

Nordic Semiconductor ASA

nPM Fuel Gauge Board (PCA63563)

Sheet 1: Cover Sheet

Sheet 2: Current Sinking and Sensing

Sheet 3: Connectivity

The TWI addresses used in this design:

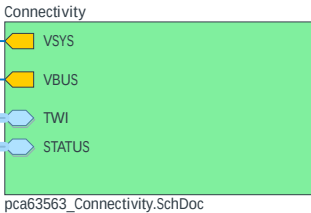
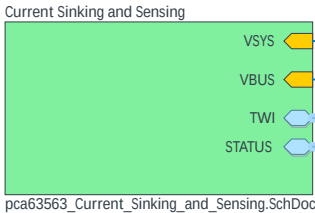
- 110000xb - DAC
- 0011000xb - Thermal Sensing
- 1011000xb - Thermal Sensing EE memory
- 0110xxxxb - Thermal Sensing EE memory management
- 1000000xb - Current Sensing

The schematics have following net naming hierarchy:

- 1) Power ports
- 2) Ports
- 3) Net labels

The top level sheet has highest priority.
Net labels are local to sheets.

✗ The No ERC object is a design directive.
This directive is placed on a node in the circuit to suppress harmless warnings and/or error violation conditions that are detected when the schematic project is validated.



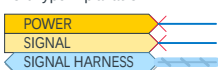
Label

PCA63563
1.0.1
<year>, <week>
<UID>

Alignment Fiducials

Mechanical Holes

Port Type Explanation



Bumpers



Title
nPM Fuel Gauge Board

Size

A4

PCB Assembly Number

PCA63563

Revision

1.0.1

Date: 2025-02-20

File: [pca63563.SchDoc](#)

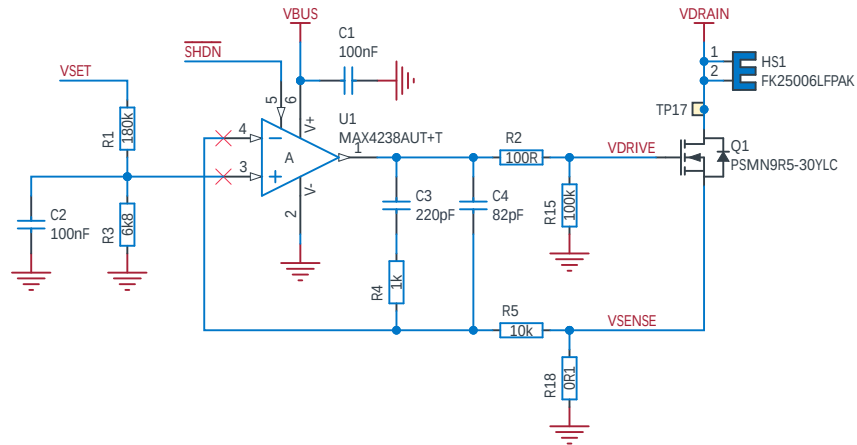
Classification: PUBLIC

Sheet 1 of 3

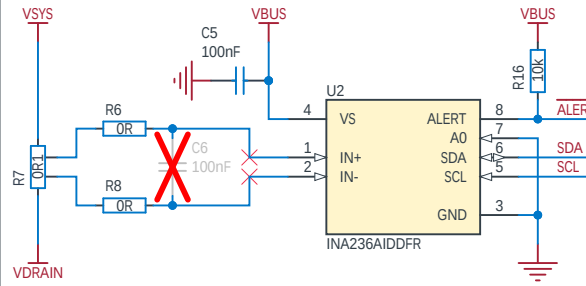
Drawn By: DABA/EISK



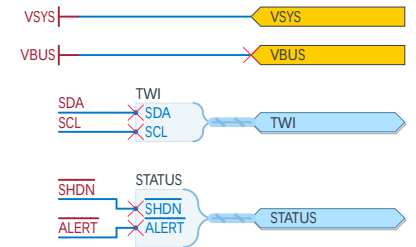
Current Sinking



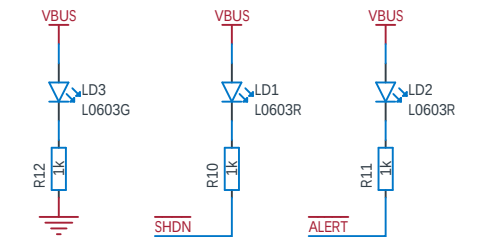
Sensing



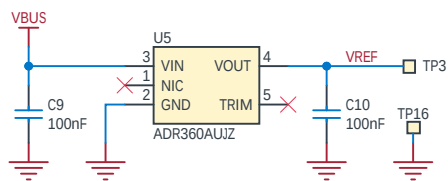
Connections



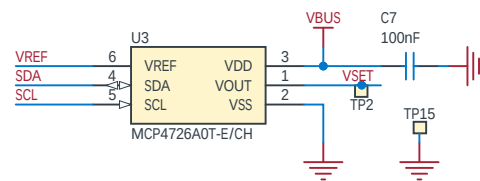
Status LEDs



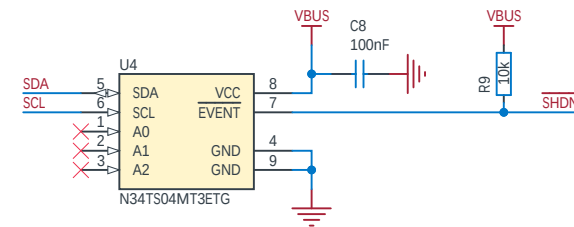
Voltage Reference



DAC



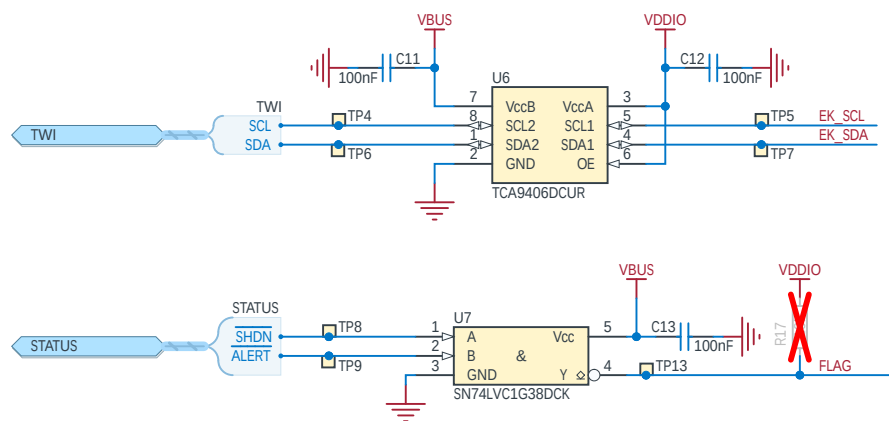
Thermal Sensing



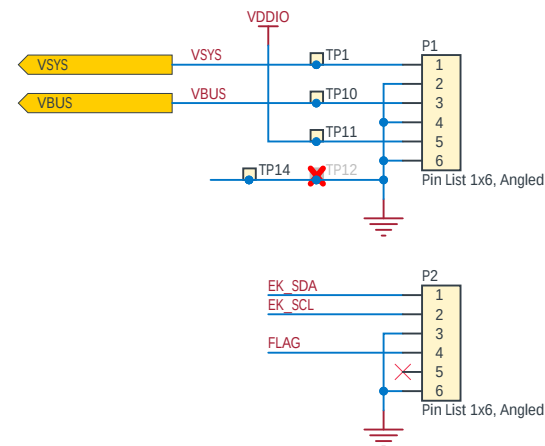
Title		
Current Sinking and Sensing		
Size	PCB Assembly Number	Revision
A4	PCA63563	1.0.1
Date: 2025-02-20		Sheet 2 of 3
File: pca63563_current_sinking_and_sensing.SchDoc		Drawn By: DABA/EISK
Classification: PUBLIC		



Level Translation

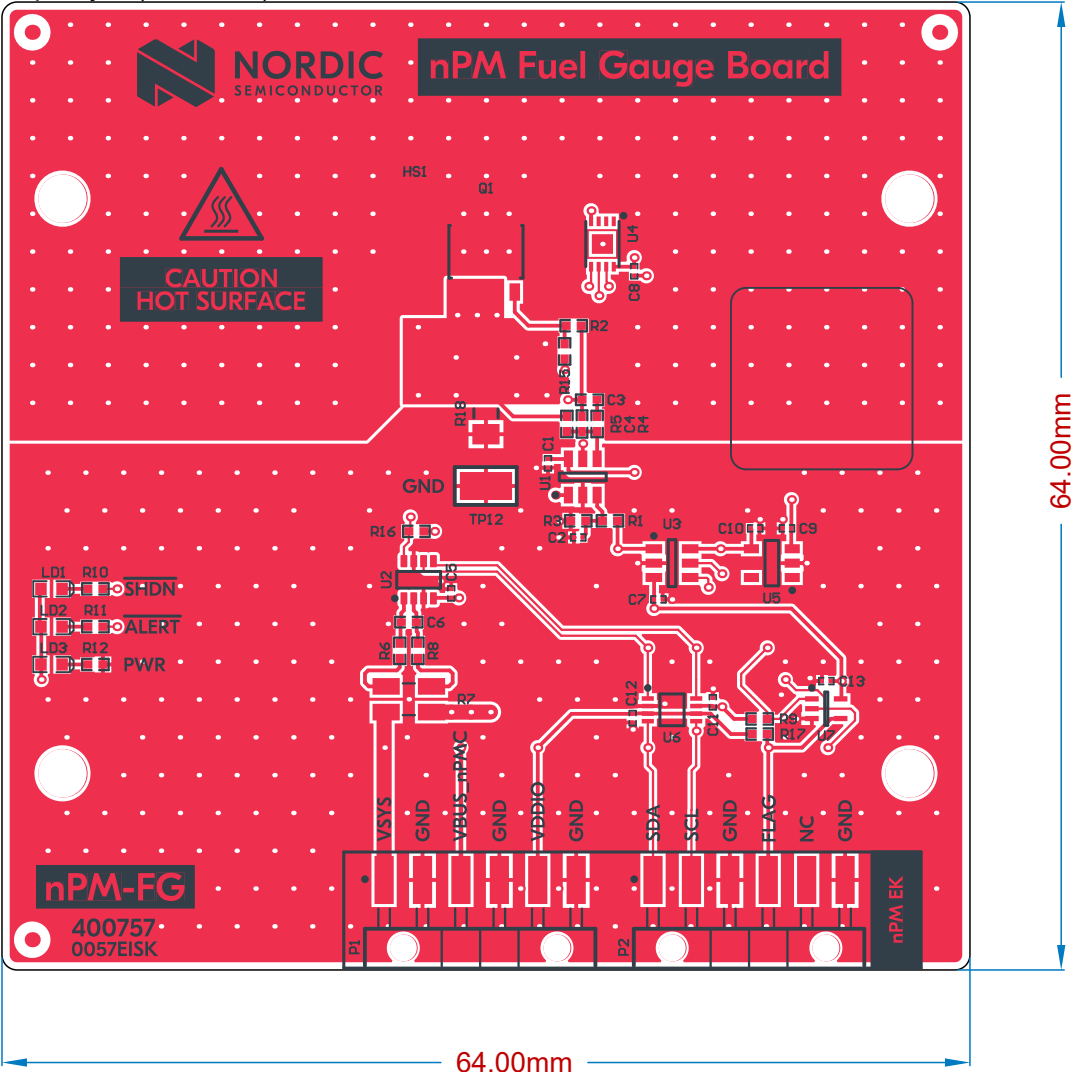


Connectors



Title Connectivity			
Size A4	PCB Assembly Number PCA63563	Revision 1.0.1	
Date: 2025-02-20		Sheet 3 of 3	
File: pca63563_connectivity.SchDoc		Drawn By: DABA/EISK	
Classification: PUBLIC			

Top Layer (Scale 2:1)



Title
nPM Fuel Gauge Board

PCA Project: PCA63563

Rev: 1.0.1

Size: A4

PCB Number: 400757

Rev: 0057EISK

Unit: mm

Date: 2025-02-20

Sheet 1 of 15

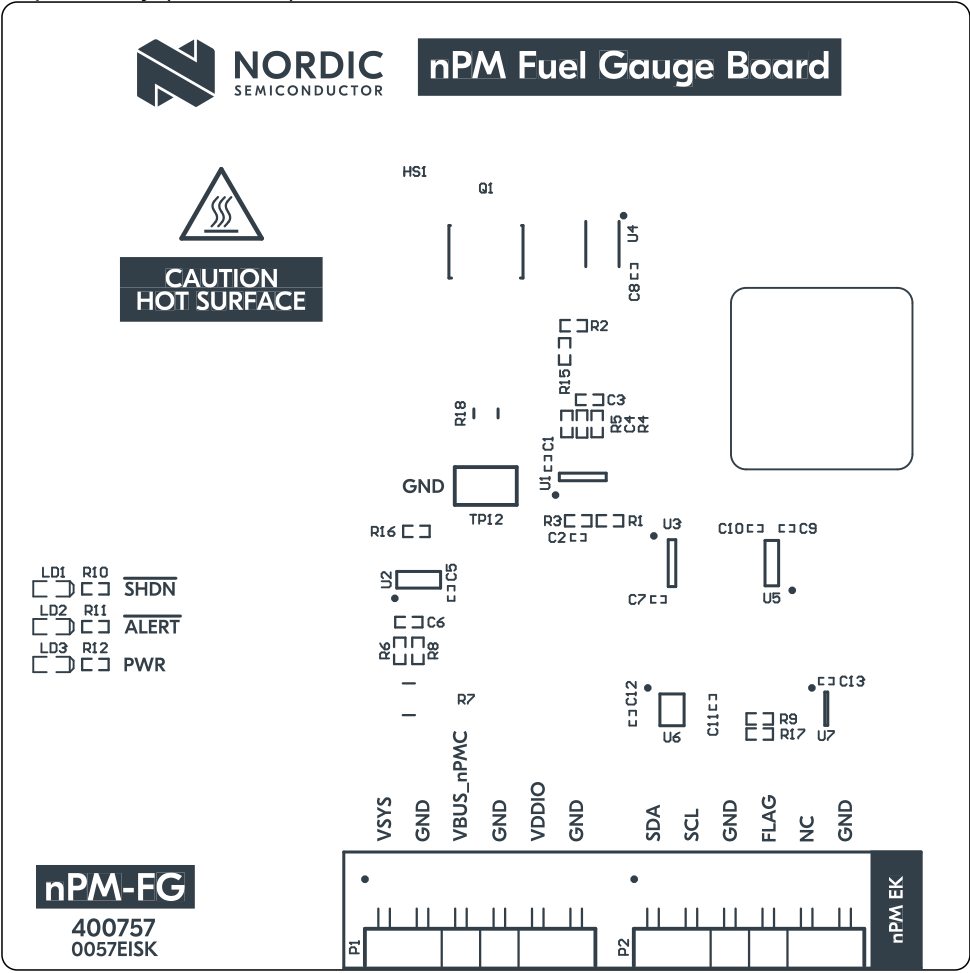
PUBLIC

File: 400757_PCB_prints.PCBDwf

Drawn By: DABA/EISK



Top Overlay (Scale 2:1)



Title		
nPM Fuel Gauge Board		
PCA Project: PCA63563	Rev: 1.0.1	Size: A4
PCB Number: 400757	Rev: 0057EISK	Unit: mm
Date: 2025-02-20		
File: 400757_PCB_prints.PCBDwf		



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A

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A

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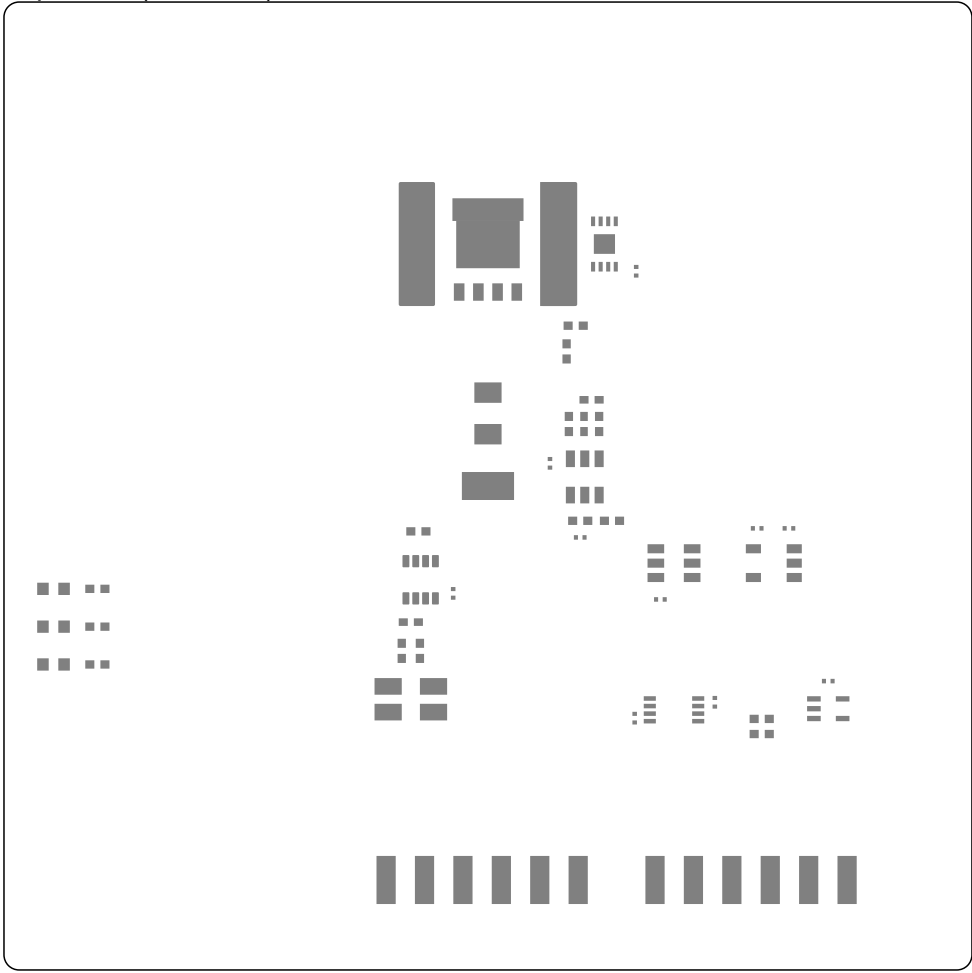
C

D

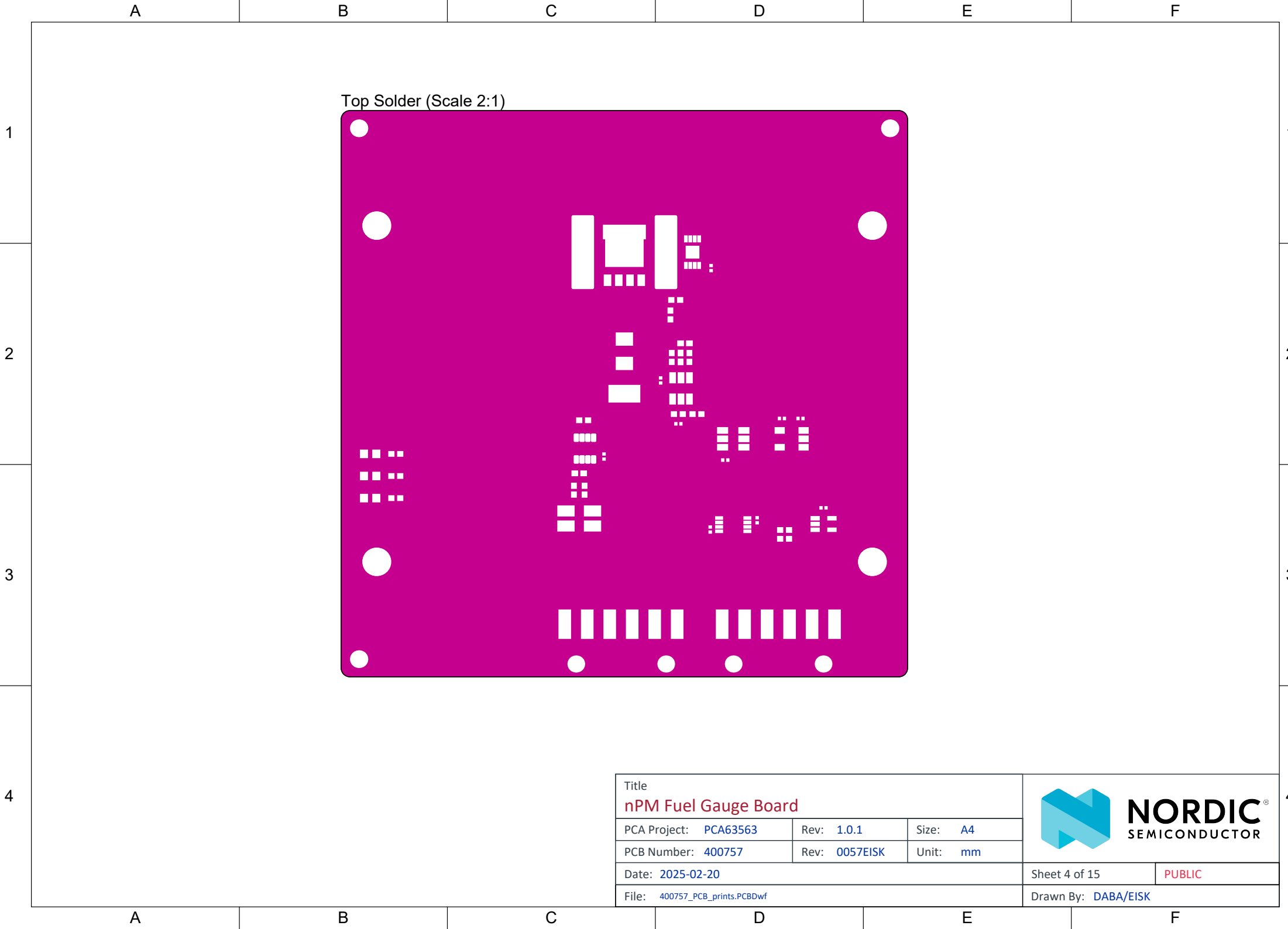
E

F

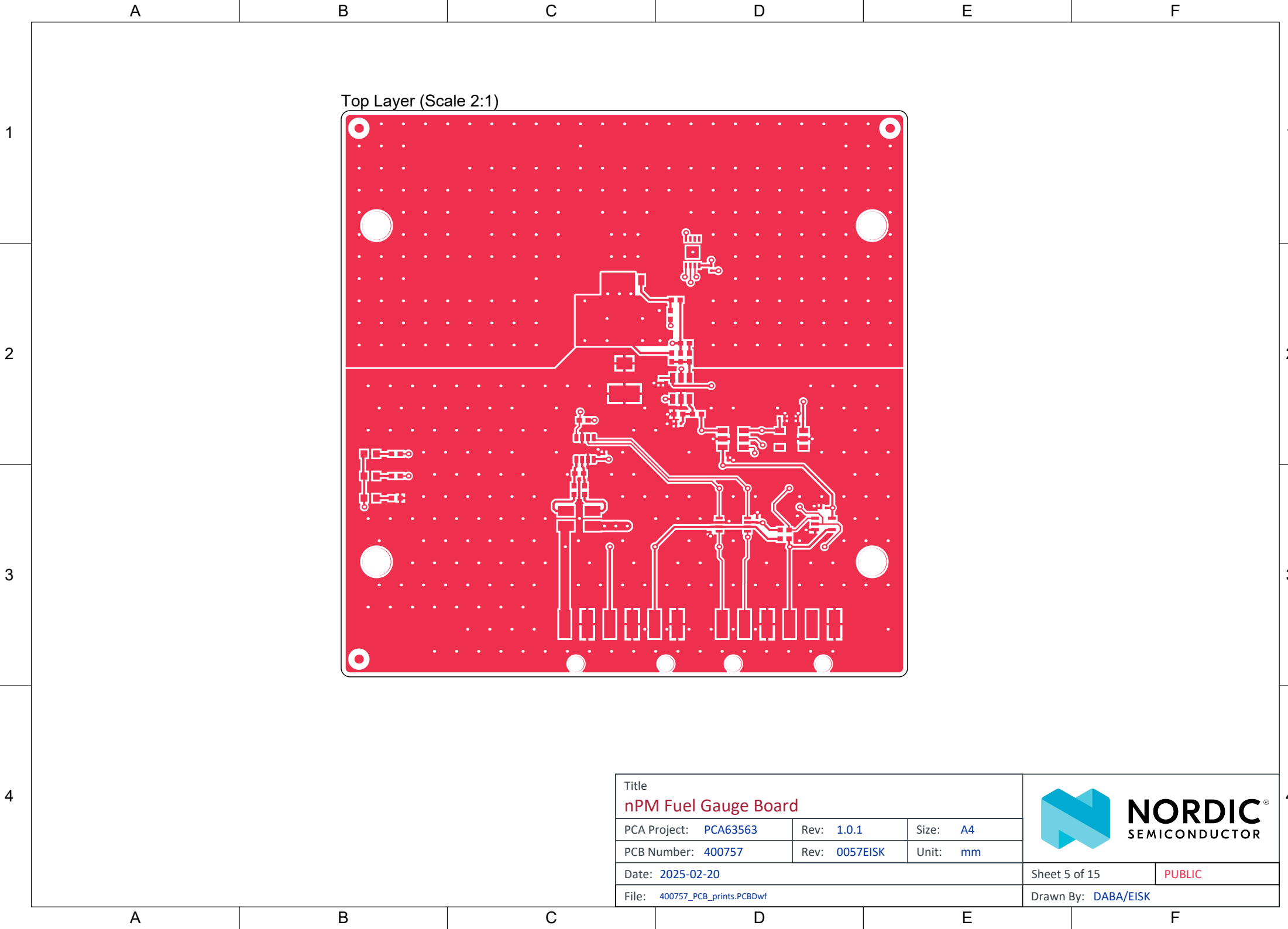
Top Paste (Scale 2:1)



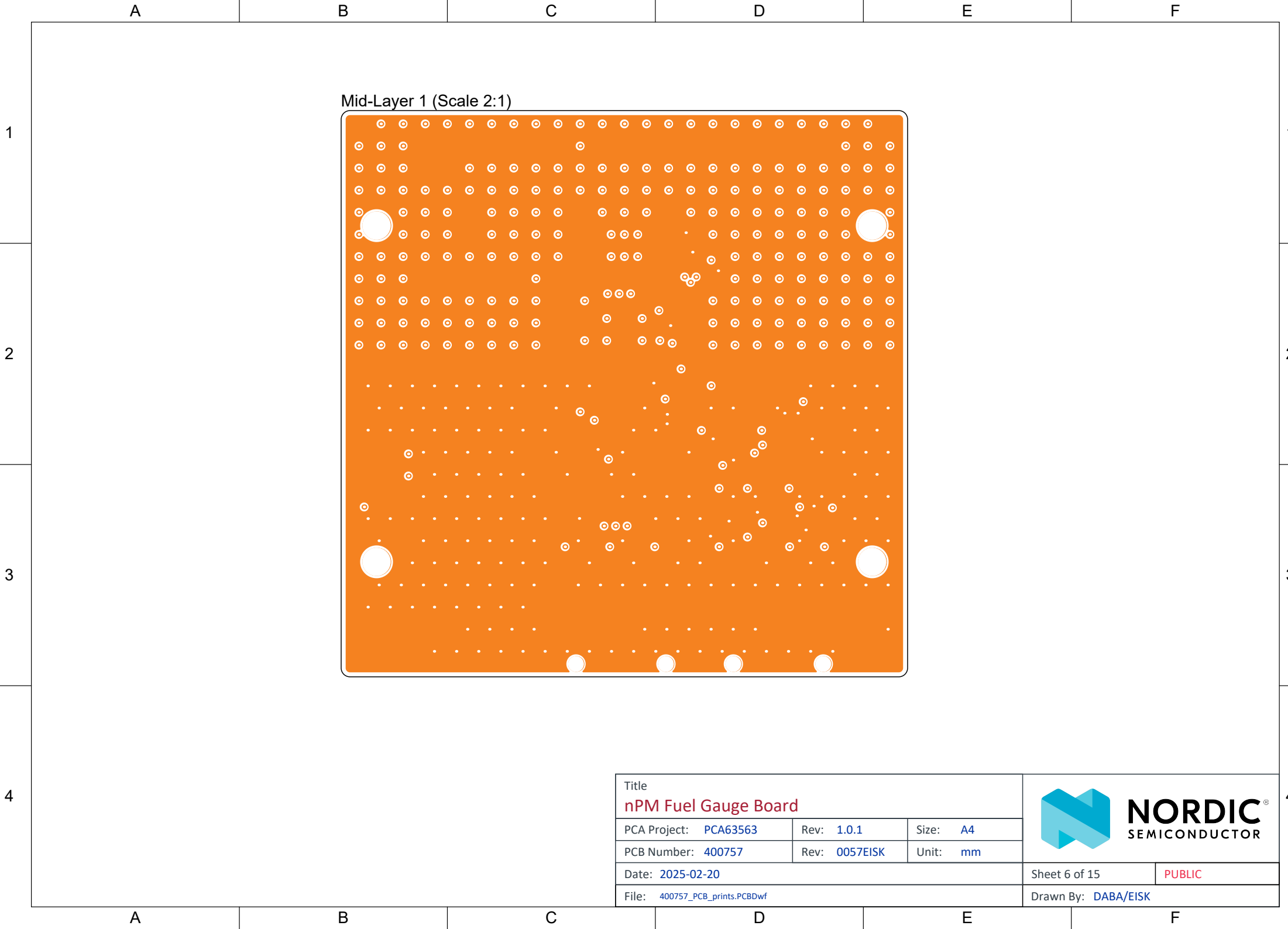
Title				 NORDIC SEMICONDUCTOR	
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 3 of 15	PUBLIC
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK	



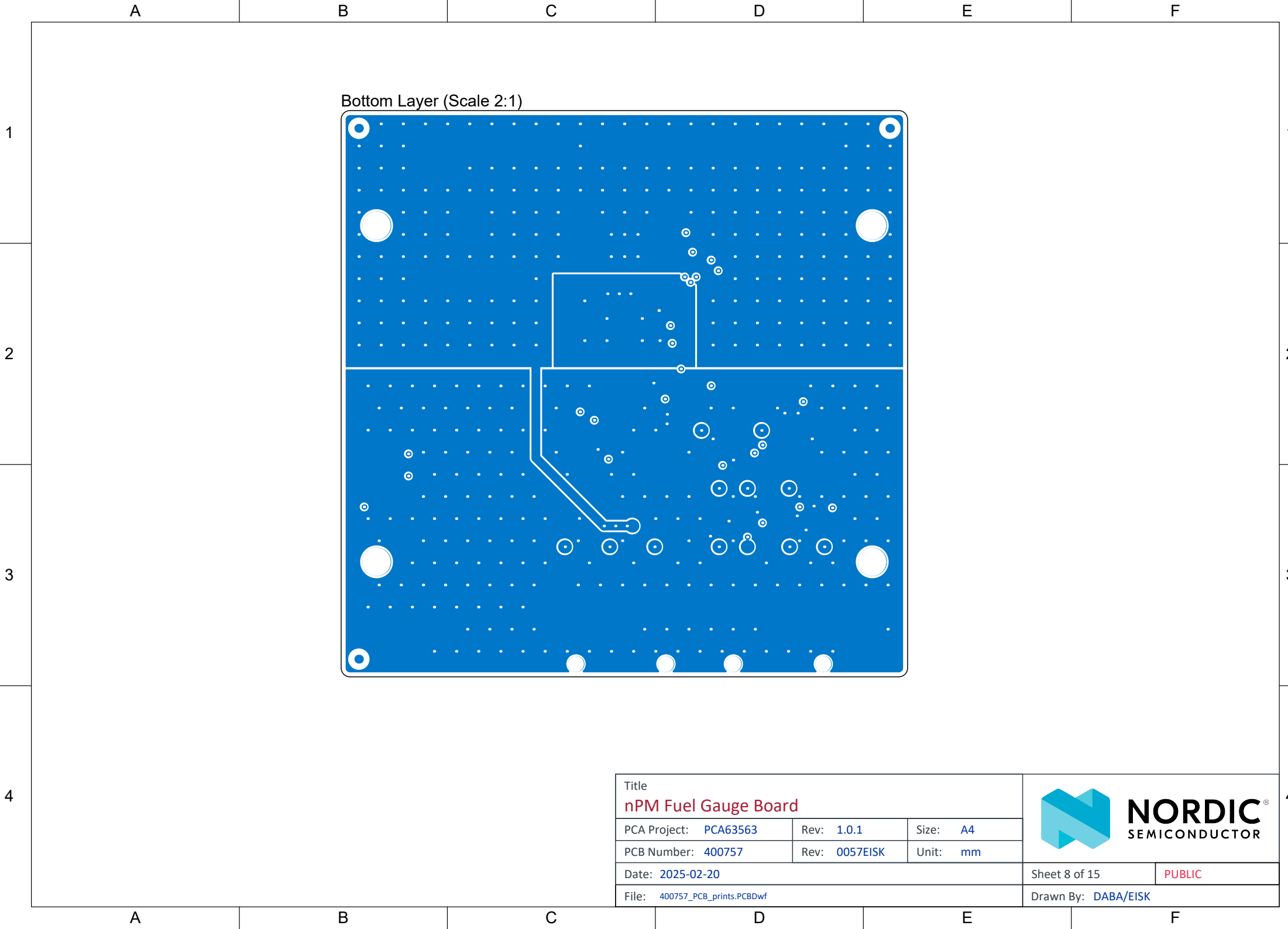
Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 4 of 15	PUBLIC
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK	



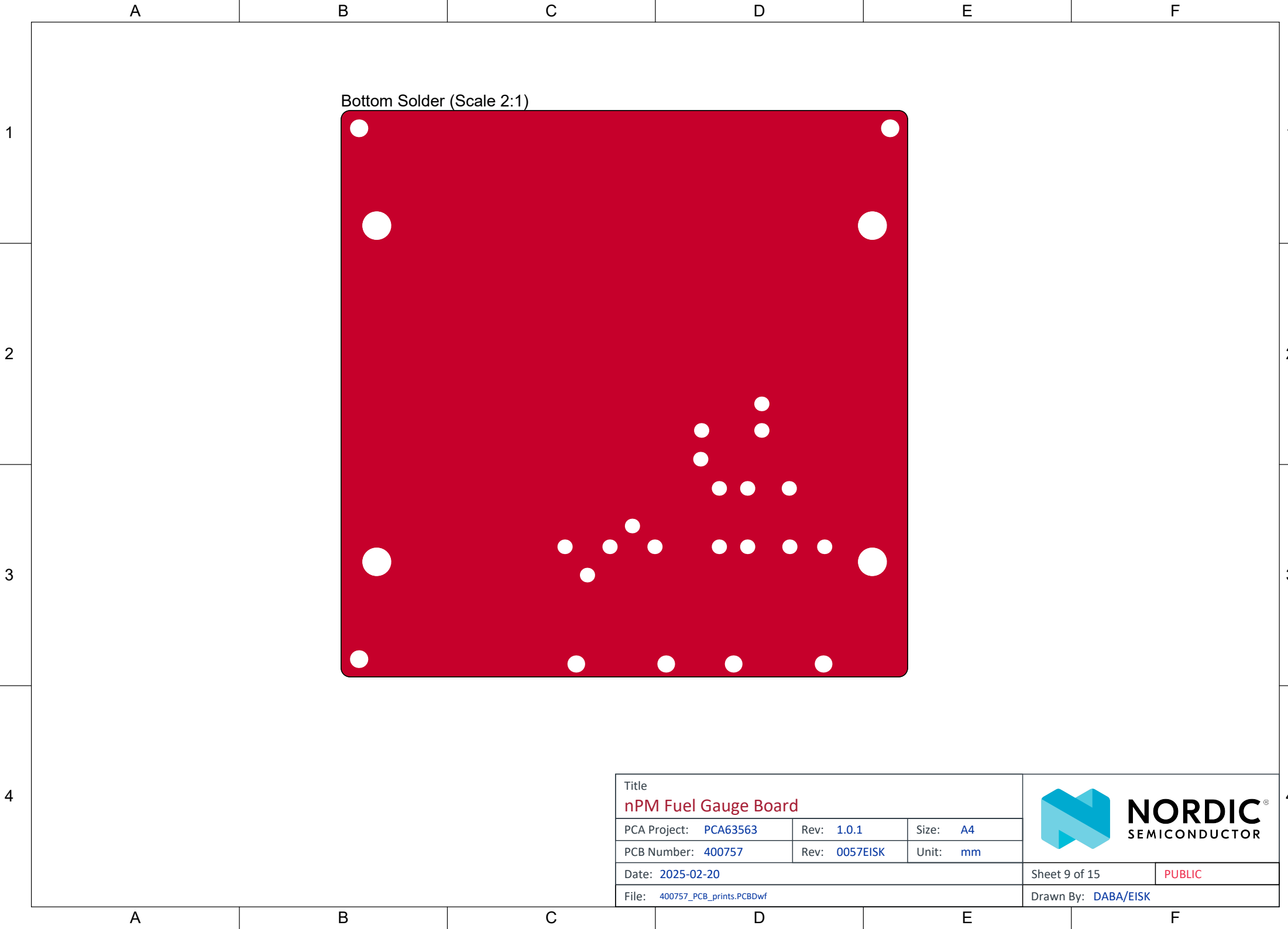
Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 5 of 15	PUBLIC
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK	



Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1		
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 6 of 15	PUBLIC
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK	



Title nPM Fuel Gauge Board				
PCA Project: PCA63563	Rev: 1.0.1	Size: A4		
PCB Number: 400757	Rev: 0057EISK	Unit: mm	Sheet 8 of 15	
Date: 2025-02-20				
File: 400757_PCB_prints.PCBdWf			Drawn By: DABA/EISK	
			PUBLIC	



Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 9 of 15	PUBLIC
File: 400757_PCB_prints.PCBdWf				Drawn By: DABA/EISK	

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Bottom Paste (Scale 2:1)

Title nPM Fuel Gauge Board			
PCA Project: PCA63563	Rev: 1.0.1	Size: A4	
PCB Number: 400757	Rev: 0057EISK	Unit: mm	
Date: 2025-02-20			Sheet 10 of 15
File: 400757_PCB_prints.PCBDwf			Drawn By: DABA/EISK

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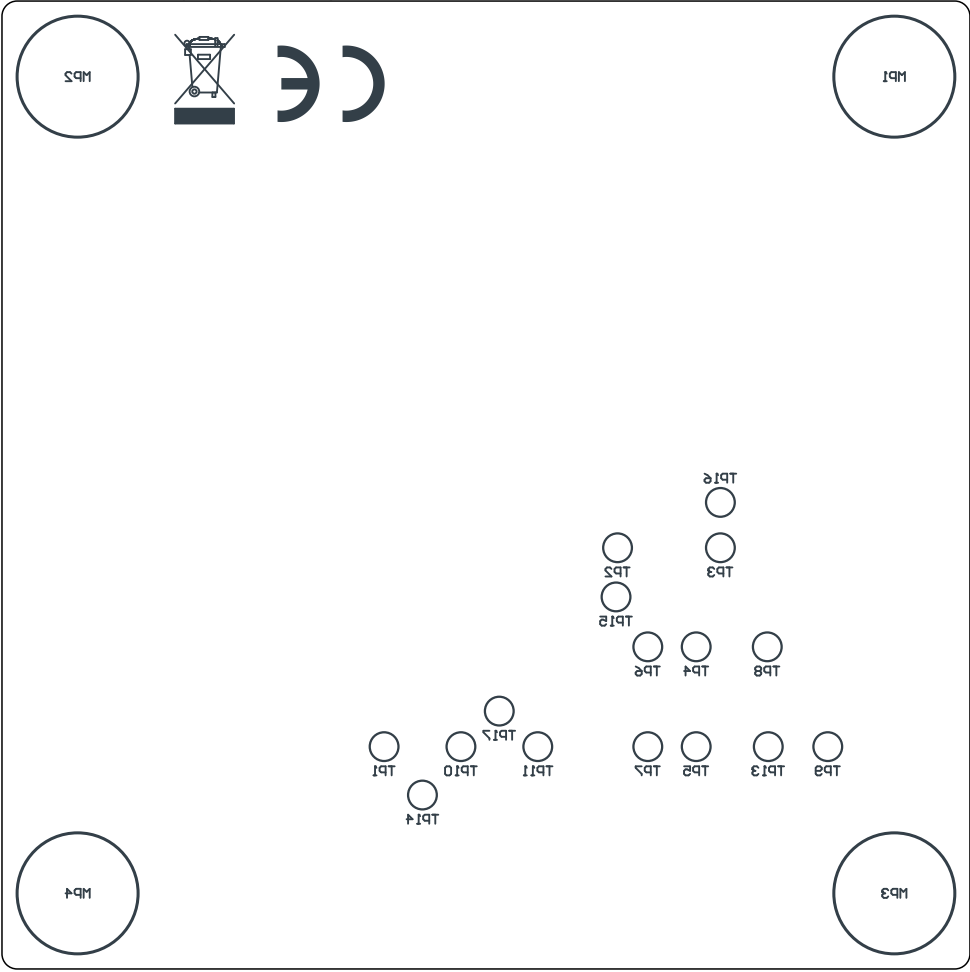
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Bottom Overlay (Scale 2:1)



Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 11 of 15	PUBLIC
File: 400757_PCB_prints.PCBdwf				Drawn By: DABA/EISK	

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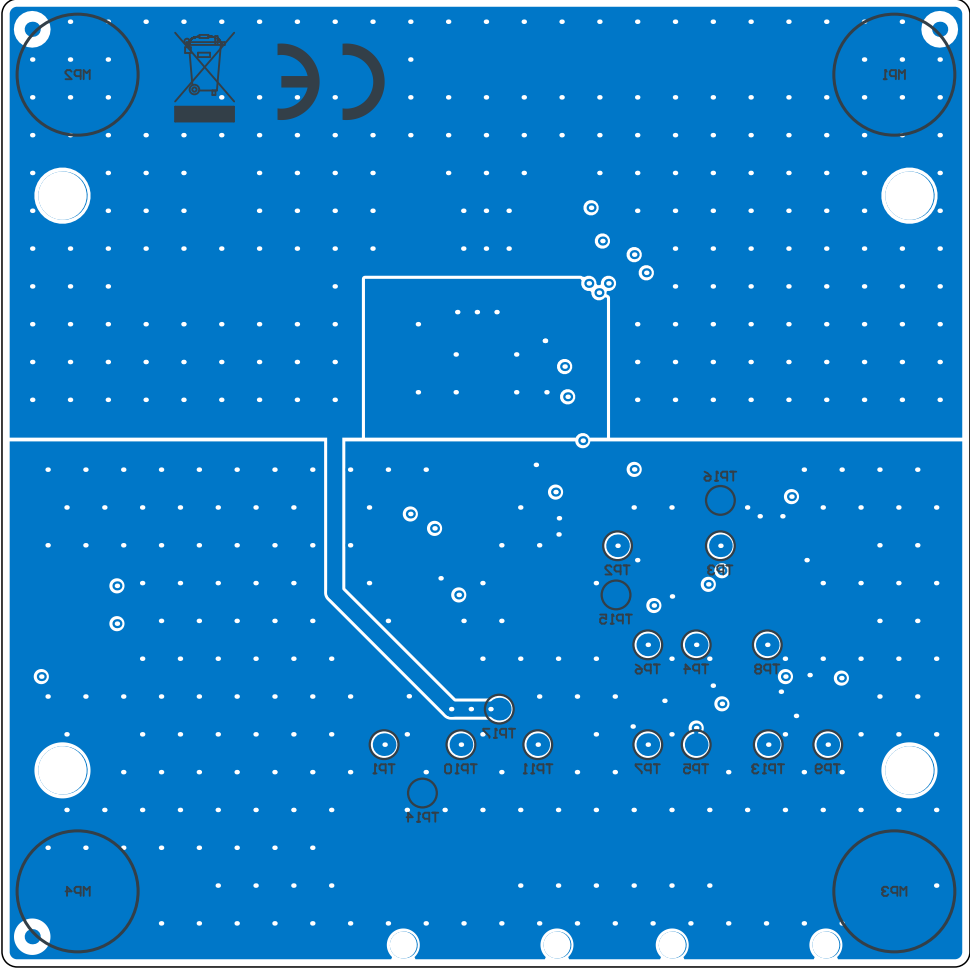
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Bottom Layer (Scale 2:1)



Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1		
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 12 of 15	PUBLIC
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK	

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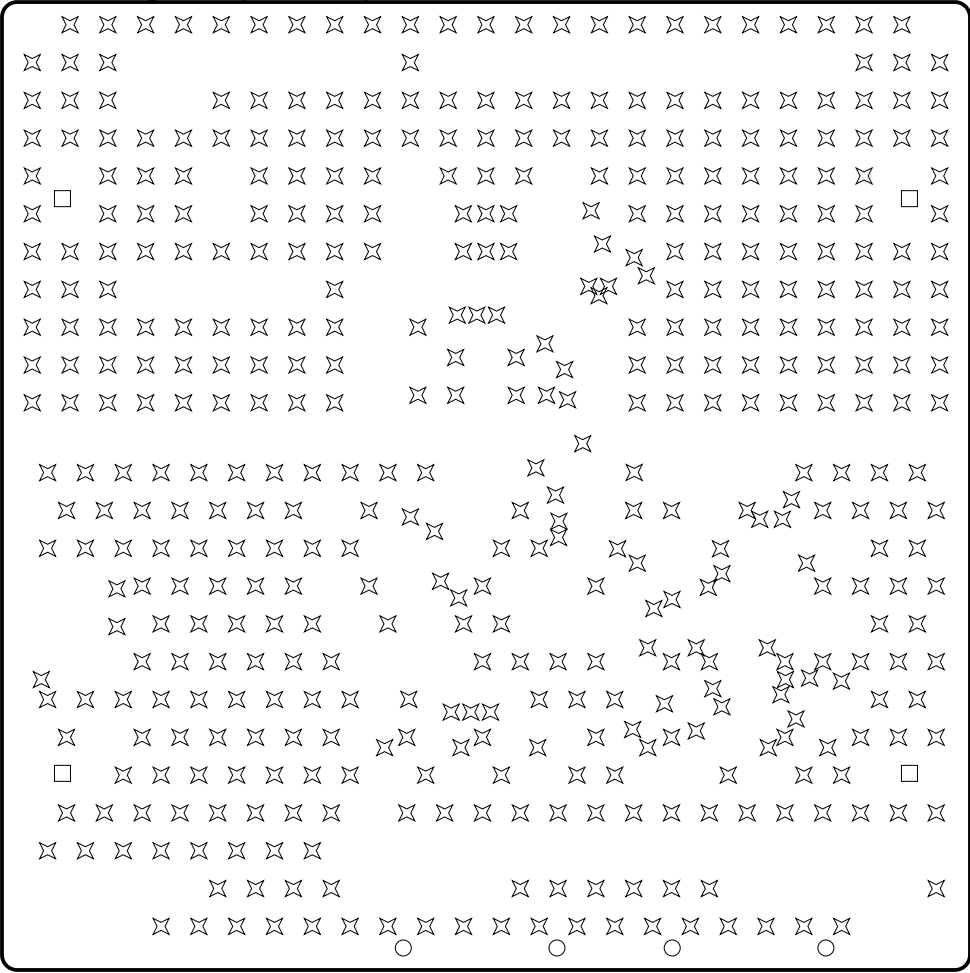
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Drill Drawing View (Scale 2:1)

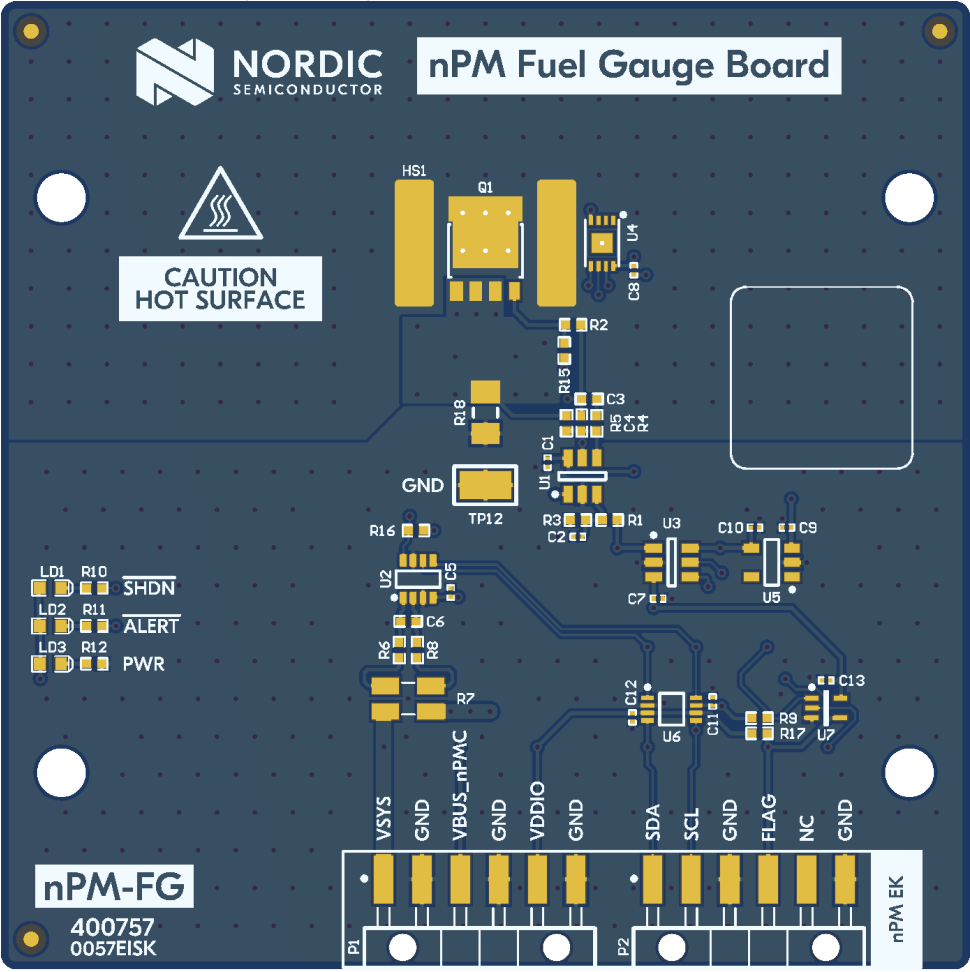


Drill Table

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair
ϕ	458	0.30mm	Plated	Round	Top Layer - Bottom Layer
○	4	1.78mm	Non-Plated	Round	Top Layer - Bottom Layer
□	4	3.20mm	Non-Plated	Round	Top Layer - Bottom Layer
466 Total					

Title nPM Fuel Gauge Board							
PCA Project:	PCA63563	Rev:	1.0.1			Size:	A4
PCB Number:	400757	Rev:	0057EISK			Unit:	mm
Date: 2025-02-20				Sheet 13 of 15		PUBLIC	
File: 400757_PCB_prints.PCBDwf				Drawn By: DABA/EISK			

Realistic Top View (Scale 2:1)



Title
nPM Fuel Gauge Board

PCA Project: **PCA63563**

Rev: **1.0.1**

Size: **A4**

PCB Number: **400757**

Rev: **0057EISK**

Unit: **mm**

Date: **2025-02-20**

Sheet 14 of 15

PUBLIC

File: **400757_PCB_prints.PCBDwf**

Drawn By: **DABA/EISK**



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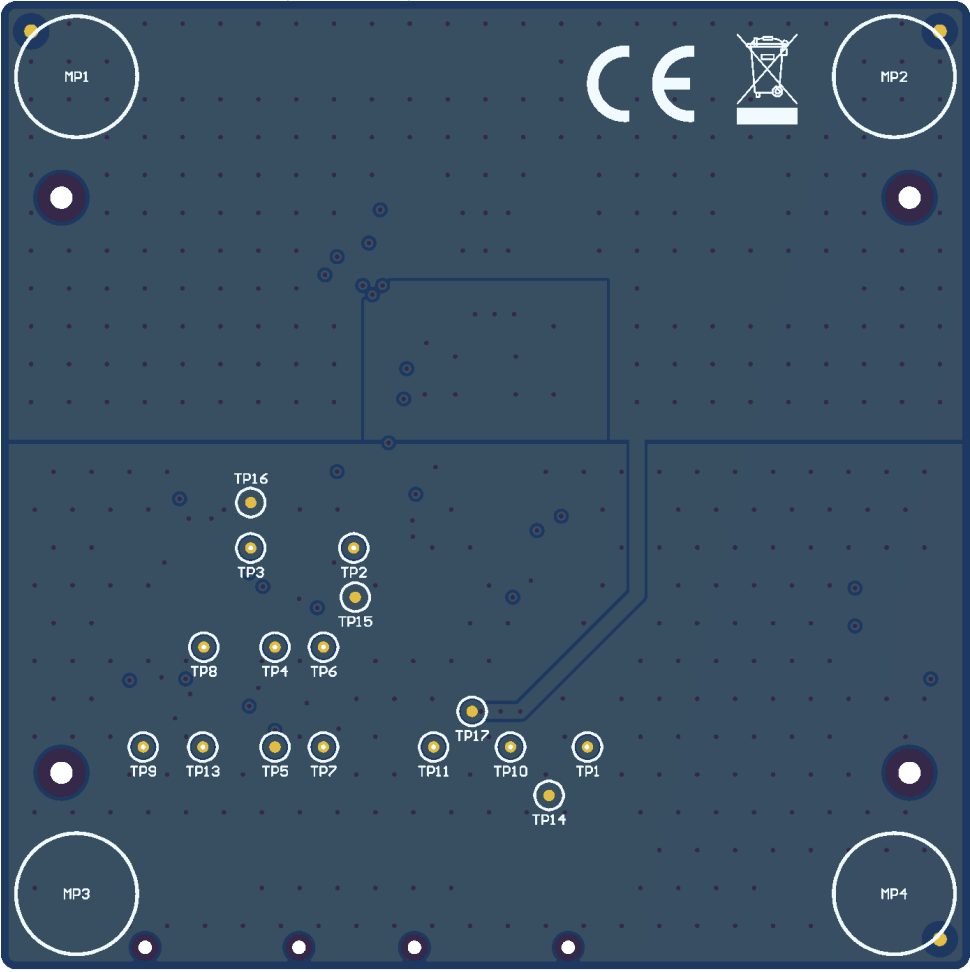
1

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Realistic Bottom View (Scale 2:1)



Title					
nPM Fuel Gauge Board					
PCA Project:	PCA63563	Rev:	1.0.1	Size:	A4
PCB Number:	400757	Rev:	0057EISK	Unit:	mm
Date: 2025-02-20				Sheet 15 of 15	PUBLIC
File: 400757_PCB_prints.PCBdWf				Drawn By: DABA/EISK	