


Notes:

- 1 Material: Isola IS400 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 All gerber files generated as a top view
4. Fabricate according IPC-A-600
5. Non-conductive epoxy ink recommended for silkscreen
6. Silkscreen may not cover any exposed copper, silkscreen gerber data have to be trimmed eventually
7. All holes diameter refer to final diameter after eventual plating

Gerber and drill file extensions table

Gerber files	
.GTO	Top side silkscreen
.GTP	Top side solder paste mask
.GTS	Top side solder mask
.GTL	Top layer L1_TOP
.G1	Internal signal layer L2_MID_TOP
.G2	Internal signal layer L3_MID_BOT
.GBL	Bottom layer L4_BOTTOM
.GBS	Bottom side solder mask
.GBP	Bottom side solder paste mask
.GBO	Bottom side silkscreen
.GM1	Board outline
Drill files	
.TXT	Layer pair L1_TOP to L4_BOT

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<i>PCB fabrication notes and requirements</i>		Fabrication document	Sheet 1 / 14
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Layer Stack

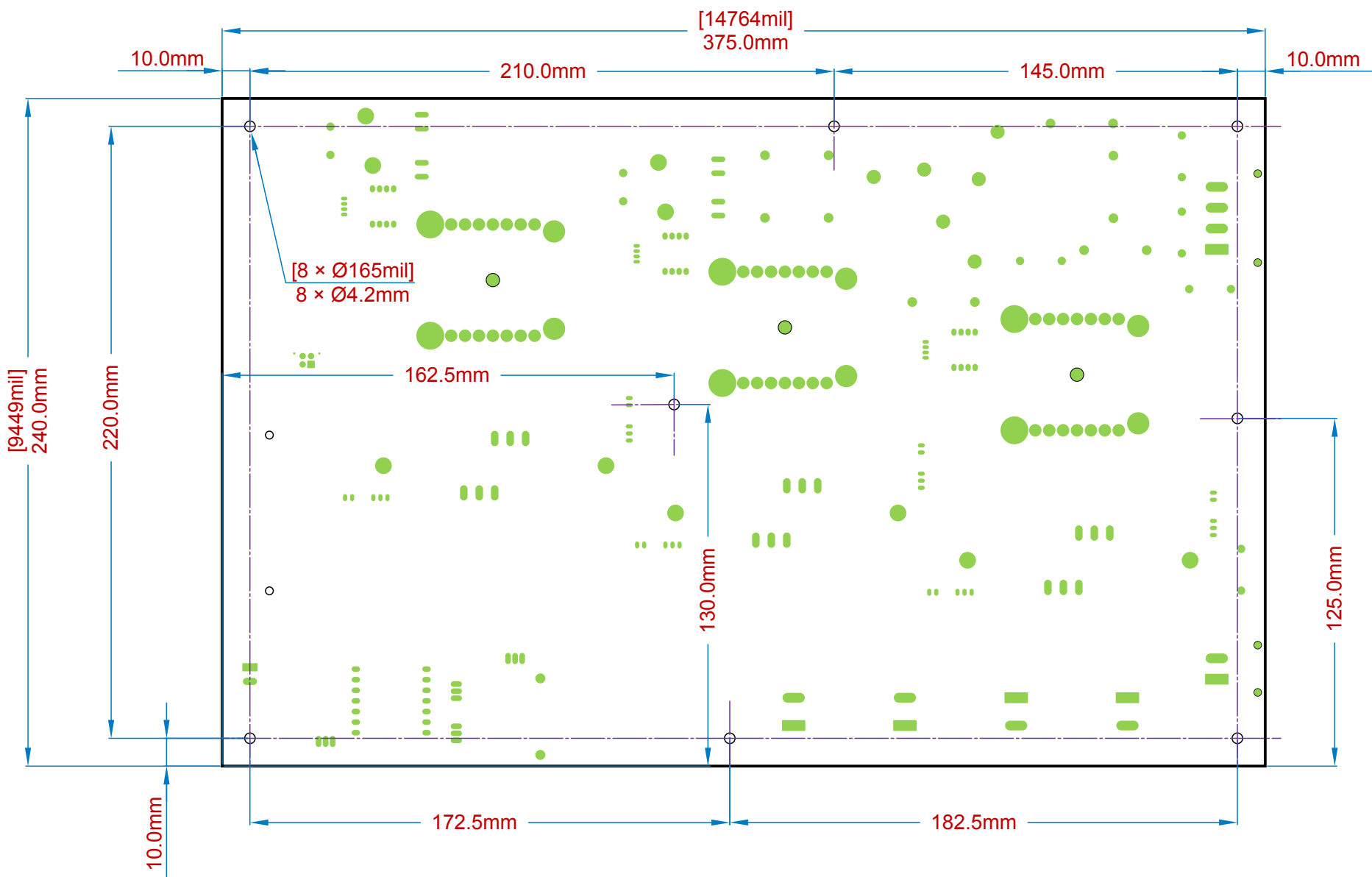
Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Paste			Paste Mask	GTP
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.010mm(0.394mil)	Solder Resist	Solder Mask	GTS
Copper	L1_TOP	0.060mm(2.362mil)		Signal	GTL
Core		0.540mm(21.260mil)	Isola IS400 3x7628M	Dielectric	
Copper	L2_MID_TOP	0.035mm(1.378mil)		Signal	G1
Prepreg		0.297mm(11.693mil)	Isola IS400 3x2116	Dielectric	
Copper	L3_MID_BOT	0.035mm(1.378mil)		Signal	G2
Core		0.540mm(21.260mil)	Isola IS400 3x7628M	Dielectric	
Copper	L4_BOTTOM	0.060mm(2.362mil)		Signal	GBL
Surface Material	Bottom Solder	0.010mm(0.394mil)	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
	Bottom Paste			Paste Mask	GBP
Total thickness: 1.587mm(62.480mil)					

Notes:

⑧ L1_TOP and L4_BOTTOM layer thickness value consists of 35µm copper, 20 µm plating and 5 µm ENIG finish.

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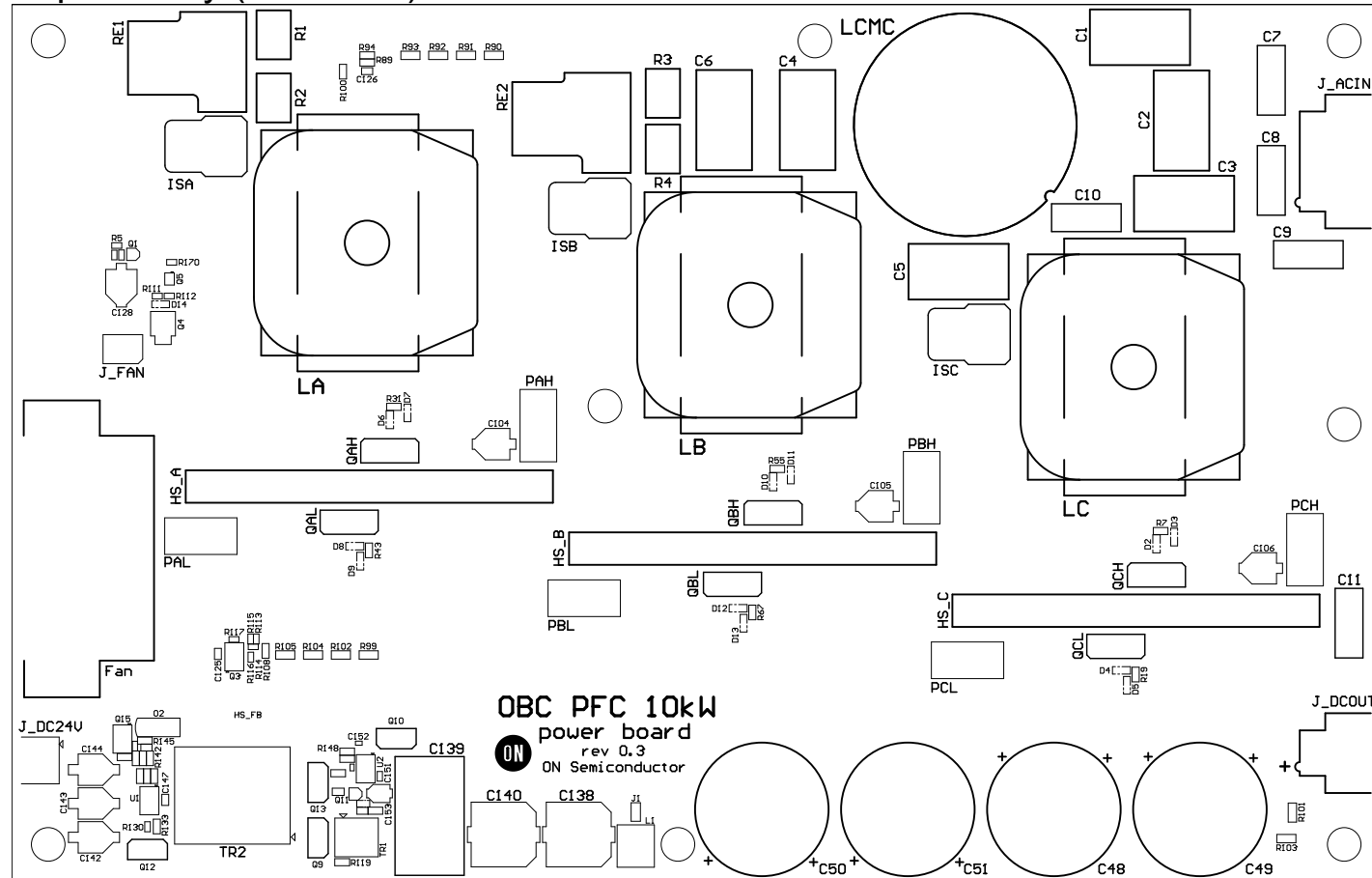




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<i>Board outline definition - top view 1:2</i>		Fabrication document	Sheet 3 / 14
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Top Overlay (Scale 1:2)



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<i>Top side silkscreen - top view</i>		Fabrication document	Sheet 4 / 14
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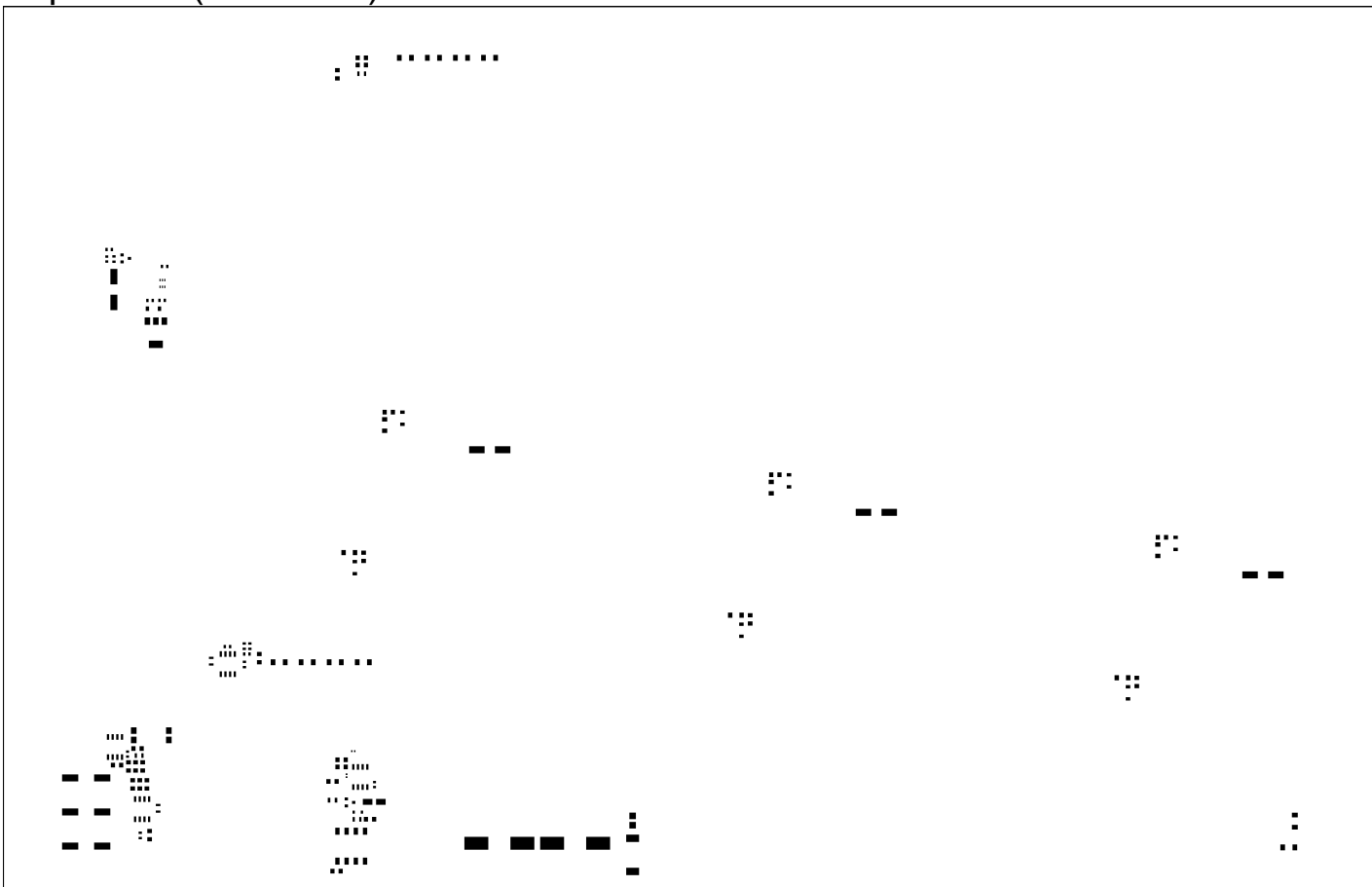
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Top Paste (Scale 1:2)



A

A

B

B

C

C

D

D

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<i>Top side solder paste - top view</i>		Fabrication document	Sheet 5 / 14
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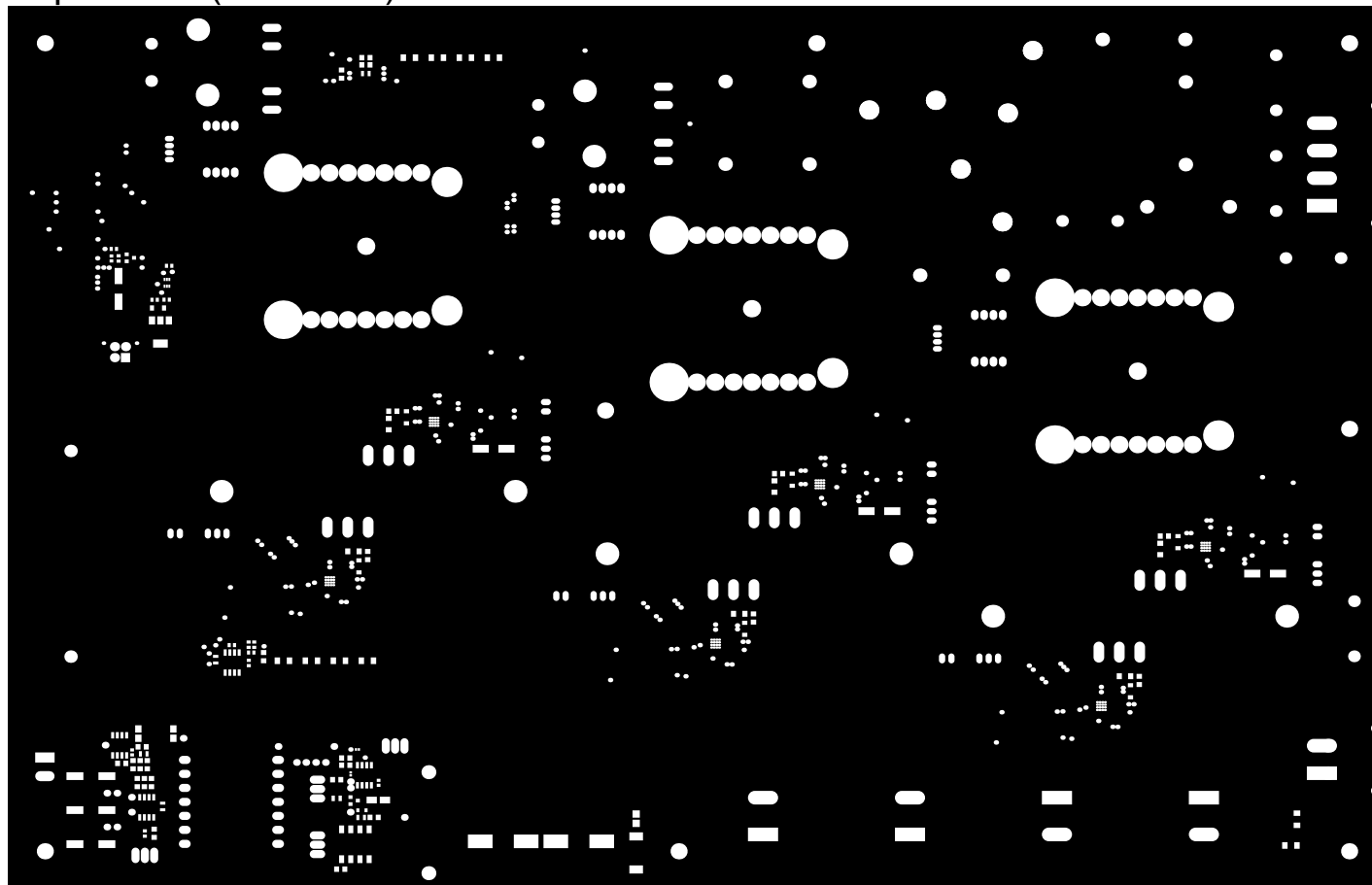
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Top Solder (Scale 1:2)



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<i>Top side solder mask - top view</i>		Fabrication document	Sheet 6 / 14
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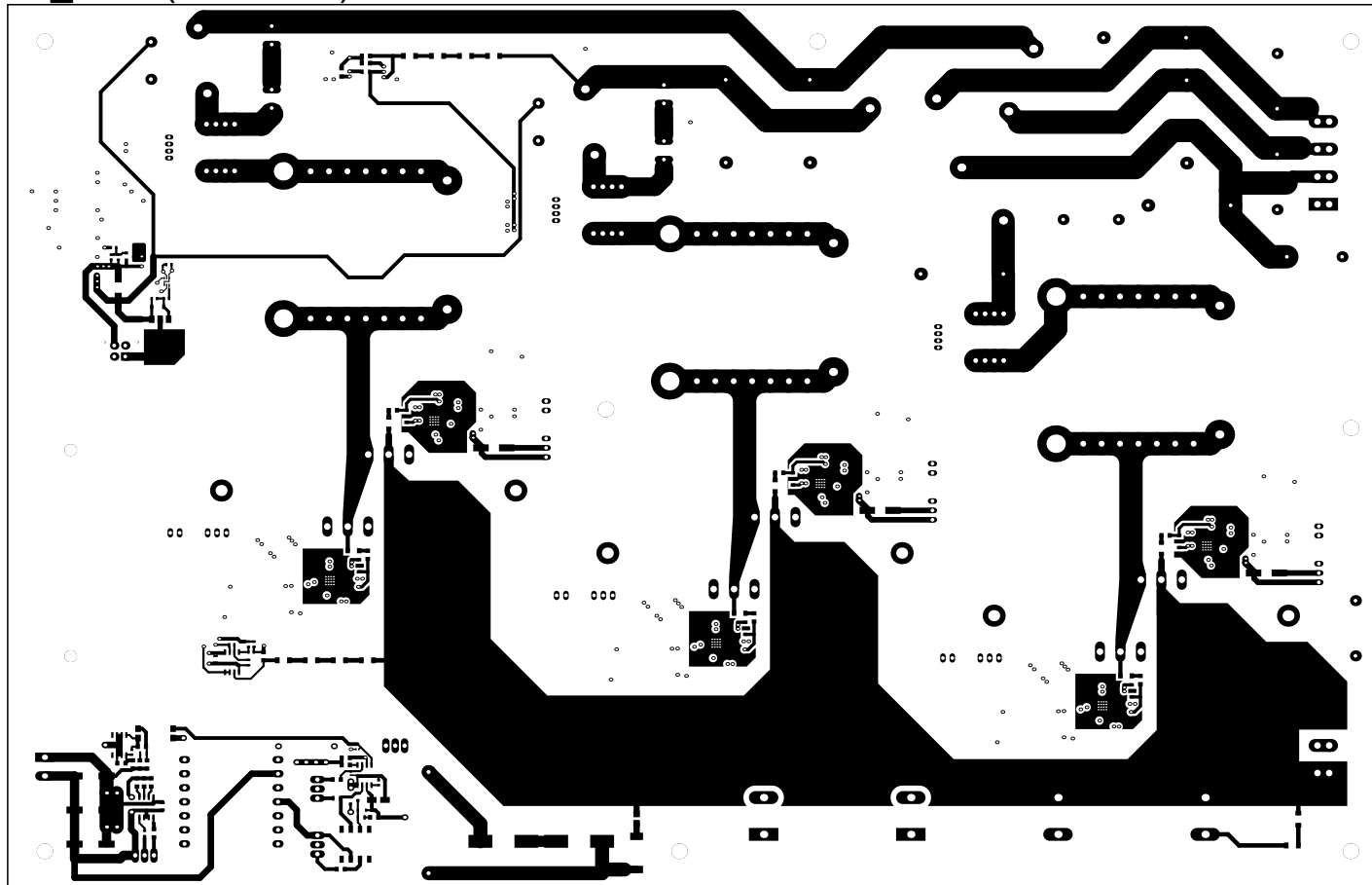
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L1_TOP (Scale 1:2)

**OBC PFC power board**Revision:
0.3State:
released*Layer L1_TOP - top view*Fabrication
documentSheet
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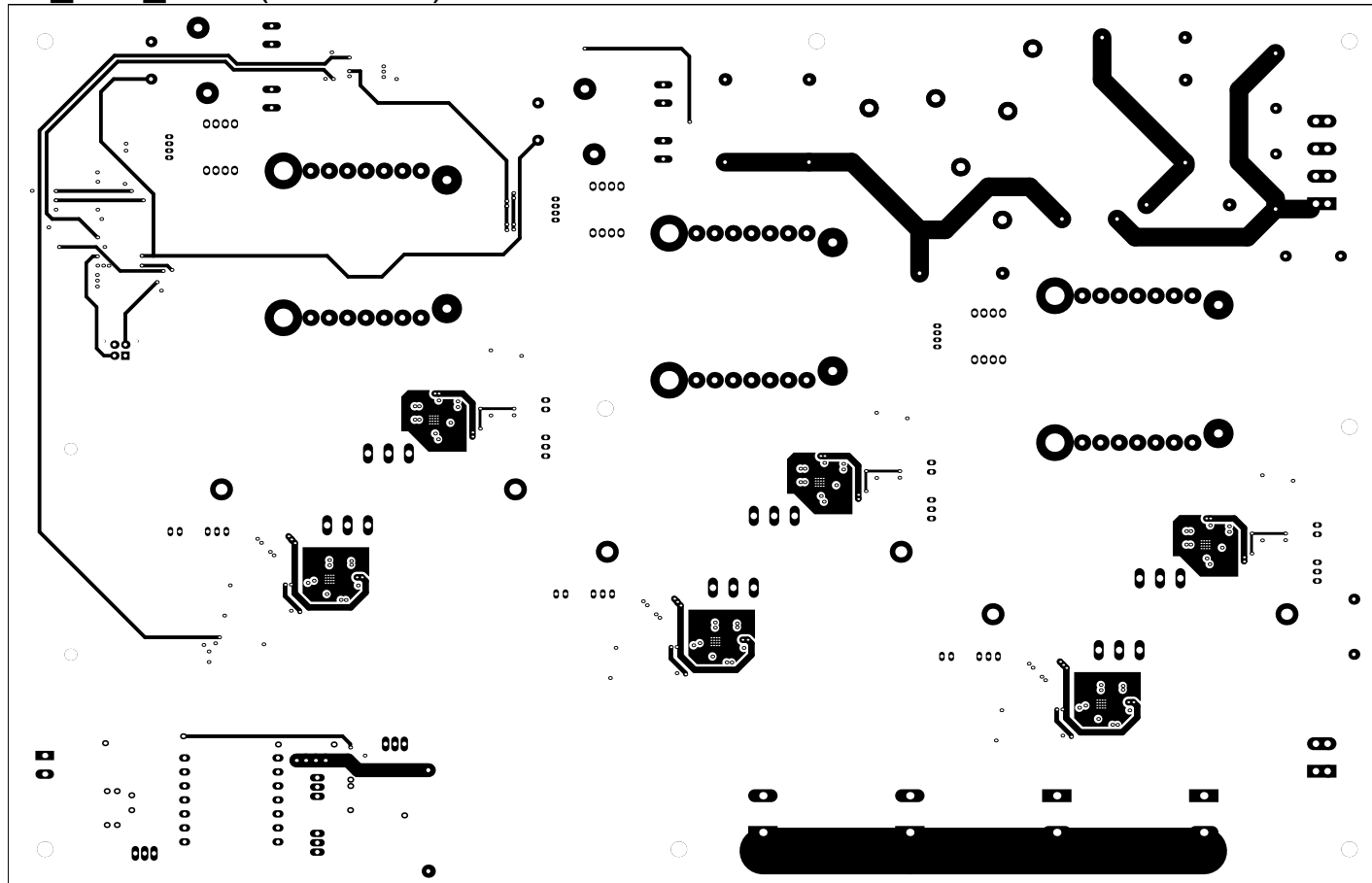
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L2_MID_TOP (Scale 1:2)



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<i>Internal signal layer L2_MID_TOP - top view</i>		Fabrication document	Sheet 8 / 14
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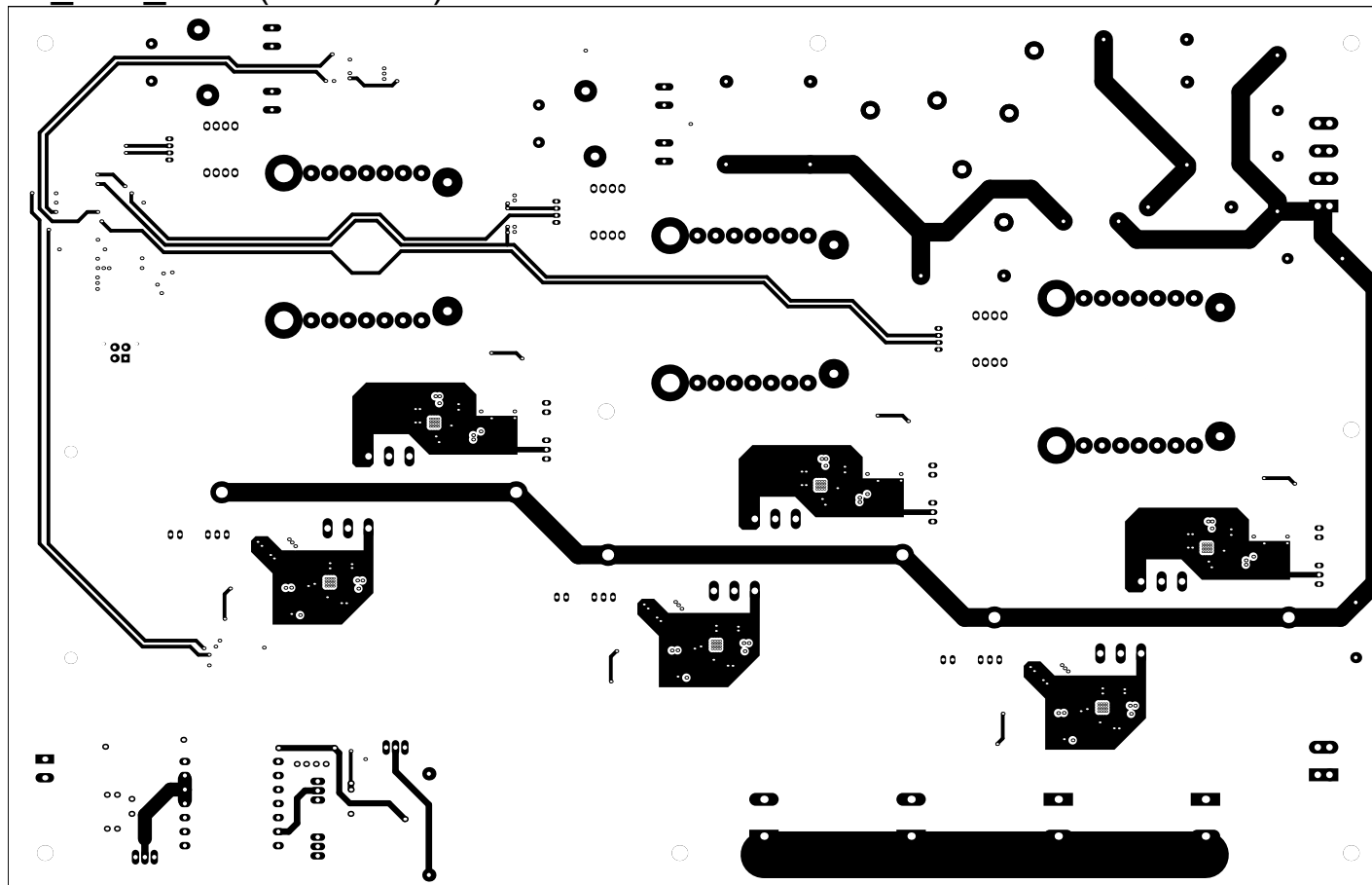
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L3_MID_BOT (Scale 1:2)

**OBC PFC power board**Revision:
0.3State:
released*Internal signal layer L3_MID_BOT - top view*Fabrication
documentSheet
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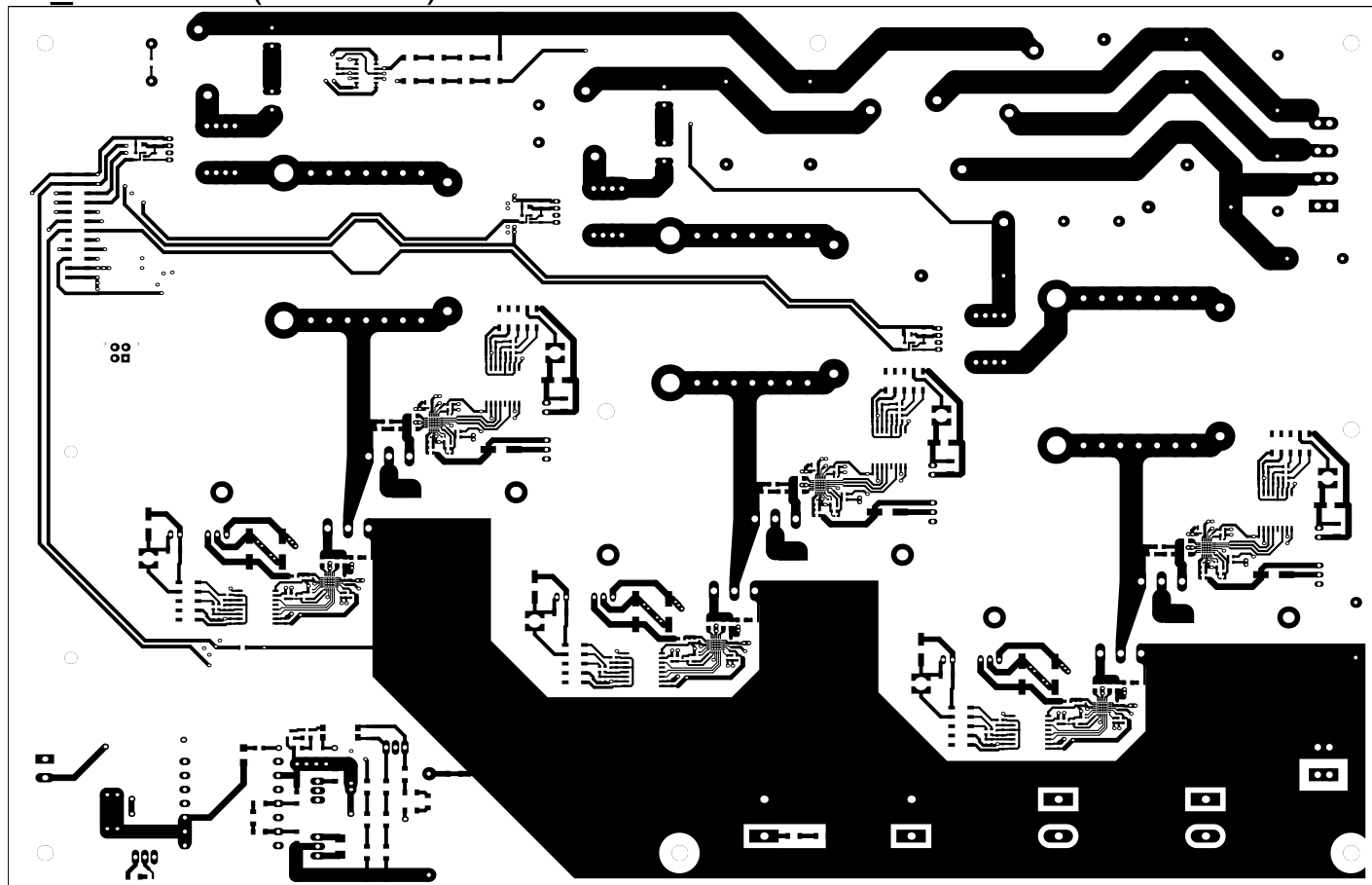
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L4_BOTTOM (Scale 1:2)

**OBC PFC power board**Revision:
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released*Layer L4_BOTTOM - top view*Fabrication
documentSheet
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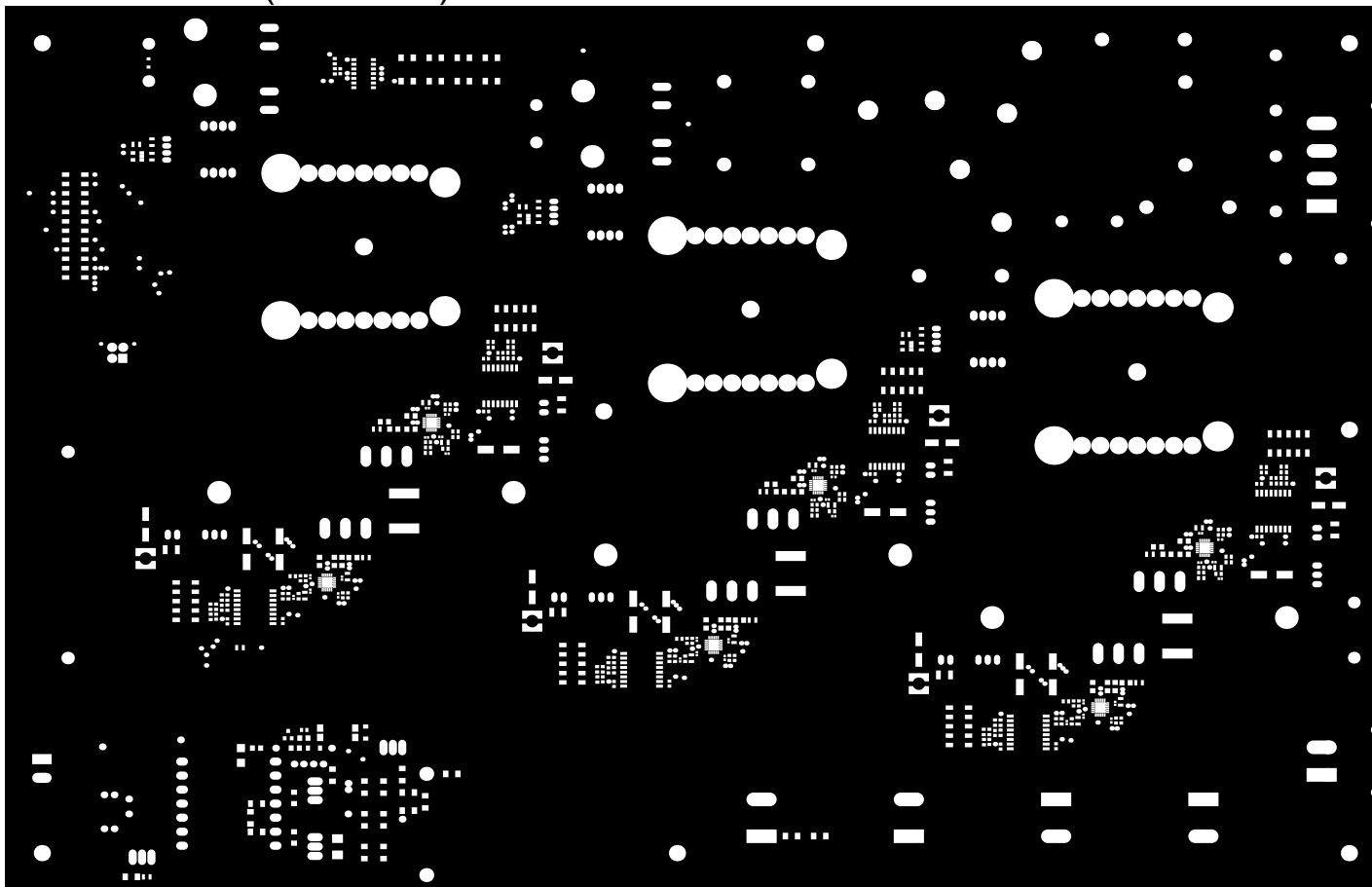
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Bottom Solder (Scale 1:2)



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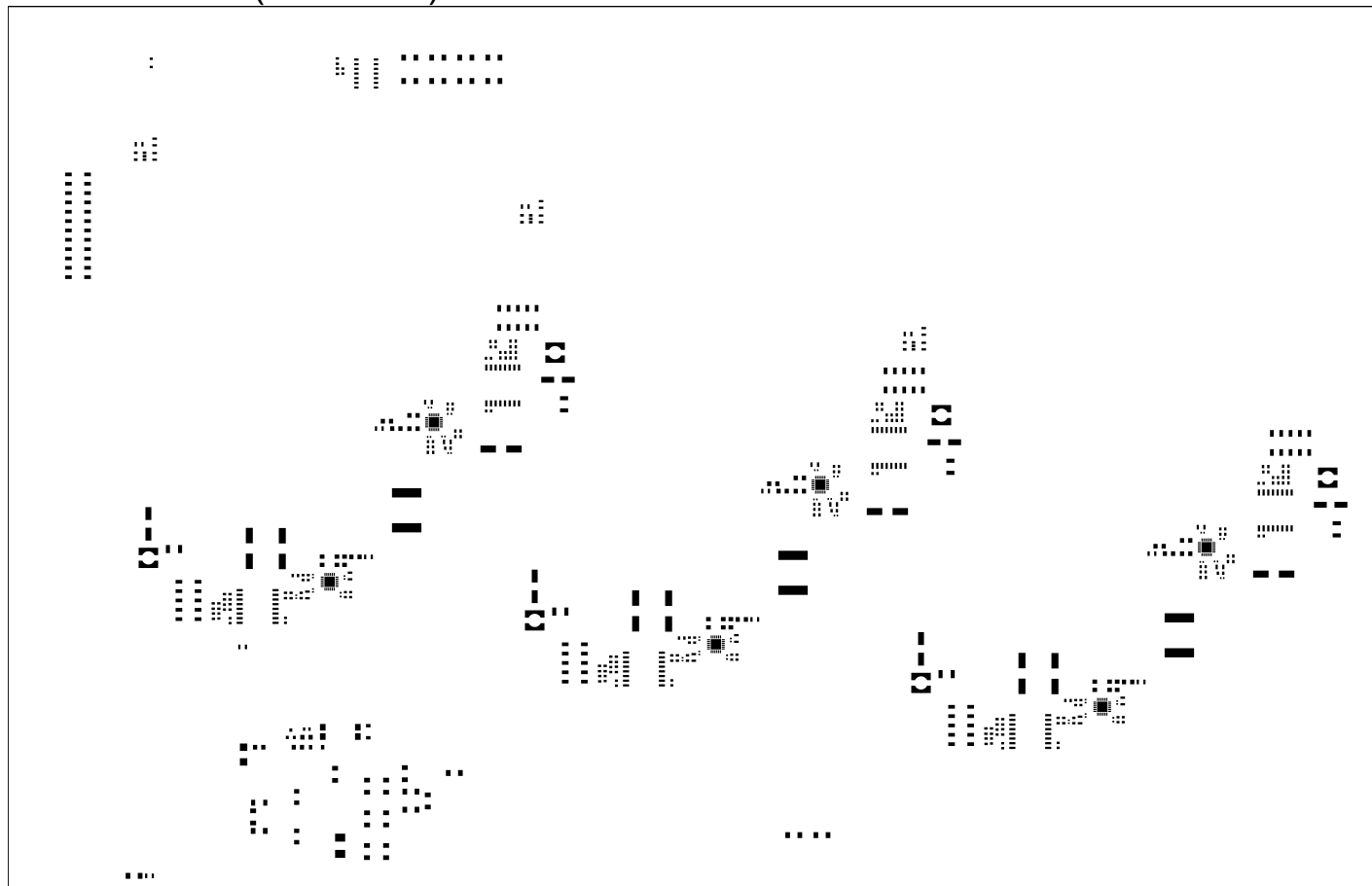
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Bottom Paste (Scale 1:2)



A

A

B


B

C

C

D

D

OBC PFC power board		Revision: 0.3	State: released
<i>Bottom side solder paste - top view</i>		Fabrication document	Sheet 12 / 14
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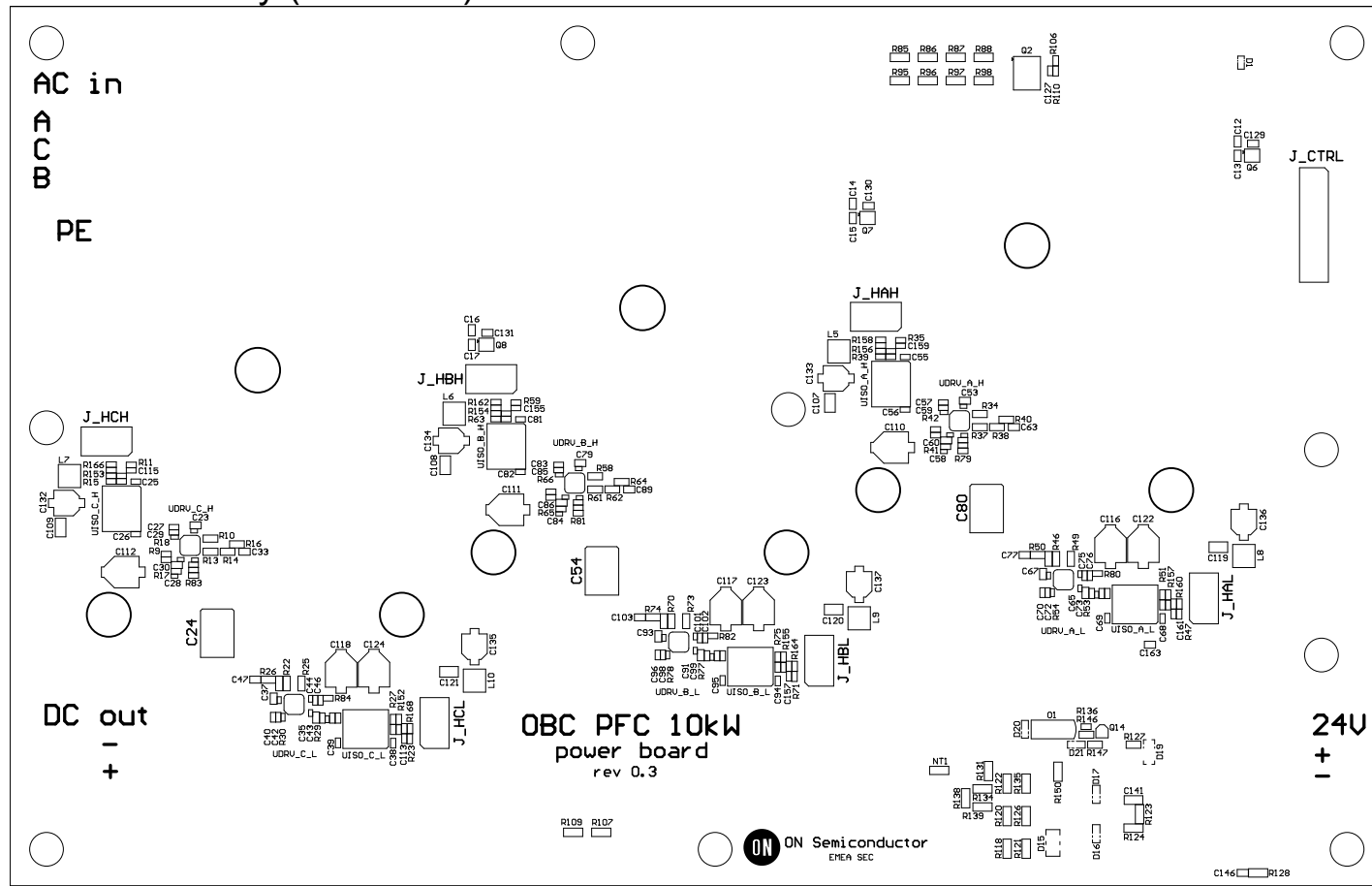
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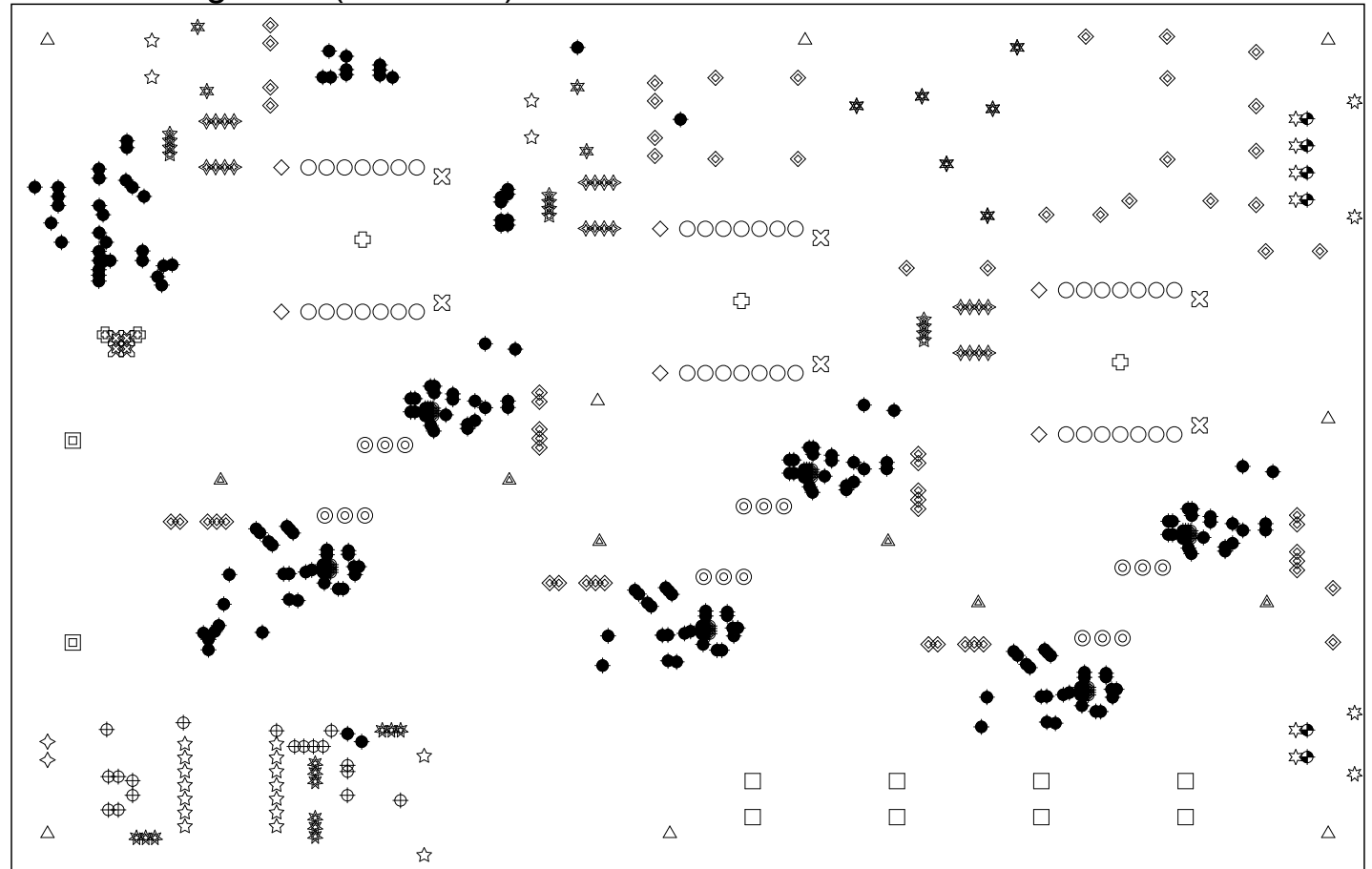
Bottom Overlay (Scale 1:2)



Drill Table

Symbol	Count	Plated	Via / Pad	Hole Size
⊕	2	Non-Plated	Pad	1.02mm(40mil)
☆	4	Non-Plated	Pad	3.00mm(118mil)
⊕	3	Non-Plated	Pad	5.10mm(201mil)
☆	12	Plated	Pad	0.80mm(31mil)
◇	60	Plated	Pad	1.00mm(39mil)
⊗	4	Plated	Pad	1.02mm(40mil)
☆	20	Plated	Pad	1.10mm(43mil)
☆	12	Plated	Pad	1.20mm(47mil)
◇	24	Plated	Pad	1.30mm(51mil)
◇	2	Plated	Pad	1.42mm(56mil)
○	42	Plated	Pad	1.60mm(63mil)
☆	6	Plated	Pad	1.78mm(70mil)
⊙	18	Plated	Pad	1.80mm(71mil)
□	8	Plated	Pad	2.00mm(79mil)
☆	16	Plated	Pad	2.10mm(83mil)
⊗	6	Plated	Pad	2.20mm(87mil)
△	6	Plated	Pad	3.00mm(118mil)
□	2	Plated	Pad	3.20mm(126mil)
△	8	Plated	Pad	4.20mm(165mil)
◇	6	Plated	Pad	5.00mm(197mil)
⊕	96	Plated	Via	0.30mm(12mil)
●	196	Plated	Via	0.51mm(20mil)
⊕	18	Plated	Via	0.81mm(32mil)
⊕	6	Plated	Via	1.78mm(70mil)
577 Total				

Drill Drawing View (Scale 1:2)



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Drill drawing and table

Fabrication
document

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