


Notes:

- 1 Material: Isola IS400 or similar recommended.
- 2 Finish: ENIG (Electroless Nickel Immersion Gold), nickel layer 1 ÷ 4 µm, gold layer 0.076 ÷ 0.2 µm
- 3 All gerber files generated as a top view
- 4 Gerber files for internal power planes have to be inverted
- 5 Fabricate according IPC-A-600
- 6 Non-conductive epoxy ink recommended for silkscreen
- 7 All holes diameter refer to final diameter after eventual plating
- 8 There are no SMD components on board top side, top side solder paste layer is therefore empty

**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
.GP1	Internal power plane L2_PWR - has to be inverted
.GP2	Internal power plane L3_GND - has to be inverted
.GBL	Bottom layer L4_BOTTOM
.GBS	Bottom side solder mask
.GBP	Bottom side solder paste mask
.GBO	Bottom side silkscreen
Drill files	
.TXT	Layer pair L1_TOP to L4_BOTTOM

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<i>PCB fabrication notes and requirements</i>		Fabrication document	Sheet 1 / 14
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PCB File: OBC_PFC_control_board.PcbDoc		<b>ON Semiconductor</b>	
Repository revision: 897		Solution Engineering Center Piešťany	

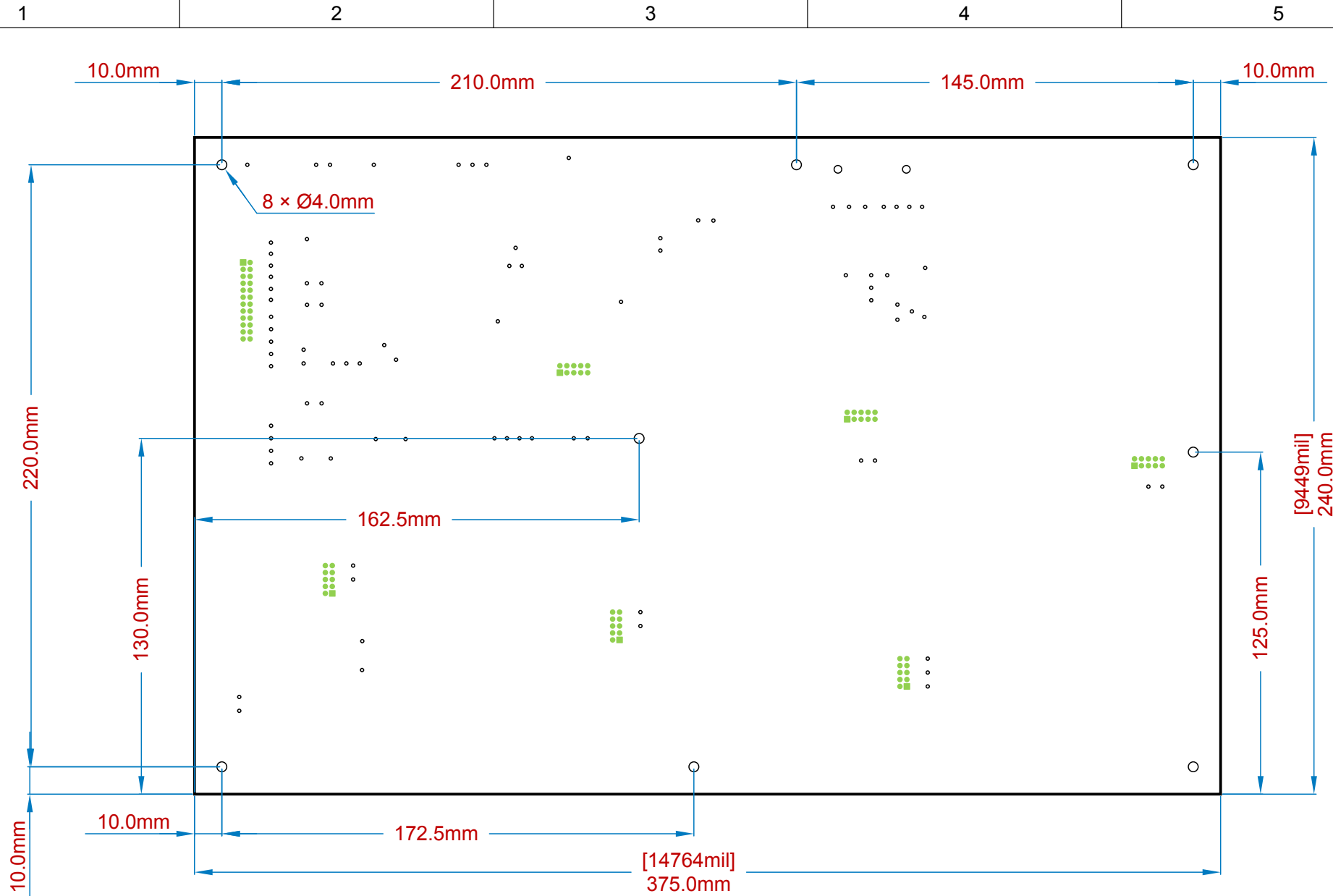


Layer Stack

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	0.043mm(1.693mil)		Signal	GTL
Prepreg		0.360mm(14.173mil)	2 x 7628(FZ01) IS400	Dielectric	
Copper	L2_PWR	0.035mm(1.378mil)		Internal Plane	GP1
Core		0.710mm(27.953mil)	4 x 7628M IS400	Dielectric	
Copper	L3_GND	0.035mm(1.378mil)		Internal Plane	GP2
Prepreg		0.360mm(14.173mil)	2 x 7628(FZ01) IS400	Dielectric	
Copper	L4_BOTTOM	0.043mm(1.693mil)		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: 1.606mm(63.228mil)					

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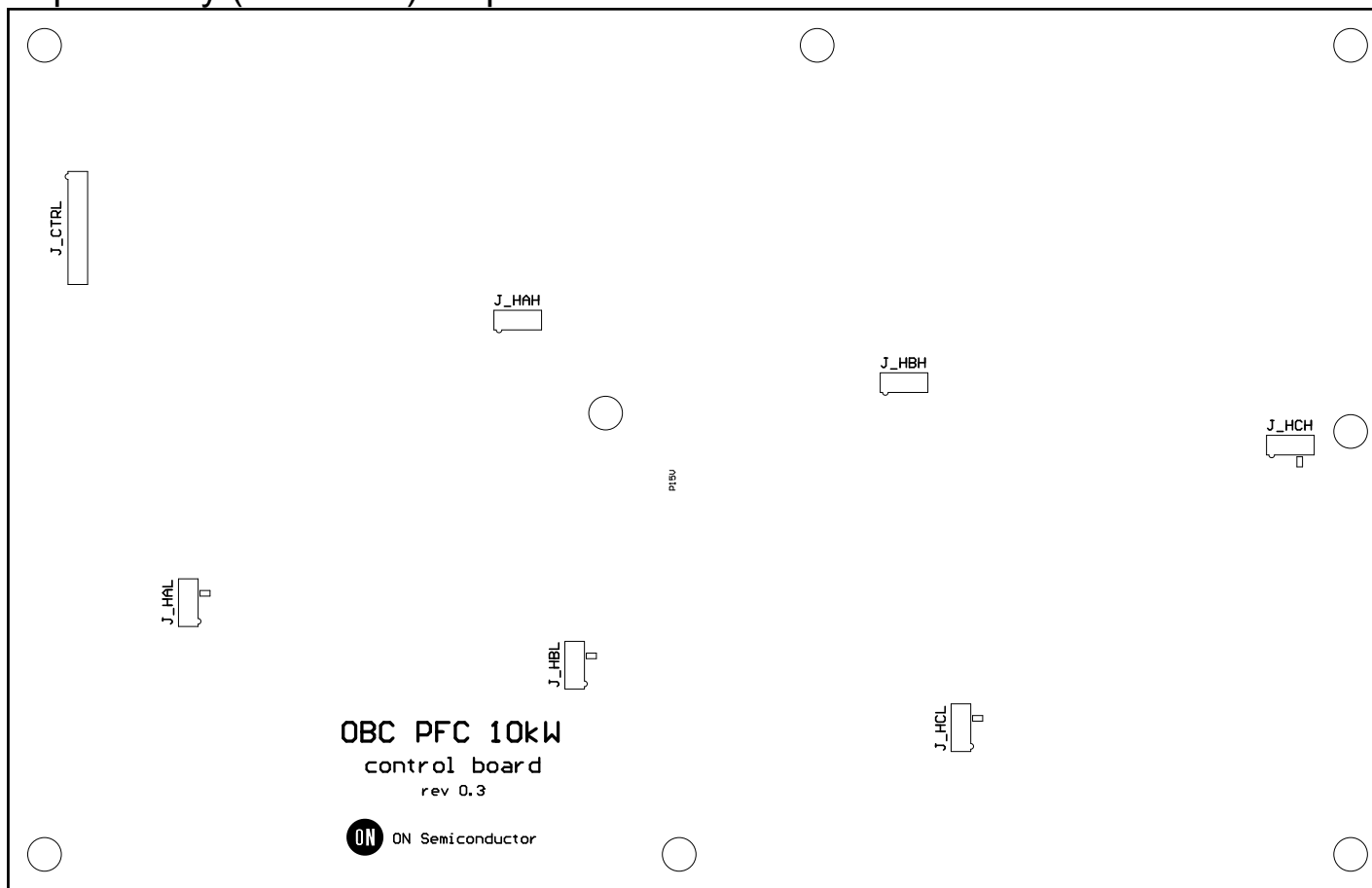
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### Top Overlay (Scale 1:2) - top view



A

A

B

B

C

C

D

D

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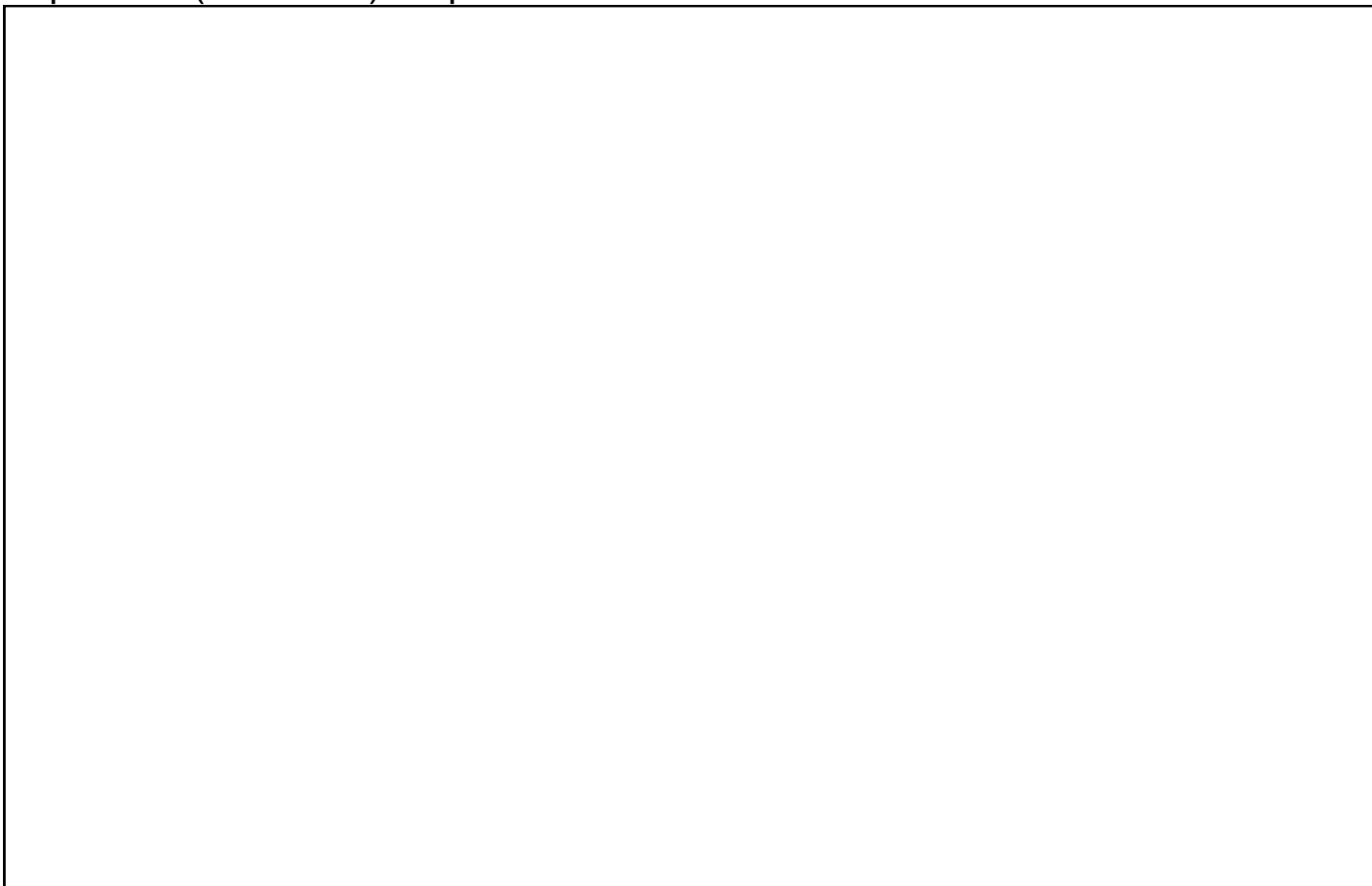
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### Top Paste (Scale 1:2) - top view



There are no SMD components on board top side, top side solder paste layer is therefore empty

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<i>Top side solder paste - top view</i>		Fabrication document	Sheet 5 / 14
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A

A

B

B

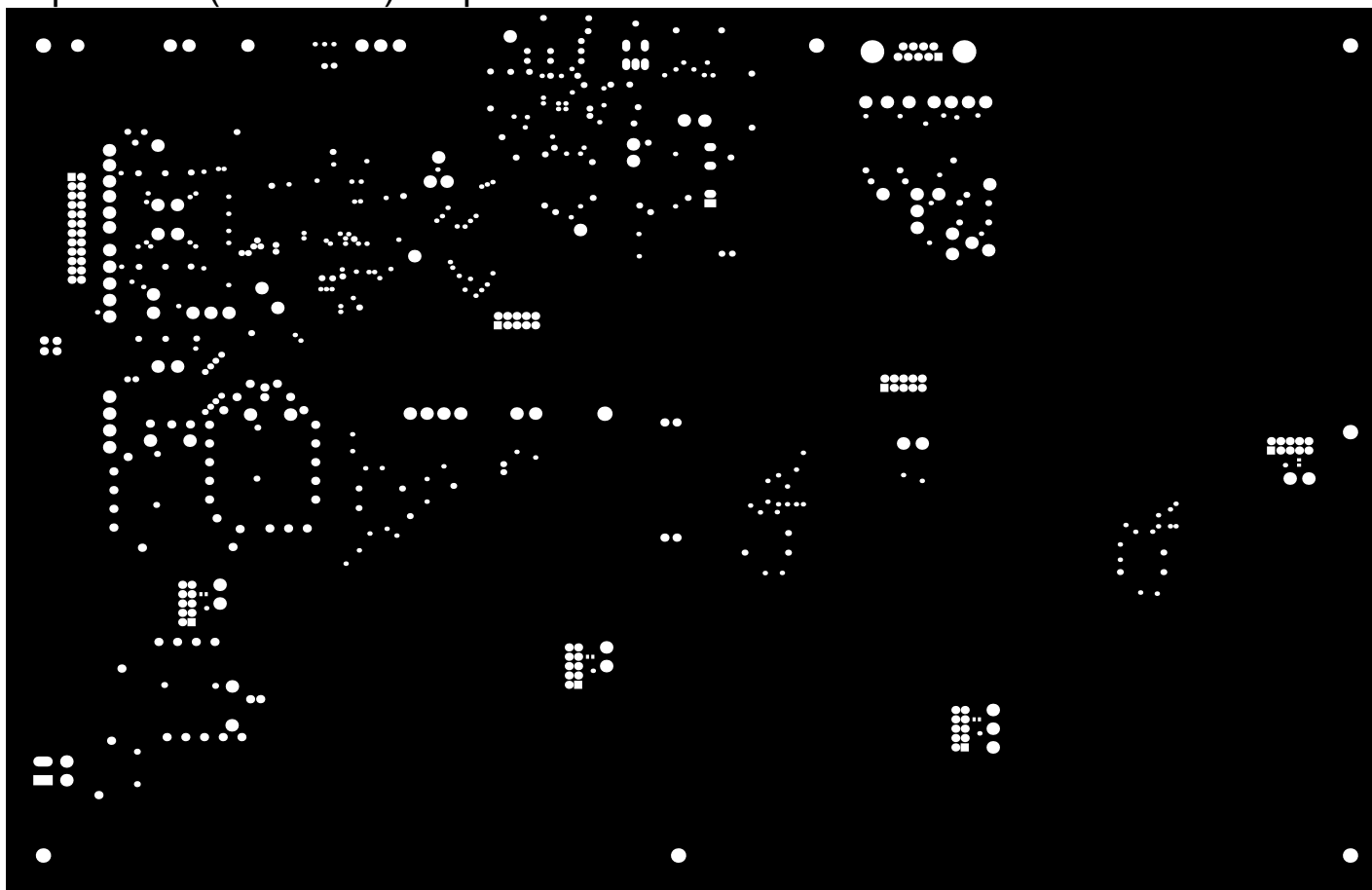
C


C

D

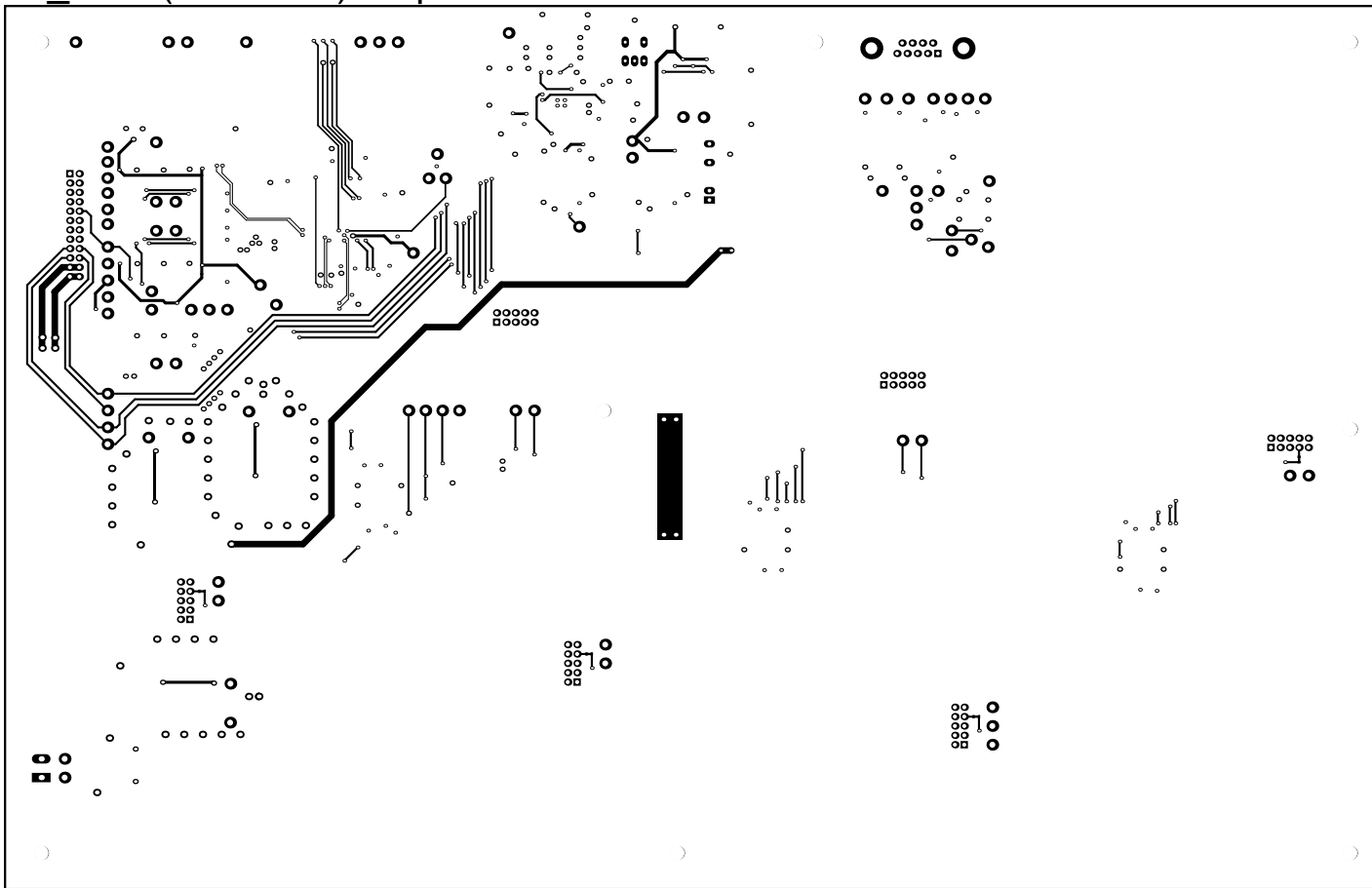
D

Top Solder (Scale 1:2) - top view



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<i>Top side solder mask - top view</i>		Fabrication document	Sheet 6 / 14
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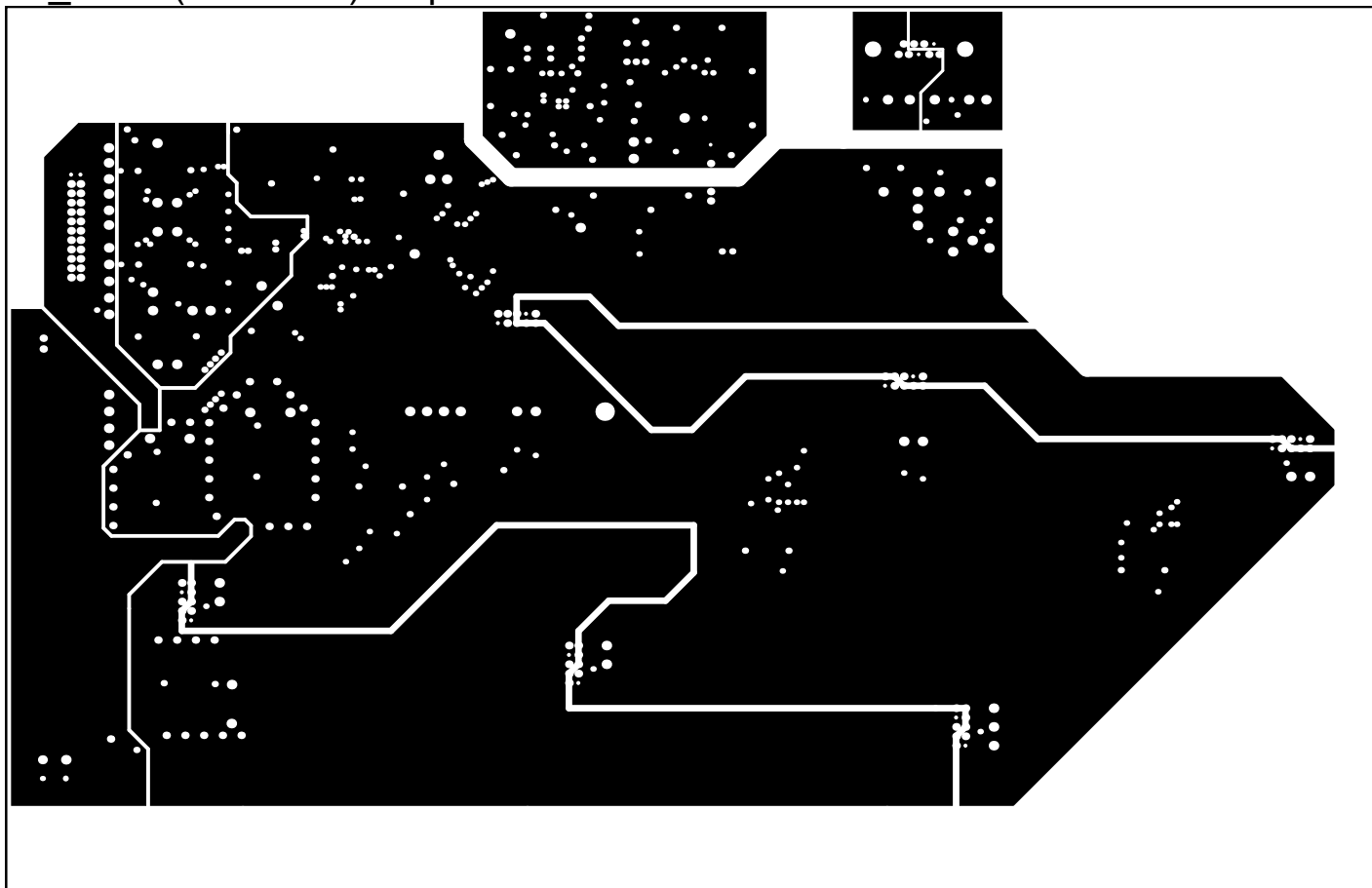
### L1\_TOP (Scale 1:2) - top view



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<i>Layer L1_TOP - top view</i>		Fabrication document	Sheet 7 / 14
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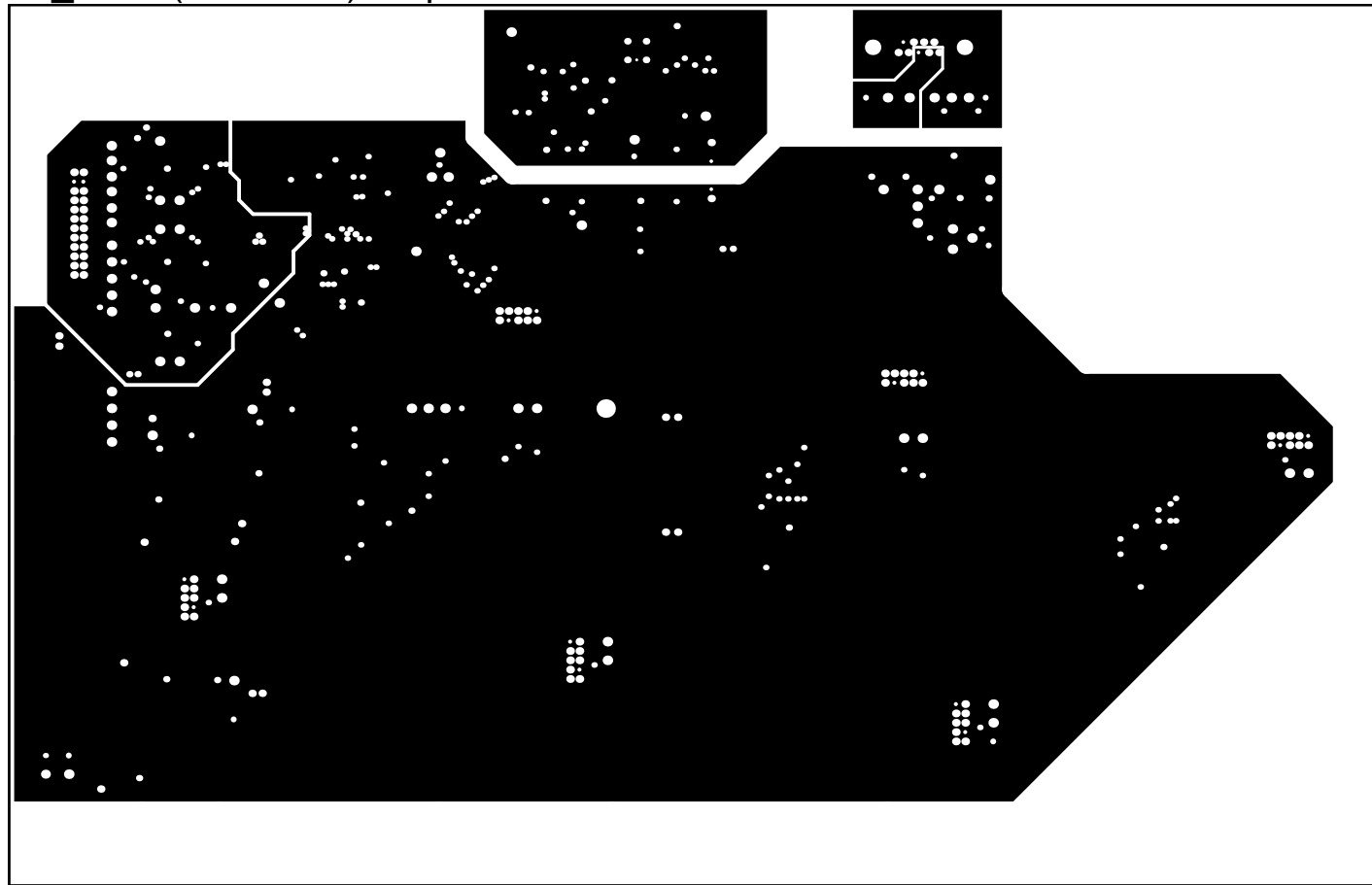
L2\_PWR (Scale 1:2) - top view



<b>OBC PFC control board</b>		<b>Revision:</b> 0.3	<b>State:</b> released
<i>Internal power plane L2_PWR - top view</i>		Fabrication document	Sheet 8 / 14
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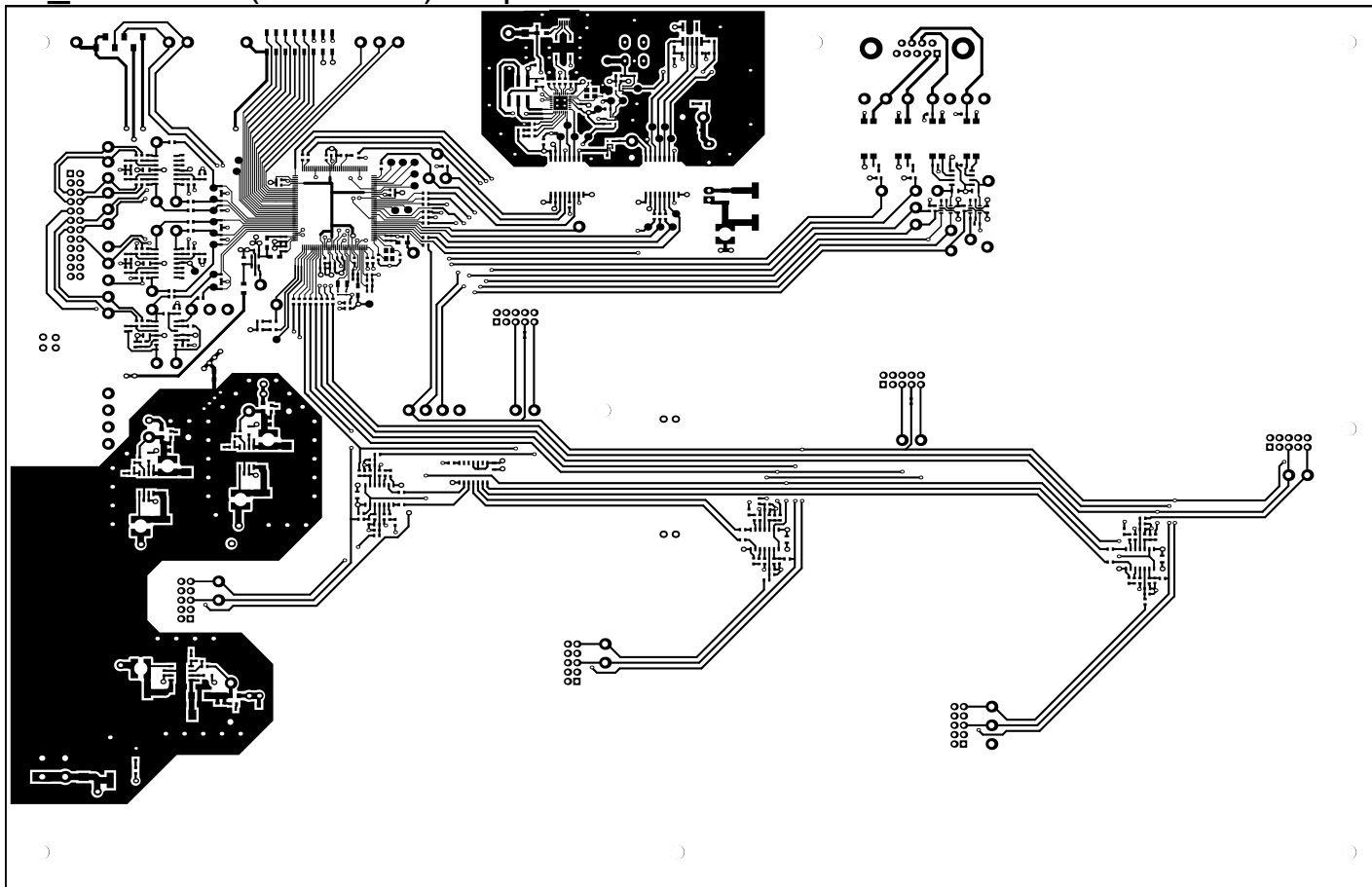
L3\_GND (Scale 1:2) - top view



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<i>Internal power plane L3_GND - top view</i>		Fabrication document	Sheet 9 / 14
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L4\_BOTTOM (Scale 1:2) - top view



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<i>Layer L4_BOTTOM - top view</i>		Fabrication document	Sheet 10 / 14
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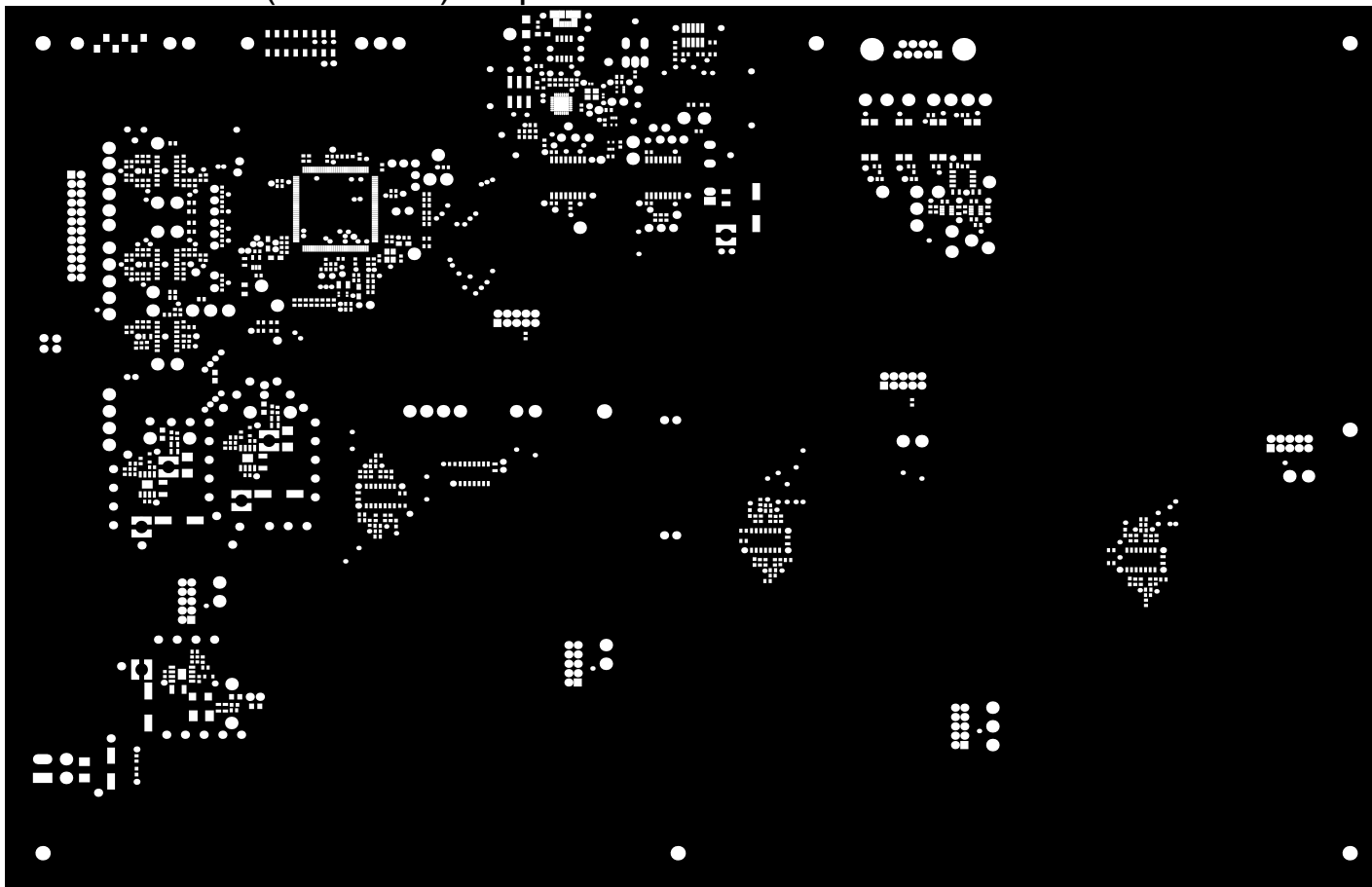
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Bottom Solder (Scale 1:2) - top view



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<i>Bottom side solder mask - top view</i>		Fabrication document	Sheet 11 / 14
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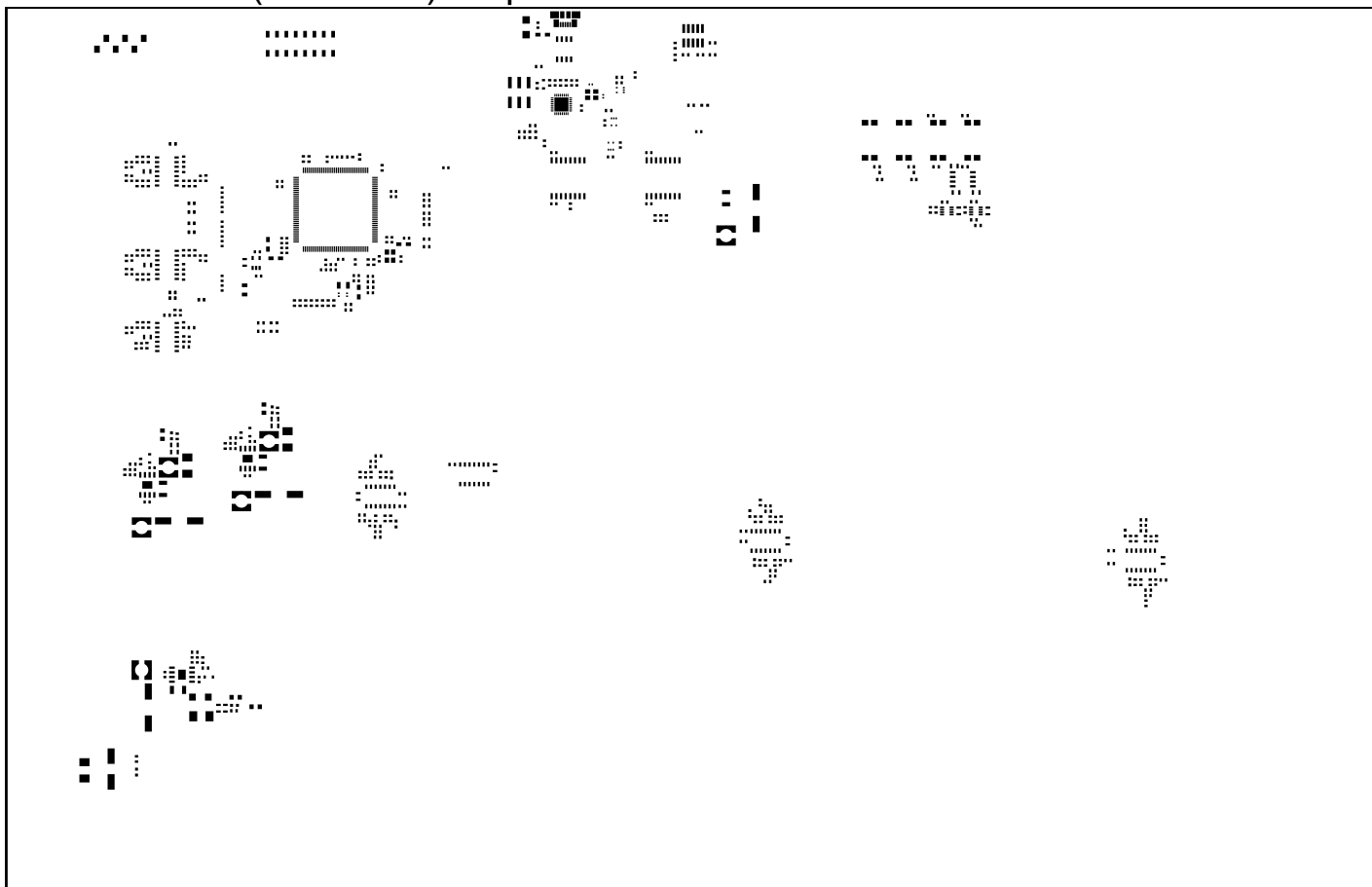
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### Bottom Paste (Scale 1:2) - top view



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<i>Bottom side solder paste - top view</i>		Fabrication document	Sheet 12 / 14
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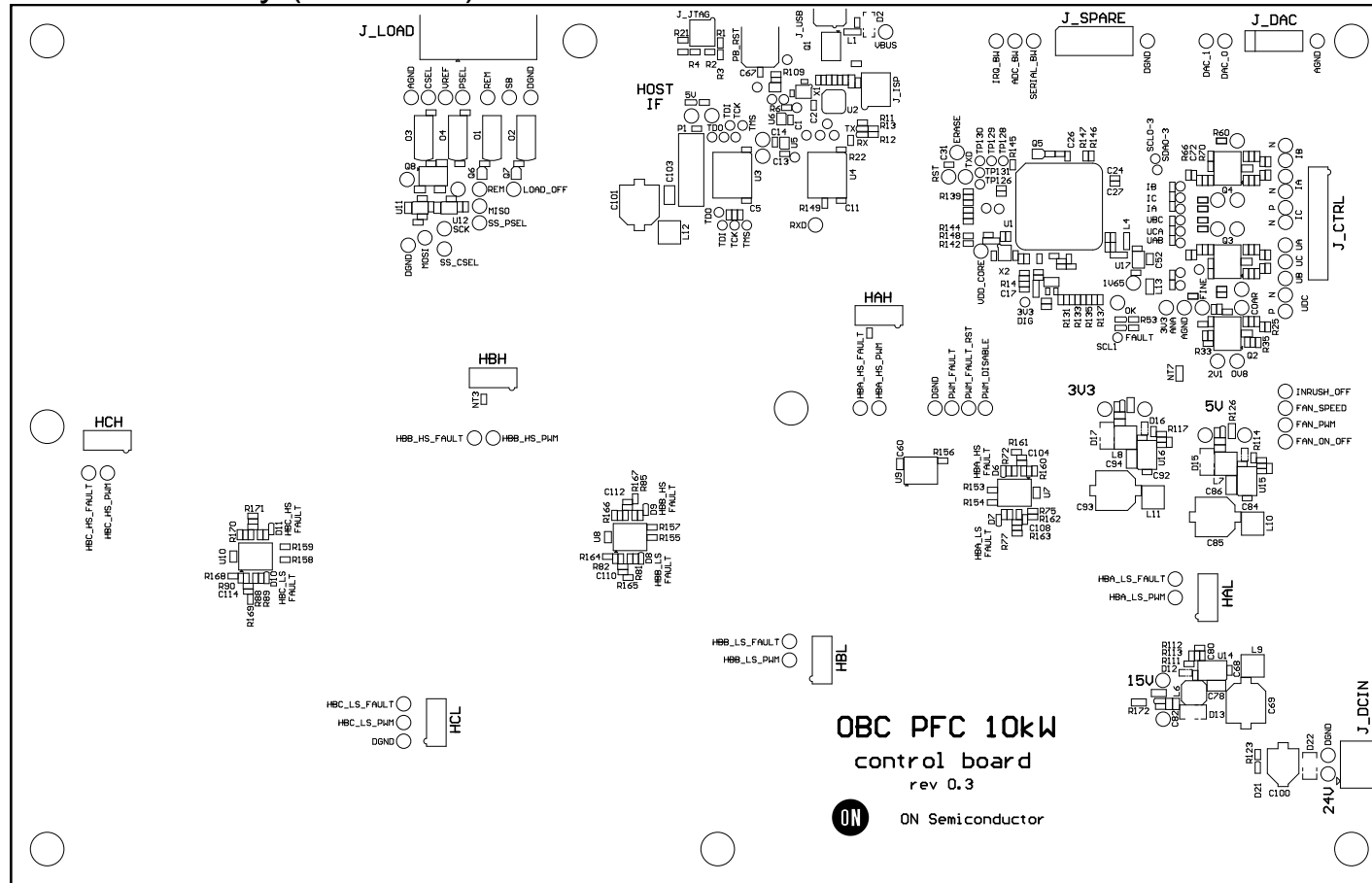
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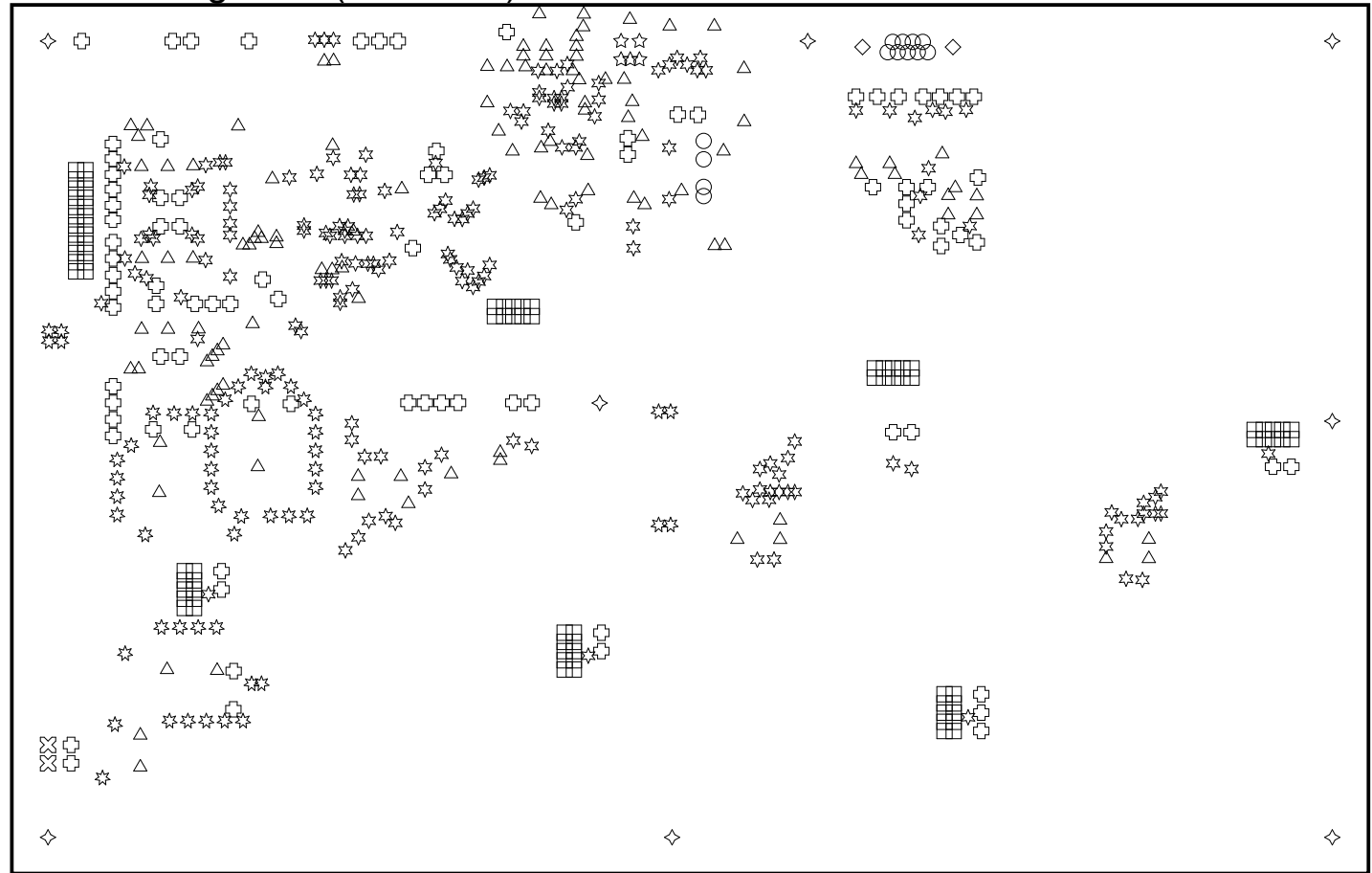
Bottom Overlay (Scale 1:2) - bottom view



<b>OBC PFC control board</b>		<b>Revision:</b> 0.3	<b>State:</b> released
<i>Bottom side silkscreen - bottom view</i>		Fabrication document	Sheet 13 / 14
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# Drill Drawing View (Scale 1:2)



Drill Table

Symbol	Count	Hole Size	Plated	Via / Pad
☆	173	0.508mm(20mil)	Plated	Via
△	115	0.711mm(28mil)	Plated	Via
☆	5	0.800mm(31mil)	Plated	Pad
○	13	1.000mm(39mil)	Plated	Pad
☆	55	1.016mm(40mil)	Plated	Via
□	84	1.100mm(43mil)	Plated	Pad
⊗	2	1.422mm(56mil)	Plated	Pad
⊕	88	1.600mm(63mil)	Plated	Pad
◇	2	3.200mm(126mil)	Plated	Pad
◇	8	4.000mm(157mil)	Non-Plated	Pad
545 Total				

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