

- 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, silkscreen 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-PFC-25KW-SIC-PIM-GEVK

Revision:
0.2

State:
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PCB fabrication notes and requirements

Fabrication
document

Sheet
1 / 15

Engineer: Stefan Kosterec

Date: 12.Sep 2022 08:39

PCB File: E066_PFC.PcbDoc

Repository revision: 2822

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1

2














3

4

5

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
	copper, nickel, gold	Top Surface plating and finish	0.0250mm(0.984mil)		Surface Finish	
	Copper foil 70 um	L1_TOP	0.0700mm(2.756mil)		Signal	GTL
	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

SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
Layer stack details		Fabrication document	Sheet 2 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi.</div> <div>PSG Systems Applications Solutions Engineering</div>	
Repository revision: 2822			

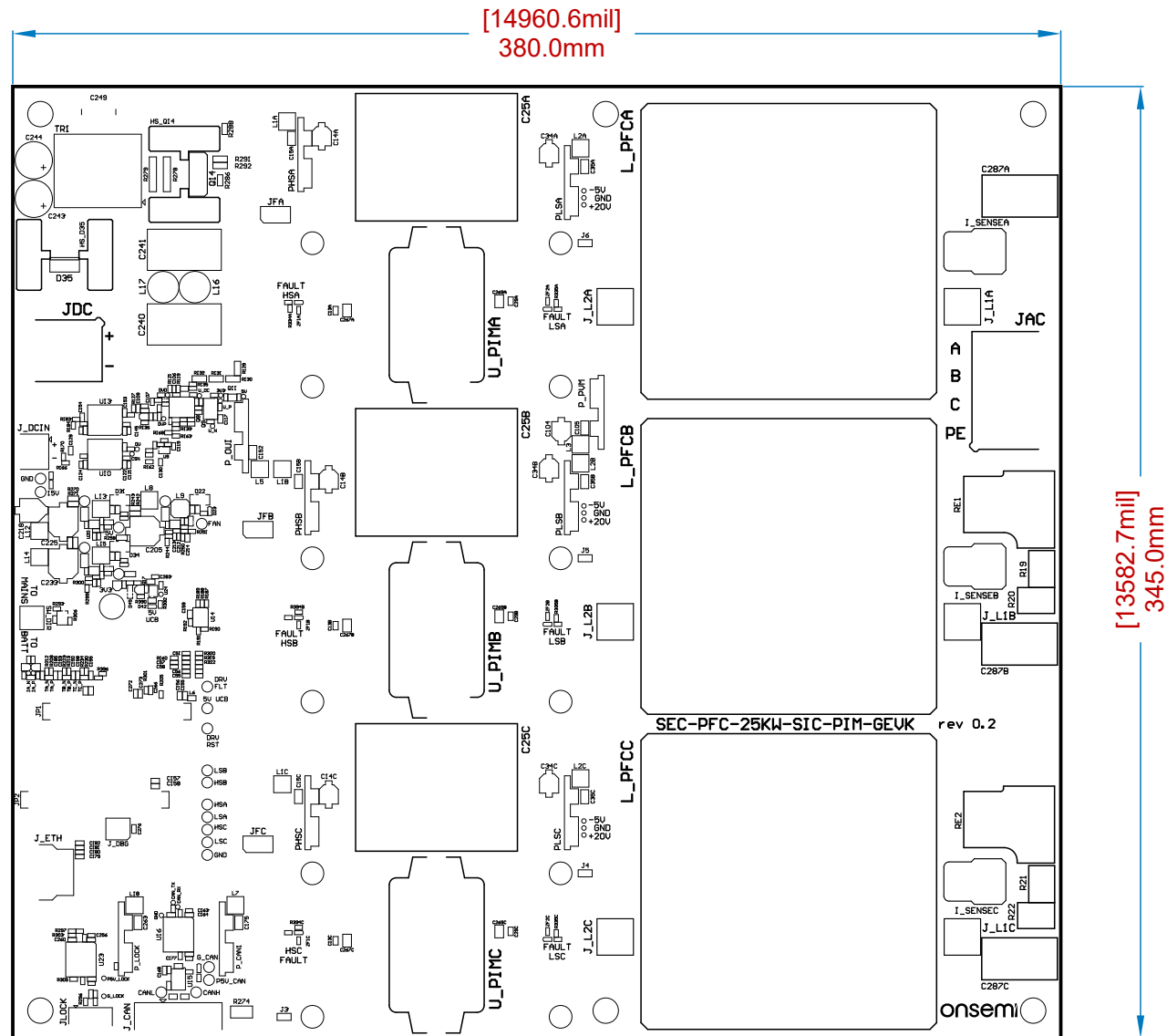
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Board outline definition - top view 1:2.5

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Repository revision: 2822

Revision:
0.2


State:
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Fabrication
document

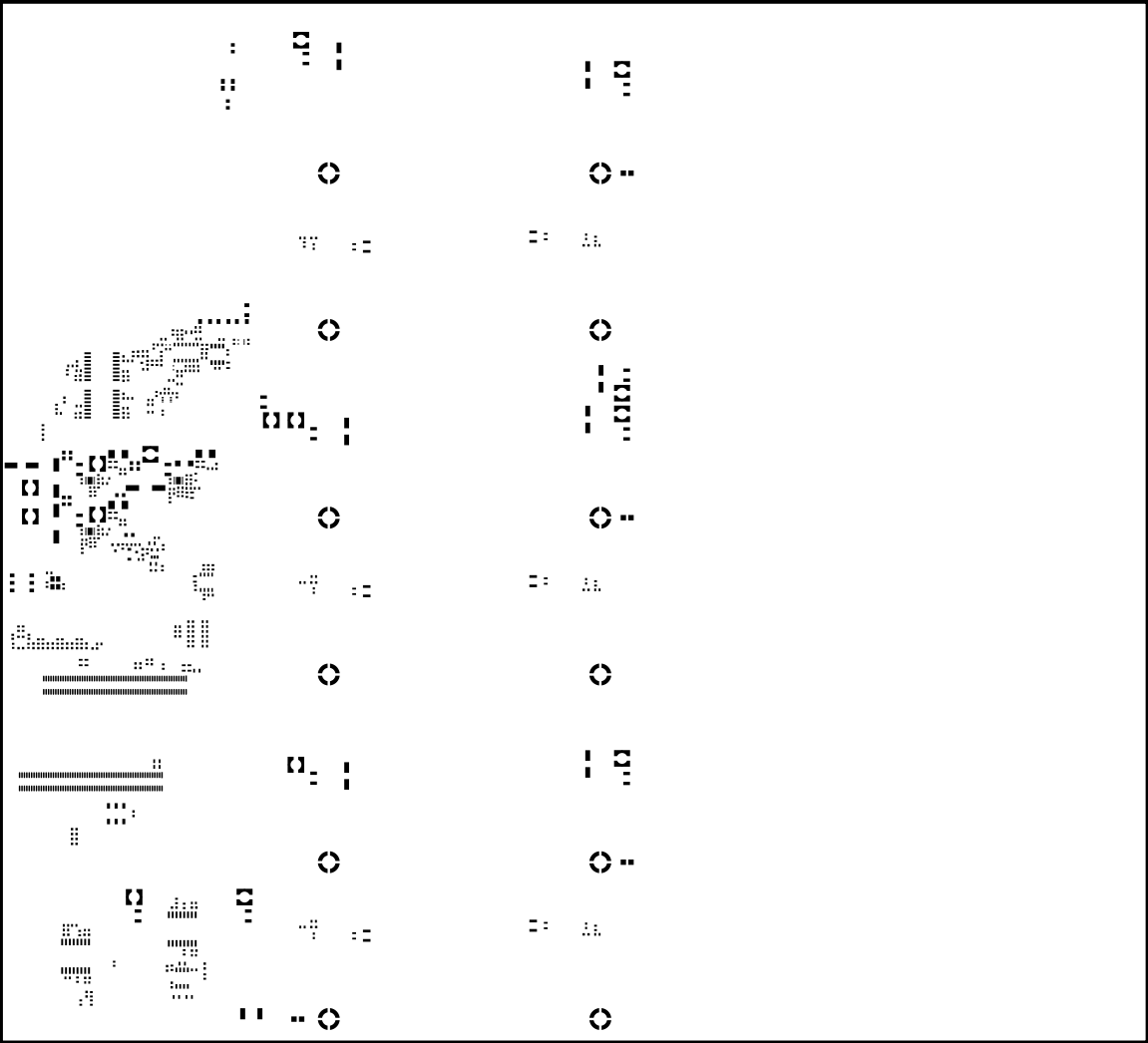
Sheet
3 / 15

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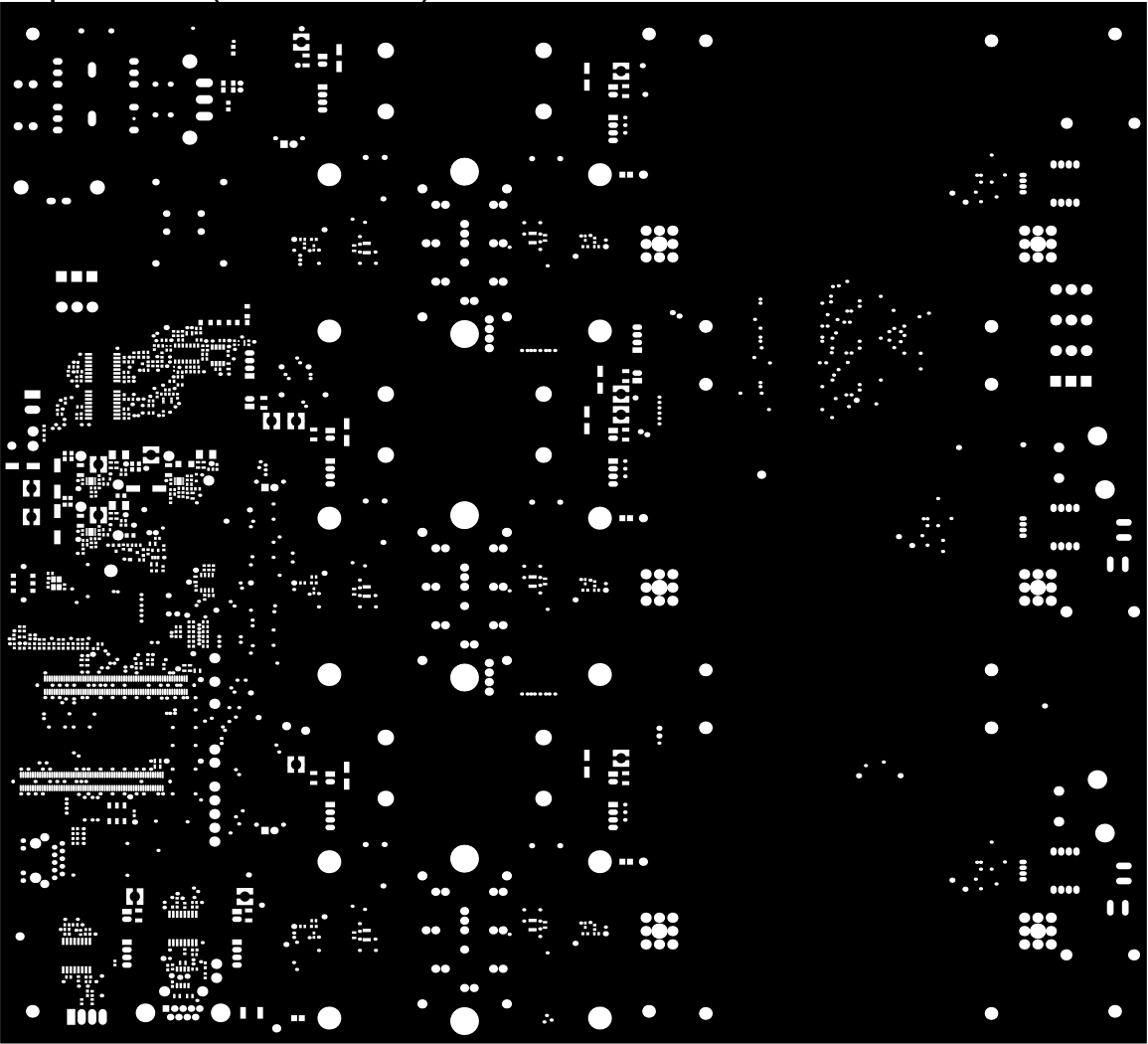
SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
<i>Top side silkscreen - top view</i>		Fabrication document	Sheet 4 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc			
Repository revision: 2822		 PSG Systems Applications Solutions Engineering	

Top Paste (Scale 1:2.5)



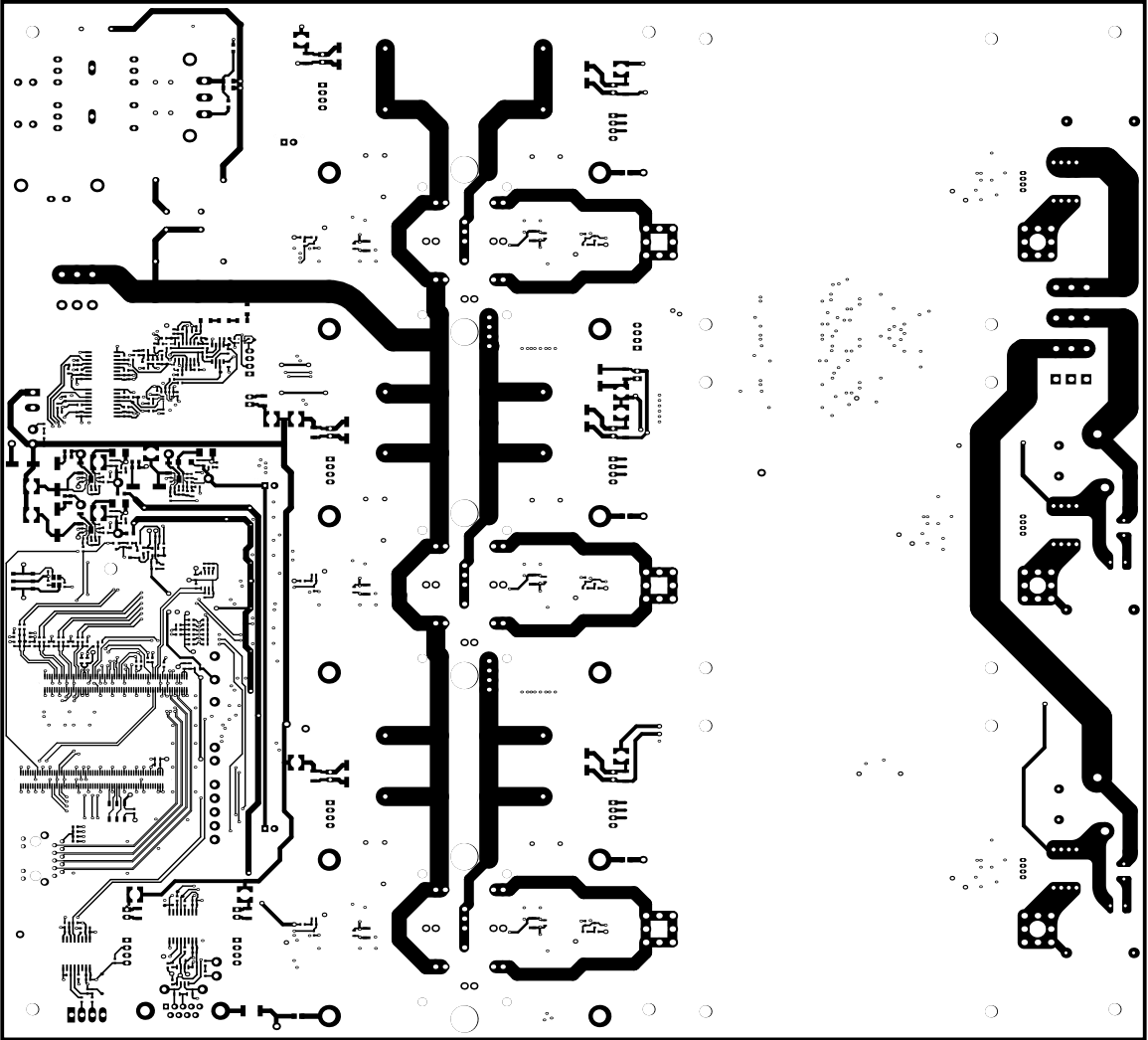
SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
Top side solder paste - top view		Fabrication document	Sheet 5 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi</div> <div>PSG Systems Applications Solutions Engineering</div>	
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Top Solder (Scale 1:2.5)



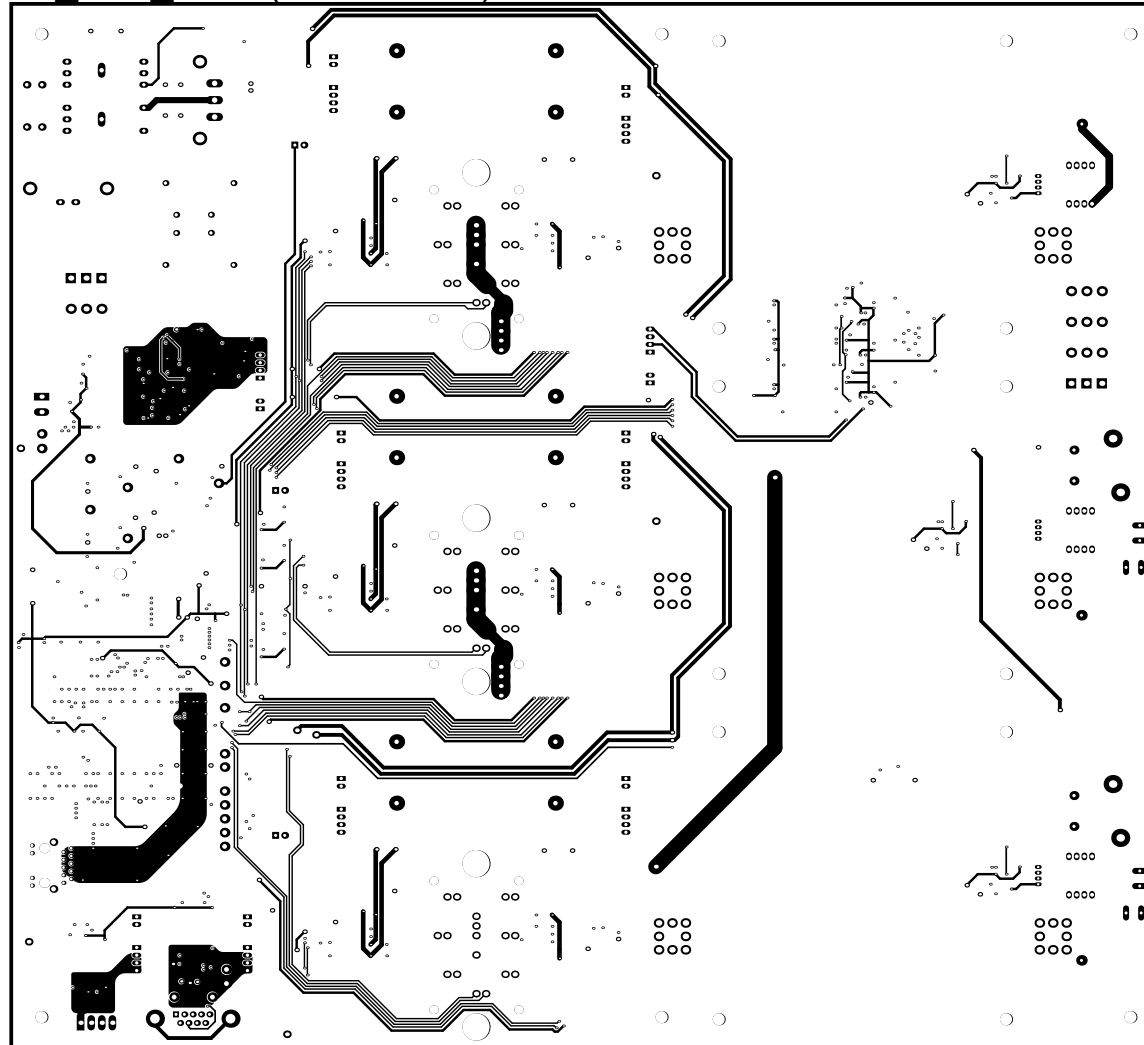
SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
Top side solder mask - top view		Fabrication document	Sheet 6 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi</div> <div>PSG Systems Applications Solutions Engineering</div>	
Repository revision: 2822			

L1 TOP (Scale 1:2.5)



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Top Layer - top view		Fabrication document	Sheet 7 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi</div> <div>PSG Systems Applications Solutions Engineering</div>	
Repository revision: 2822			

L2 MID TOP (Scale 1:2.5)



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L2_MID_TOP - upper internal layer - top view

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PCB File: E066_PFC.PcbDoc

Repository revision: 2822

Revision:
0.2

State:
released

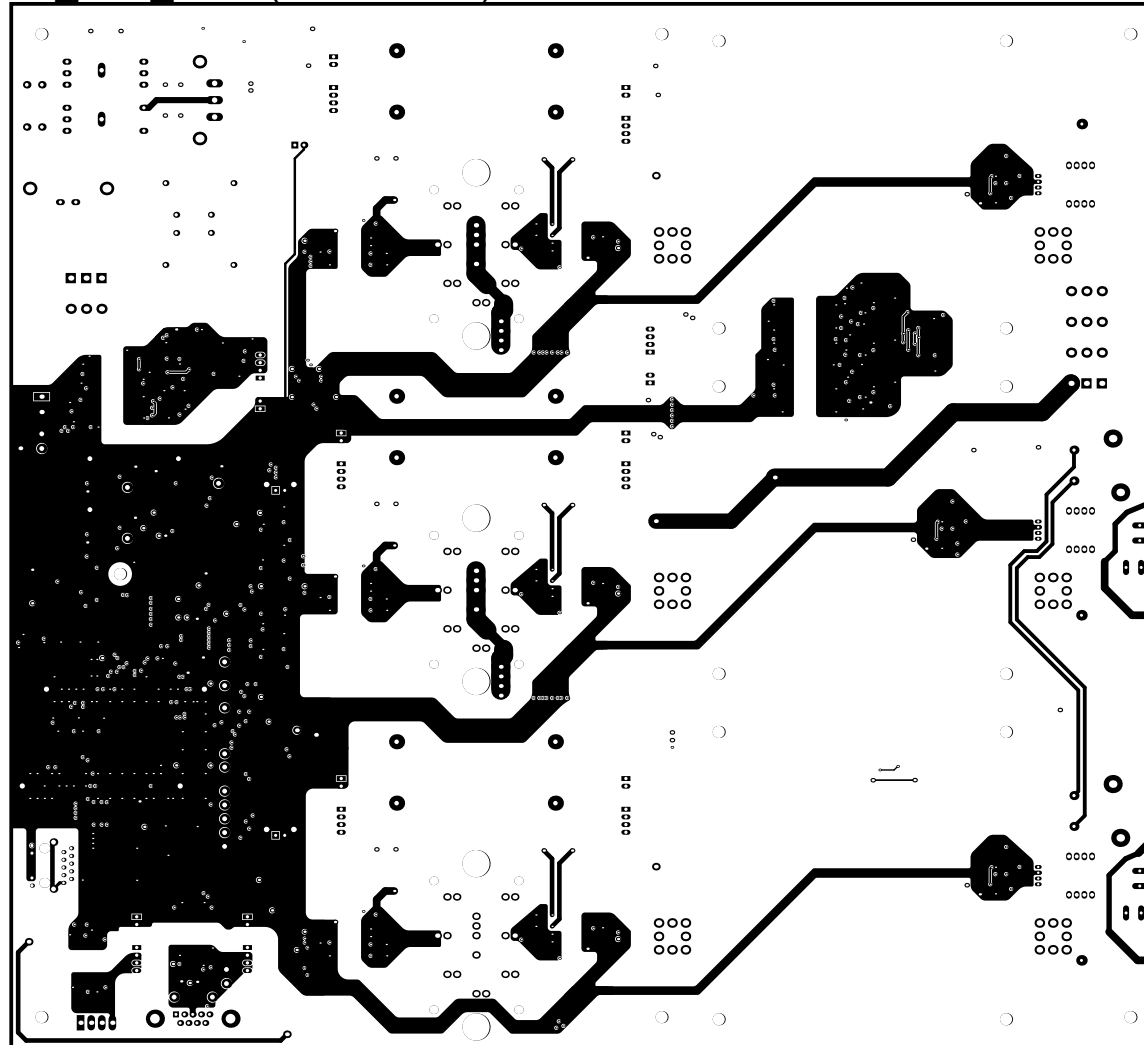
Fabrication
document

Sheet
8 / 15

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L3 MID BOT (Scale 1:2.5)



SEC-PFC-25KW-SIC-PIM-GEVK

Revision:
0.2

State:
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L3_MID_BOT - lower internal layer - top view

Fabrication
document

Sheet
9 / 15

Engineer: Stefan Kosterec

Date: 12.Sep 2022 08:39

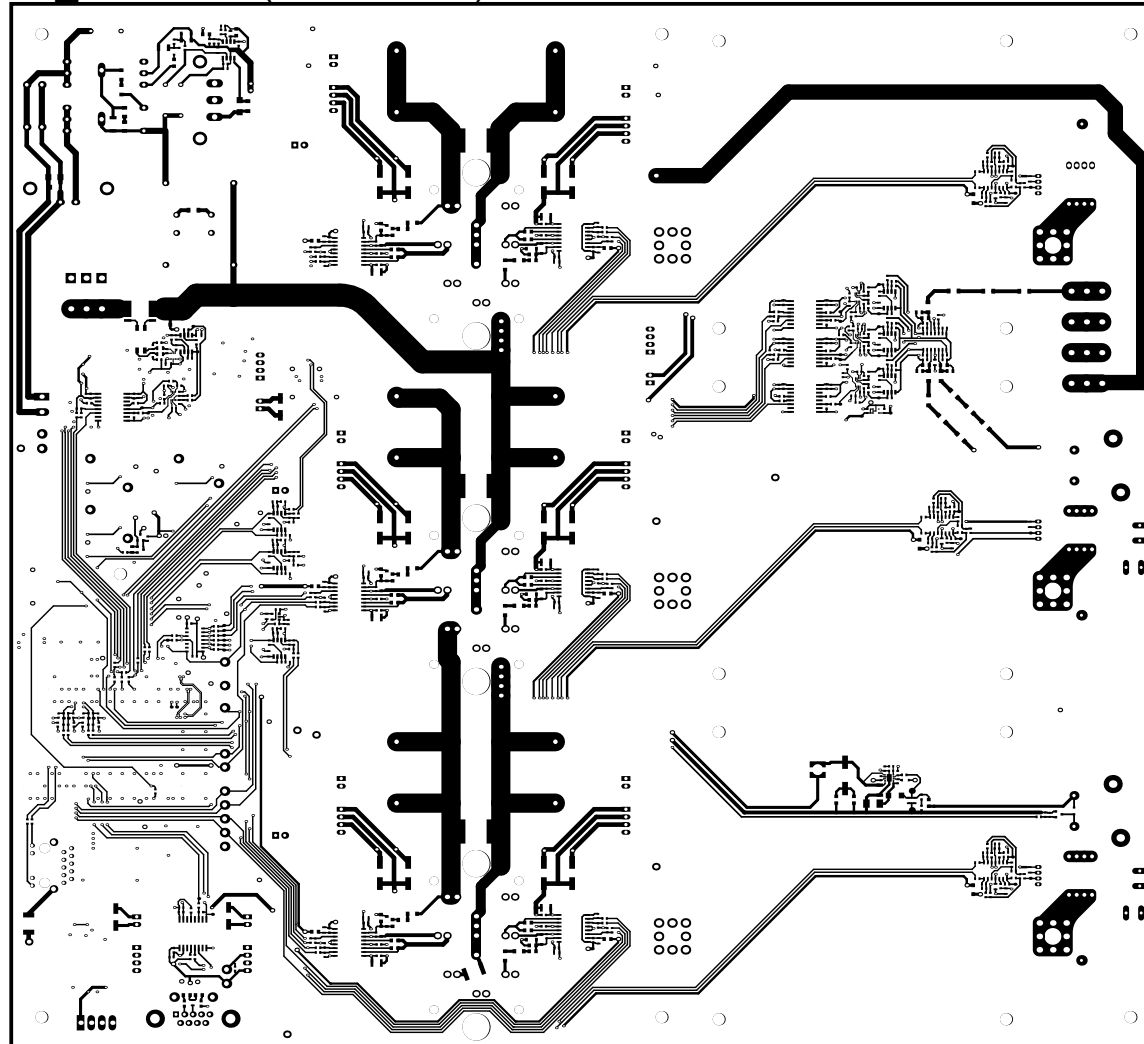
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Repository revision: 2822

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L4_BOTTOM (Scale 1:2.5)



SEC-PFC-25KW-SIC-PIM-GEVK

Revision:
0.2

State:
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Bottom Layer - top view

Fabrication
document

Sheet
10 / 15

Engineer: Stefan Kosterec

Date: 12.Sep 2022 08:39

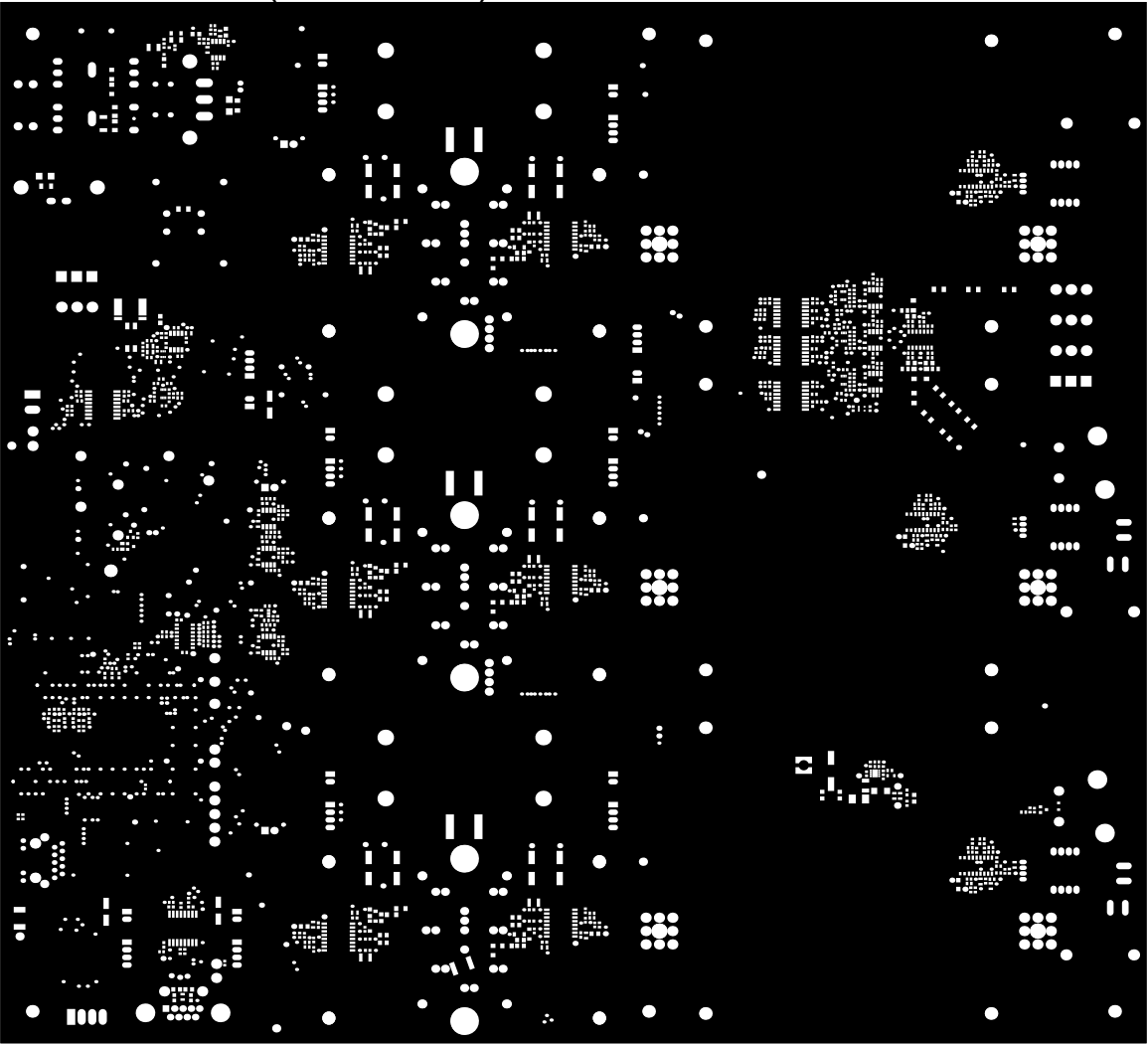
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Repository revision: 2822

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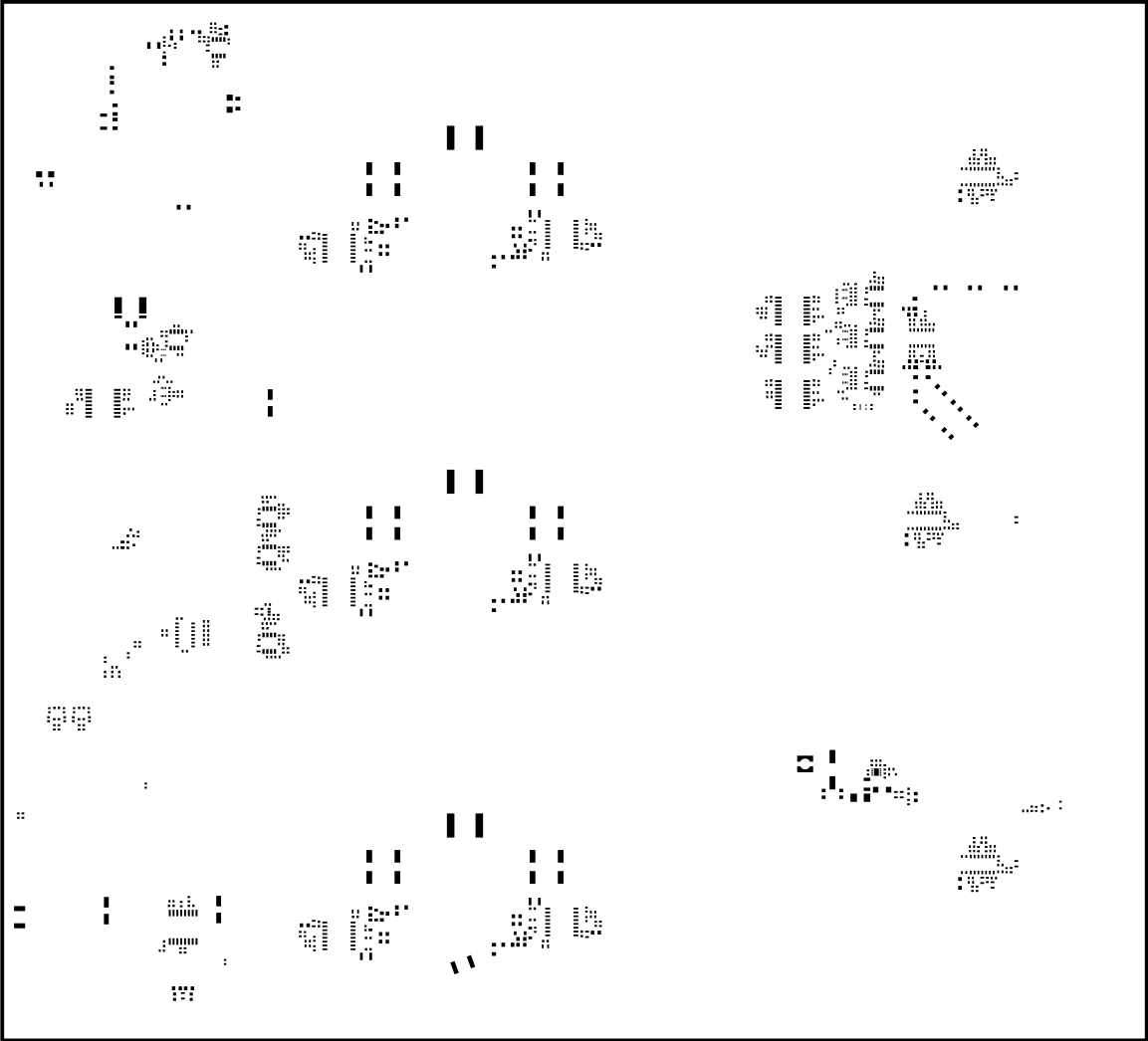
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Bottom Solder (Scale 1:2.5)




SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
Bottom side solder mask - top view		Fabrication document	Sheet 11 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi</div> <div>PSG Systems Applications Solutions Engineering</div>	
Repository revision: 2822			

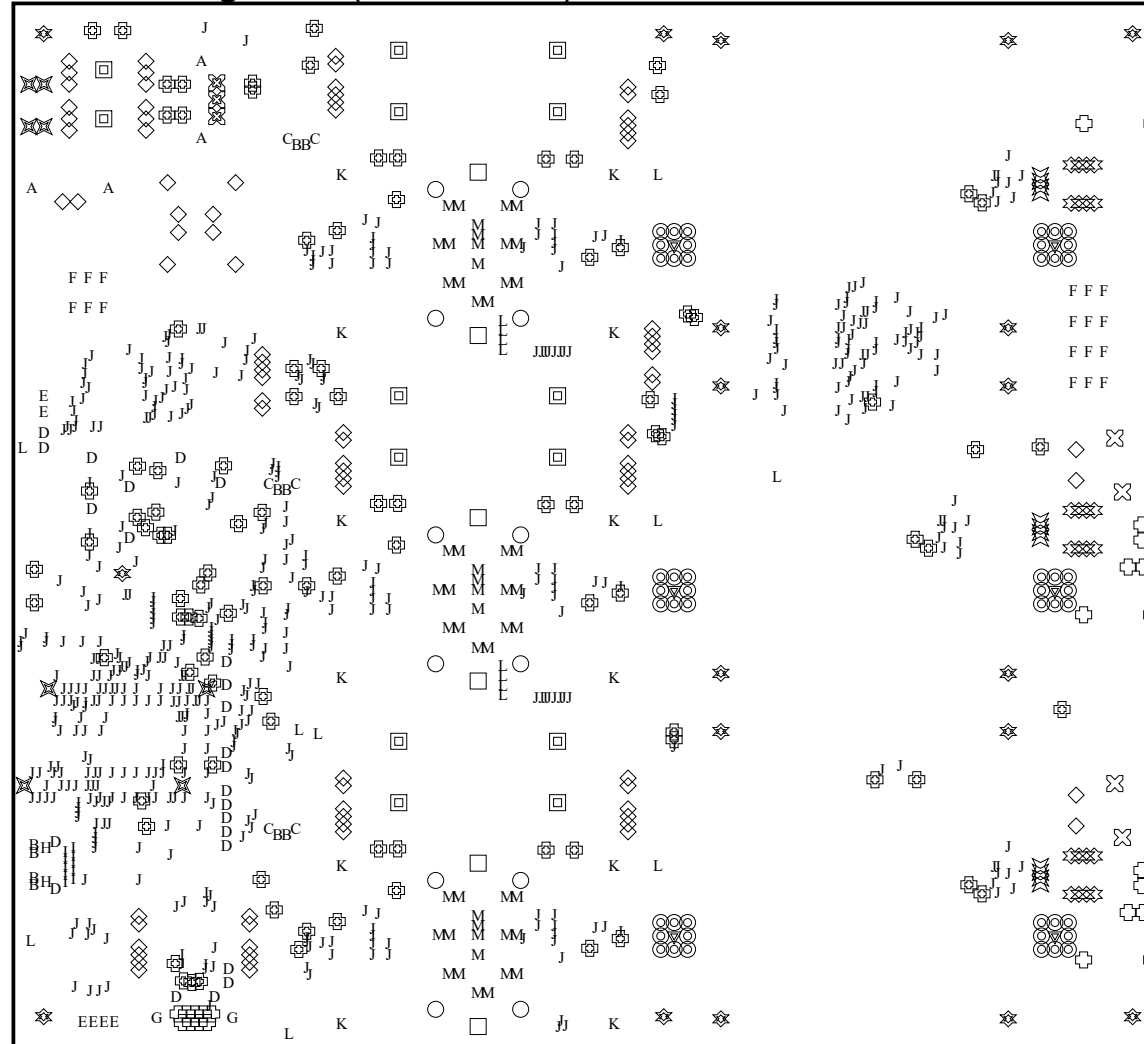
Bottom Paste (Scale 1:2.5)



SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
Bottom side solder paste - top view		Fabrication document	Sheet 12 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		<div>onsemi</div> <div>PSG Systems Applications Solutions Engineering</div>	
Repository revision: 2822			

SEC-PFC-25KW-SIC-PIM-GEVK		Revision: 0.2	State: released
<i>Bottom side silkscreen - bottom view</i>		Fabrication document	Sheet 13 / 15
Engineer: Stefan Kosterec	Date: 12.Sep 2022 08:39		
PCB File: E066_PFC.PcbDoc		 PSG Systems Applications Solutions Engineering	
Repository revision: 2822			

Drill Drawing View (Scale 1:2.5)



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Revision:
0.2

State:
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Drill drawing

Fabrication
document

Sheet
14 / 15

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Repository revision: 2822















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Notes:

- ⑨ Related drill table can be found on page 15

Drill Table

Symbol	Count	Hole Size	Plated	Drill Layer Pair	Via / Pad	Template
J	534	0.406mm(16.0mil)	Plated	L1_TOP - L4_BOTTOM	Via	v89h41
	102	0.762mm(30.0mil)	Plated	L1_TOP - L4_BOTTOM	(Mixed)	(Mixed)
	12	0.800mm(31.5mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r230_130h80r100
I	10	0.900mm(35.4mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c137h90
	23	1.000mm(39.4mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
B	10	1.020mm(40.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
	86	1.100mm(43.3mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
	8	1.200mm(47.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
C	6	1.270mm(50.0mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c80hn127
L	17	1.270mm(50.0mil)	Plated	L1_TOP - L4_BOTTOM	Via	v254h127
	24	1.300mm(51.2mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r190_254h130r100
E	6	1.422mm(56.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
M	54	1.450mm(57.1mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c250h145
	14	1.500mm(59.1mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
D	24	1.600mm(63.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
F	18	1.702mm(67.0mil)	Plated	L1_TOP - L4_BOTTOM	Pad	(Mixed)
	3	1.800mm(70.9mil)	Plated	L1_TOP - L4_BOTTOM	Pad	r270_550h180r100
	48	1.850mm(72.8mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c320h185
	4	2.500mm(98.4mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c600h250
A	4	2.700mm(106.3mil)	Plated	L1_TOP - L4_BOTTOM	Pad	c450h270
	12	2.800mm(110.2mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c280hn280
G	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
	19	4.000mm(157.5mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c400hn400
K	12	4.400mm(173.2mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c740hn440z0x0
	6	5.000mm(196.9mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c254hn500
	6	9.000mm(354.3mil)	Non-Plated	L1_TOP - L4_BOTTOM	Pad	c900hn900
	1066 Total					

Notes:

⑩ Related drill drawing can be found on page 14

SEC-PFC-25KW-SIC-PIM-GEVK

Revision:
0.2State:
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Drill table

Fabrication
documentSheet
15 / 15

Engineer: Stefan Kosterec

Date: 12.Sep 2022 08:39

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Repository revision: 2822

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