

PCB Laminate Specification for PCB 400236

Layer Stack Legend

Layer	Gerber	Material	Thickness	Type	Dielectric Material	Description	Comment
Top Overlay	GTO			Legend			
Top Solder	GTS	Surface Material	0.025mm	Solder Mask	Solder Resist	Halogen-Free	=10µm on copper, =5um at edges
Top Surface Finish		Nickel, Gold	0.003mm	Surface Finish			
Top Layer	GTL	Copper	0.035mm	Signal			
Mid-Layer 1	G1	Prepreg	0.075mm	Dielectric	FR-4	Halogen-Free	
		Copper	0.035mm	Signal			
		Core	1.200mm	Dielectric	FR-4	Halogen-Free	
Mid-Layer 2	G2	Prepreg	0.075mm	Dielectric	FR-4	Halogen-Free	
		Copper	0.035mm	Signal			
Bottom Layer	GBL	Copper	0.035mm	Signal			
Bottom Surface Finish		Nickel, Gold	0.003mm	Surface Finish			
Bottom Solder	GBS	Surface Material	0.025mm	Solder Mask	Solder Resist	Halogen-Free	=10µm on copper, =5um at edges
Bottom Overlay	GBO			Legend			
Total thickness: 1.546mm							

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
☆	227	0.100mm	Plated	
✧	1166	0.250mm	Plated	
▼	4	0.450mm	Plated	
◇	85	0.900mm	Plated	
□	3	0.991mm	Non-Plated	
⊞	2	1.000mm	Plated	
○	3	1.700mm	Non-Plated	
⊞	7	3.200mm	Non-Plated	
1497 Total				

PCB Details

PCB Supplier	Suppliers Choice
Number of copper layers	4
Laminate Material	FR-4 Halogen-Free
Total Board Thickness	~1.6mm
Copper thickness	See figure above
PCB Stackup	See figure above
Solder Mask Color	Blue
Silkscreen Color	White
Surface Finish	ENIG
Compliance Enviromental directives	RoHS, REACH, Halogen-Free
Via protection	IPC-4761 Type VII: Filled and capped

Gerber file extension convention conforming to general industry practice

.GTL	Top Layer
.GBL	Bottom Layer
.G1	Mid-Layer 1
.G2	Mid-Layer 2
.GTO	Top Overlay
.GBO	Bottom Overlay
.GTP	Top Paste Mask
.GBP	Bottom Paste Mask
.GTS	Top Solder Mask
.GBS	Bottom Solder Mask
.GM1	Mechanical 1 (Used for board outline)
.GM11	Mechanical 11 (Used for top layer tracks impedance control)
.GM16	Mechanical 16 (Used for via protection info)

Title  
nRF52840 Development Board

PCA Project: PCA10056Rev: 3.0.3Size: A3

PCB Number: 400236Rev: 0461RUBRUnit: mm

Date: 2024.05.24

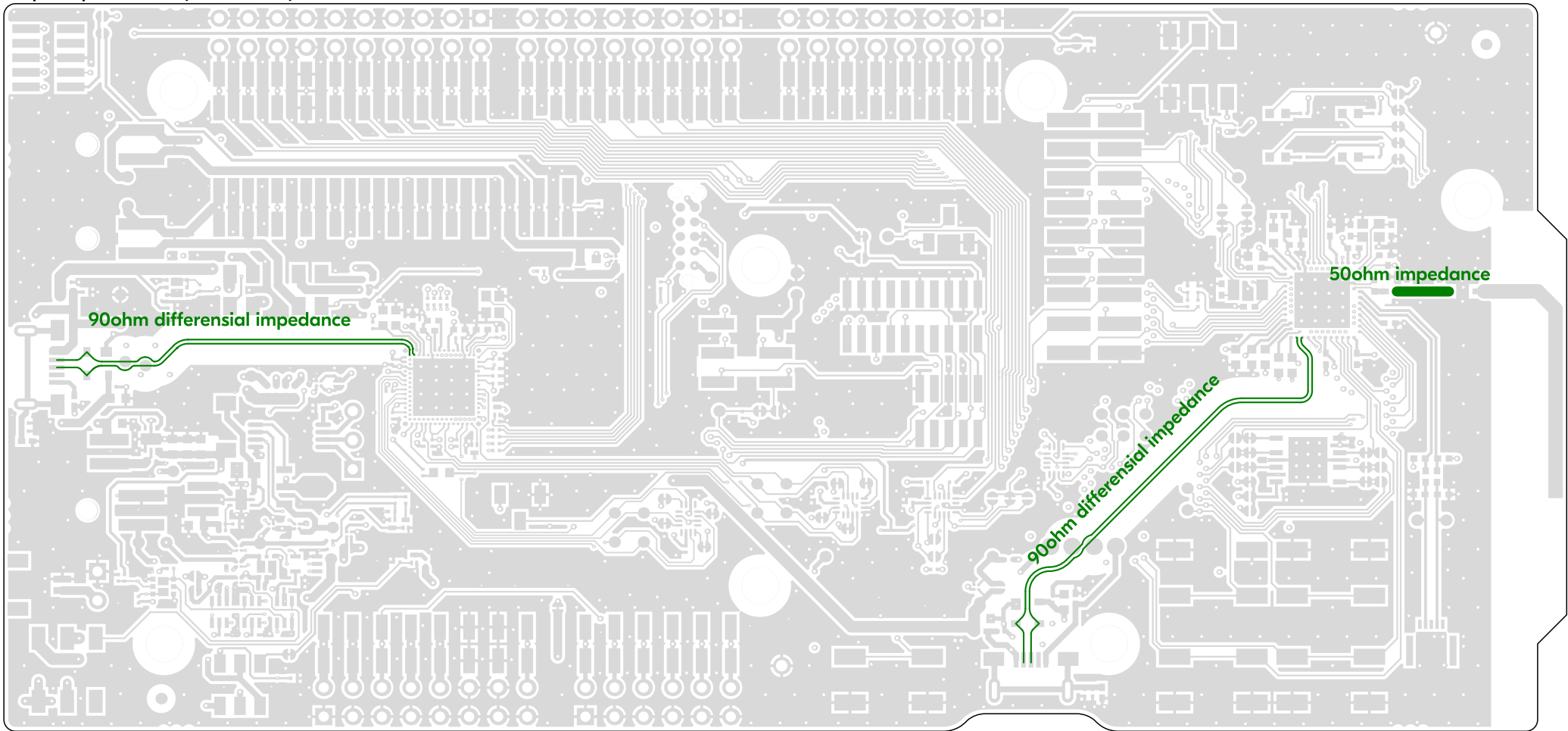
File: 400236.PCBDwf


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Drawn By: MASI/RUBR/STL1/RSK

PCB Information for PCB 400236

Top Impedance (Scale 2:1)



Title						
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PCA Project:	PCA10056	Rev:	3.0.3	Size:	A3	
PCB Number:	400236	Rev:	0461RUBR	Unit:	mm	
Date:				2024.05.24	Sheet 2 of 3	Public
File:				400236.PCBdwf		
				Drawn By: MASI/RUBR/STL1/RSK		

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2

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4

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4

## PCB Colour Guideline for Nordic Semiconductor Rev.1 (23.03.2023)

### Acceptable Blue Tones

#### Sorted by RAL Code

RAL	R	G	B	Name
5000	48	79	11	Violet blue
5002	0	56	122	Ultramarine blue
5003	31	56	85	Sapphire blue
5005	0	83	135	Signal blue
5010	0	79	124	Gentian blue
5013	25	49	83	Cobalt blue
5017	0	91	140	Traffic blue
5019	0	94	131	Capri blue
5022	34	45	90	Night blue
5026	15	48	82	Pearl night blue

#### Sorted by tone

RAL	R	G	B	Name
5019	0	94	131	Capri blue
5017	0	91	140	Traffic blue
5005	0	83	135	Signal blue
5010	0	79	124	Gentian blue
5000	48	79	11	Violet blue
5022	34	45	90	Night blue
5026	15	48	82	Pearl night blue
5003	31	56	85	Sapphire blue
5013	25	49	83	Cobalt blue
5002	0	56	122	Ultramarine blue

### 'Green-Blue' Tones Not Acceptable\*

#### Sorted by RAL Code

RAL	R	G	B	Name
5001	14	76	100	Green blue
5009	33	95	120	Azure blue
5018	4	139	140	Turquoise blue
5021	0	117	119	Water blue
5025	32	105	124	Pearl gentian blue

#### Sorted by tone

RAL	R	G	B	Name
5018	4	139	140	Turquoise blue
5021	0	117	119	Water blue
5025	32	105	124	Pearl gentian blue
5009	33	95	120	Azure blue
5001	14	76	100	Green blue

\* may be accepted with a deviation approved by Nordic Semiconductor


Source: RALcolorchart

<https://www.ralcolorchart.com/ral-classic/blue-hues>

This guideline is intended to allow PCB suppliers to review the colour of the produced PCBs. It defines the acceptable Blue tones as well as Green-Blue tones that are not acceptable.

**Note: this is only a guideline and not a specification.**

If in doubt, please contact Nordic to initiate a dialog.

Title nRF52840 Development Board				
PCA Project: PCA10056	Rev: 3.0.3	Size: A3		
PCB Number: 400236	Rev: 0461RUBR	Unit: mm	Sheet 3 of 3	
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