



ST25RU3993 - HPEV
Rain RFID Evaluation Reader



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ST25RU3993-HPEV_V1.PrjPcb

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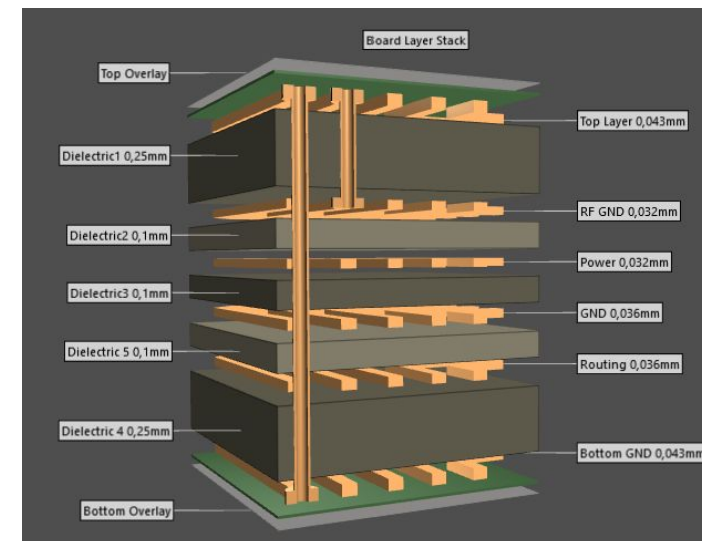
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Revision History

Revision A: Initial Design

PCB Stackup

	Top Overlay		Overlay		
	Top Solder	Solder Resist	Solder Mask	0,01mm	4,5
1	Top Layer		Signal	0,043mm	
	Dielectric1	FR-4 (R-1755M)	Core	0,25mm	4,7
2	RF GND		Signal	0,032mm	
	Dielectric2	FR-4 (R-1755M)	Prepreg	0,1mm	4,6
3	Power		Signal	0,032mm	
	Dielectric3	FR-4 (R-1755M)	Core	0,1mm	4,6
4	GND		Signal	0,036mm	
	Dielectric 5	FR-4 (R-1755M)	Prepreg	0,1mm	4,6
5	Routing		Signal	0,036mm	
	Dielectric 4	FR-4 (R-1755M)	Core	0,25mm	4,7
6	Bottom GND		Signal	0,043mm	
	Bottom Solder	Solder Resist	Solder Mask	0,01mm	4,5
	Bottom Overlay		Overlay		



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A

A

B

B

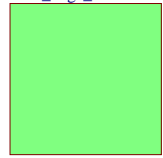
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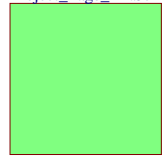
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D

Title Page
Title_Page_HP.SchDoc



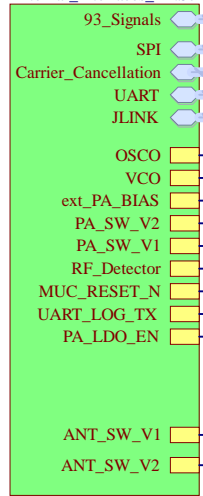
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Project_Page_HP.SchDoc



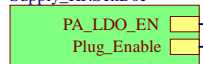
USB Interface
USB_Interface_HP.SchDoc



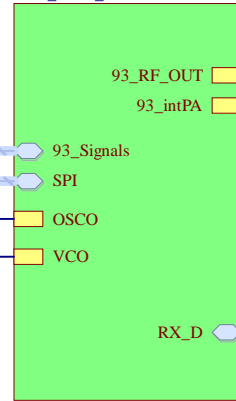
External Interfaces
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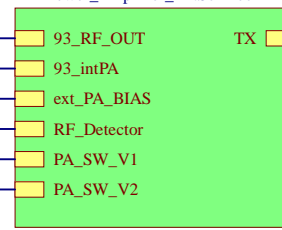
DC Supply
Supply_HP.SchDoc



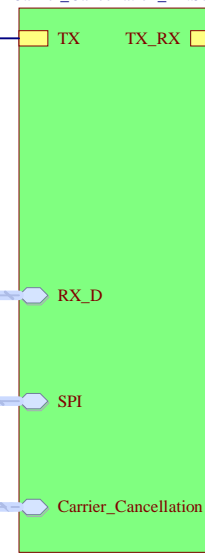
UHF RFID Reader
UHF_RFID_HP.SchDoc



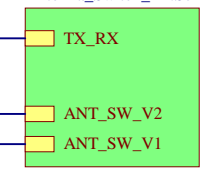
Power Amplifier
Power_Amplifier_HP.SchDoc



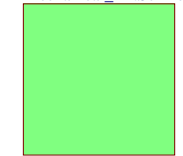
Carrier Cancellation
Carrier_Cancellation_HP.SchDoc



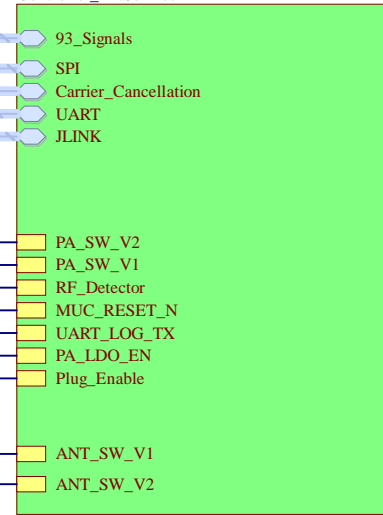
Antenna Switch
Antenna_Switch_HP.SchDoc



Mechanical
Mechanical_HP.SchDoc



Controller
Controller_HP.SchDoc



Altium Project: ST25RU3993-HPEV

Title: System_Overview_HP.SchDoc

Revision: V1

BOM: 01

Author: HINTEREB

Date: 25.11.2020

Sheet: 3 of 21



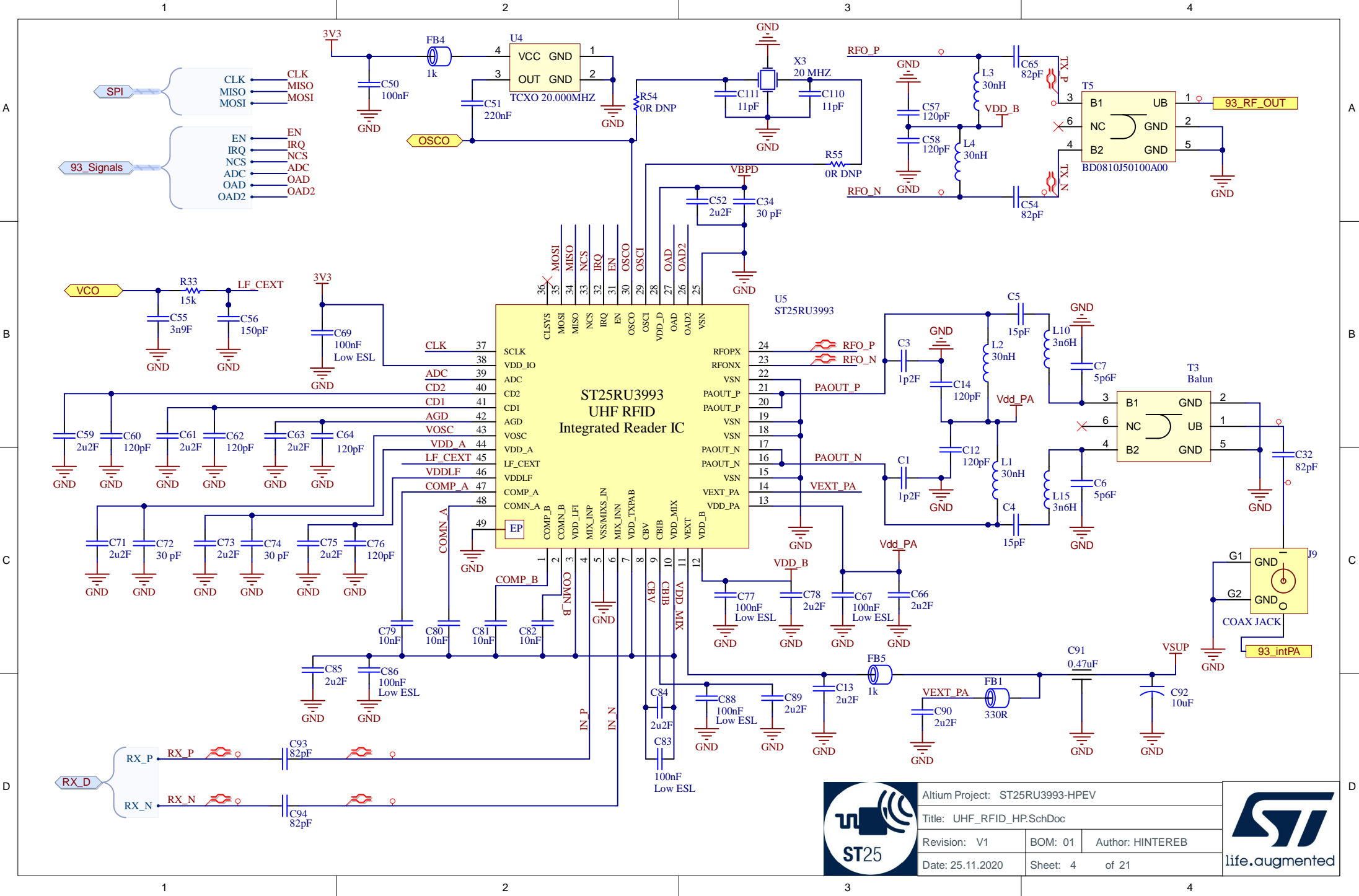
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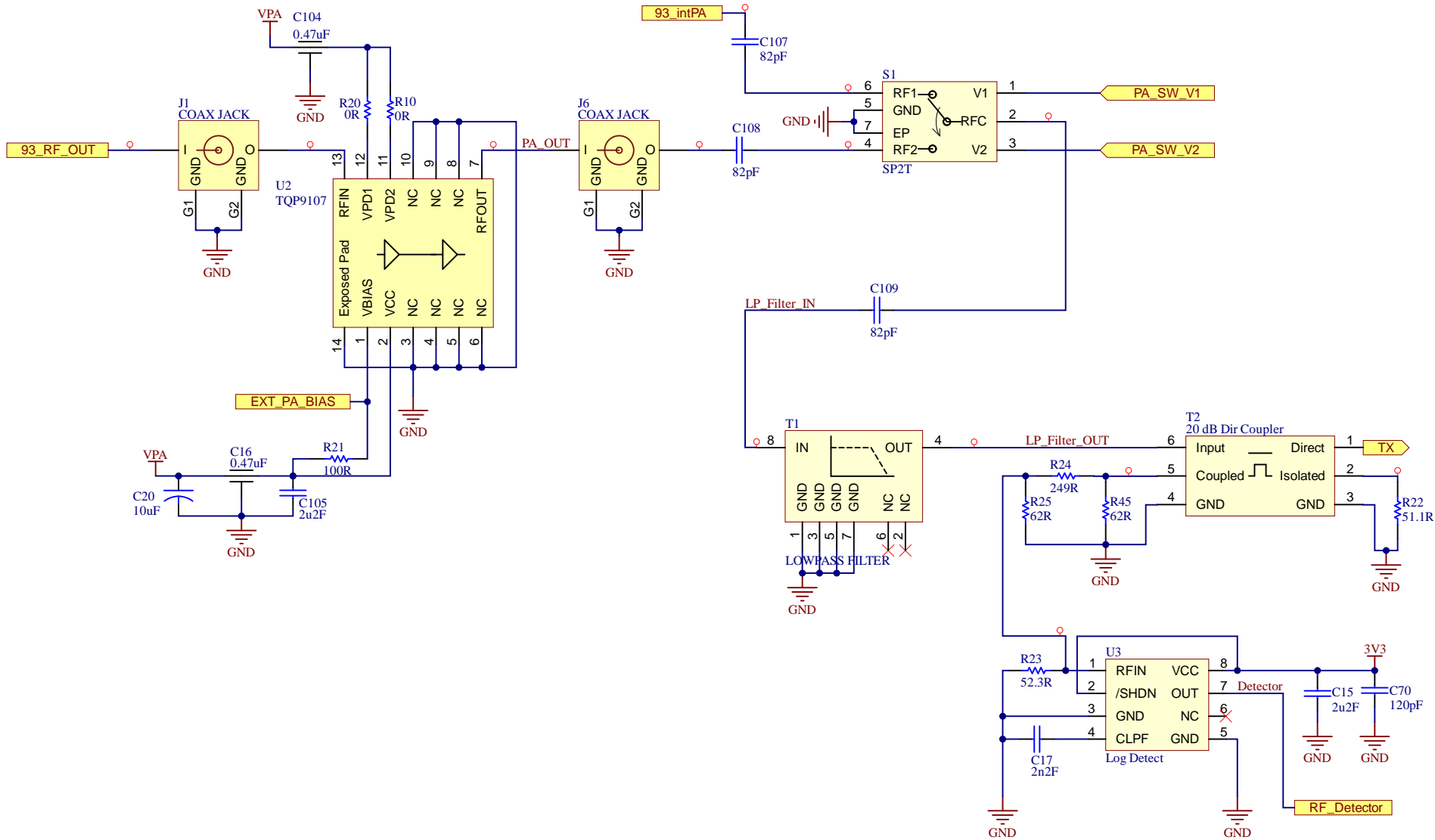
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	Altium Project: ST25RU3993-HPEV		
	Title: UHF_RFID_HP.SchDoc		
	Revision: V1	BOM: 01	Author: HINTEREB
	Date: 25.11.2020	Sheet: 4	of 21



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Altium Project: ST25RU3993-HPEV

Title: Power_Amplifier_HP.SchDoc

Revision: V1

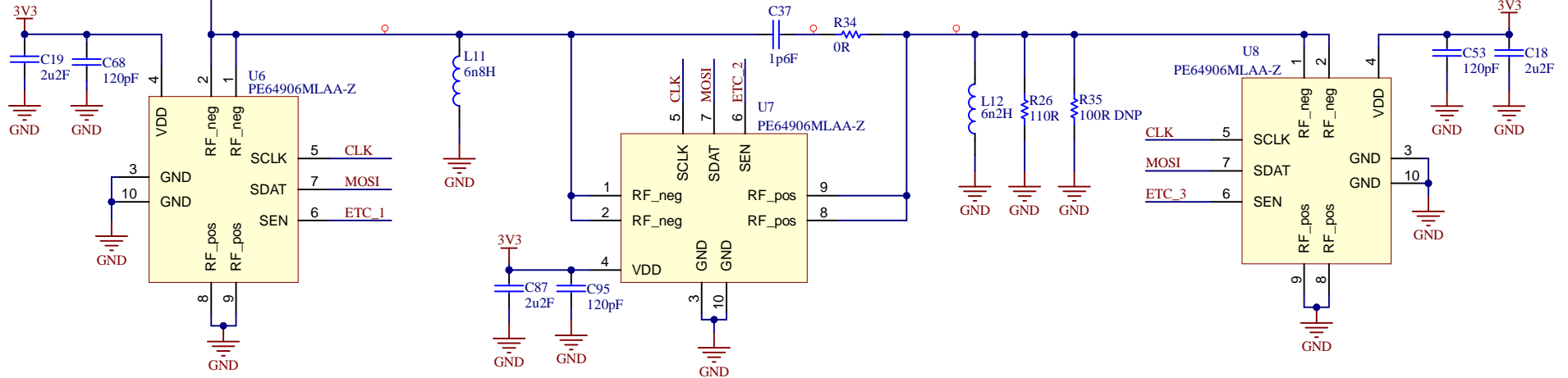
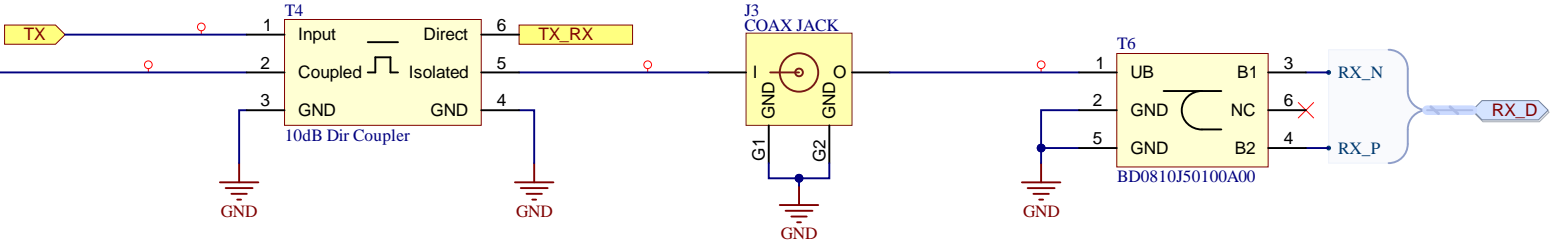
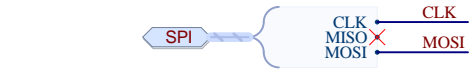
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Author: HINTEREB

Date: 25.11.2020

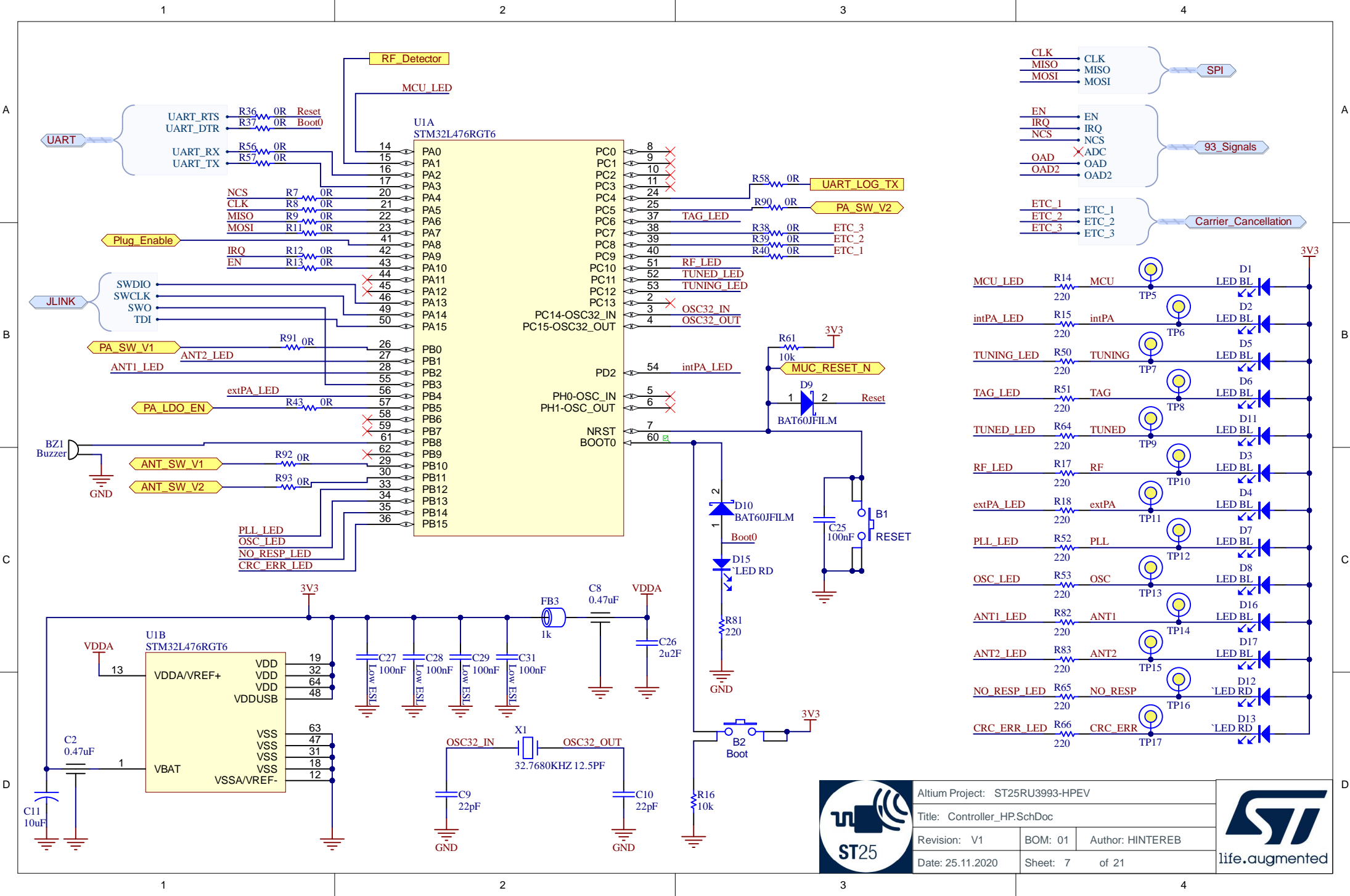
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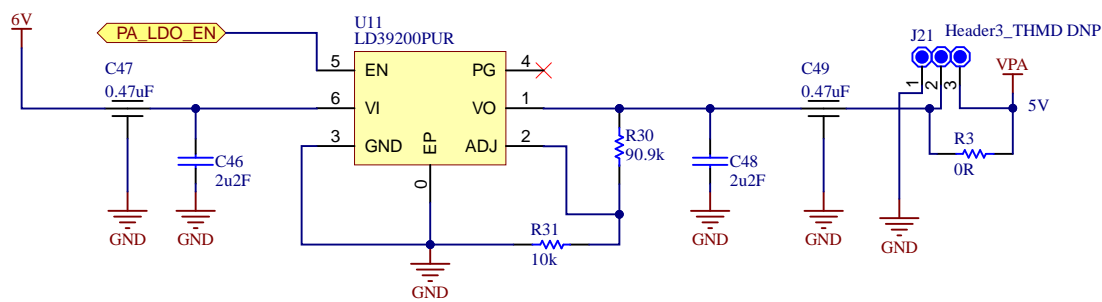
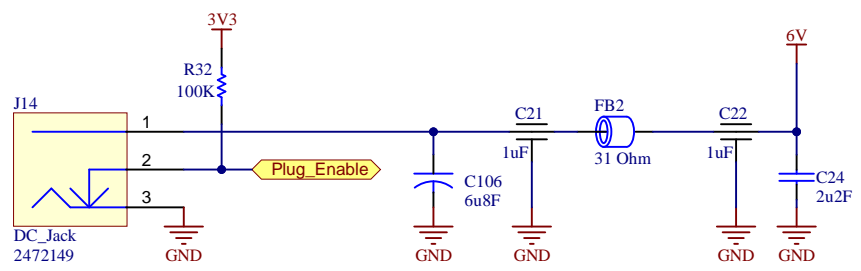
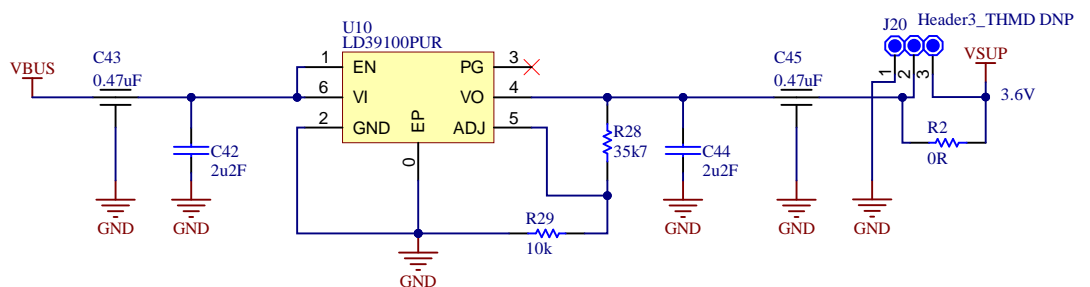
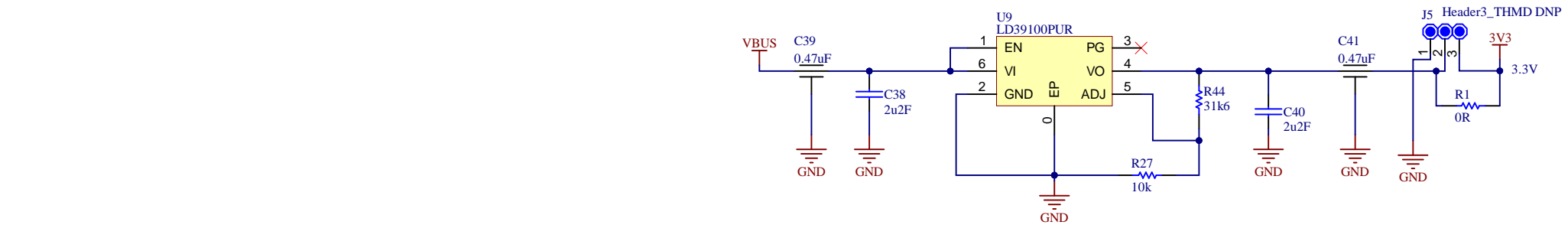
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	Title: Carrier_Cancellation_HP.SchDoc		
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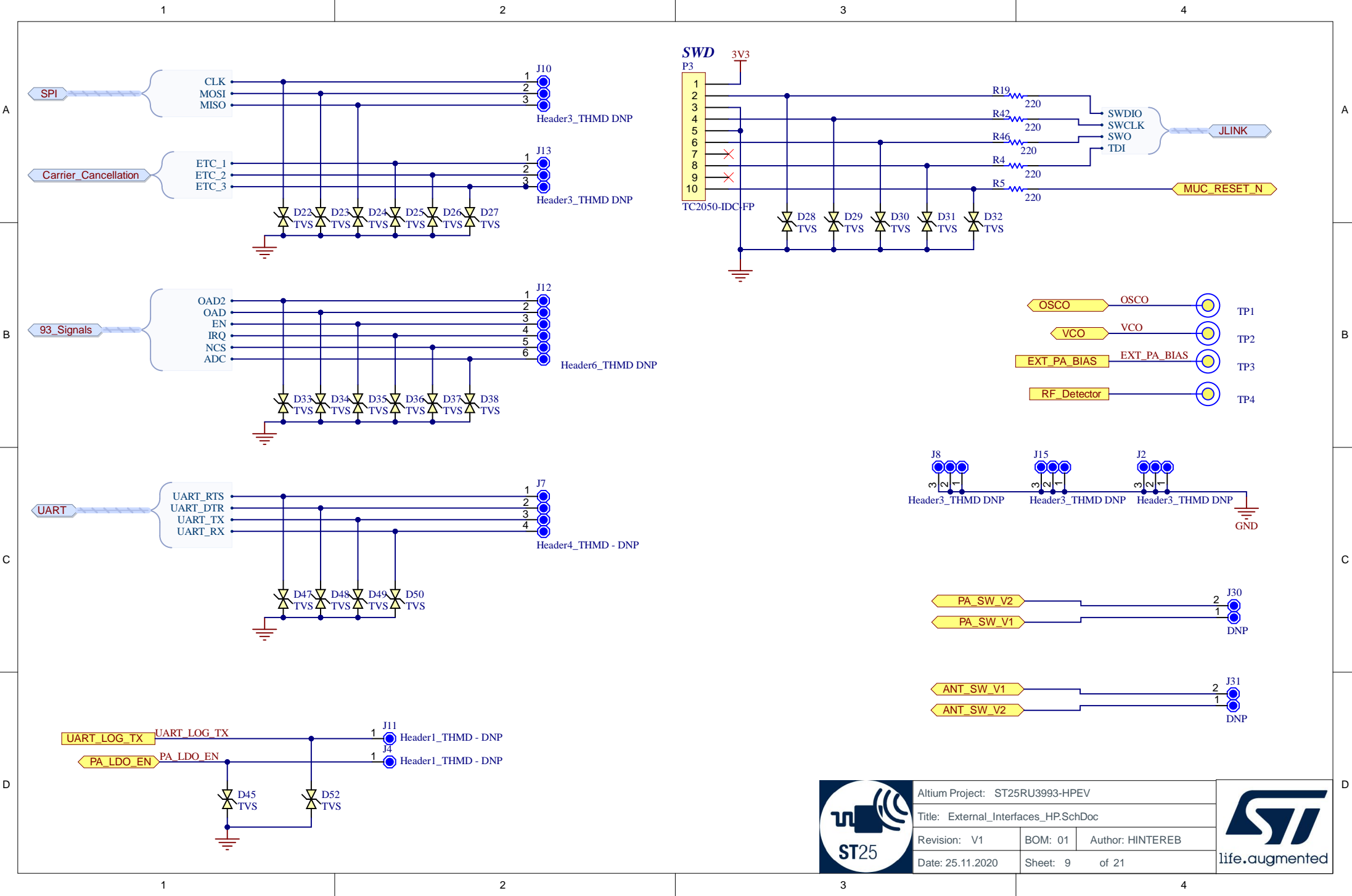
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Altium Project: ST25RU3993-HEVP		
Title: Controller_HP.SchDoc		
Revision: V1	BOM: 01	Author: HINTEREB
Date: 25.11.2020	Sheet: 7	of 21

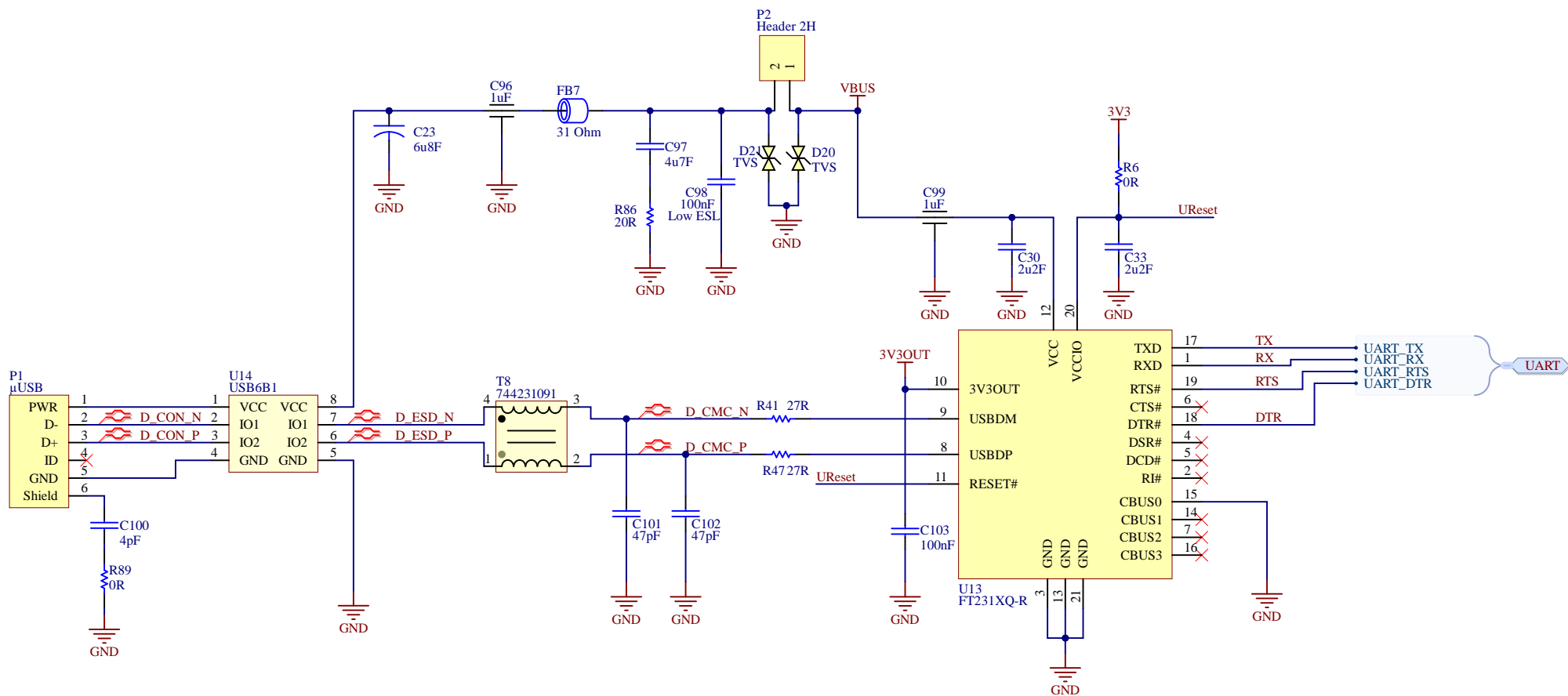






Altium Project: ST25RU3993-HPEV		
Title: External_Interfaces_HP.SchDoc		
Revision: V1	BOM: 01	Author: HINTEREB
Date: 25.11.2020	Sheet: 9	of 21





Altium Project: ST25RU3993-HPEV

Title: USB_Interface_HP.SchDoc

Revision: V1

BOM: 01

Author: HINTEREB

Date: 25.11.2020

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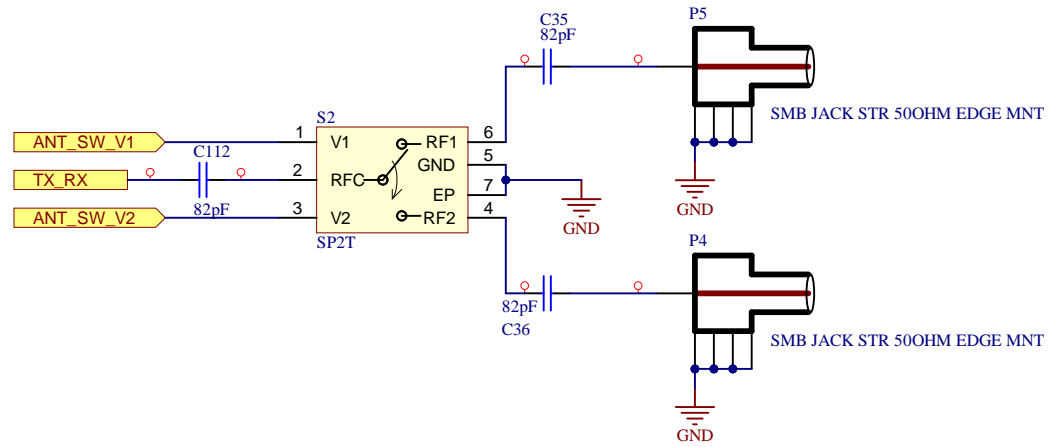
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Altium Project: ST25RU3993-HPEV

Title: Antenna_Switch_HP.SchDoc

Revision: V1

BOM: 01

Author: HINTEREB

Date: 25.11.2020

Sheet: 11 of 21



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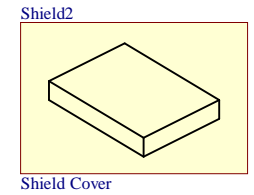
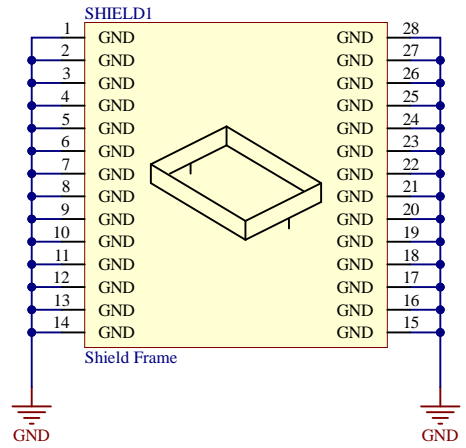
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Altium Project: ST25RU3993-HPEV		
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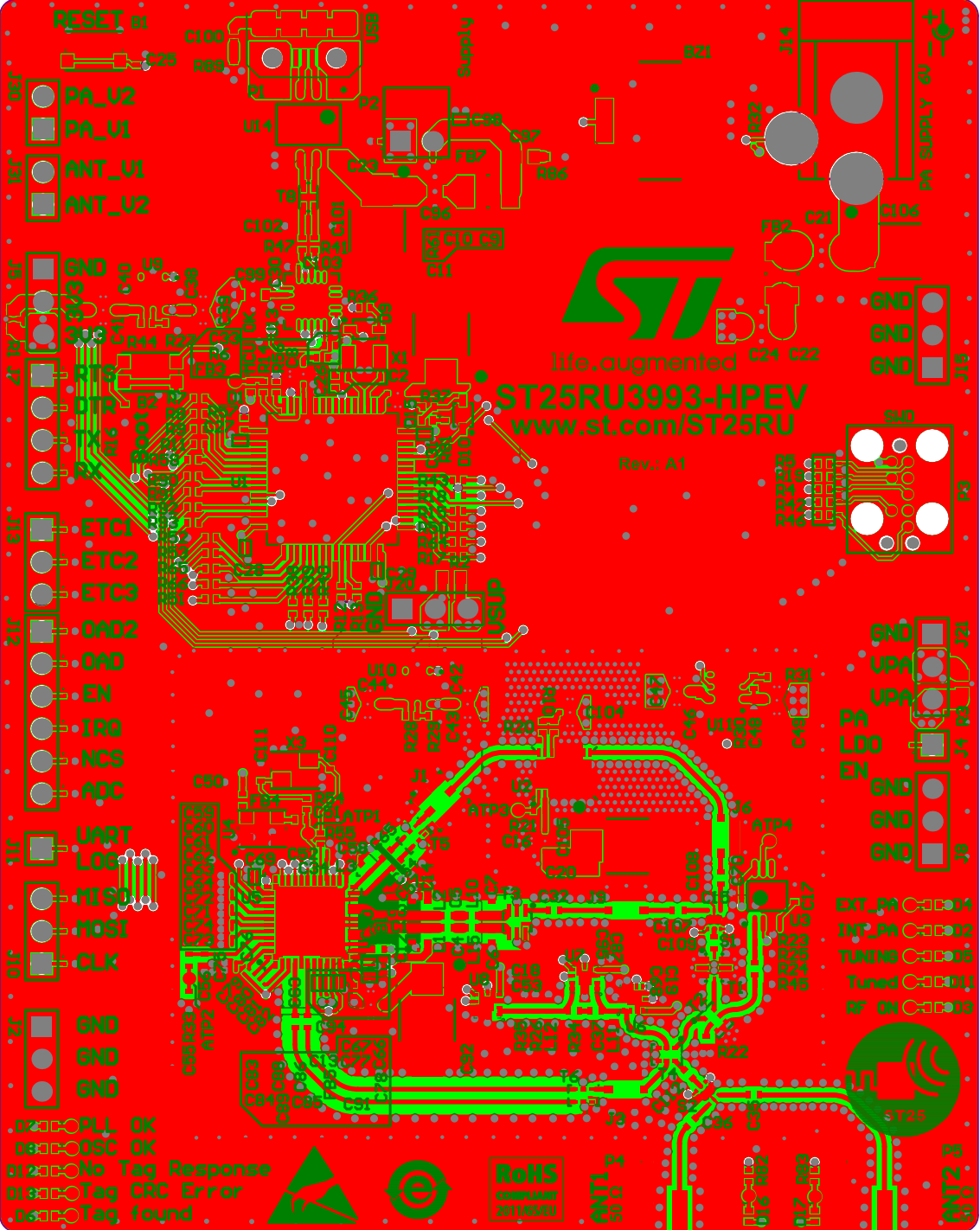


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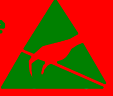
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Rev.: A1

- RESET B1
- PA_U2
- PA_U1
- ANT_U1
- ANT_U2
- GND
- 3V3
- RTS
- DTR
- RX
- TX
- ETC1
- ETC2
- ETC3
- OAD2
- OAD
- EN
- IRQ
- NCS
- ADC
- UART
- LOG
- MISO
- MOSI
- CLK
- GND
- GND
- GND

- PA SUPPLY 6U
- GND
- GND
- GND
- SLID
- P3
- GND
- UPA
- UPA
- PA
- LDO
- EN
- GND
- GND
- GND
- J1
- R3
- J21
- J8
- EXT_PA C00D04
- INT_PA C00D02
- TUNING C00D05
- Tuned C00D11
- RF ON C00D03

b7d0c PLL OK
 b8d0c OSC OK
 b120c No Tag Response
 b130c Tag CRC Error
 b0d0c Tag found



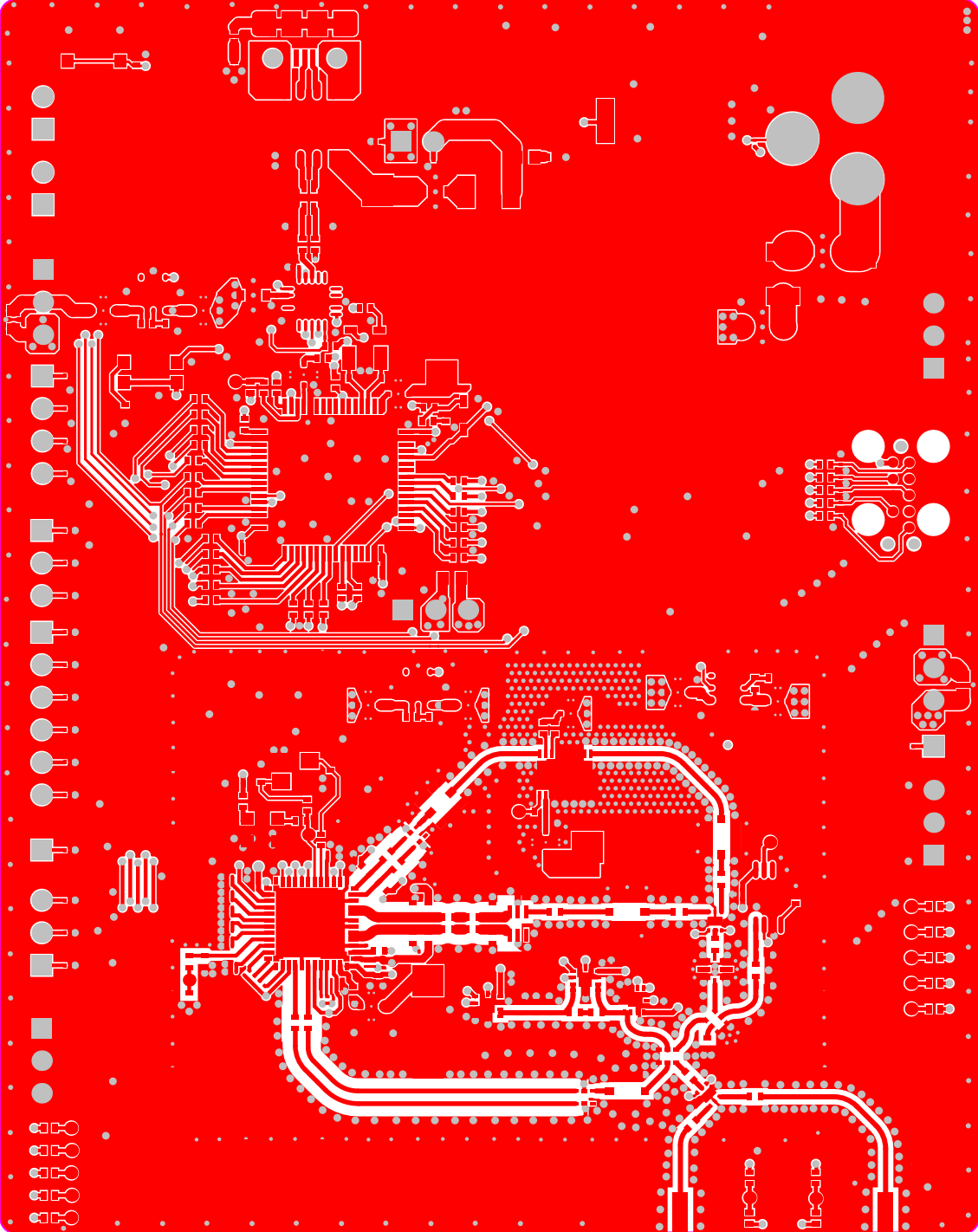
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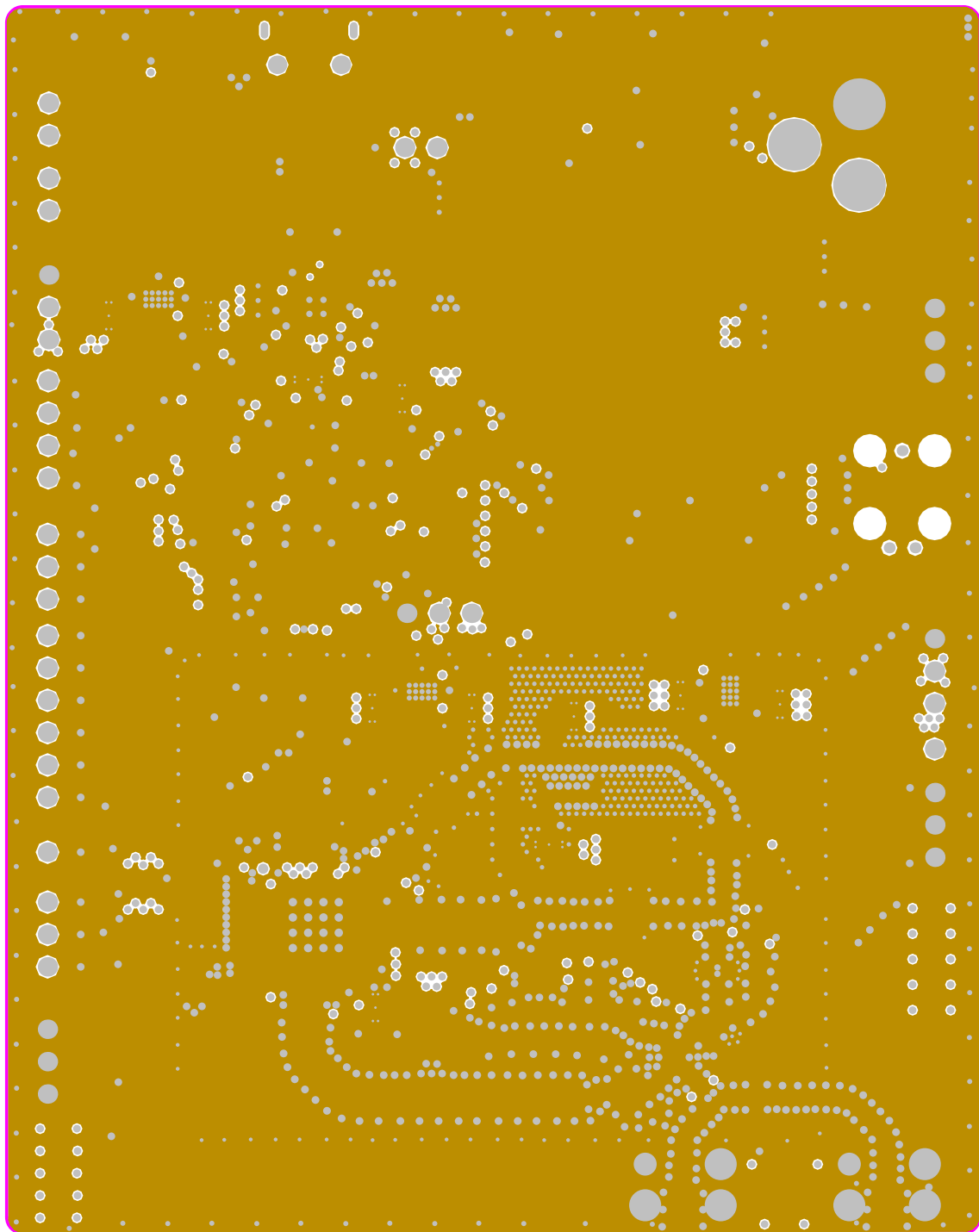
016 R82

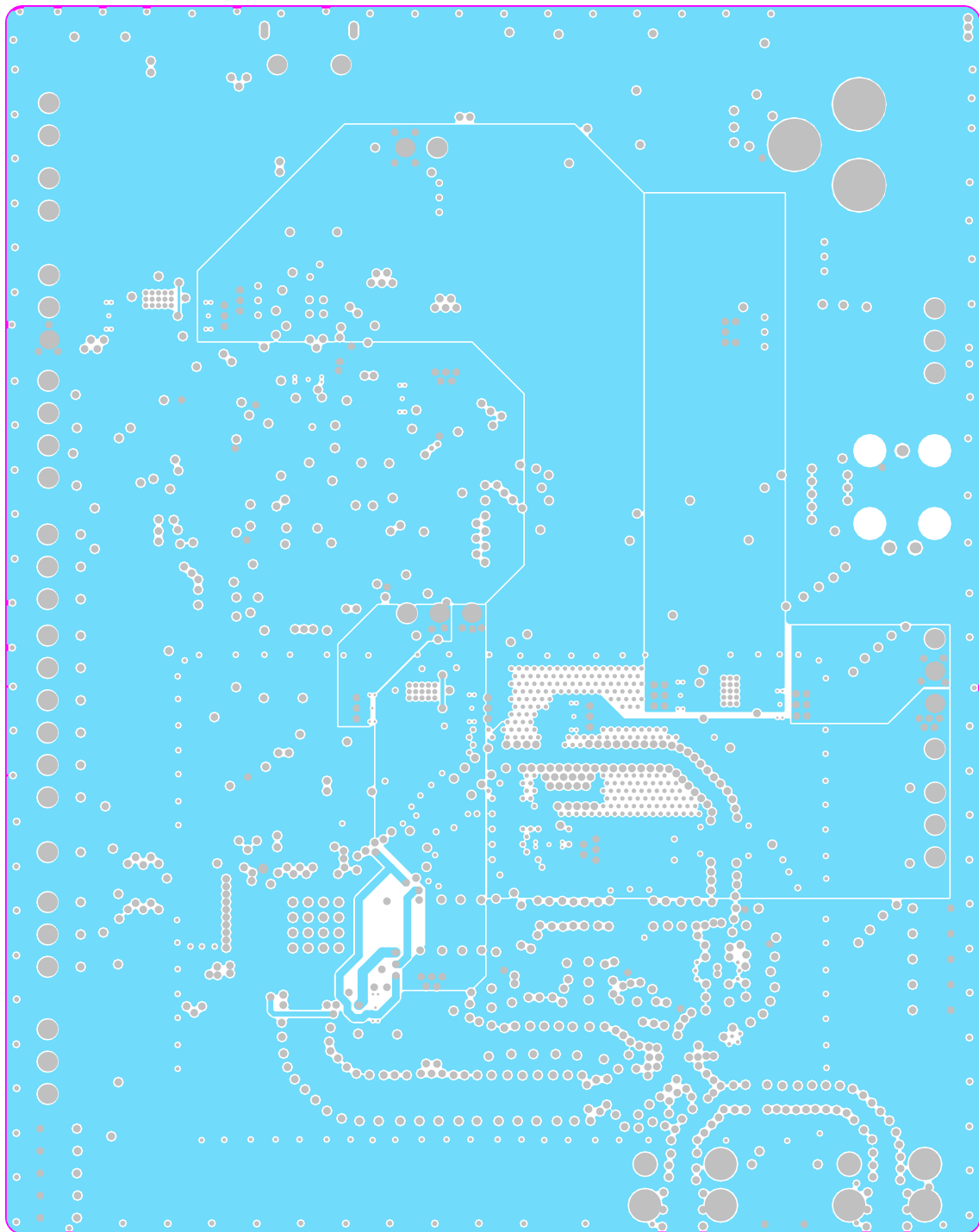
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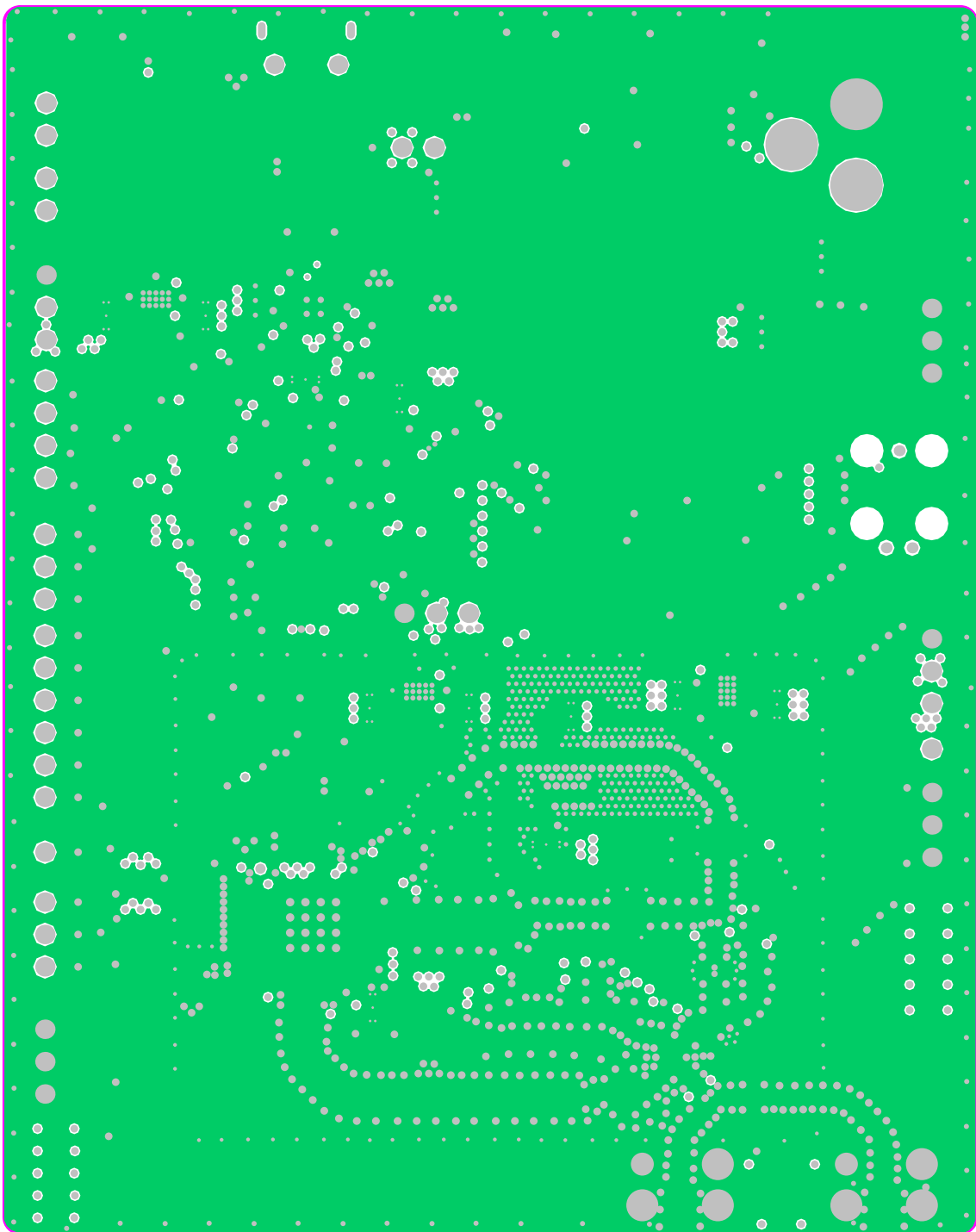


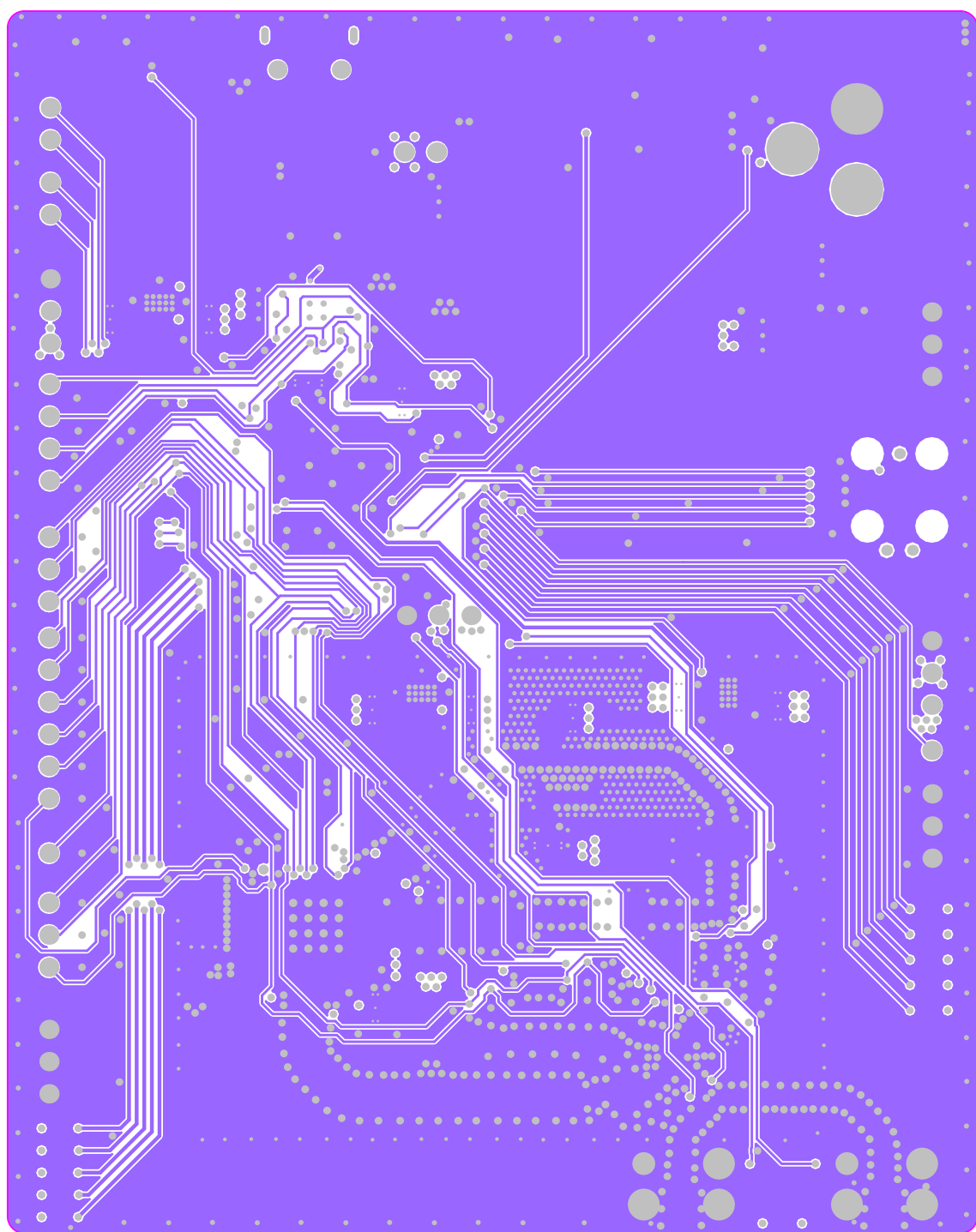
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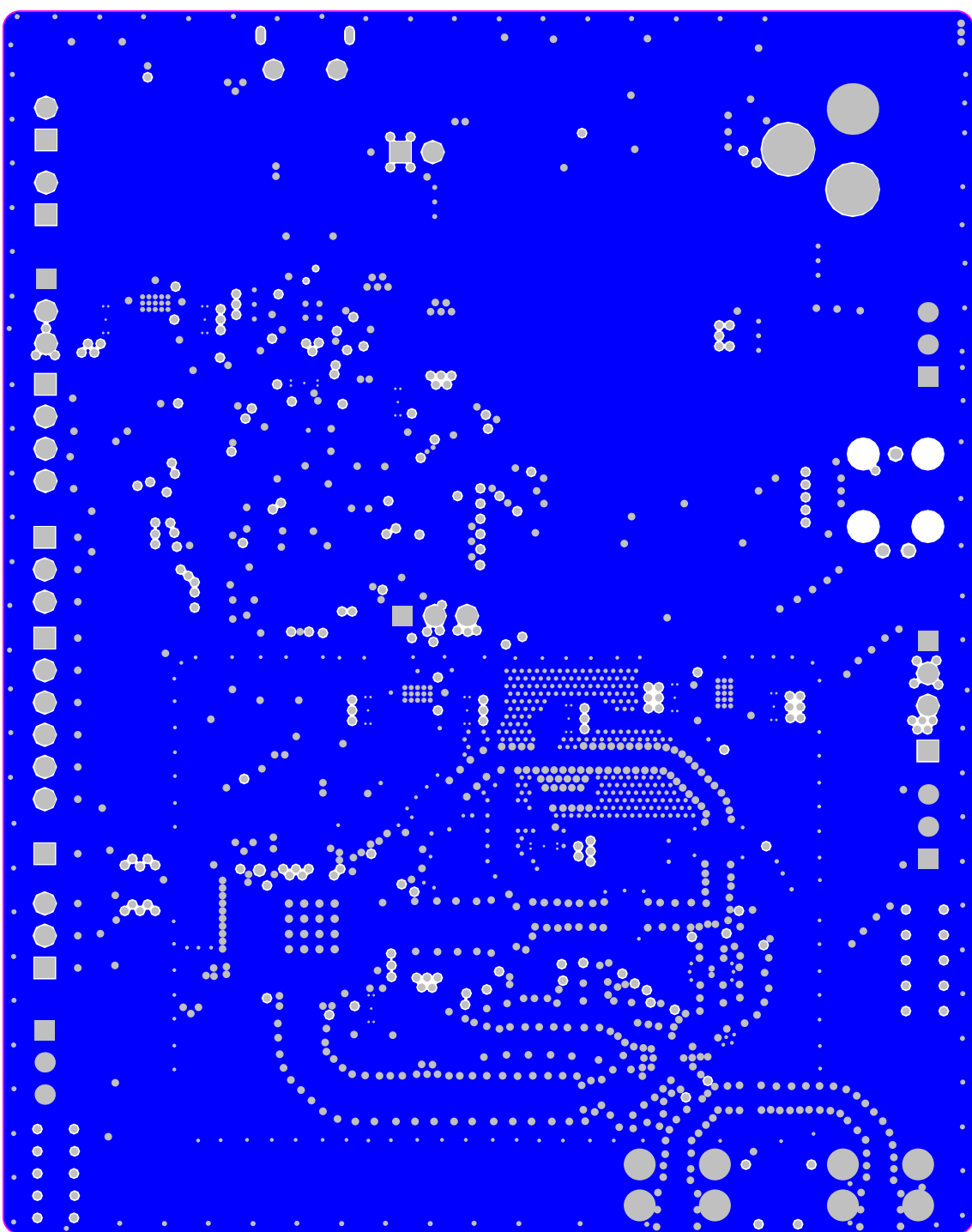


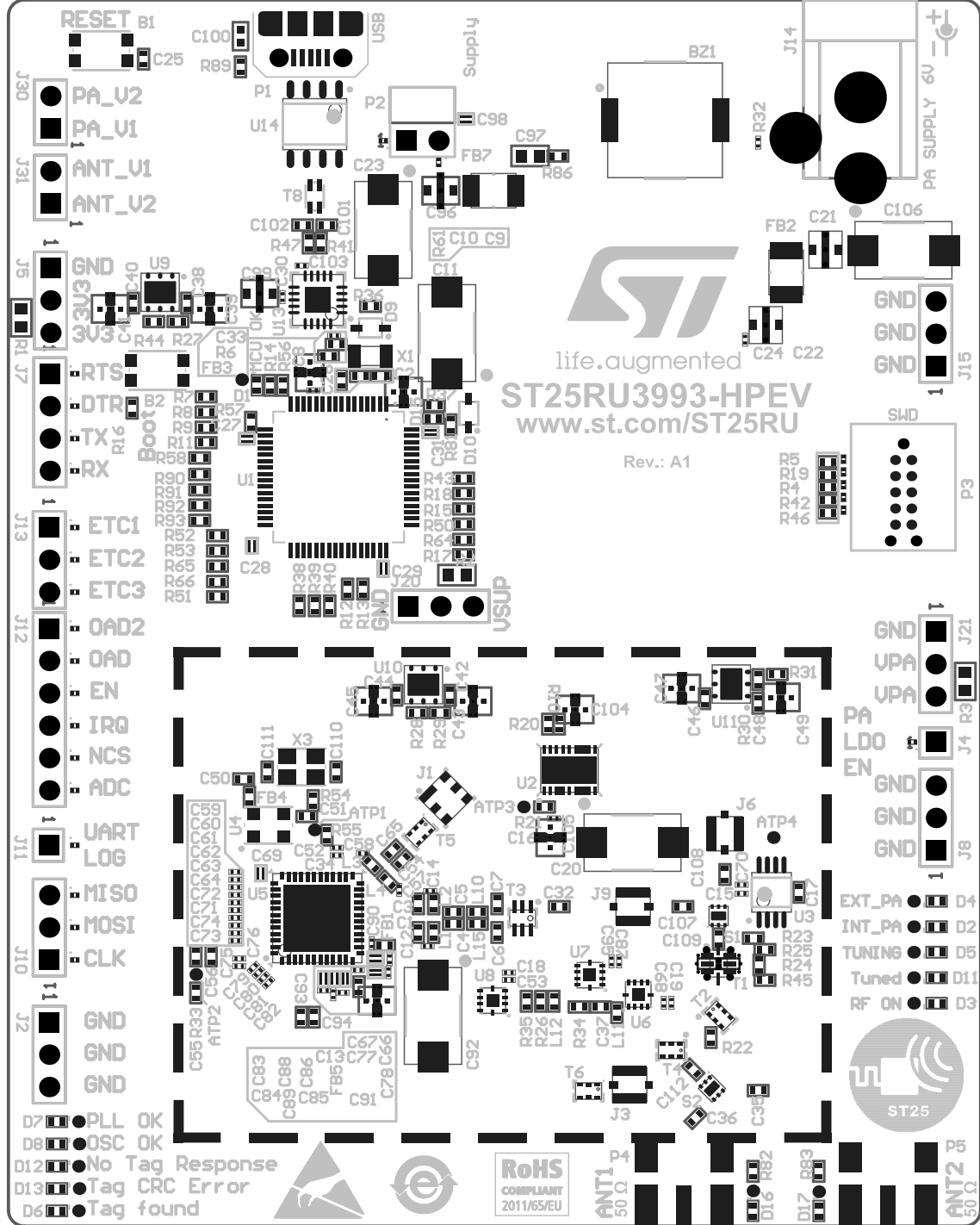












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Rev.: A1

- D7 PLL OK
- D8 OSC OK
- D12 No Tag Response
- D13 Tag CRC Error
- D6 Tag found



RoHS
COMPLIANT
2011/65/EU



ANT1 P4
50 Ohm

ANT2 P5
50 Ohm