

Notes:

- 1 Material: UL recognized component IS400, UL File Number: E41625, relative permittivity 3.9 nominal
- 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 should not cover any exposed copper, silkscreen gerber data have to be trimmed eventually
7. All holes diameter refer to final diameter after eventual plating
8. Solder mask tenting is applied on number of vias both on top layer
- 9 Optical lens holder mounting: Separate drill file lists PCB holes positions for the FP13026_LISA2-WW-PIN. Controlled depth milling $\sim 0.9\text{mm}$ is recommended and must not corrupt copper layers L3_PWR and L4_BOTTOM.

Gerber 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/ground plane L2_GND
.G2	Internal signal layer/power plane L3_PWR
.GBL	Bottom layer L4_BOTTOM
.GBS	Bottom side solder mask
.GBP	Bottom side solder paste mask
.GBO	Bottom side silkscreen
.GBP	Bottom side solder paste mask
.GM1	Board outline

Drill file extensions table

Drill files	
.TXT	Layer pair L1_TOP to L4_BOTTOM
.TXT1	Layer pair L1_TOP to L2_GND
.TXT2	Layer pair L3_PWR to L4_BOTTOM
.TXT3	Optical lens mounting holes - controlled depth milling

STR-DMS-NCV7694-GEVB*PCB fabrication notes and requirements*

Engineer: T. Duris

Date: 14. May 2021 15:32

PCB File: GazeT_IR_LED.PcbDoc

Repository revision: Not in repository control

Revision:
rev0.2**State:**
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documentSheet
1 / 14**ON Semiconductor**
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Layer Stack

Material	Layer	Thickness	Dielectric Material	Permittivity	Type	Gerber
	Top Paste				Paste Mask	GTP
	Top Overlay				Legend	GTO
Surface Material	Top Solder	0.0200mm(0.787mil)	Solder Resist		Solder Mask	GTS
Copper	L1_TOP	0.0430mm(1.693mil)			Signal	GTL
Prepreg		0.0940mm(3.701mil)	Isola IS400ML 2x106 [FZ01]	3.86	Dielectric	
Copper	L2_GND	0.0350mm(1.378mil)			Signal	G1
Core		1.0060mm(39.606mil)	Isola IS400ML	4.36	Dielectric	
Copper	L3_PWR	0.0350mm(1.378mil)			Signal	G2
Prepreg		0.0940mm(3.701mil)	Isola IS400ML 2x106 [FZ01]	4.2	Dielectric	
Copper	L4_BOTTOM	0.0430mm(1.693mil)			Signal	GBL
Surface Material	Bottom Solder	0.0200mm(0.787mil)	Solder Resist		Solder Mask	GBS
	Bottom Overlay				Legend	GBO
	Bottom Paste				Paste Mask	GBP
Total thickness: 1.3900mm(54.724mil)						

STR-DMS-NCV7694-GEVB

Revision: rev0.2
State: released

Layer stack details

Fabrication document
Sheet 2 / 14

Engineer: T. Duris
Date: 14. May 2021 15:32

PCB File: GazeT_IR_LED.PcbDoc

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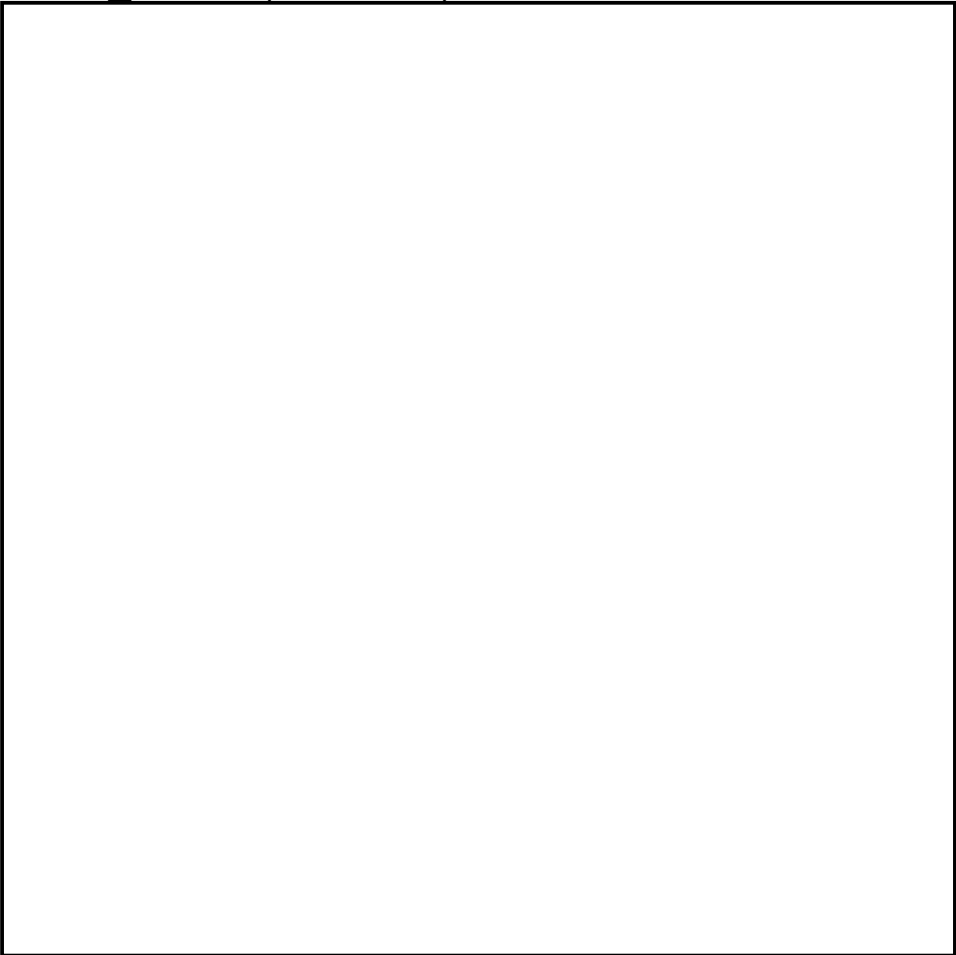
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Board_outline (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
<i>Board outline definition - top view 6:1</i>		Fabrication document	Sheet 3 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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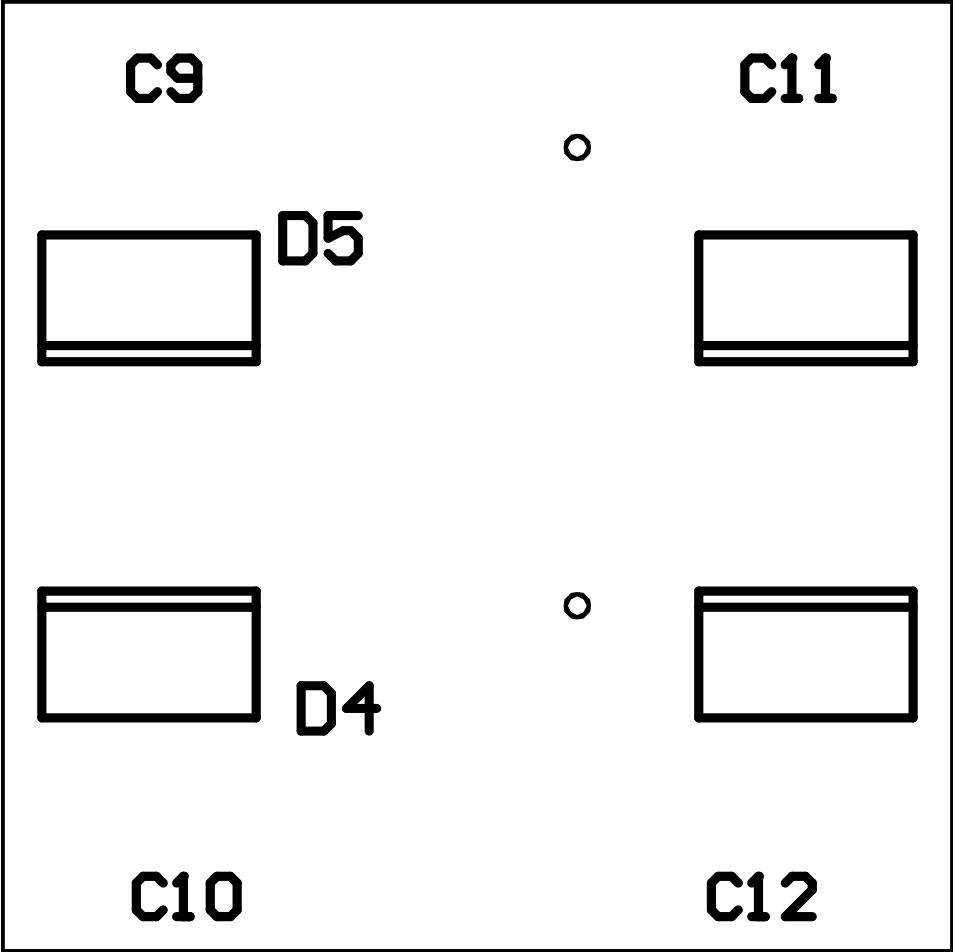
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Top Overlay (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
<i>Top side silkscreen</i>		Fabrication document	Sheet 4 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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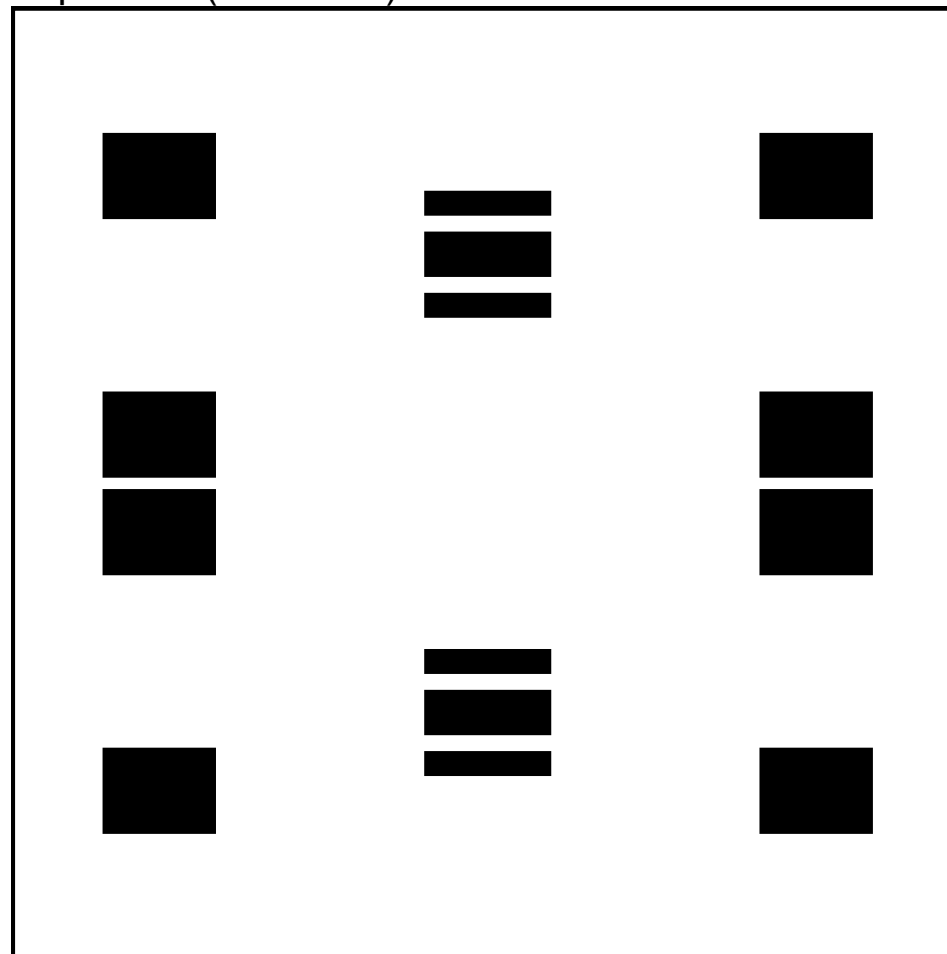
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Top Paste (Scale 6:1)

**STR-DMS-NCV7694-GEVB****Revision:**
rev0.2**State:**
released*Top side solder paste*Fabrication
documentSheet
5 / 14

PCB File: GazeT_IR_LED.PcbDoc

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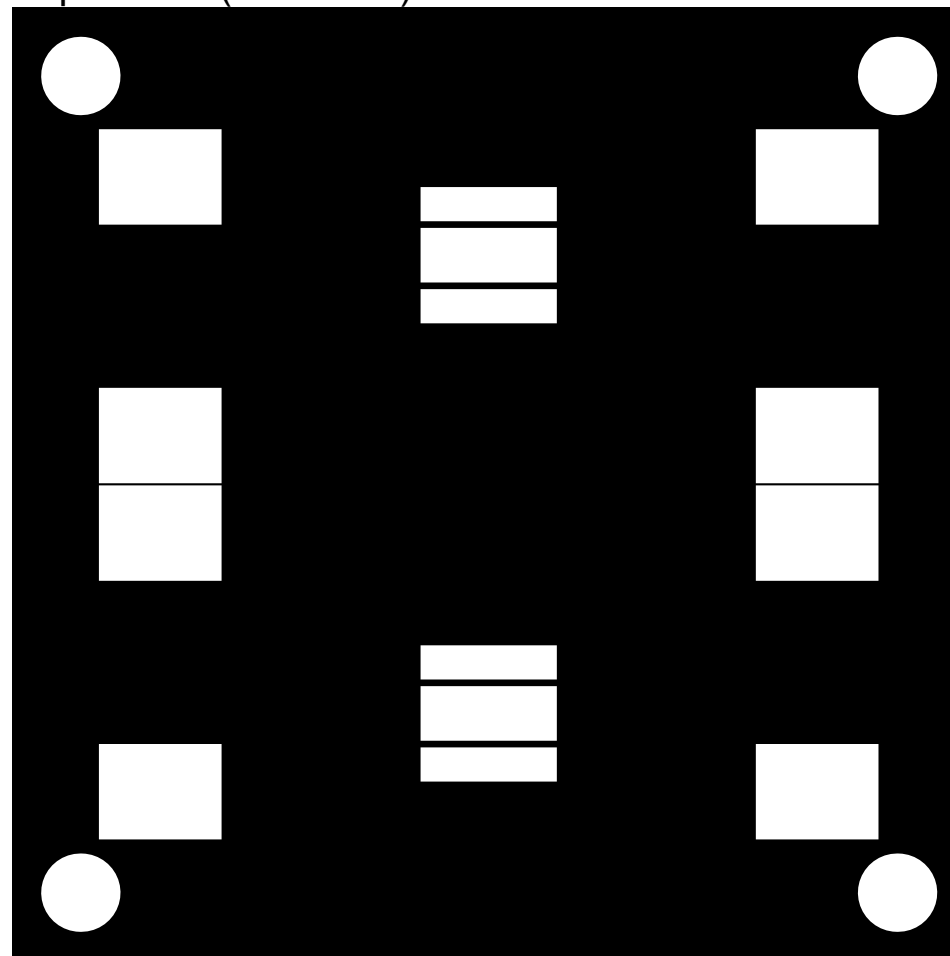
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Top Solder (Scale 6:1)

**STR-DMS-NCV7694-GEVB****Revision:**
rev0.2**State:**
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6 / 14

PCB File: GazeT_IR_LED.PcbDoc

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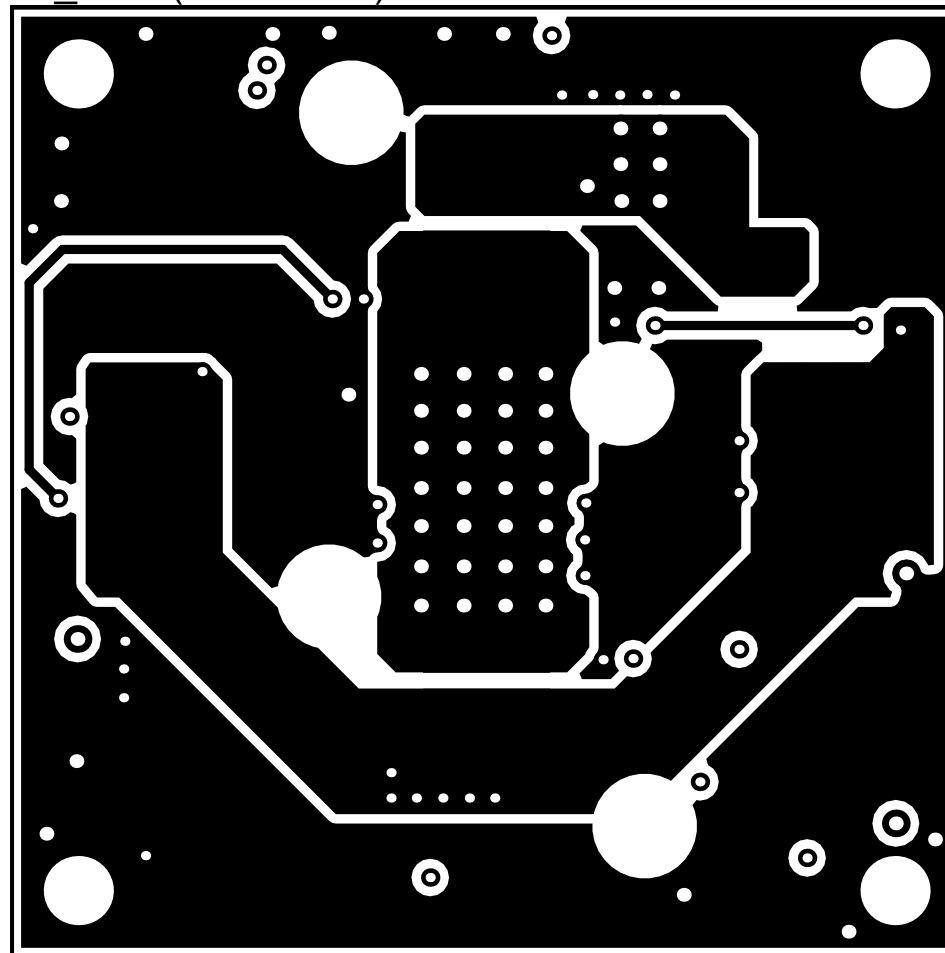
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L1_TOP (Scale =6:1)



STR-DMS-NCV7694-GEVB

Revision:
rev0.2

State:
released

Layer L1_TOP

Fabrication
document

Sheet
7 / 14

Engineer: T. Duris

Date: 14. May 2021 15:32

PCB File: GazeT_IR_LED.PcbDoc

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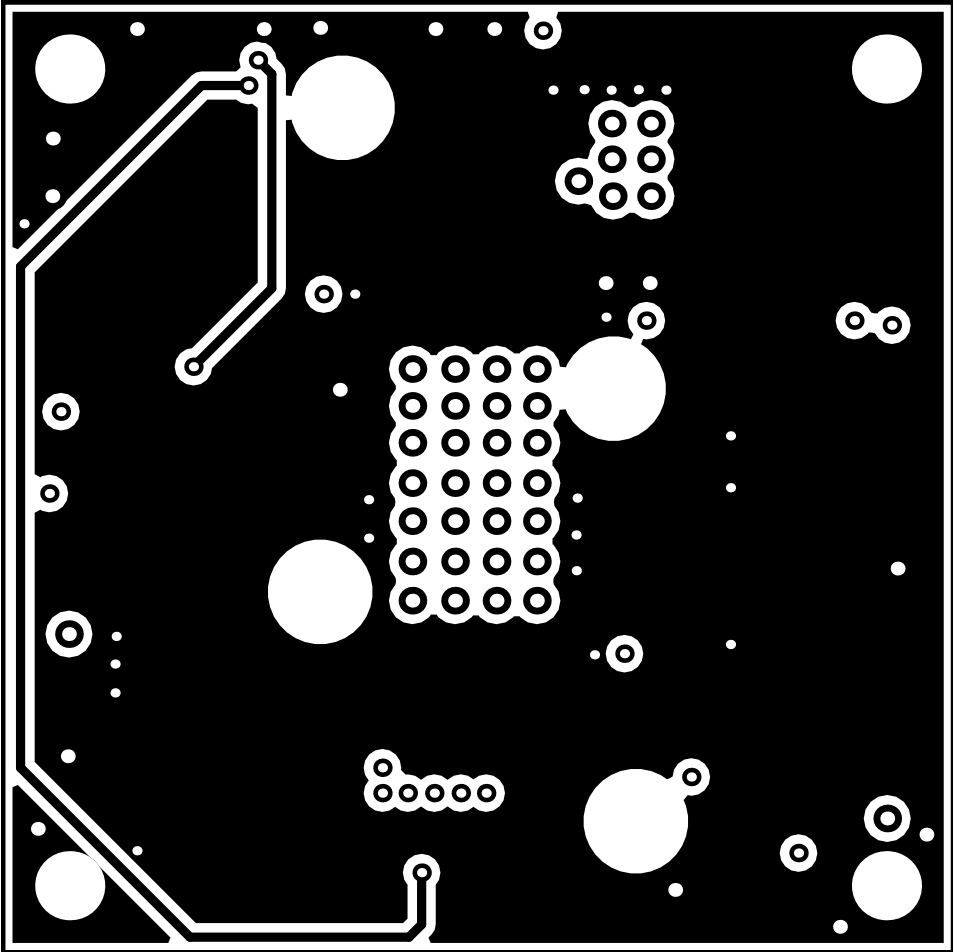
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L2_GND (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
Internal signal layer/ground plane L2_GND		Fabrication document	Sheet 8 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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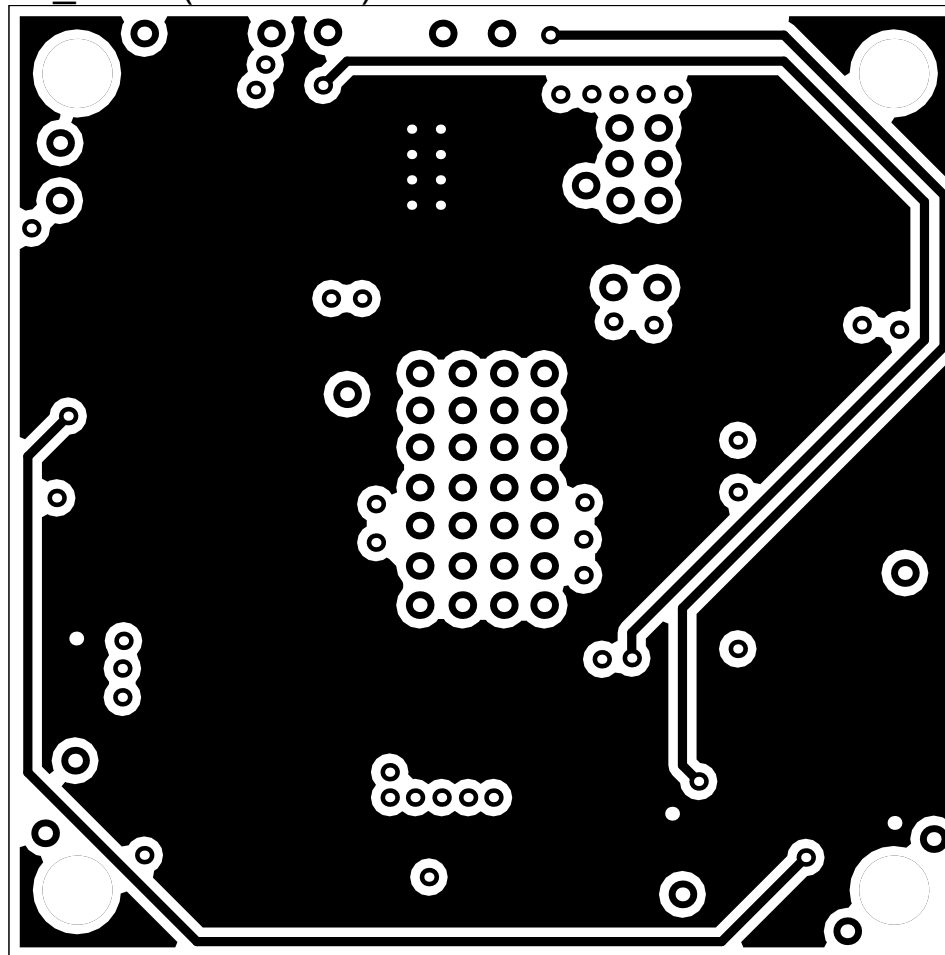
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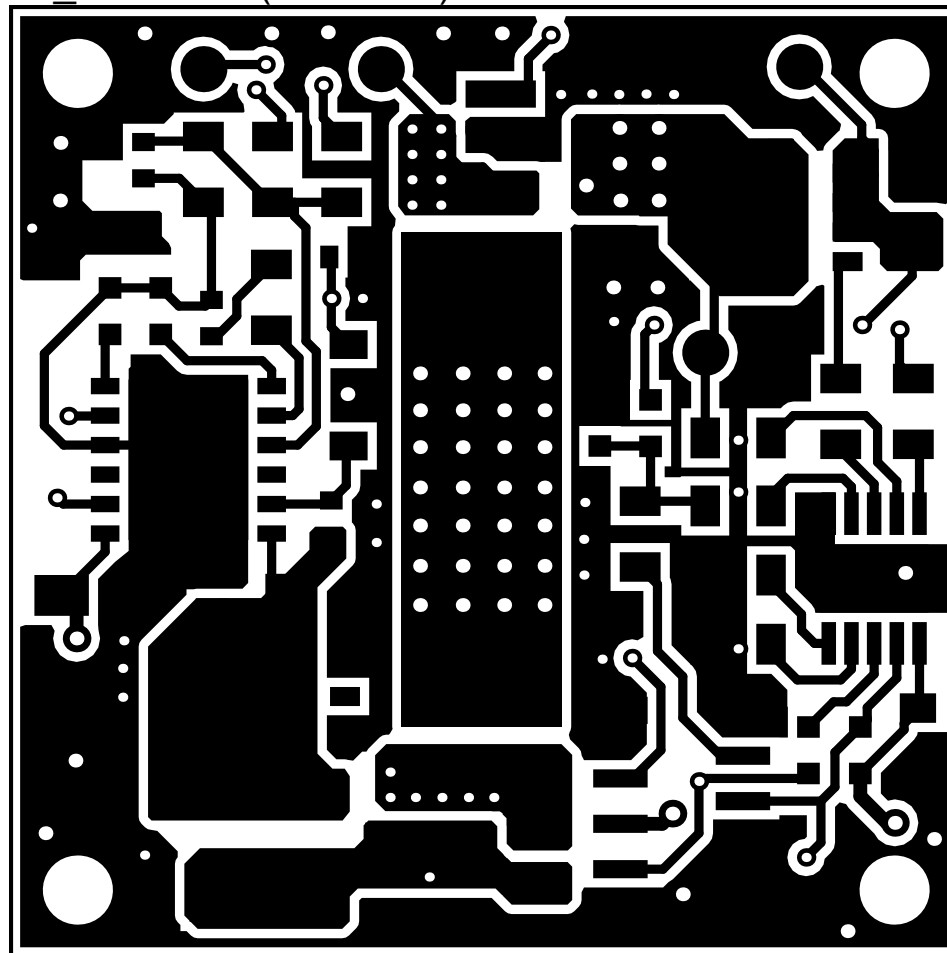
L3_PWR (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
<i>Internal signal layer/power plane L3_PWR</i>		Fabrication document	Sheet 9 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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L4_BOTTOM (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
<i>Layer L4_BOTTOM</i>		Fabrication document	Sheet 10 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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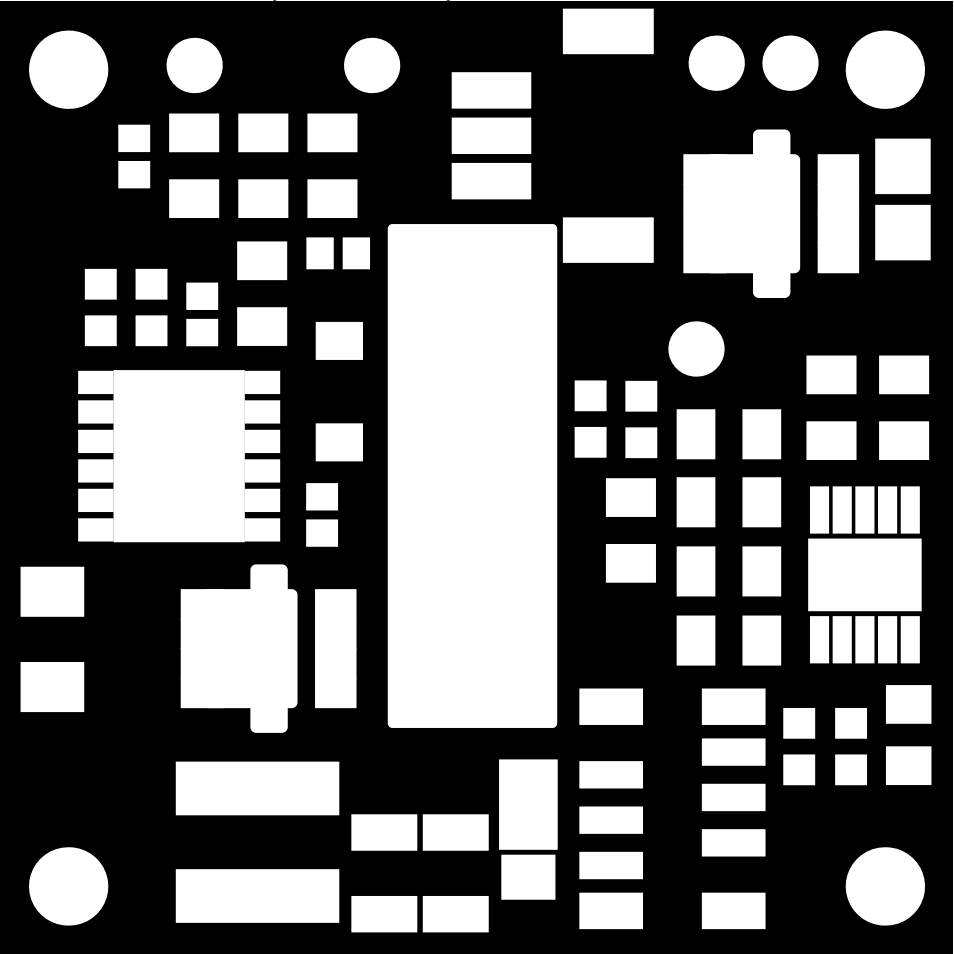
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Bottom Solder (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
Bottom side solder mask		Fabrication document	Sheet 11 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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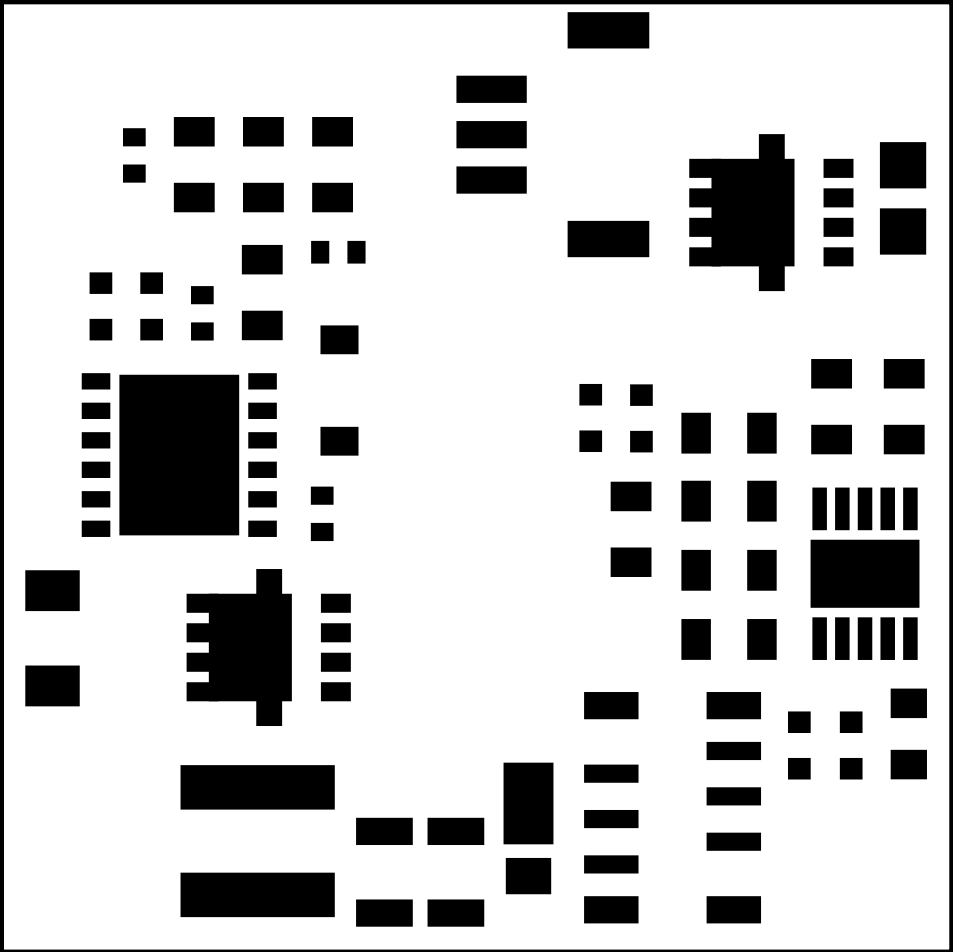
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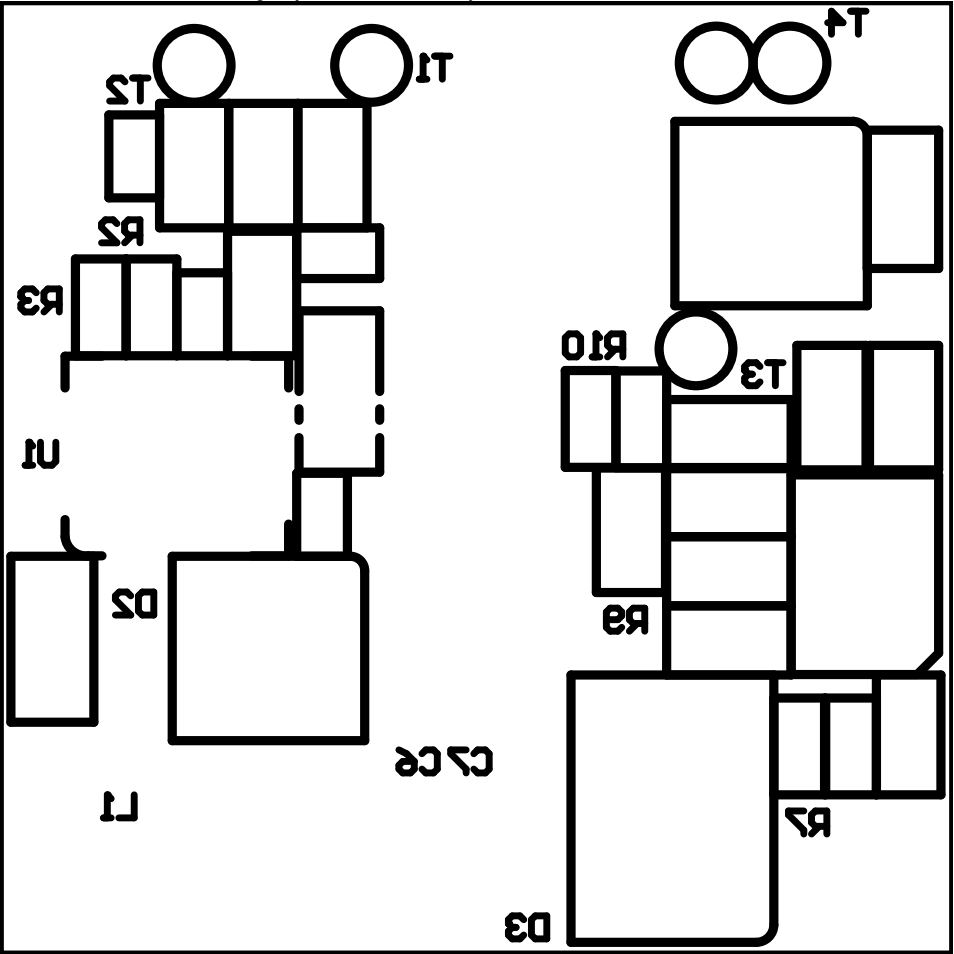
Bottom Paste (Scale 6:1)




STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
Bottom side solder paste		Fabrication document	Sheet 12 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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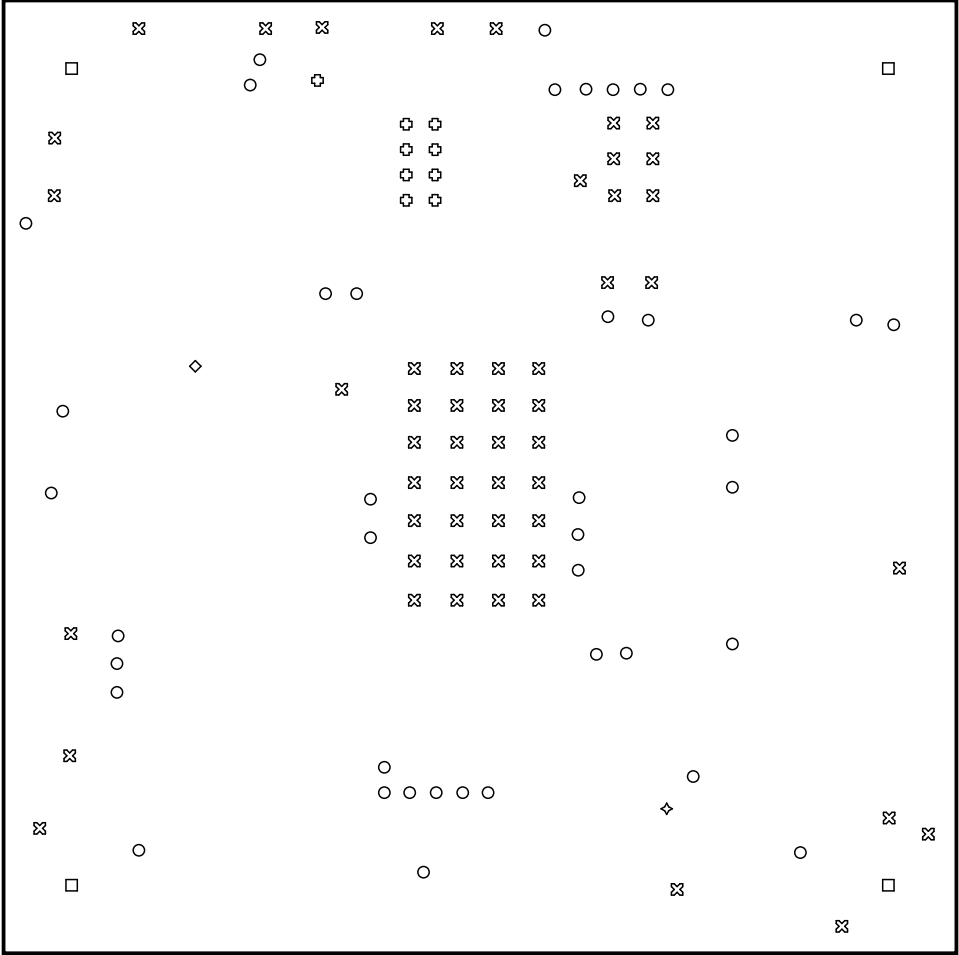
Bottom Overlay (Scale 6:1)



STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
Bottom side silkscreen		Fabrication document	Sheet 13 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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Drill Drawing View (Scale 6:1)



Drill Table - vias

Symbol	Count	Hole Size	Plated	Drill Layer Pair	Via / Pad	Template
○	40	0.203mm(8mil)	Plated	L1_TOP - L4_BOTTOM	Via	v16h8_t
◇	1	0.203mm(8mil)	Plated	L1_TOP - L2_GND	Via	v16h8_t
⊕	9	0.203mm(8mil)	Plated	L3_PWR - L4_BOTTOM	Via	v16h8_t
⊗	53	0.305mm(12mil)	Plated	L1_TOP - L4_BOTTOM	Via	v24h12_t
◆	1	0.305mm(12mil)	Plated	L3_PWR - L4_BOTTOM	Via	v24h12_t
104 Total						

Drill Table - pads

Symbol	Count	Hole Size	Plated	Drill Layer Pair	Via / Pad	Template
□	4	1.524mm(60mil)	Plated	L1_TOP - L4_BOTTOM	Pad	pad_corner
4 Total						

Notes:

10 The drill holes for the LENS holder are not listed in the drilling tables, nor visible in the drill drawing. Please refer to the .TXT3 drill file for the particular holes' positions.

STR-DMS-NCV7694-GEVB		Revision: rev0.2	State: released
<i>Drill tables & drill drawing</i>		Fabrication document	Sheet 14 / 14
Engineer: T. Duris	Date: 14. May 2021 15:32		
PCB File: GazeT_IR_LED.PcbDoc		ON Semiconductor Solution Engineering Center Piestany	
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