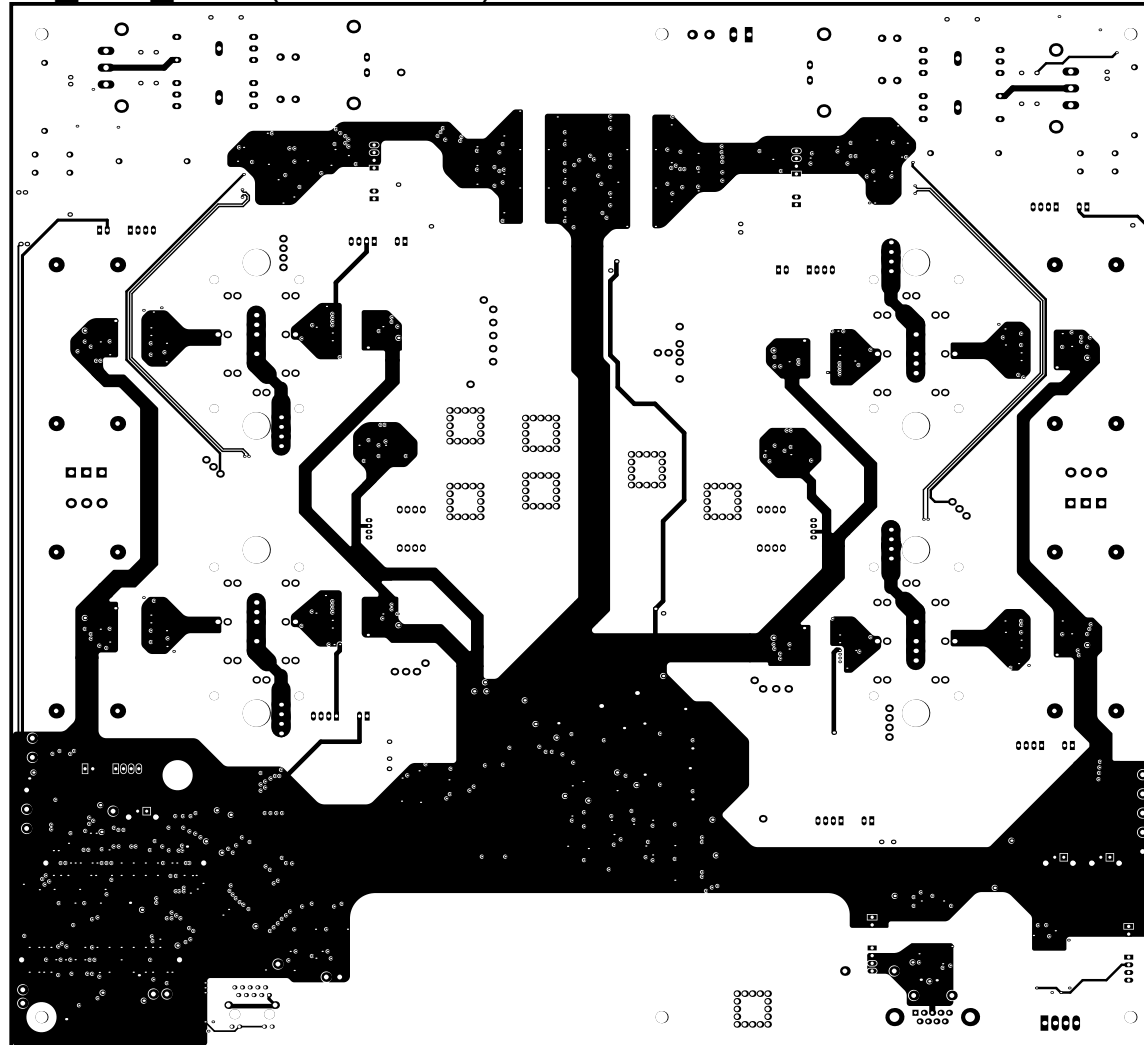
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L3 MID BOT (Scale 1:2.5)



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L3_MID_BOT - lower internal layer - top view

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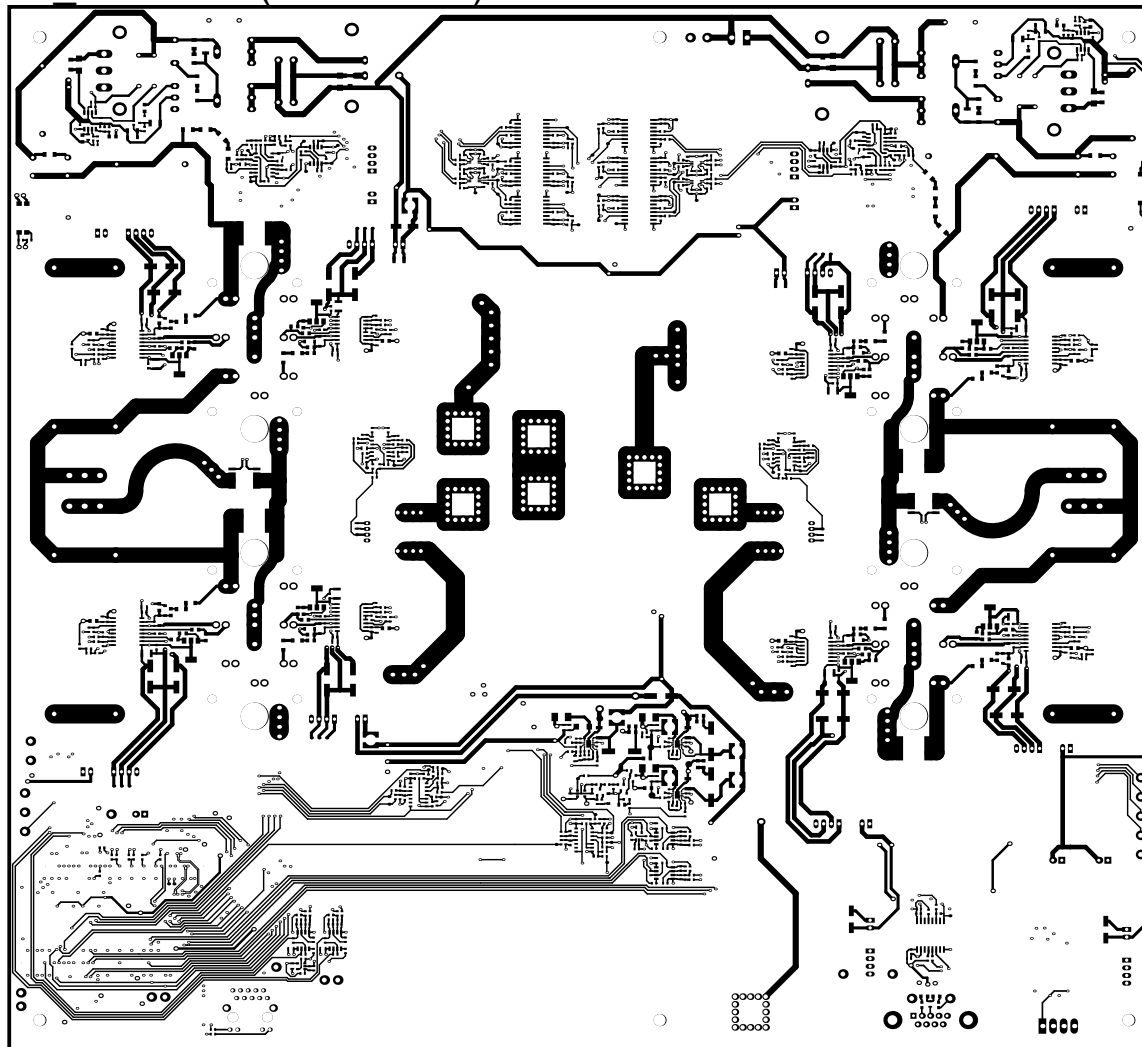
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L4 BOTTOM (Scale 1:2.5)

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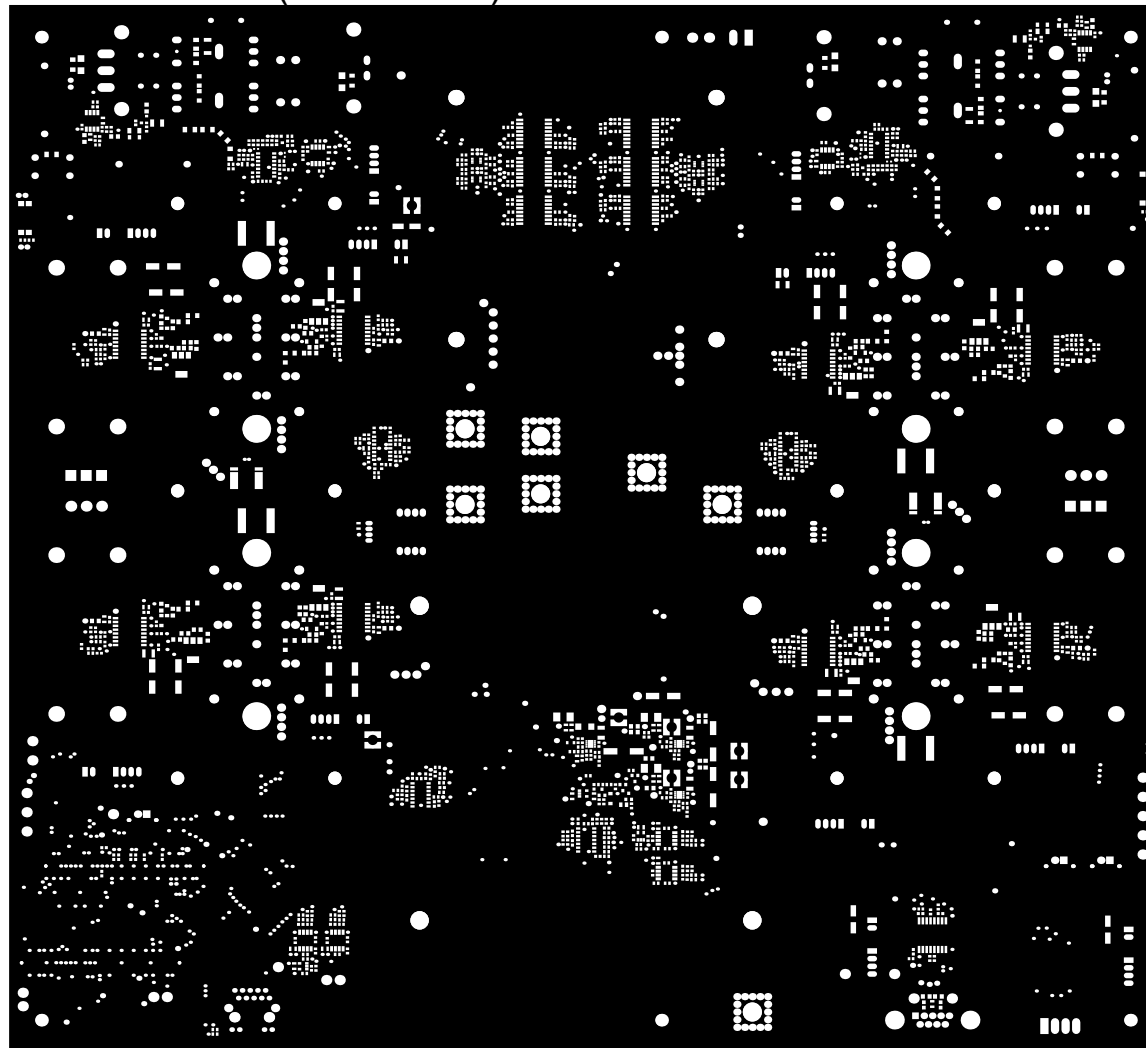
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Bottom Solder (Scale 1:2.5)

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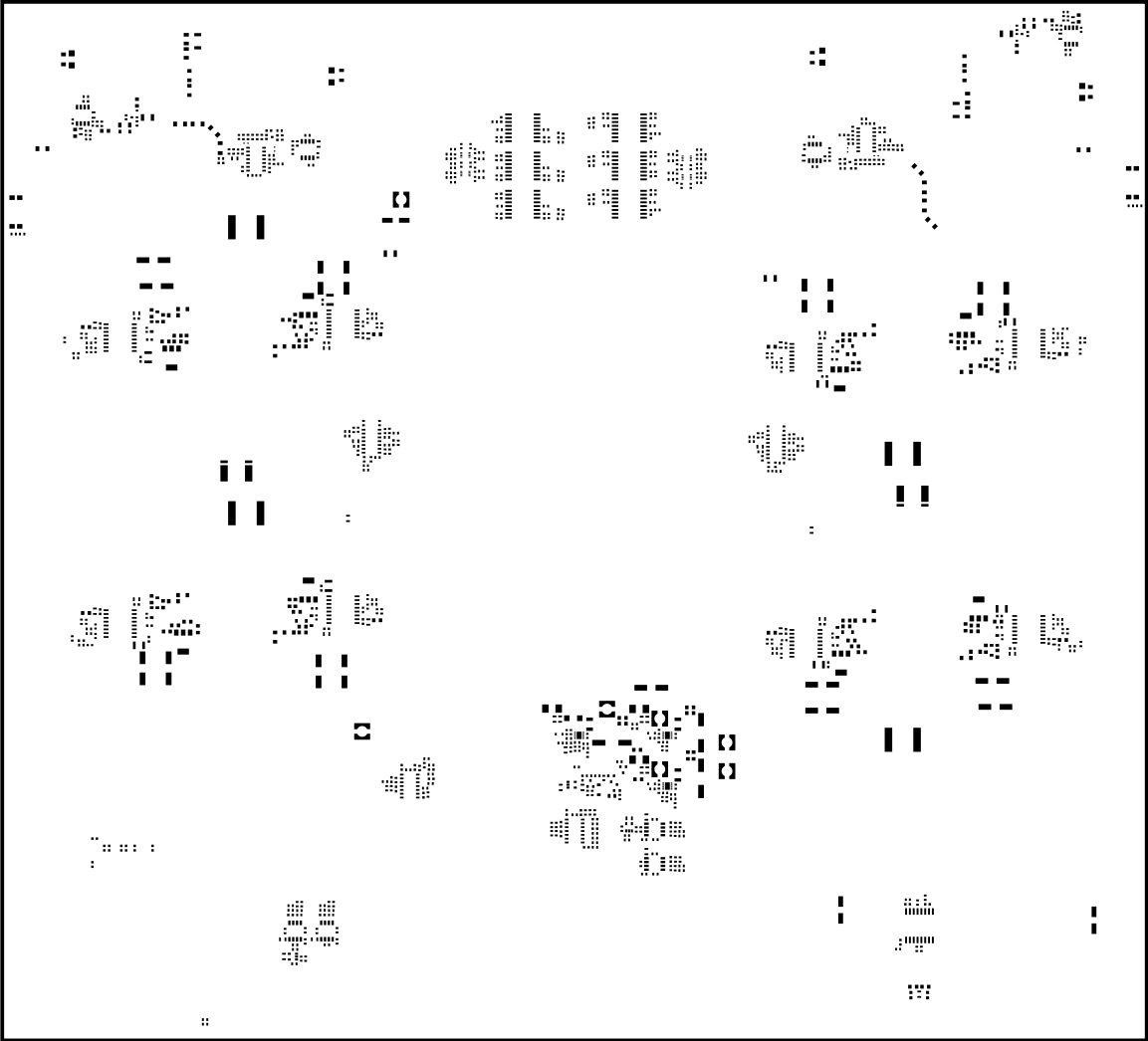
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Bottom Paste (Scale 1:2.5)



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This diagram is a 10x10 grid filled with various symbols and letters. The symbols include:

- Letters: J, B, L, E, M, F, D, G, K, C, H, I, O, N, P, Q, R, S, T, U, V, W, X, Y, Z.
- Geometric shapes: diamonds, squares, rectangles, circles, triangles, stars, crosses, and hexagons.
- Patterns: clusters of identical symbols, lines of symbols, and larger, more complex arrangements.

 The symbols are distributed across the grid in a way that suggests a complex pattern or code. Some symbols are repeated frequently, while others appear only once or twice. The overall layout is dense and intricate, with many symbols overlapping or adjacent to each other.

⑨ Related drill table can be found on page 15

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<i>Drill drawing</i>		Fabrication document	Sheet 14 / 15
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Drill Table

Symbol	Count	Hole Size	Plated	Drill Layer Pair	Via / Pad	Template
L	641	0.406mm(16.0mil)	Plated	L1_TOP - L4_BOTTOM	Via	v89h41
◇	101	0.762mm(30.0mil)	Plated	L1_TOP - L4_BOTTOM	(Mixed)	(Mixed)
A	8	0.800mm(31.5mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r230_130h80r100
✳	10	0.900mm(35.4mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c137h90
✳	9	1.000mm(39.4mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
G	10	1.020mm(40.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
B	116	1.100mm(43.3mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
D	12	1.200mm(47.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
I	6	1.270mm(50.0mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c80hn127
☆	56	1.270mm(50.0mil)	Plated	L1_TOP - L4_BOTTOM	Via	v254h127
⊞	16	1.300mm(51.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r190_254h130r100
K	6	1.422mm(56.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
▽	72	1.450mm(57.1mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c250h145
☆	112	1.475mm(58.1mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c220h148(Tol5-5)
E	20	1.500mm(59.1mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
⊞	26	1.600mm(63.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
⊞	12	1.702mm(67.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
□	6	1.800mm(70.9mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r270_550h180r100
✳	8	2.700mm(106.3mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c450h270
M	16	2.800mm(110.2mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c280hn280
C	2	3.200mm(126.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c600h320
H	2	3.251mm(128.0mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c325hn325
J	6	4.000mm(157.5mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c400hn400
F	12	4.400mm(173.2mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c740hn440z0x0
✳	4	5.100mm(200.8mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c0hn510
○	4	6.100mm(240.2mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c0hn610
✳	7	6.300mm(248.0mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c0hn630
◎	8	9.000mm(354.3mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c900hn900
	1308 Total					

Notes:

- 10
- Related drill drawing can be found on page 14

SEC-DAB-25KW-SIC-PIM-GEVK

Drill table

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