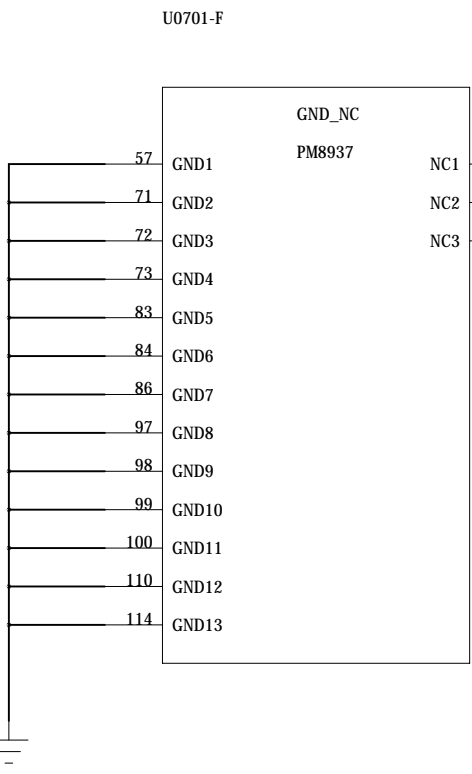
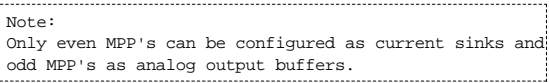
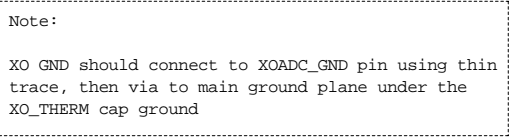
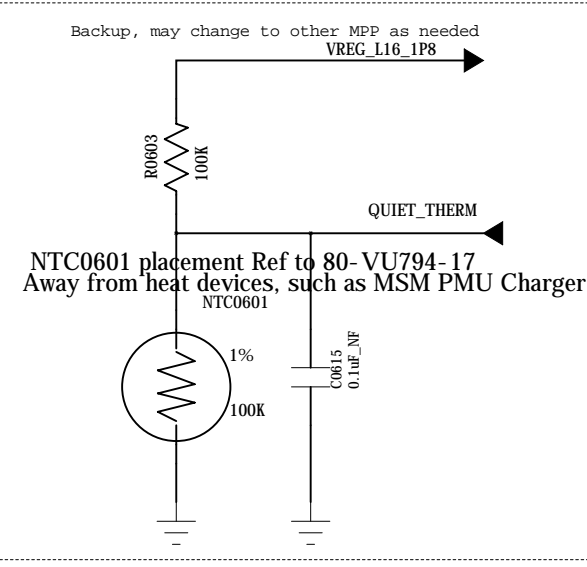


BATID Resistor Pull down to GND in BAT Module.
BAT_THERM NTC(68K B=4250) Pull down to GND in BAT Module.

BATTERY CONNECTOR

PMI8937 CHARGER

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Date:	Sheet	of



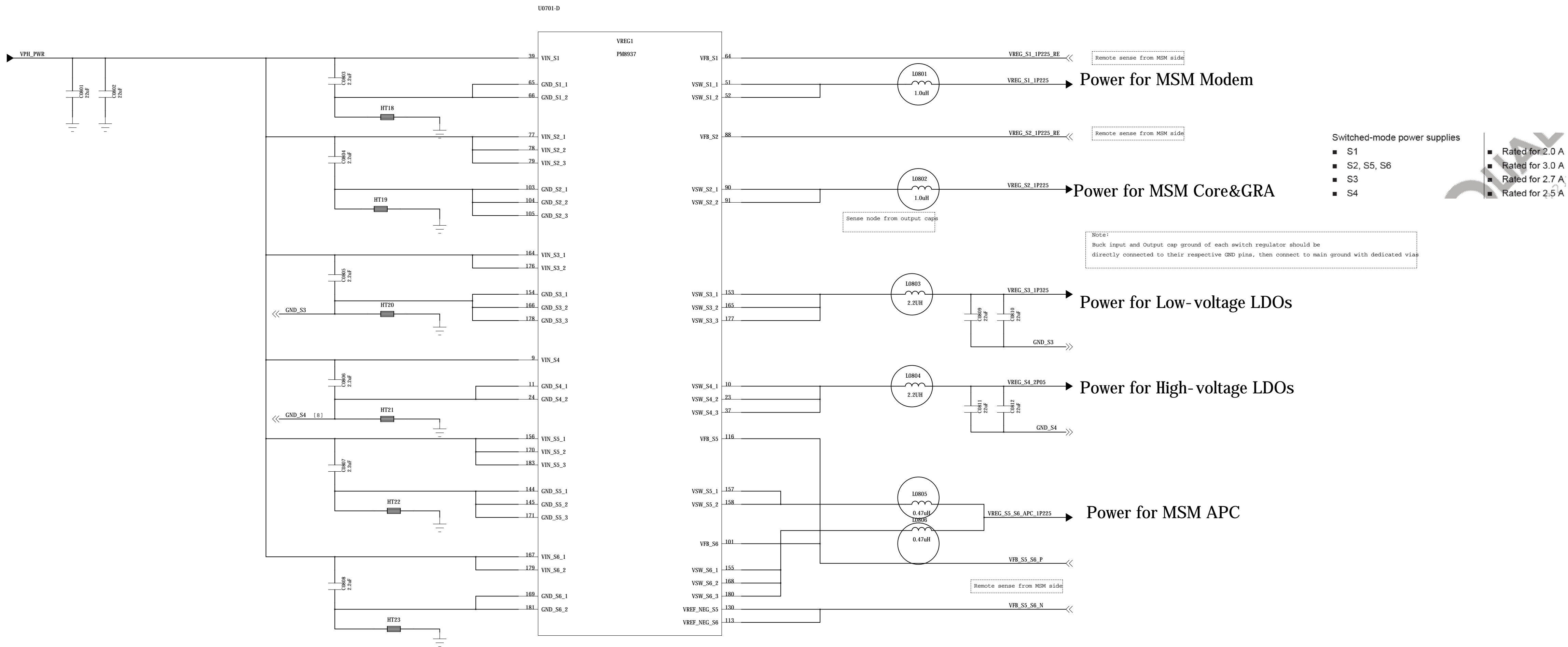
GND_REF MUST connect directly to C0703 and then to main GND with a dedicated via.

GND_X0 and GND_RF MUST connect directly to C0920 and C0921 respectively and then connect to main GND with dedicated via.

PM8937 Control and MPP/Clock

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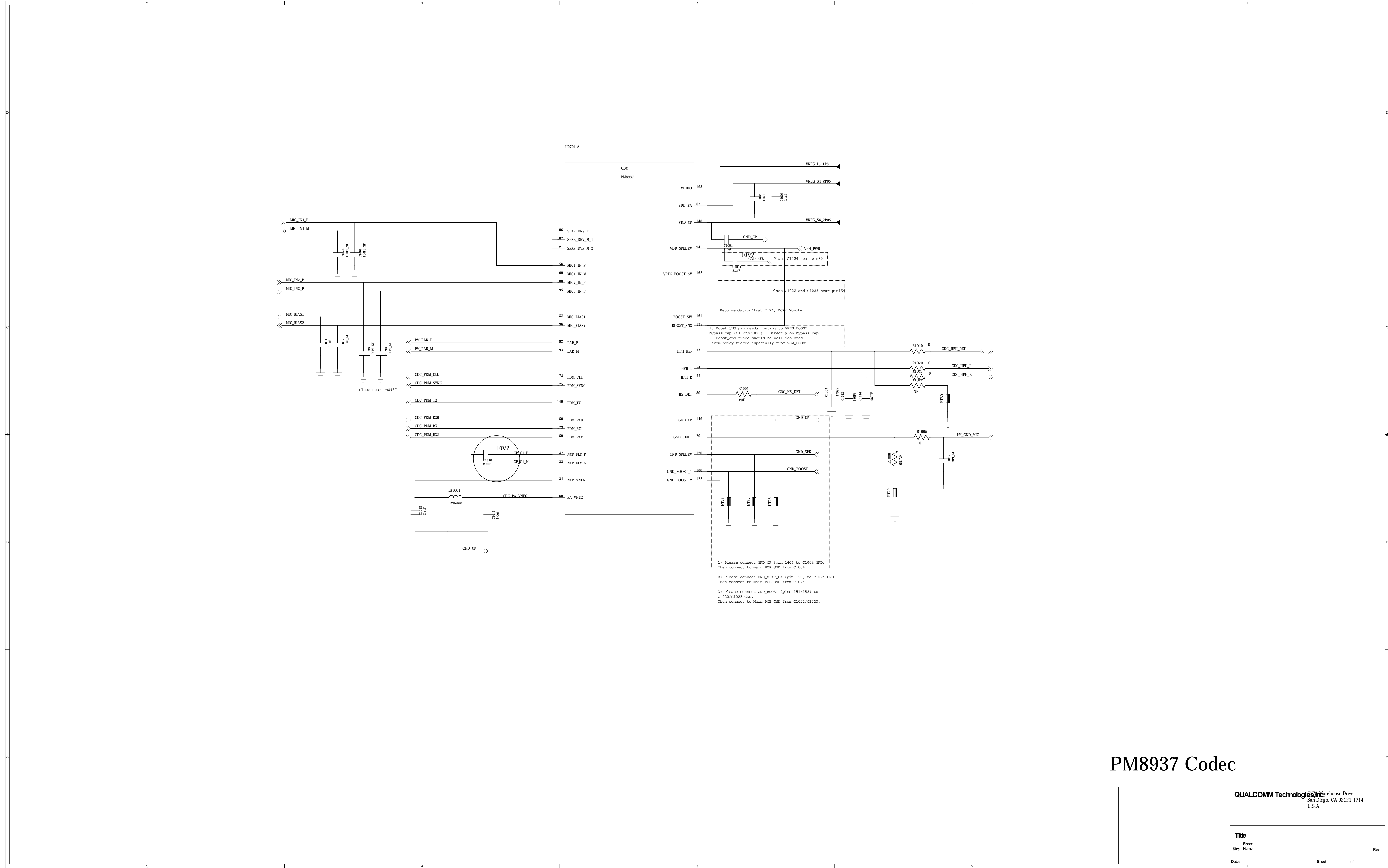
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PM8937 Buck converter

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Qualcomm Parkway
San Diego, CA 92121-1714
U.S.A.

Title
Sheet
Date: 1 of 1

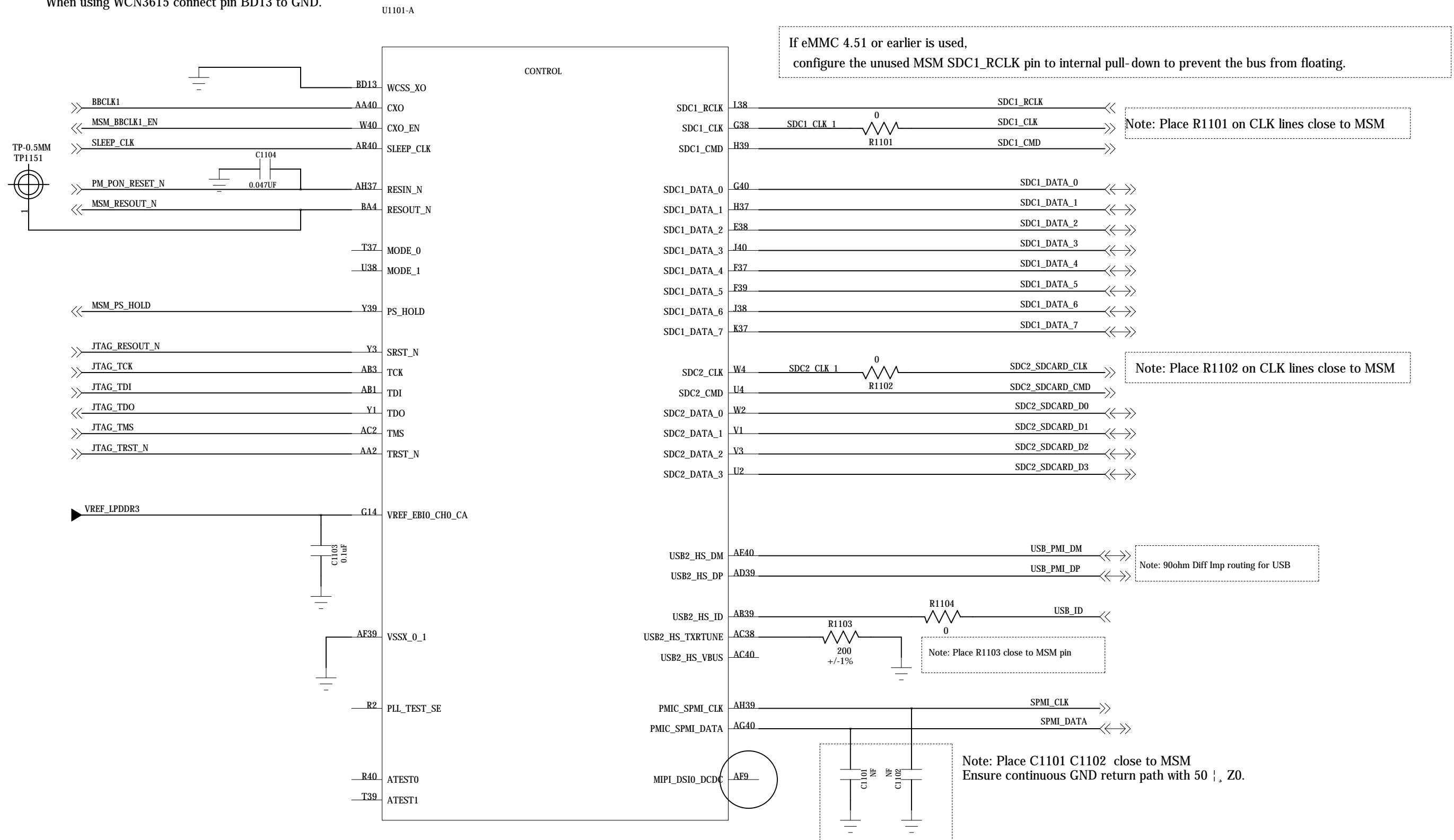


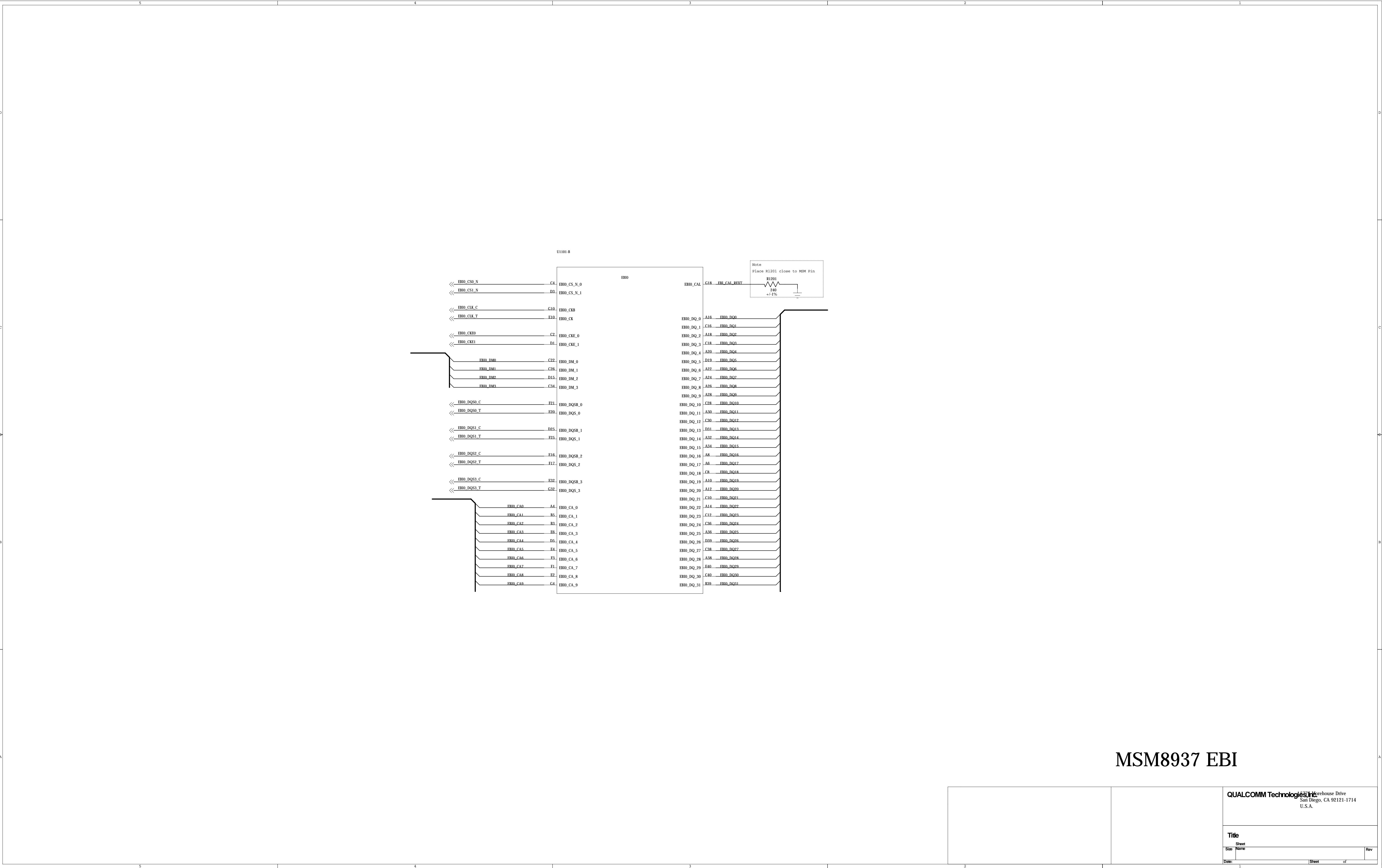
PM8937 Codec

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Title		
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Date:	Sheet	of

Note: WCSS_XO signal required only for 5GHZ.
When using WCN3615 connect pin BD13 to GND.



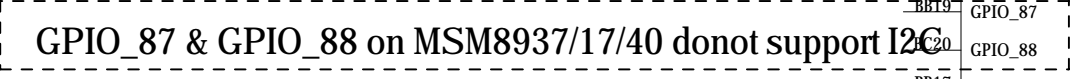
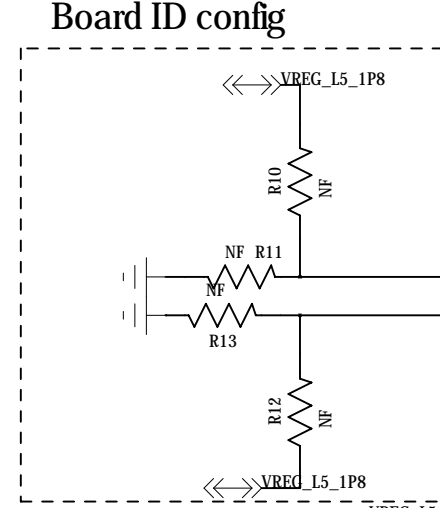


MSM8937 EBI

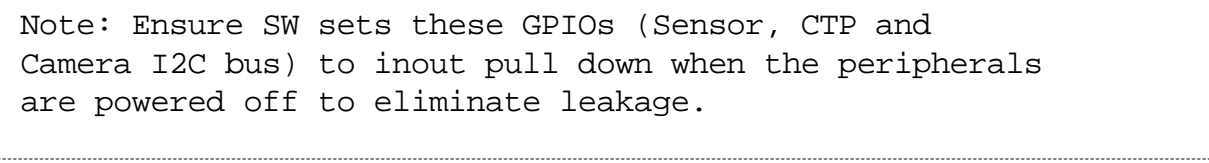
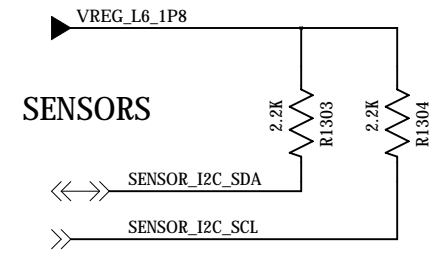
QUALCOMM Technologies, Inc.
Qualcomm Warehouse Drive
San Diego, CA 92121-1714
U.S.A.

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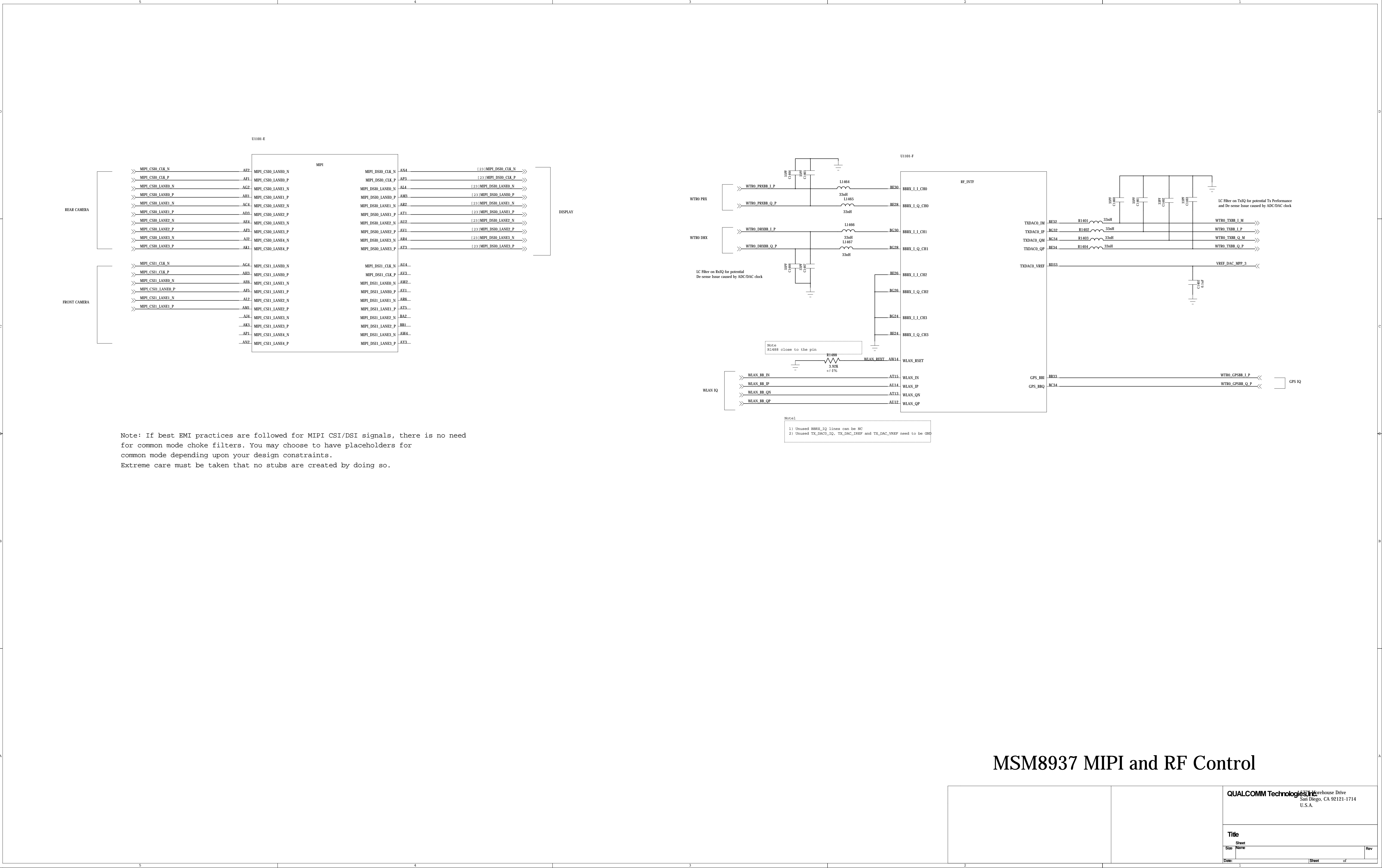
U1101-C



GPIO_91, 107, 109

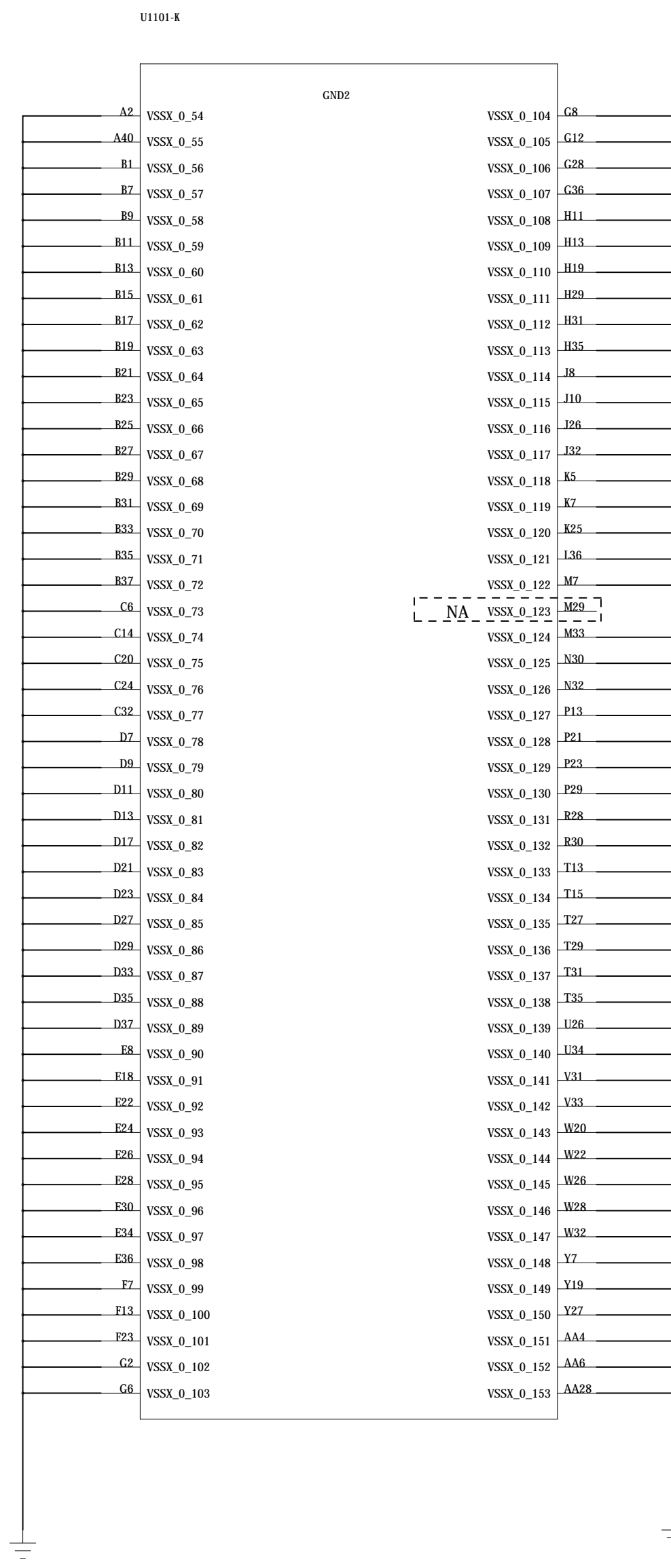
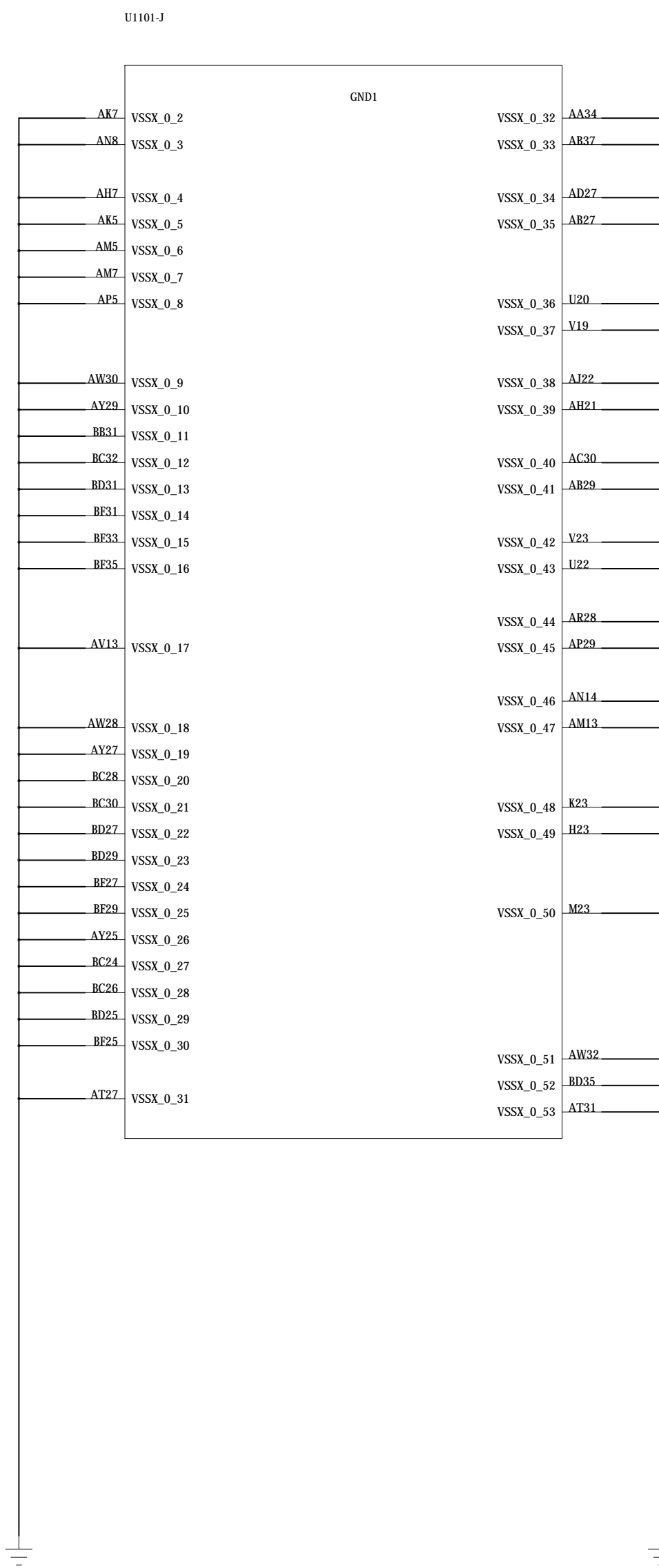
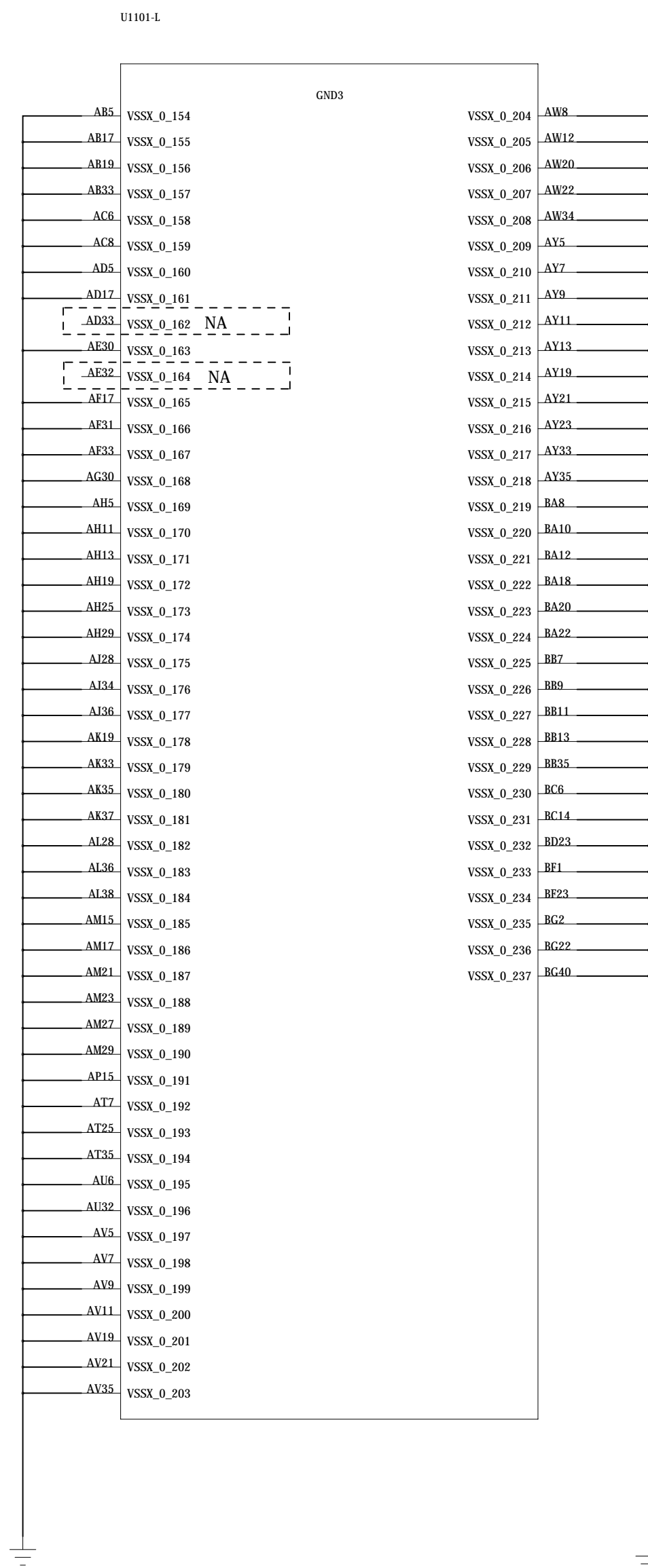


		QUALCOMM Technologies, Inc. 3535 La Jolla Village Drive San Diego, CA 92121-1714 U.S.A.						
		Title						
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Size	Name							
Date: _____ Sheet _____ of _____								

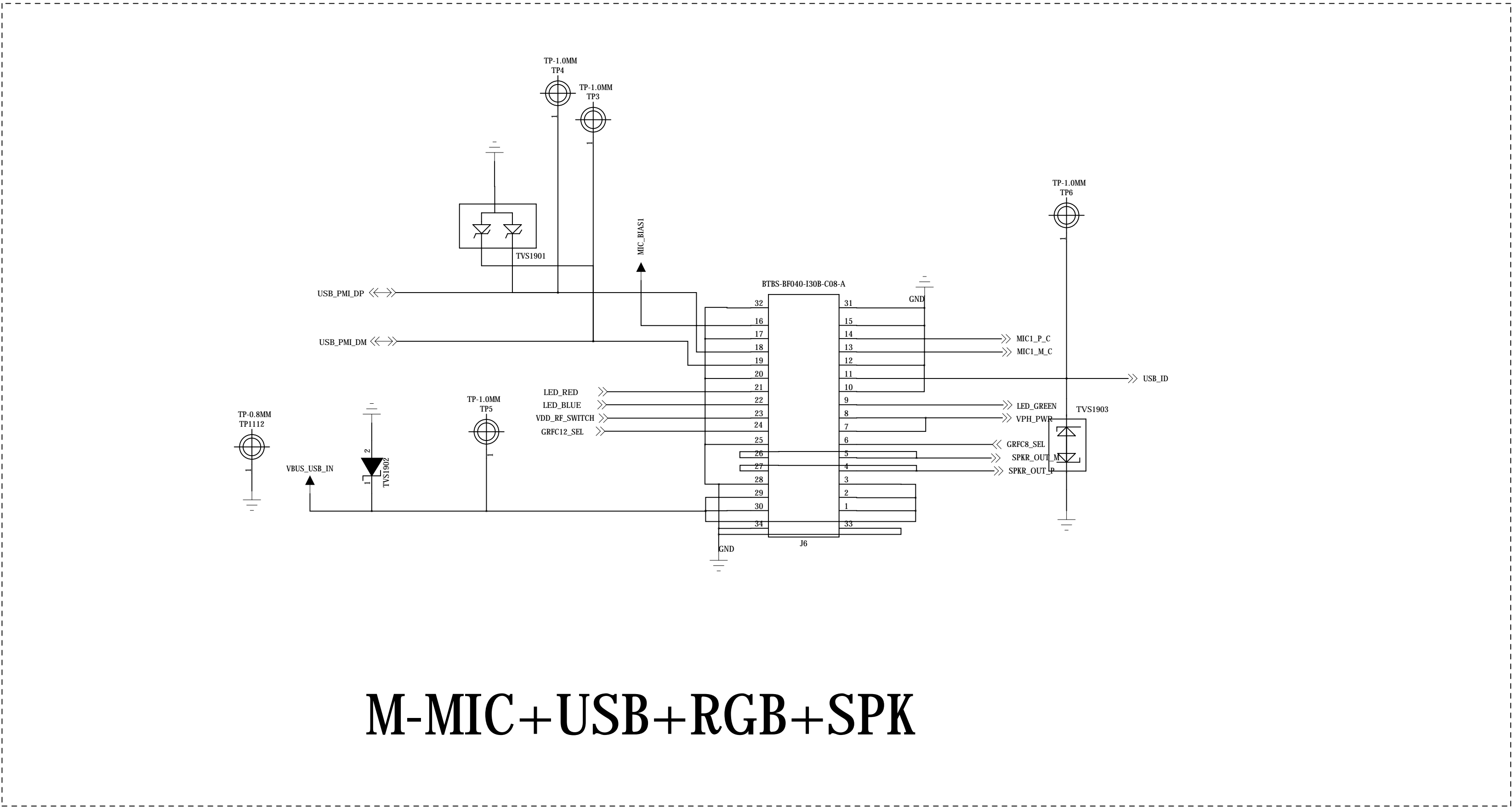




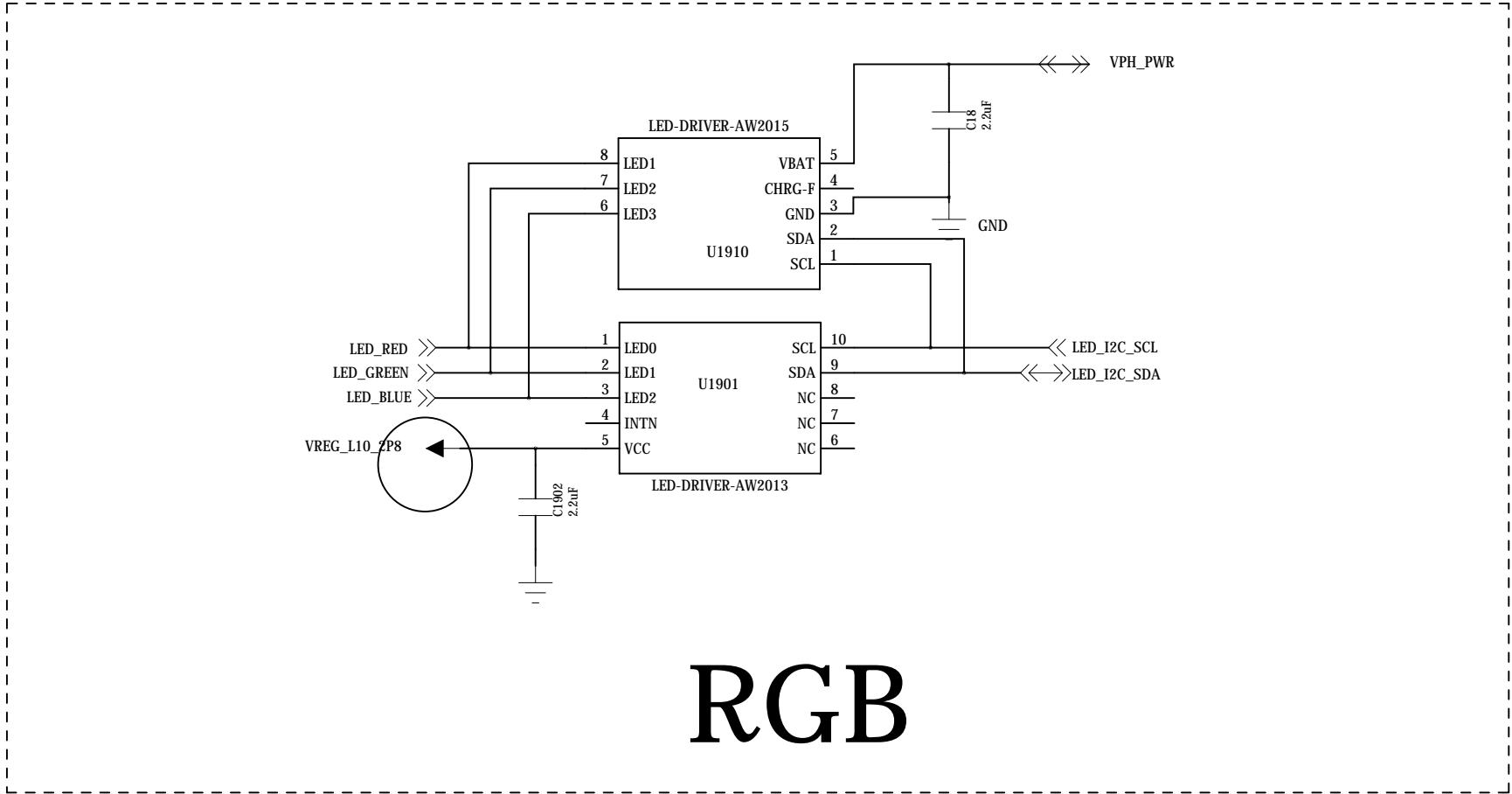
MSM8937 POWER2



MSM8937 GND



M-MIC+USB+RGB+SPK

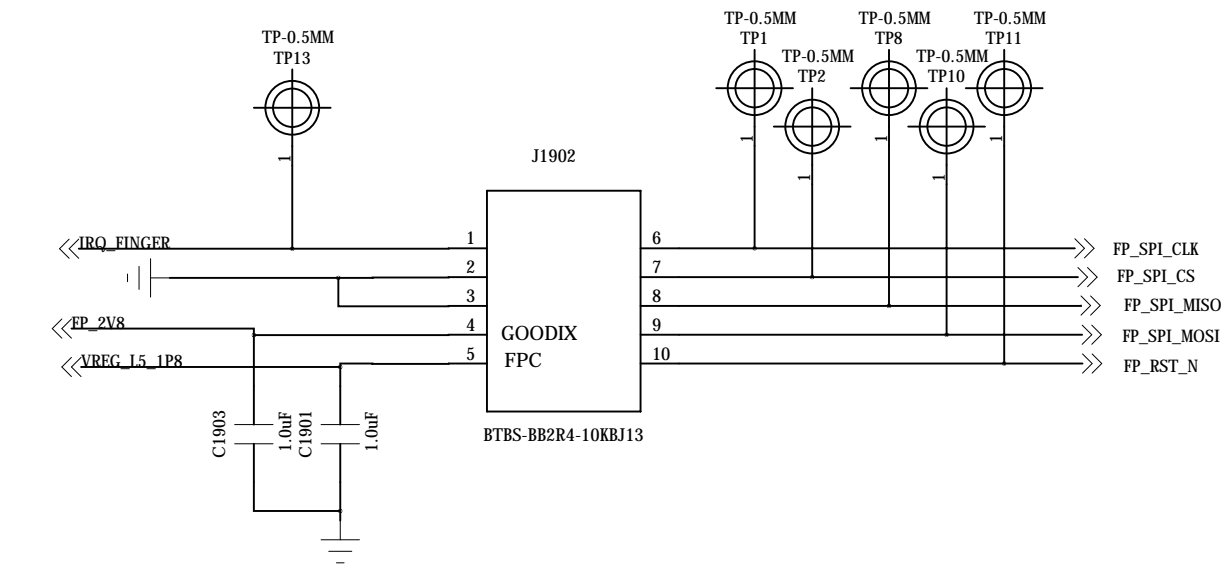


RGB

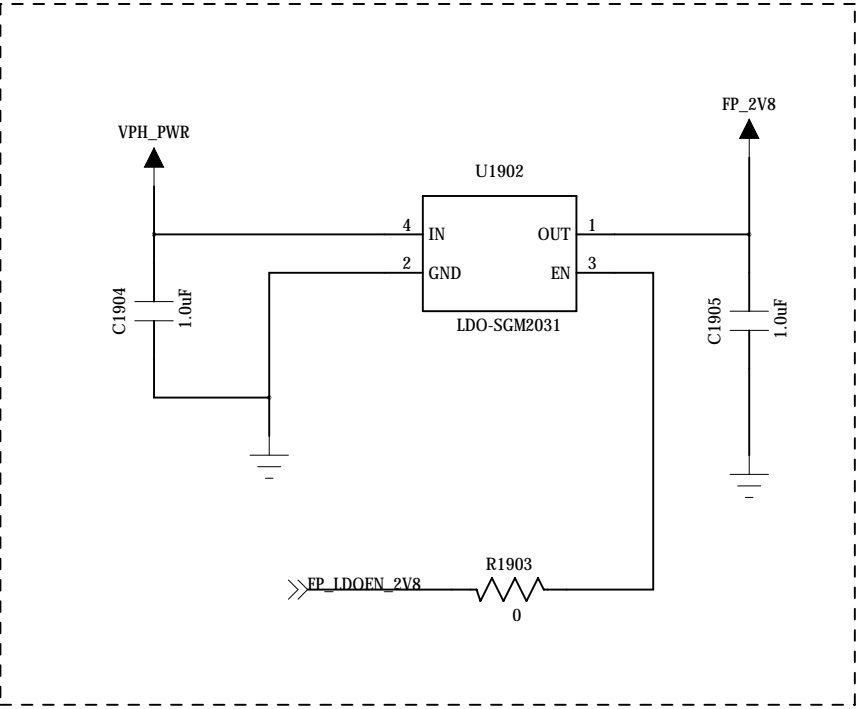
I2C Address	
Write	8B0x8A
Read	8B0x8B

Power on sequence: can be applied in any order

connector 0812 change



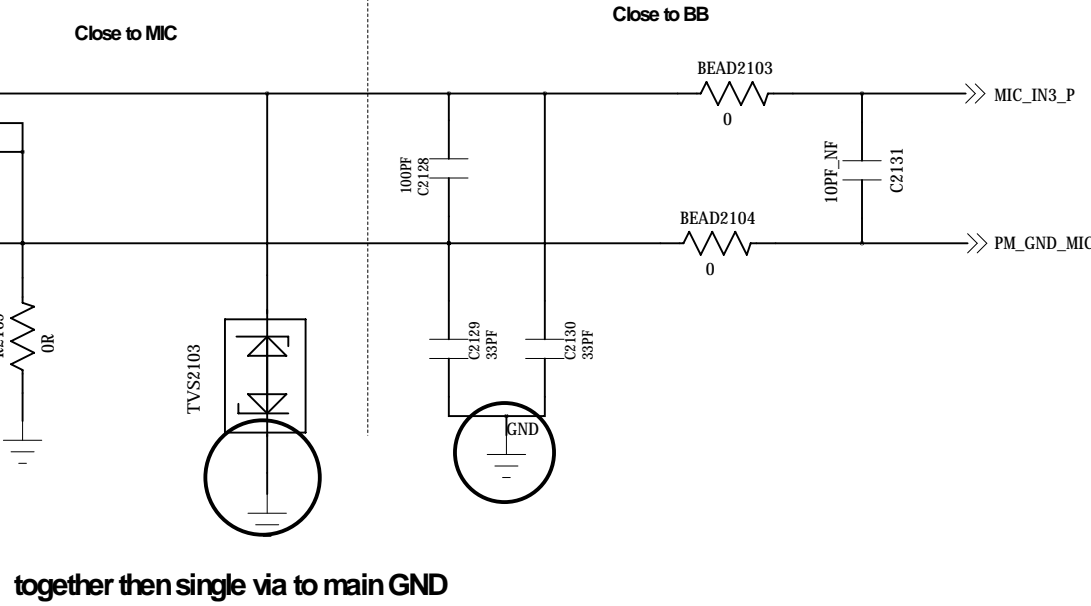
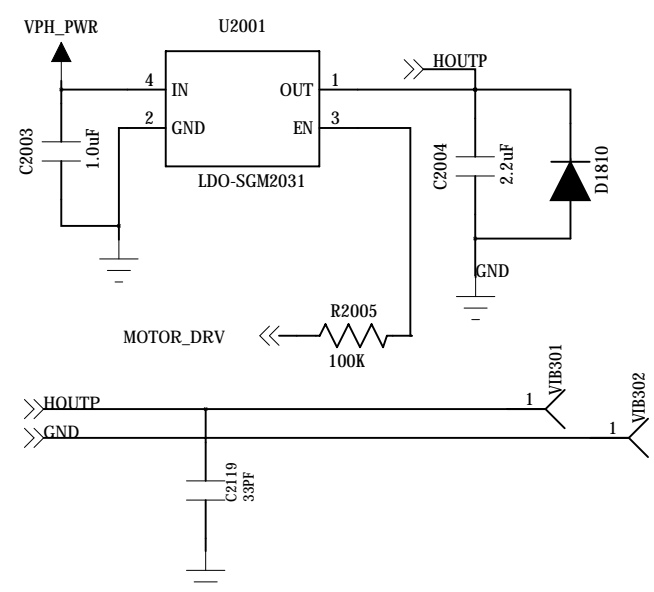
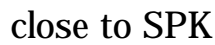
0511 update conector



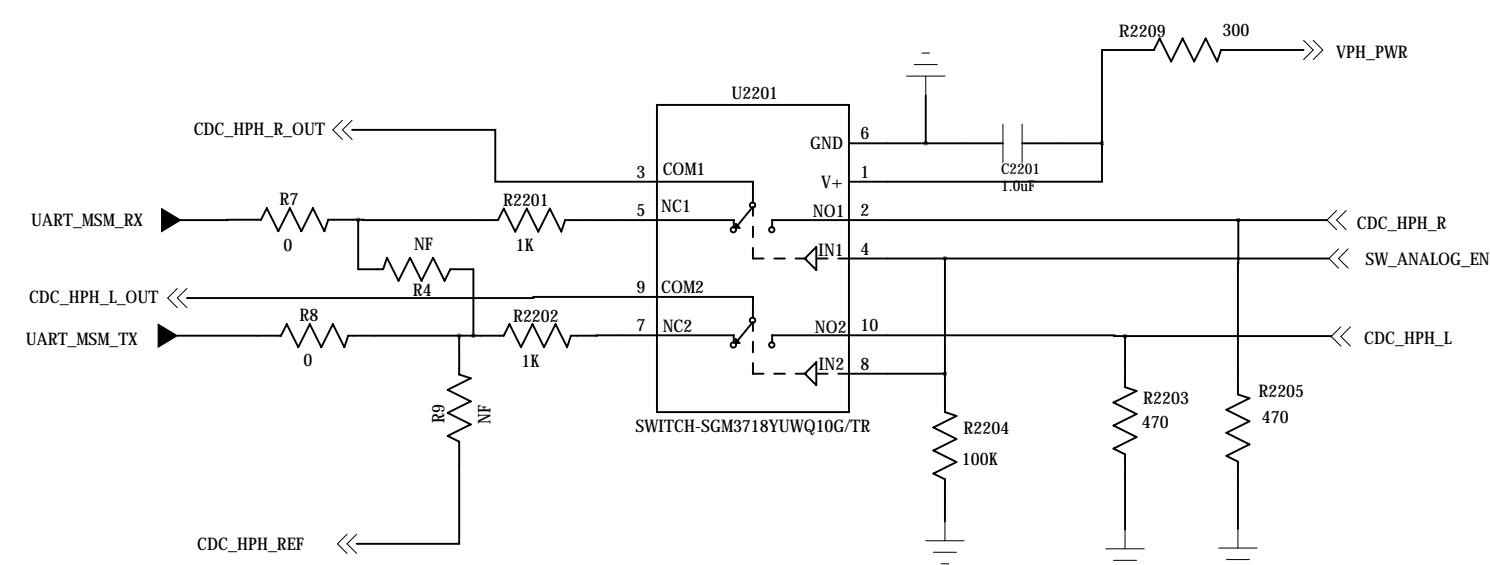
USB/SUB BOARD CONNECTOR

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Sheet	Rev
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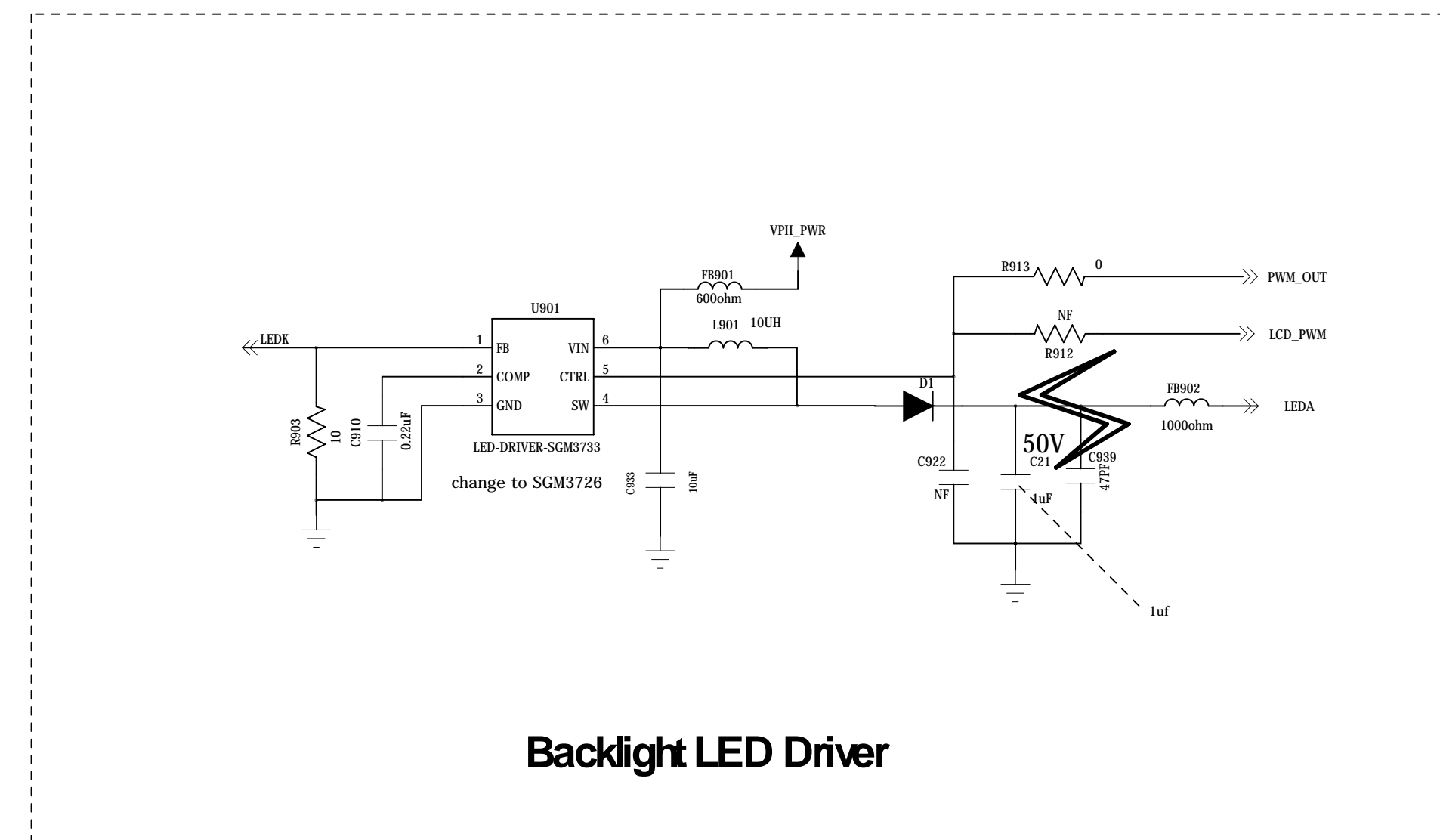
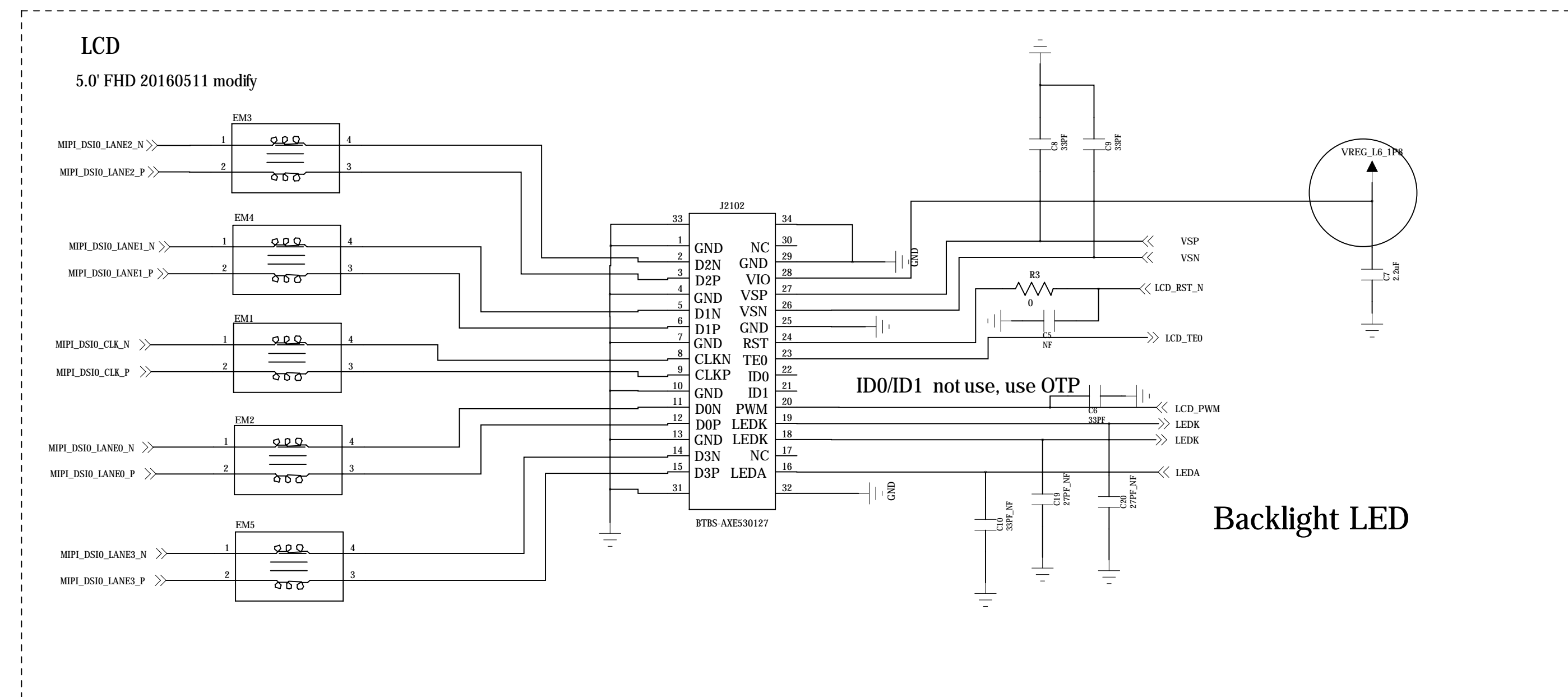
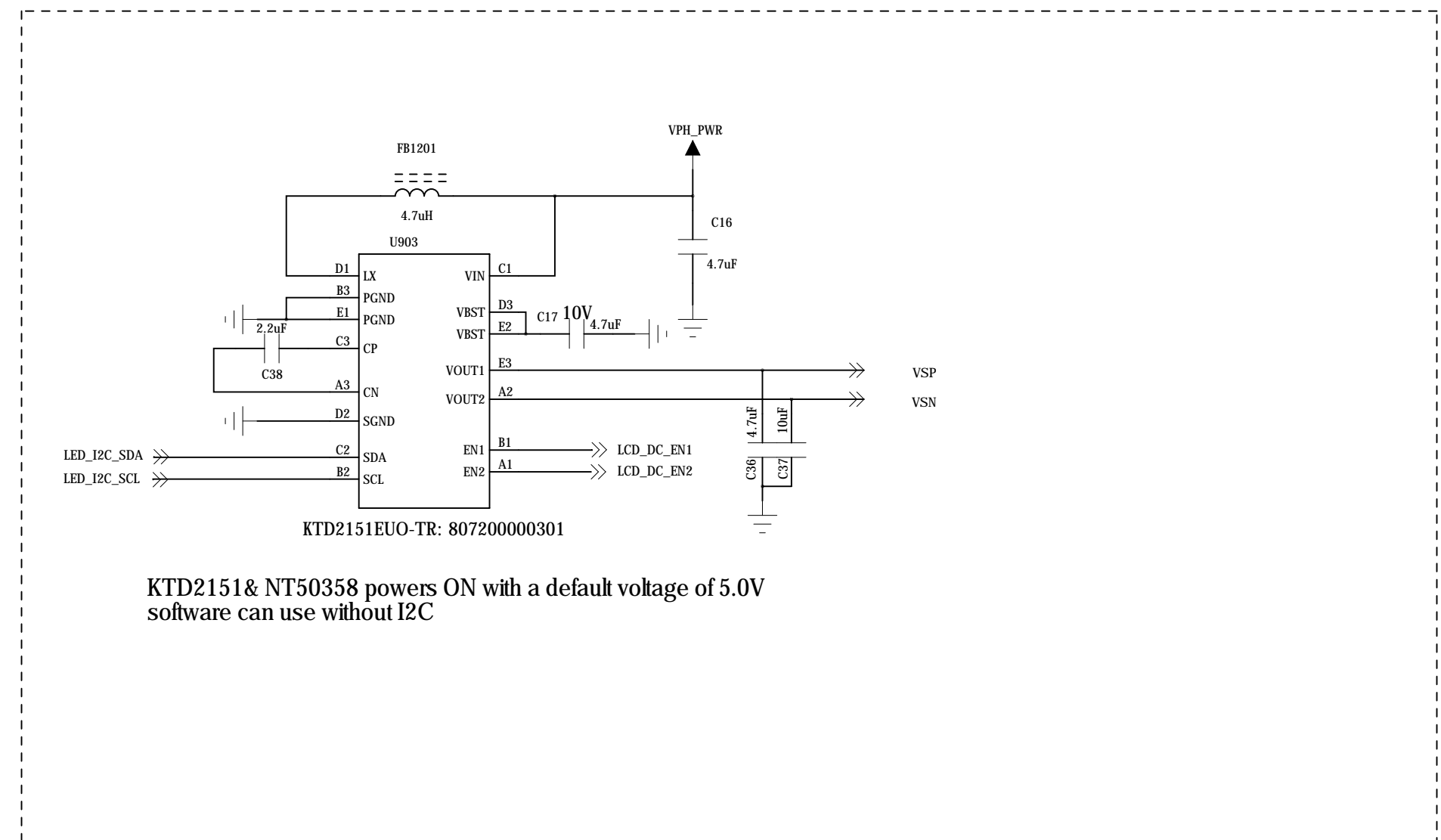
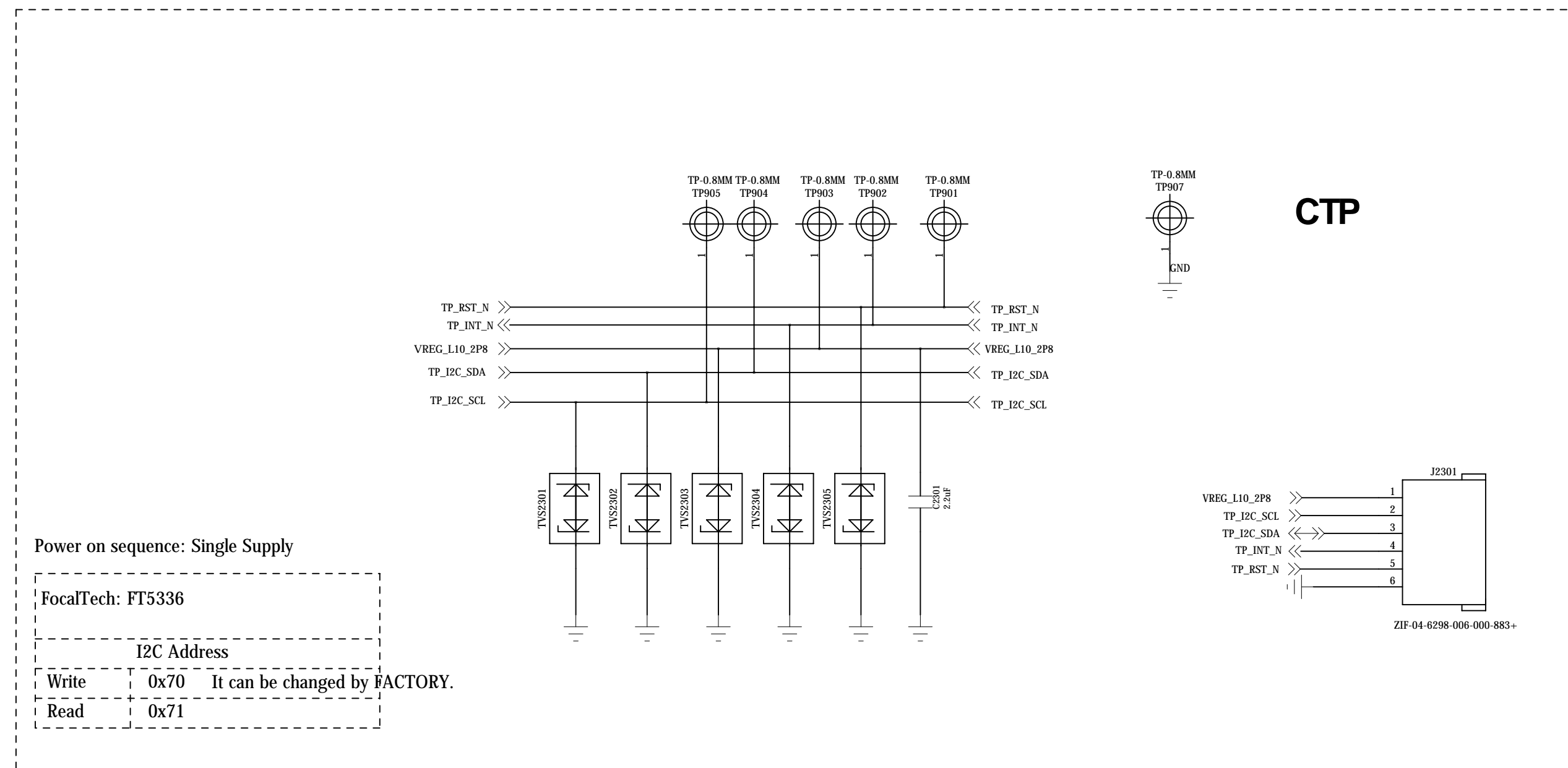
SECONDARY MIC/RECEIVER



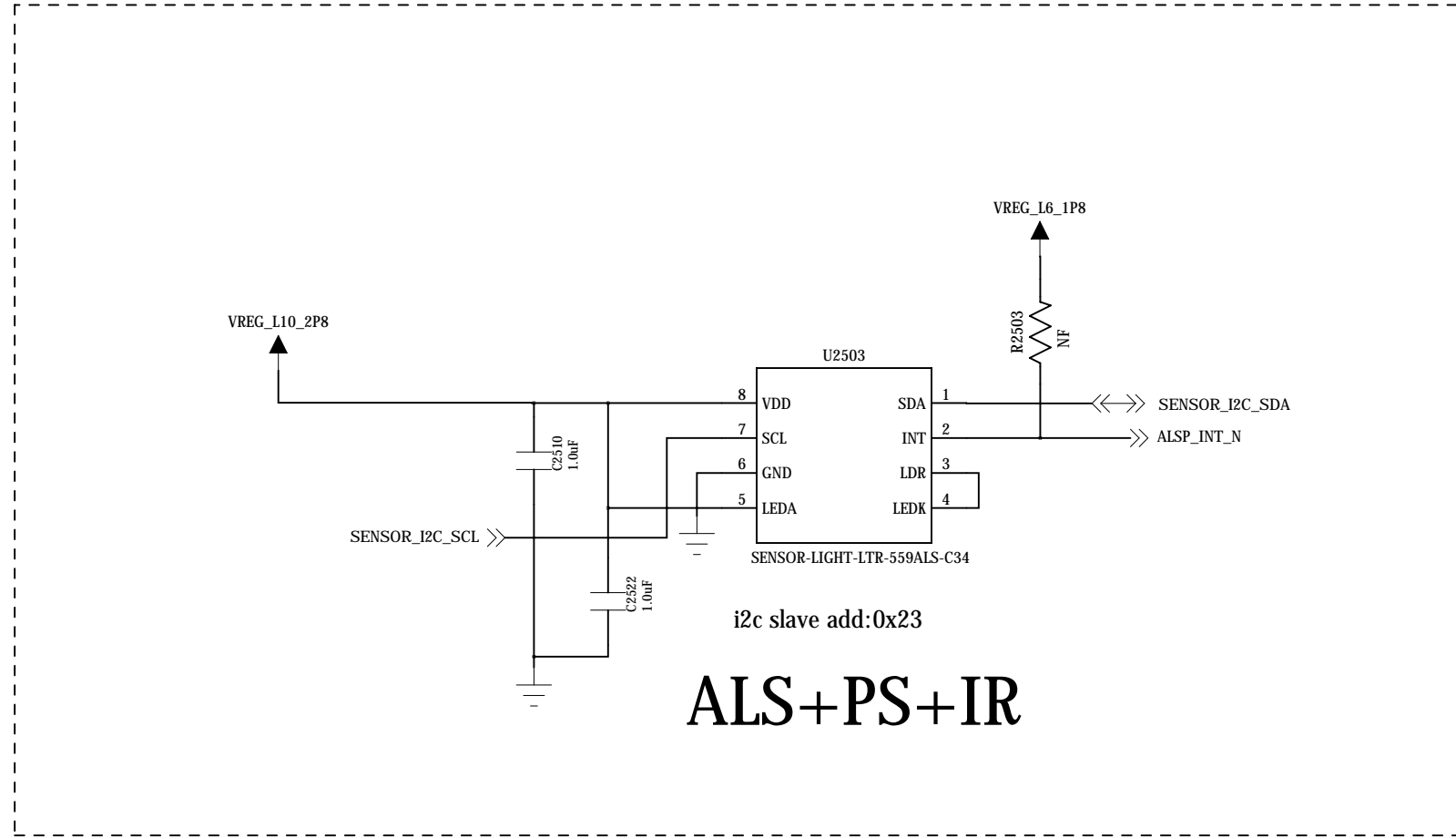
AUDIO JACK



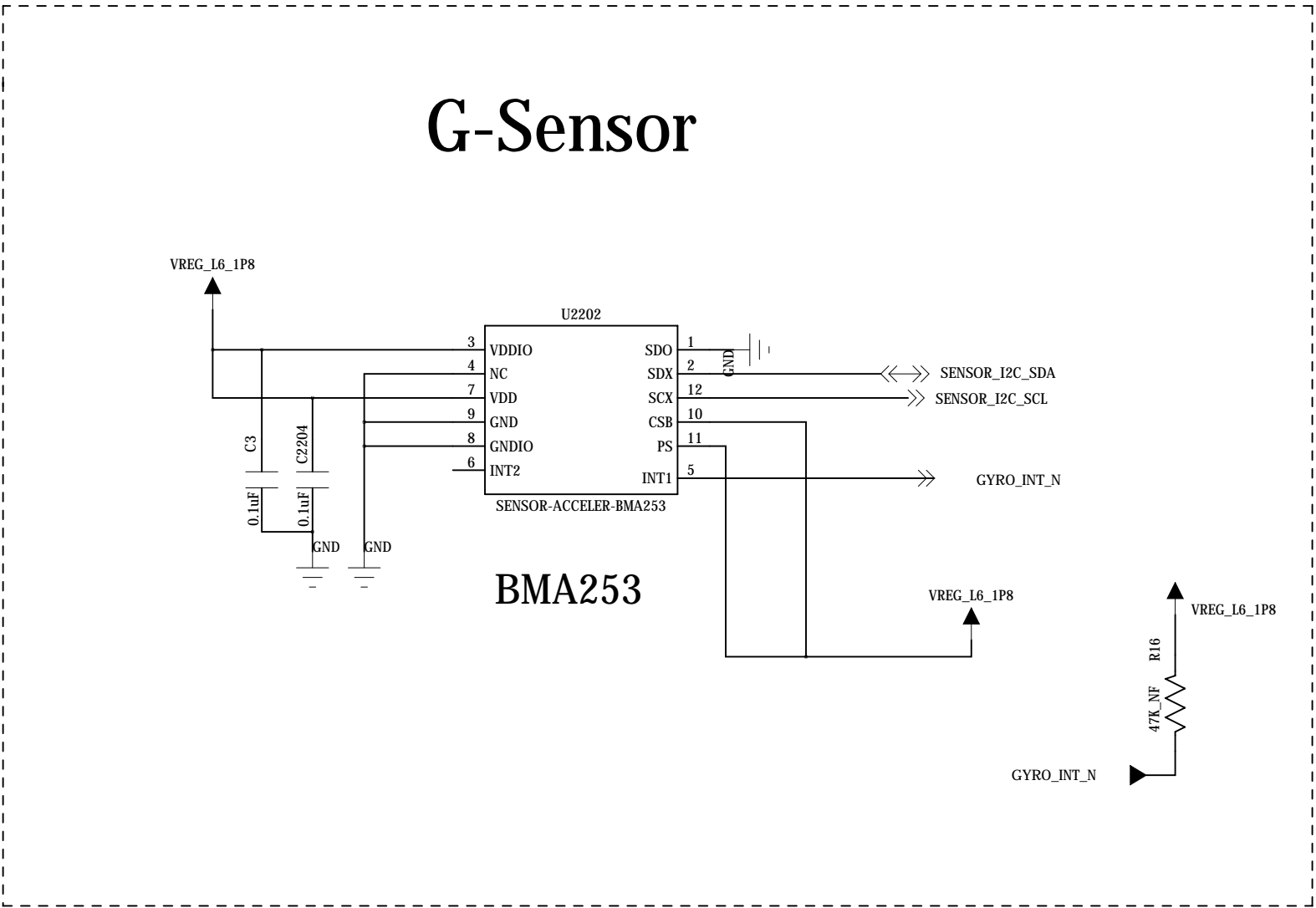
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Note: If best EMI practices are followed for MIPI CSI/DSI signals, there is no need for common mode choke filters. You may choose to have placeholders for common mode depending upon your design constraints. Extreme care must be taken that no stubs are created by doing so.

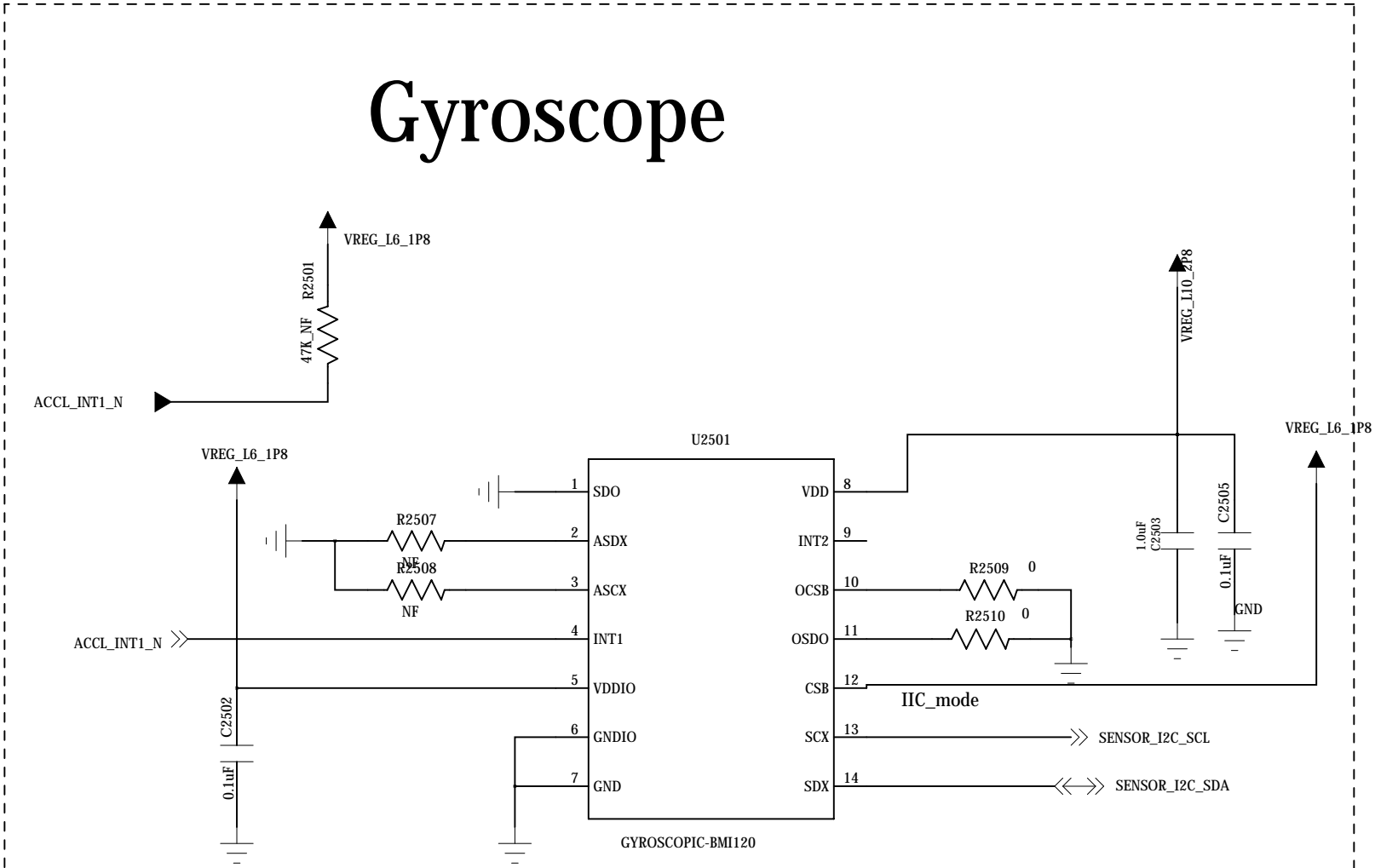


ALS+PS+IR



G-Sensor

BMA253



Gyroscope

BMI160

SD0=0 7b1101000 0x68

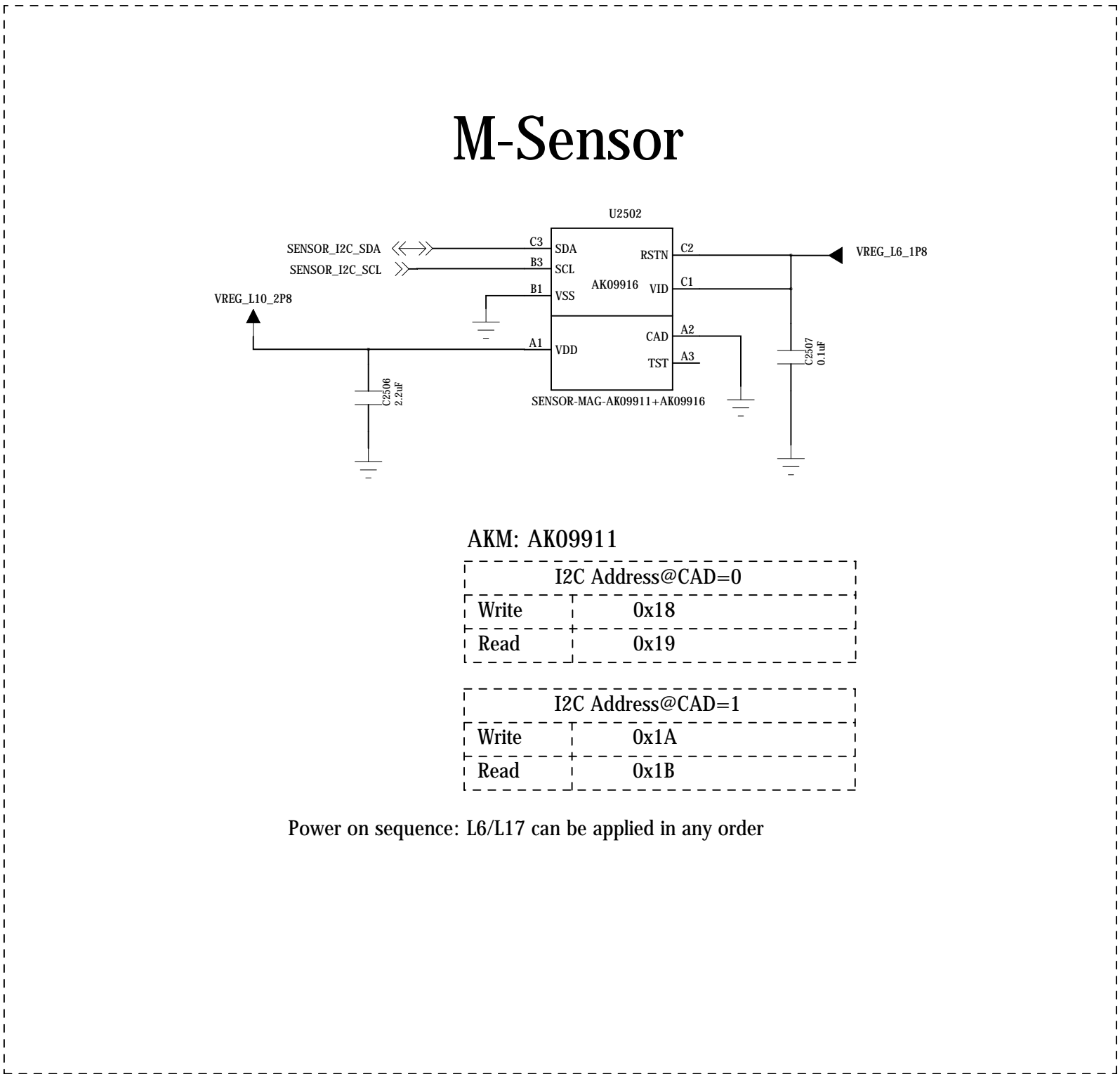
SD0=1 7b1101001 0x69

LSM6DS3

SD0=0 7b1101010 0x6A

SD0=1 7b1101011 0x6B

Power on sequence: L6/L17 can be applied in any order



M-Sensor

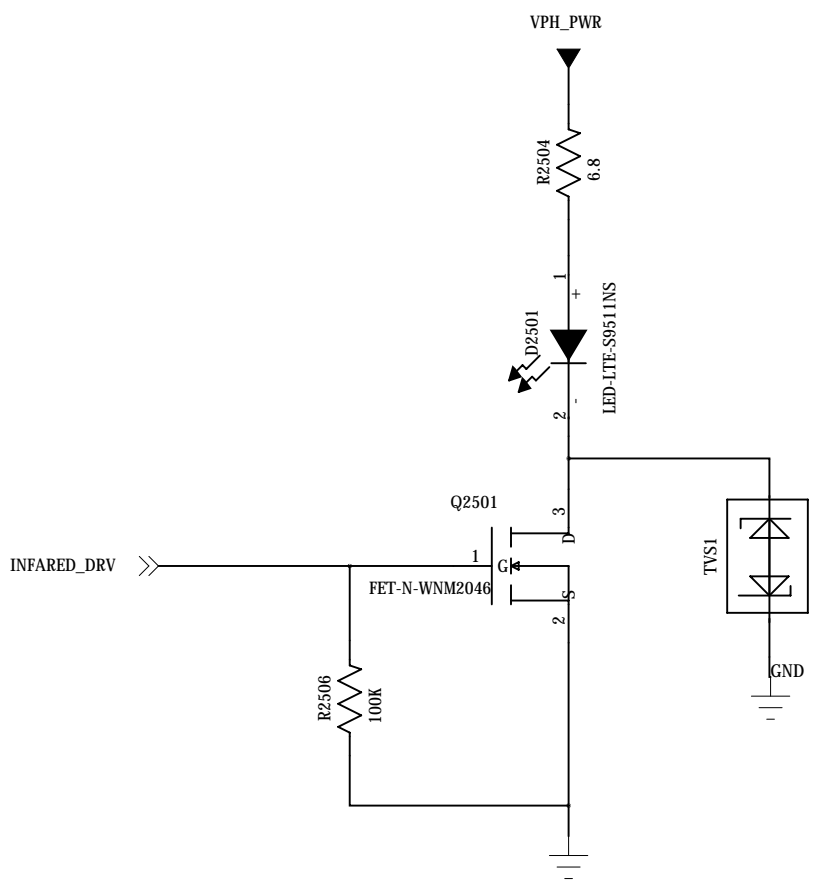
AKM: AK09911

I2C Address@CAD=0	
Write	0x18
Read	0x19

I2C Address@CAD=1	
Write	0x1A
Read	0x1B

Power on sequence: L6/L17 can be applied in any order

INFARED LEDS

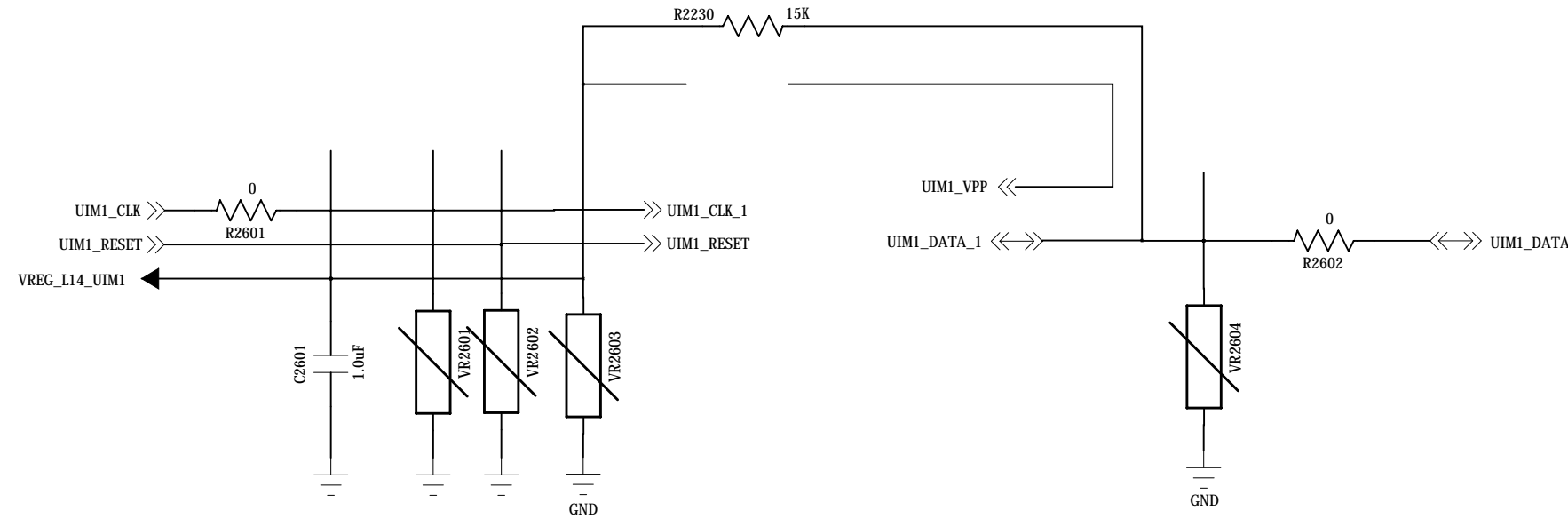


SENSORS

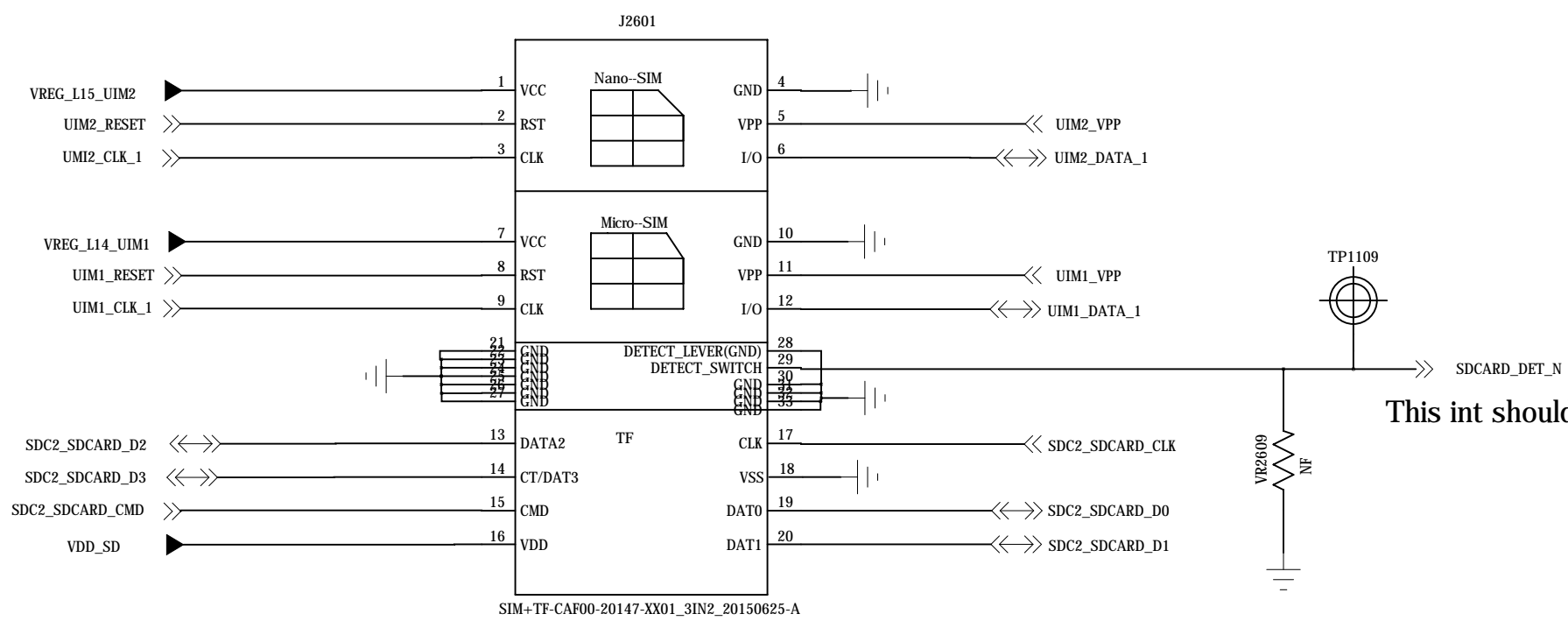
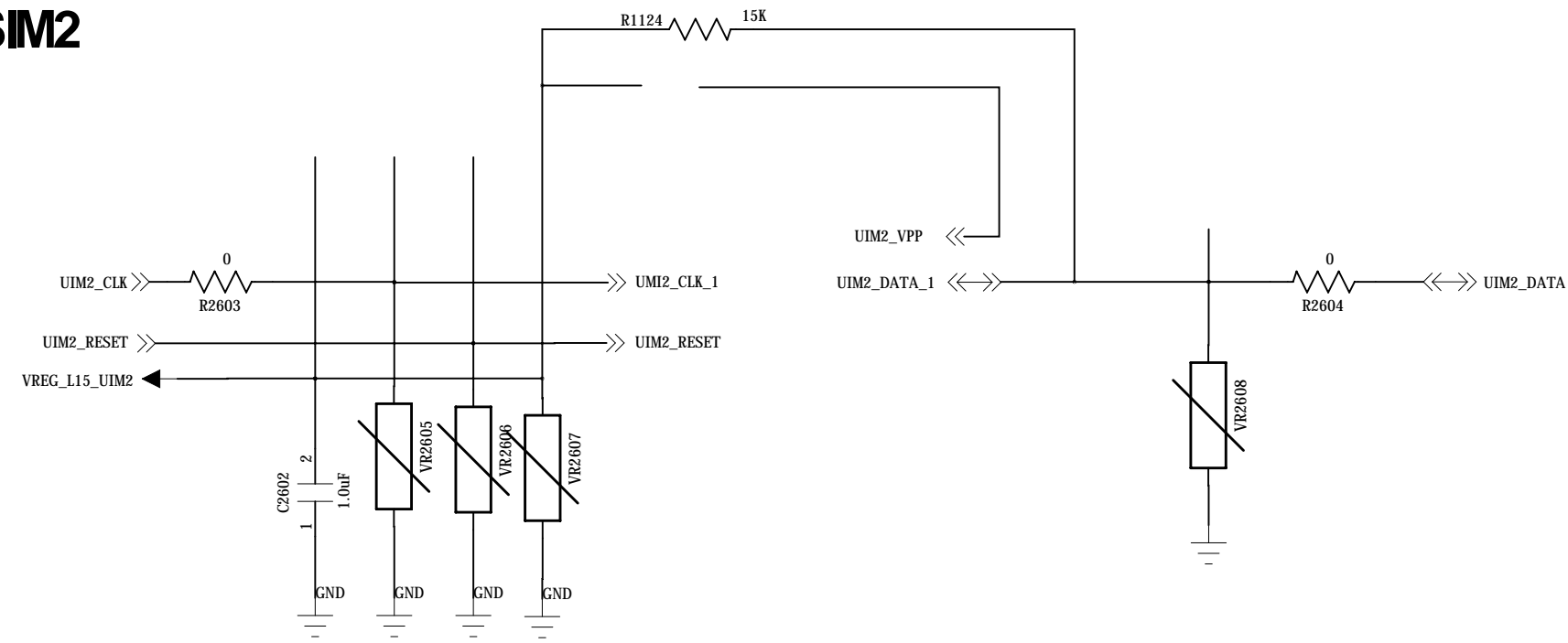
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Sheet	Rev
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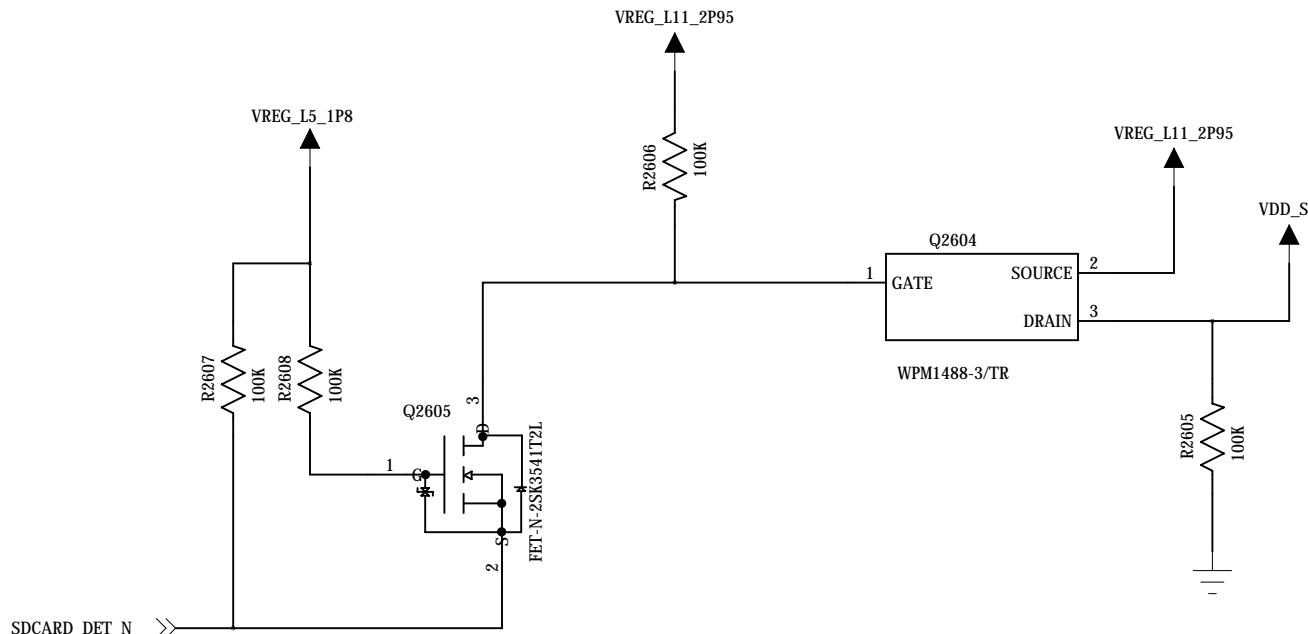
SIM1



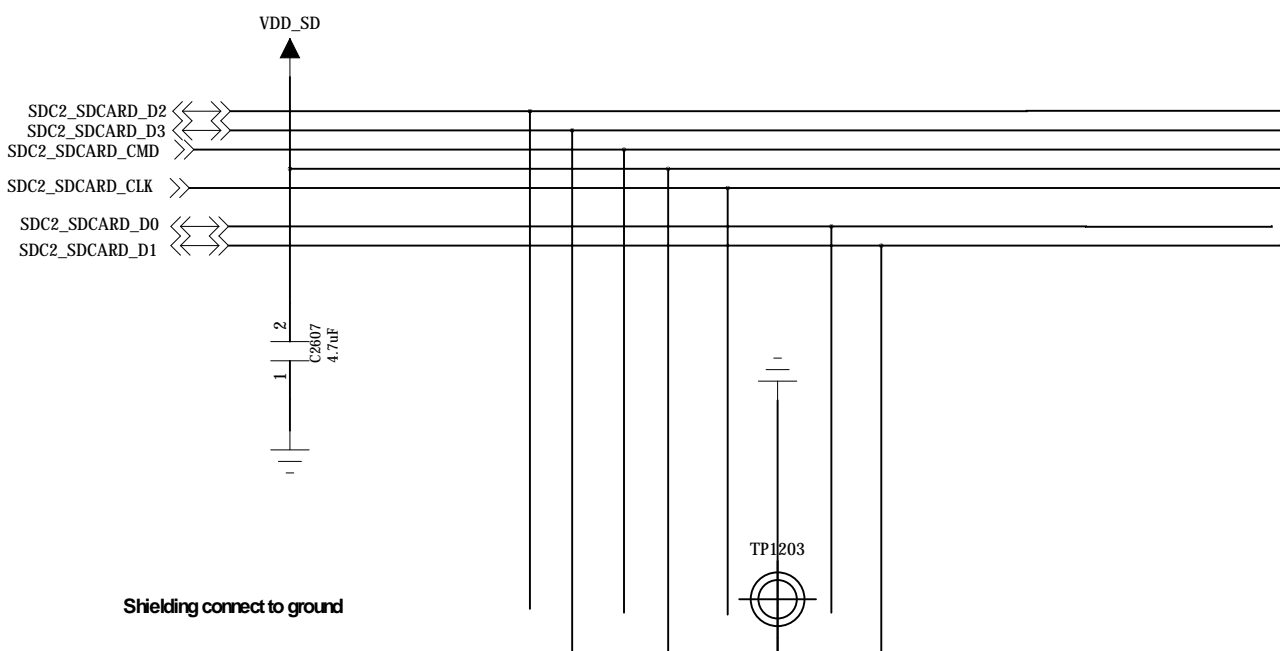
SIM2



Vout=3.0V,I-lim=1A



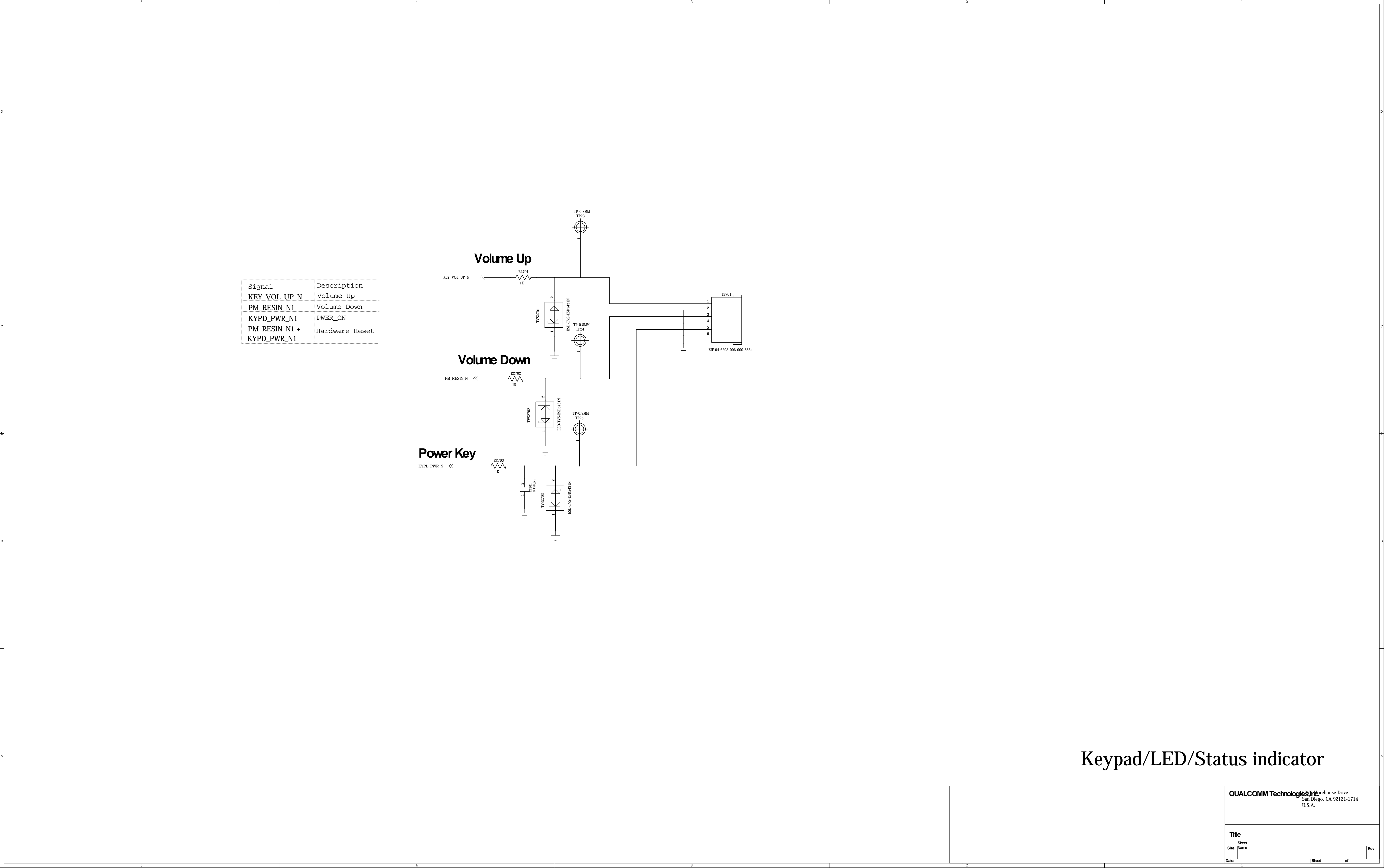
SD CARD

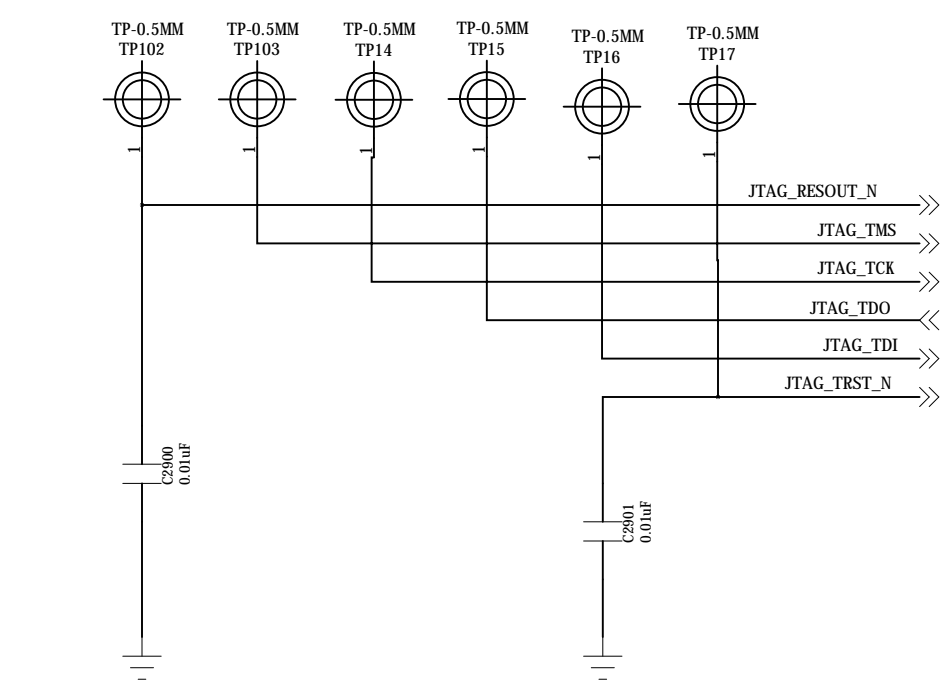
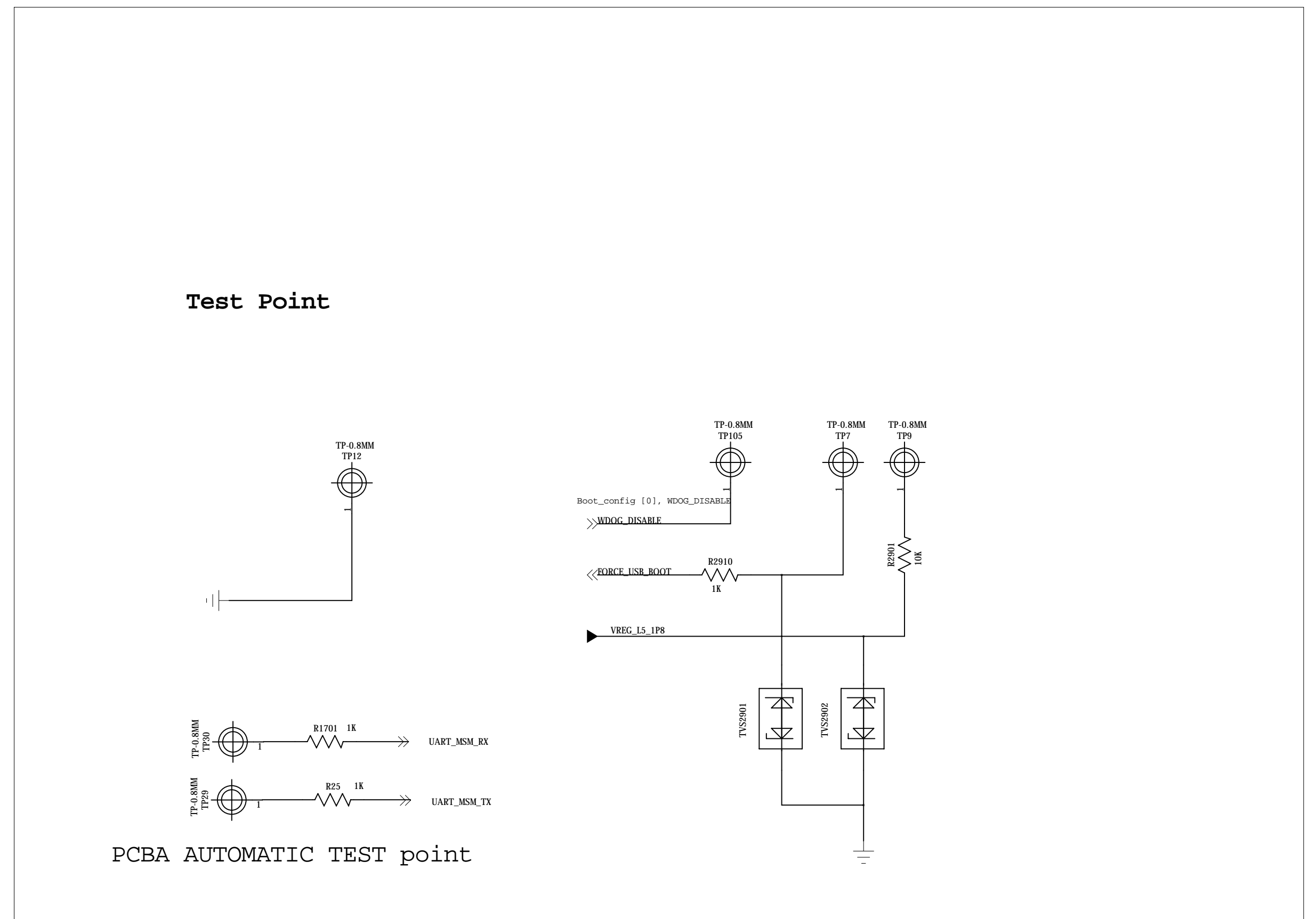
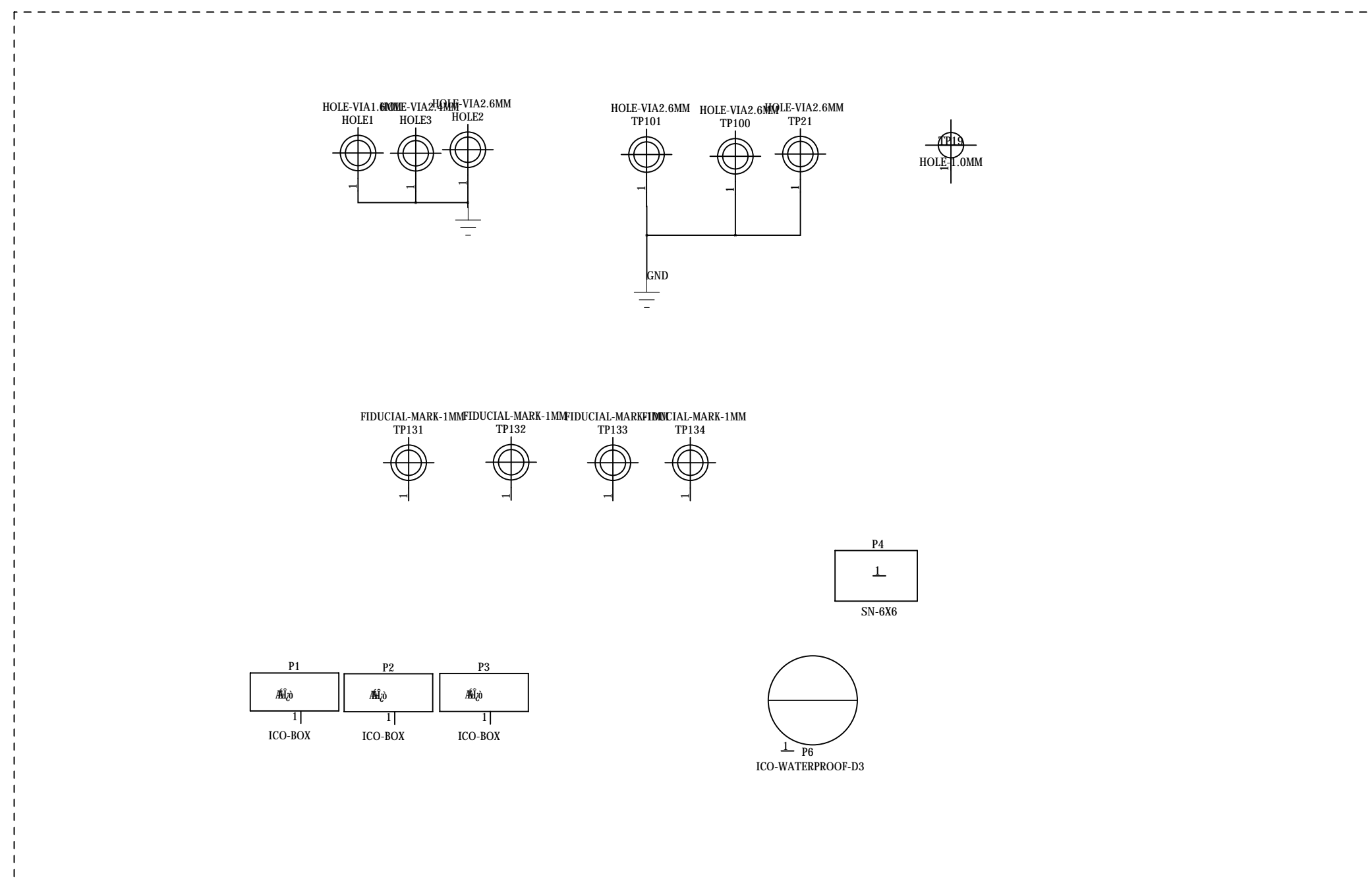


SIM/TF card

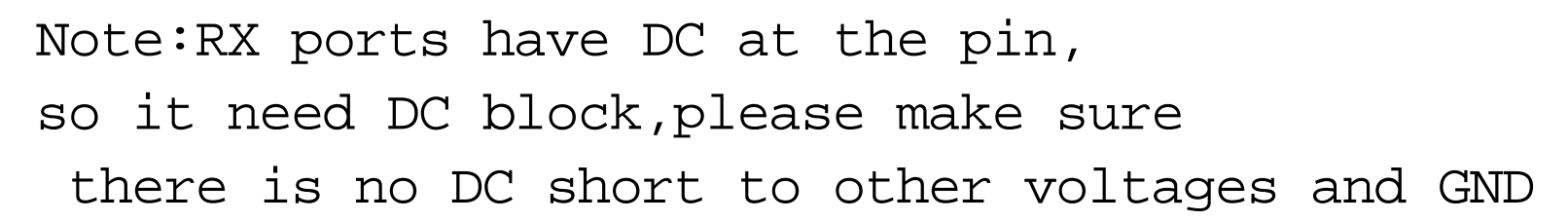
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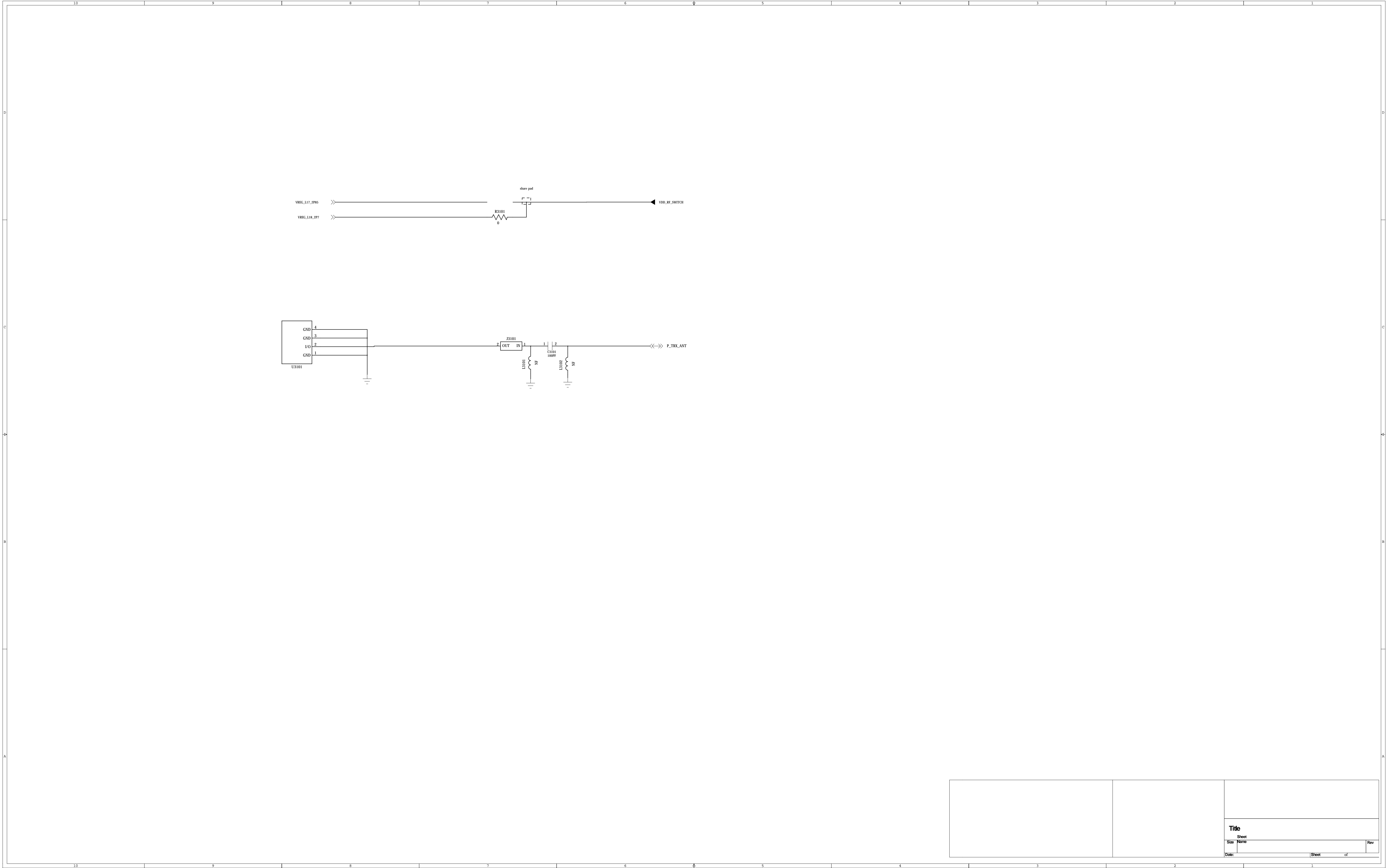
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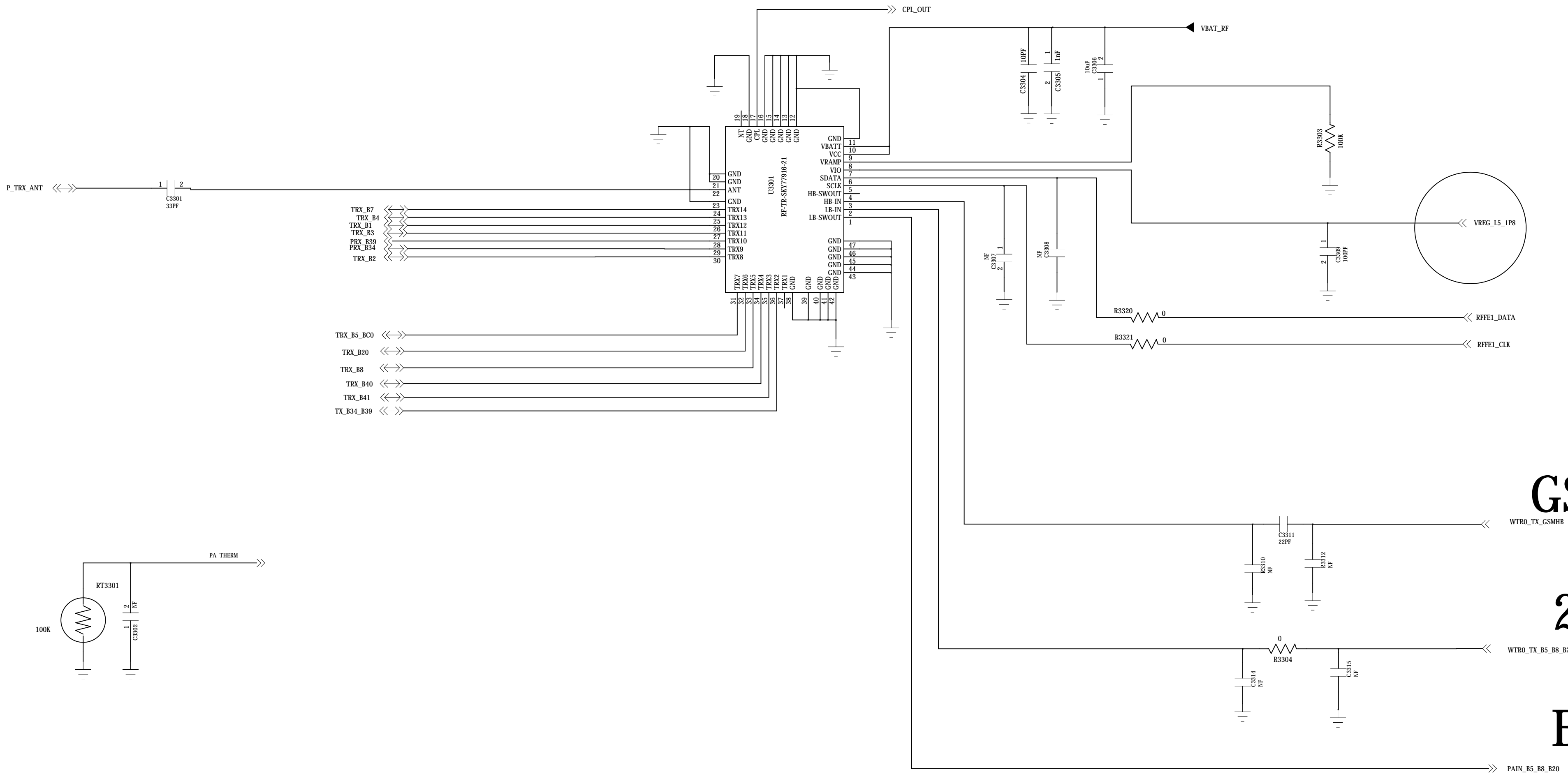




Test Point/Shields







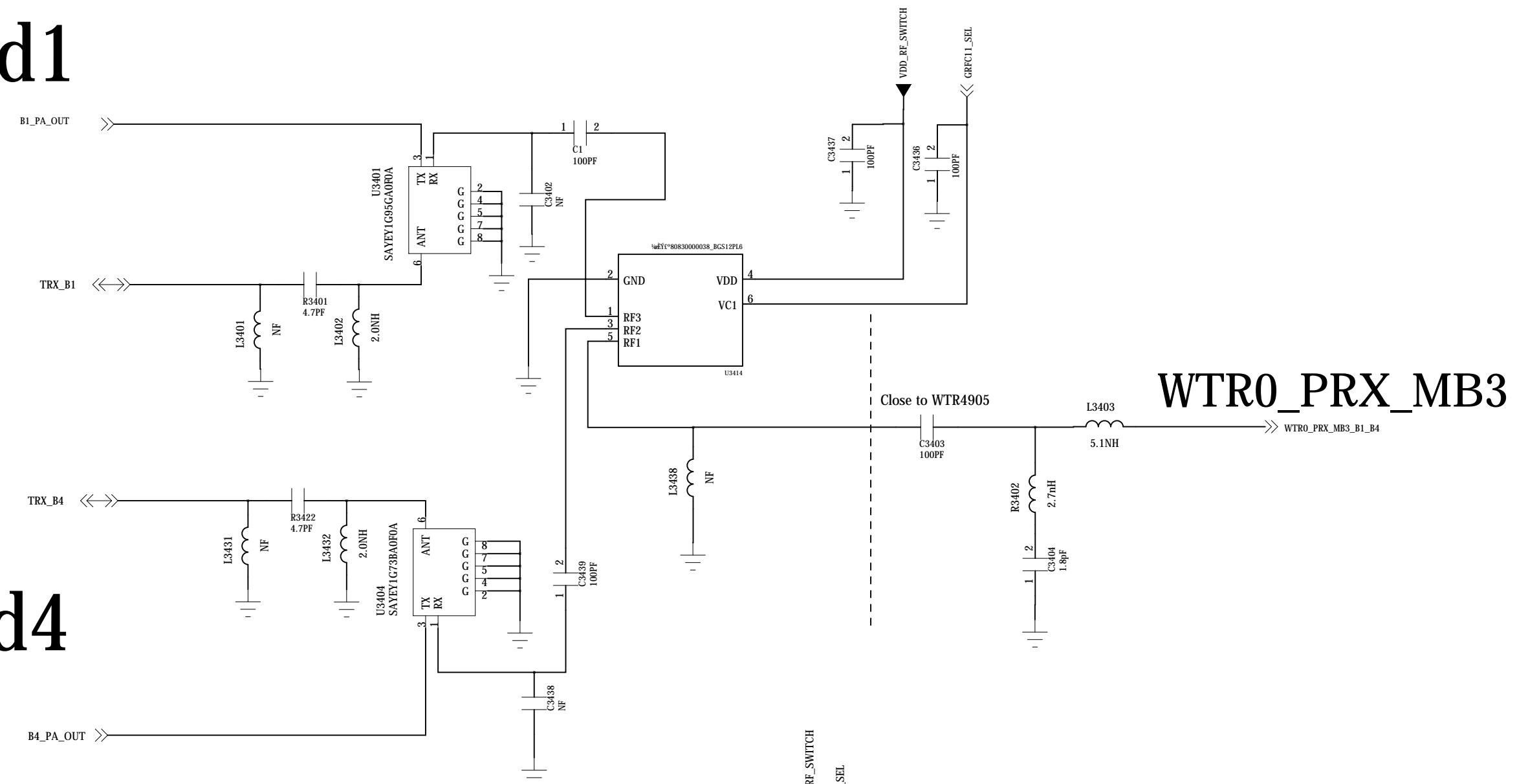
GSM_HB

2G3G4G_LB

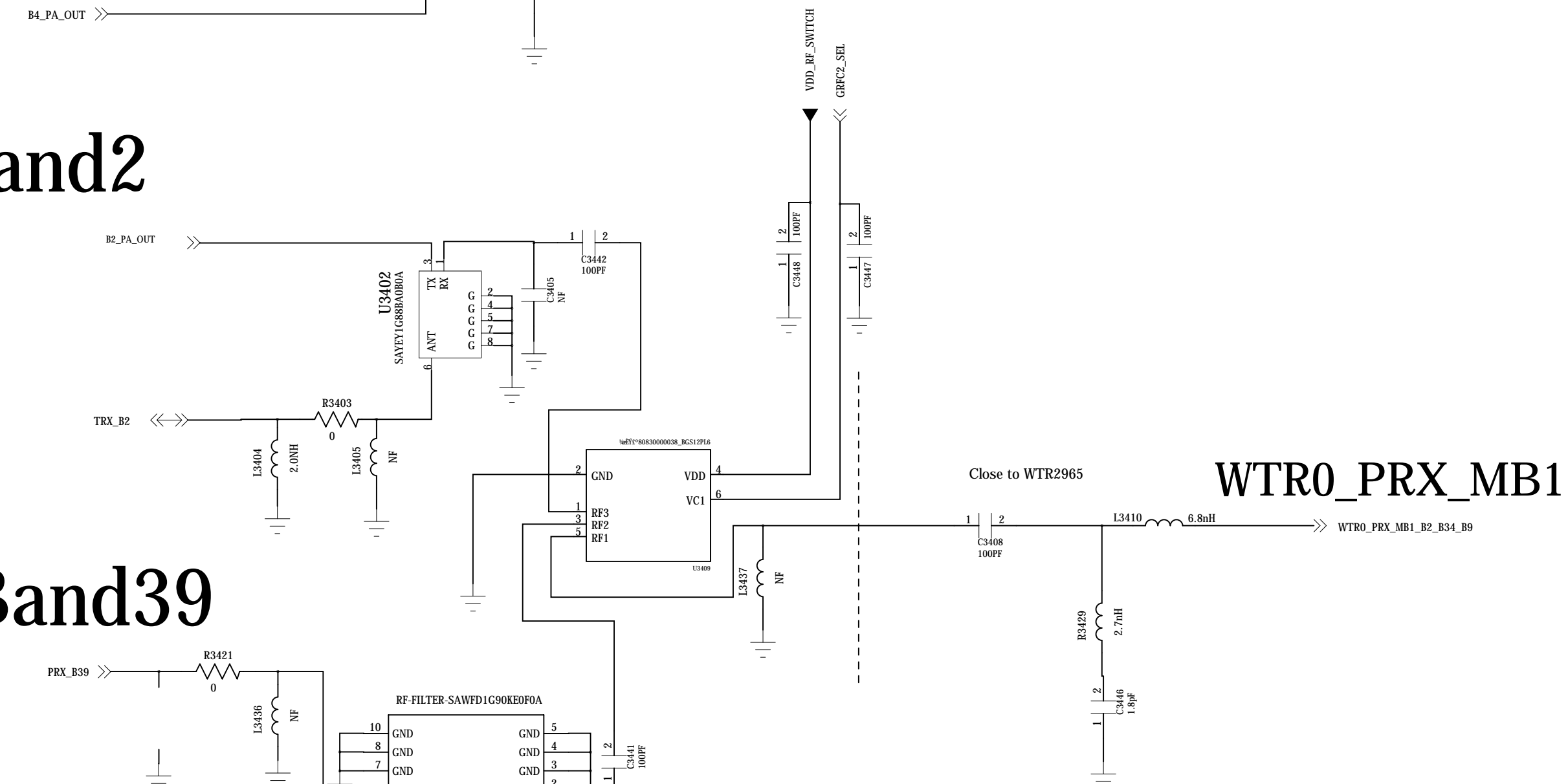
B5_B8_B20

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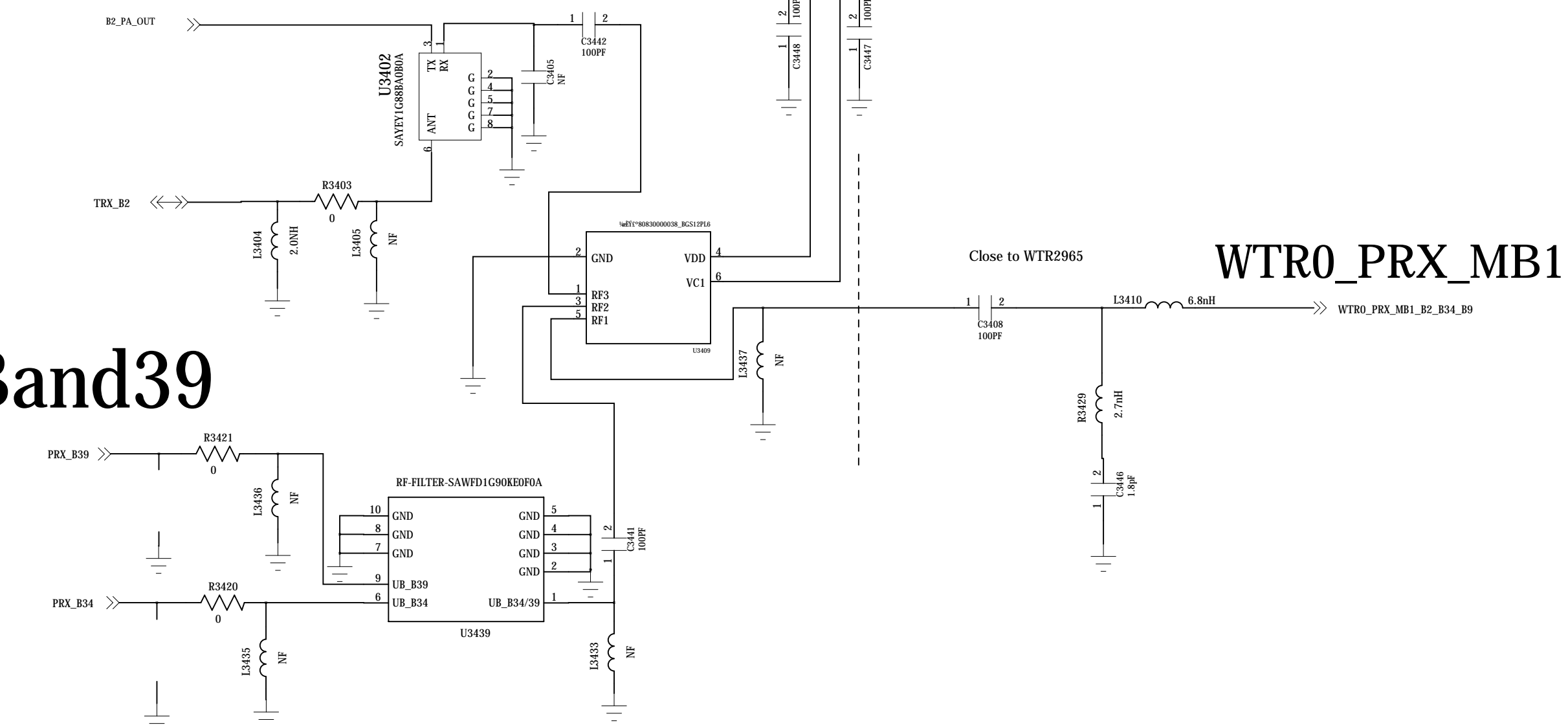
Band1



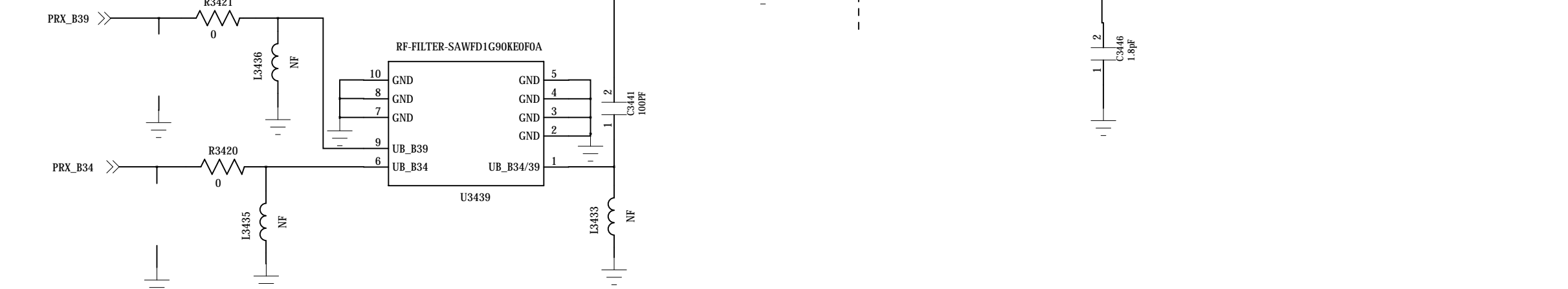
Band4



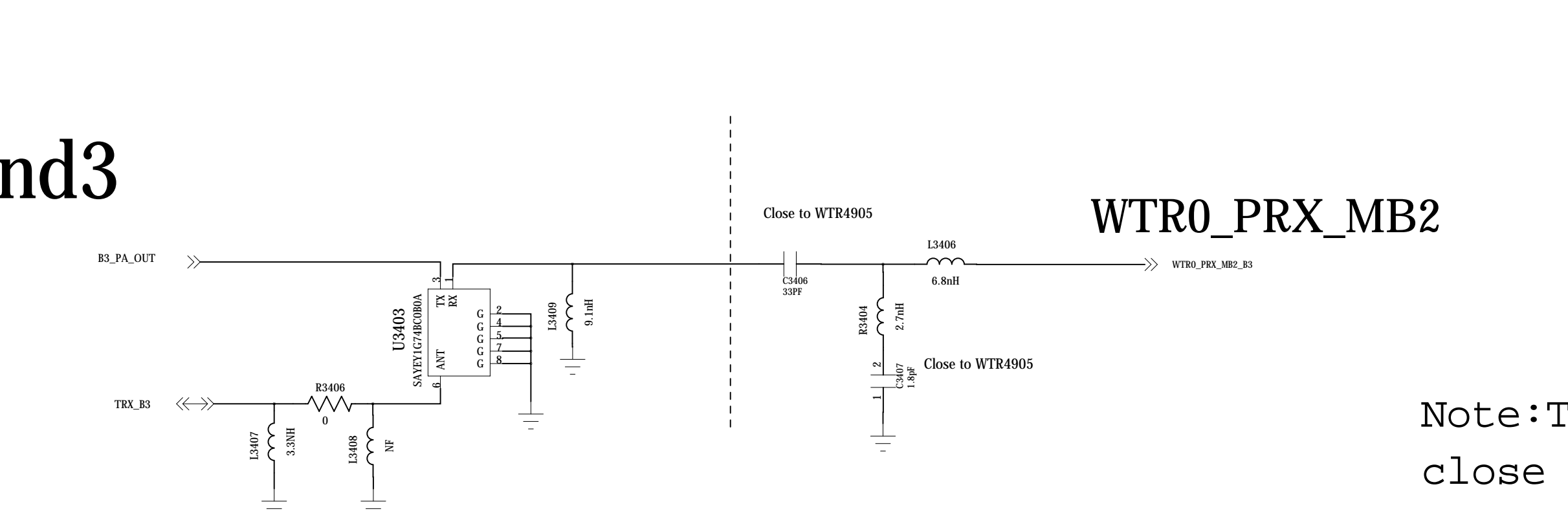
Band2



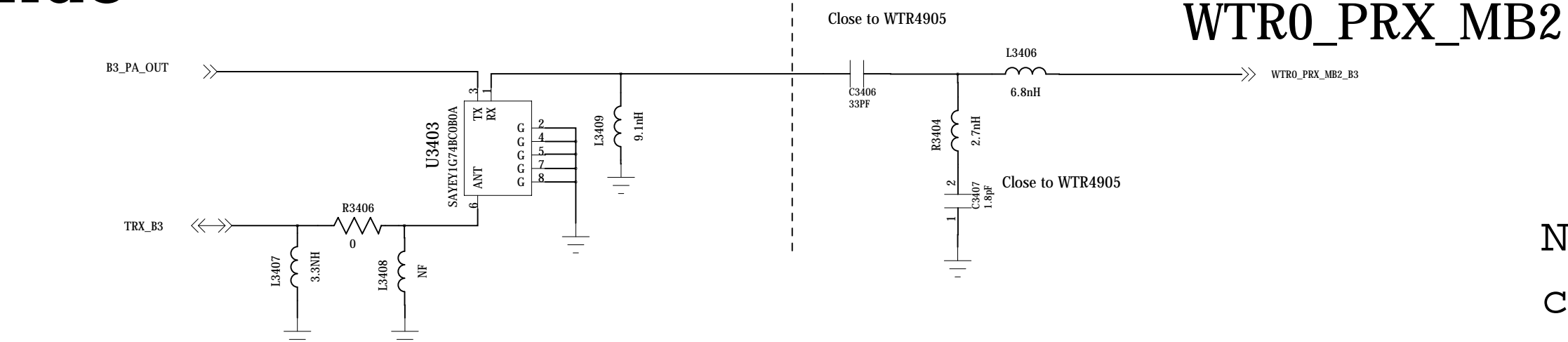
Band39



Band34

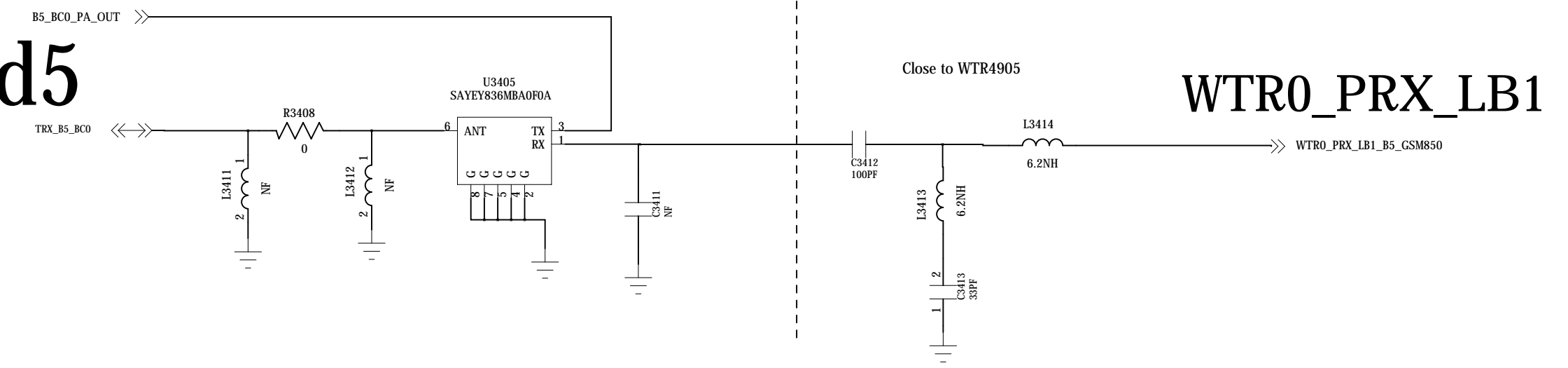


Band3

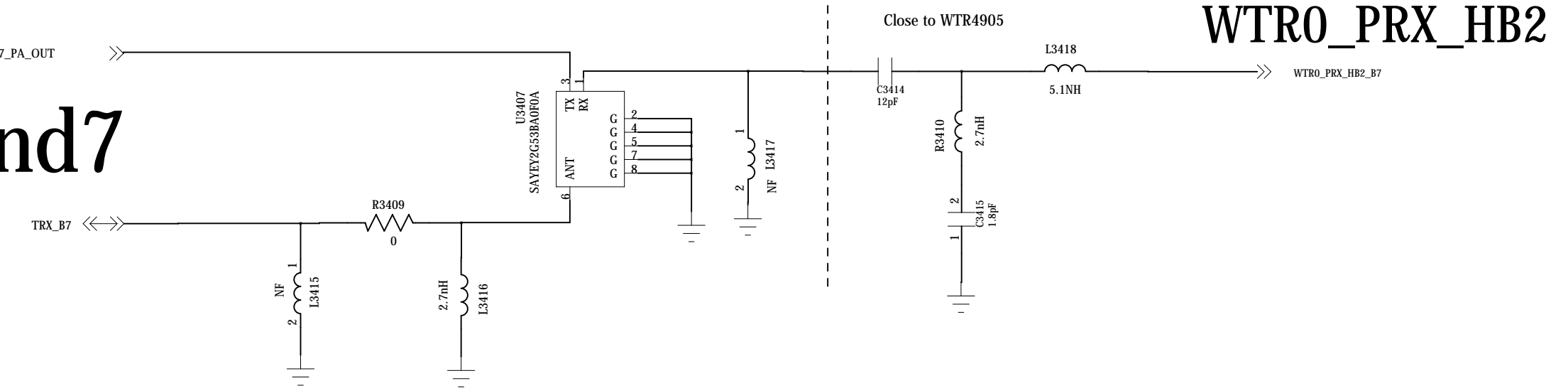


Note: The matching need close to WTR, RX ports have DC at the pin, so it need DC block,

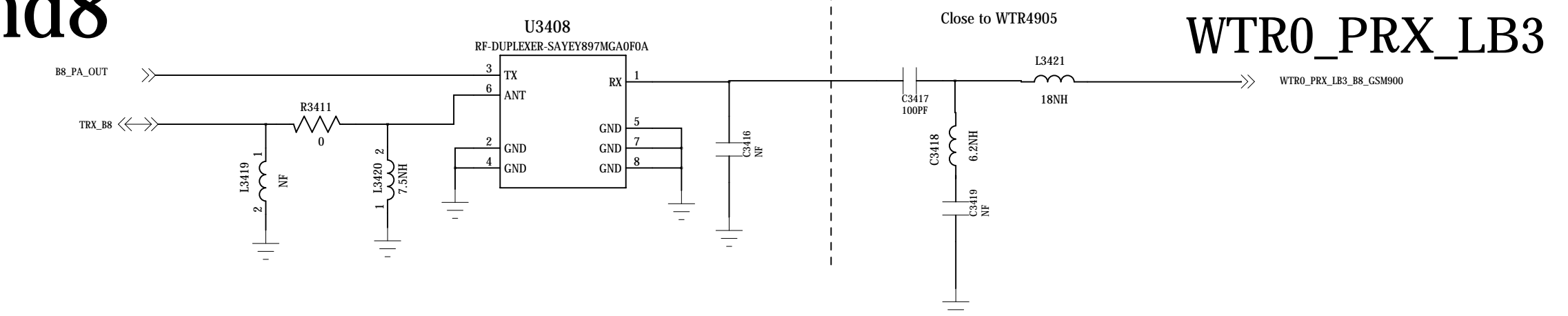
Band5



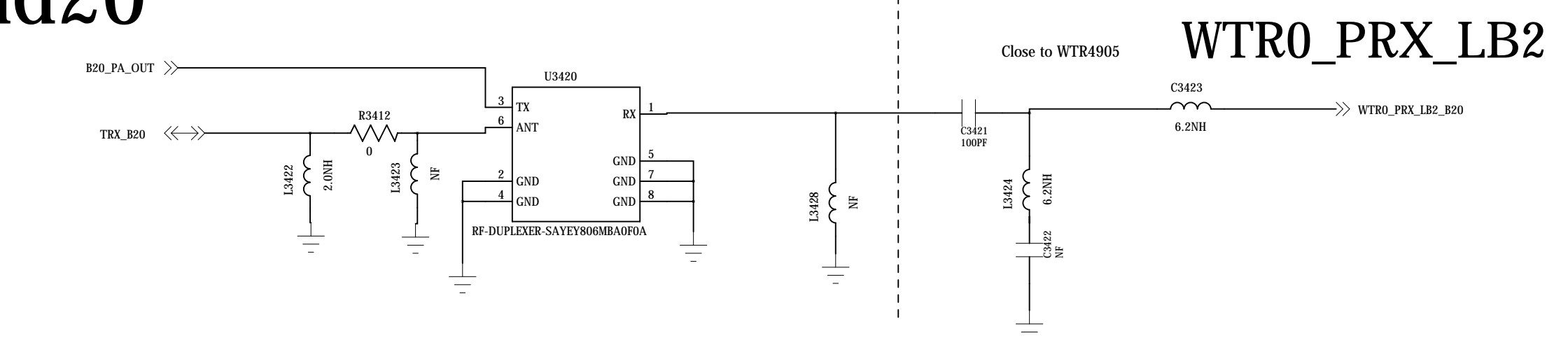
Band 7



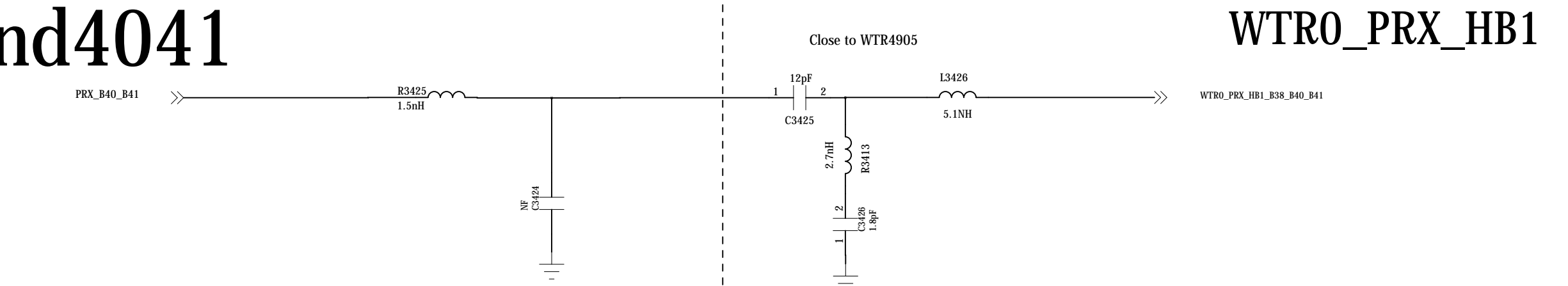
Band8



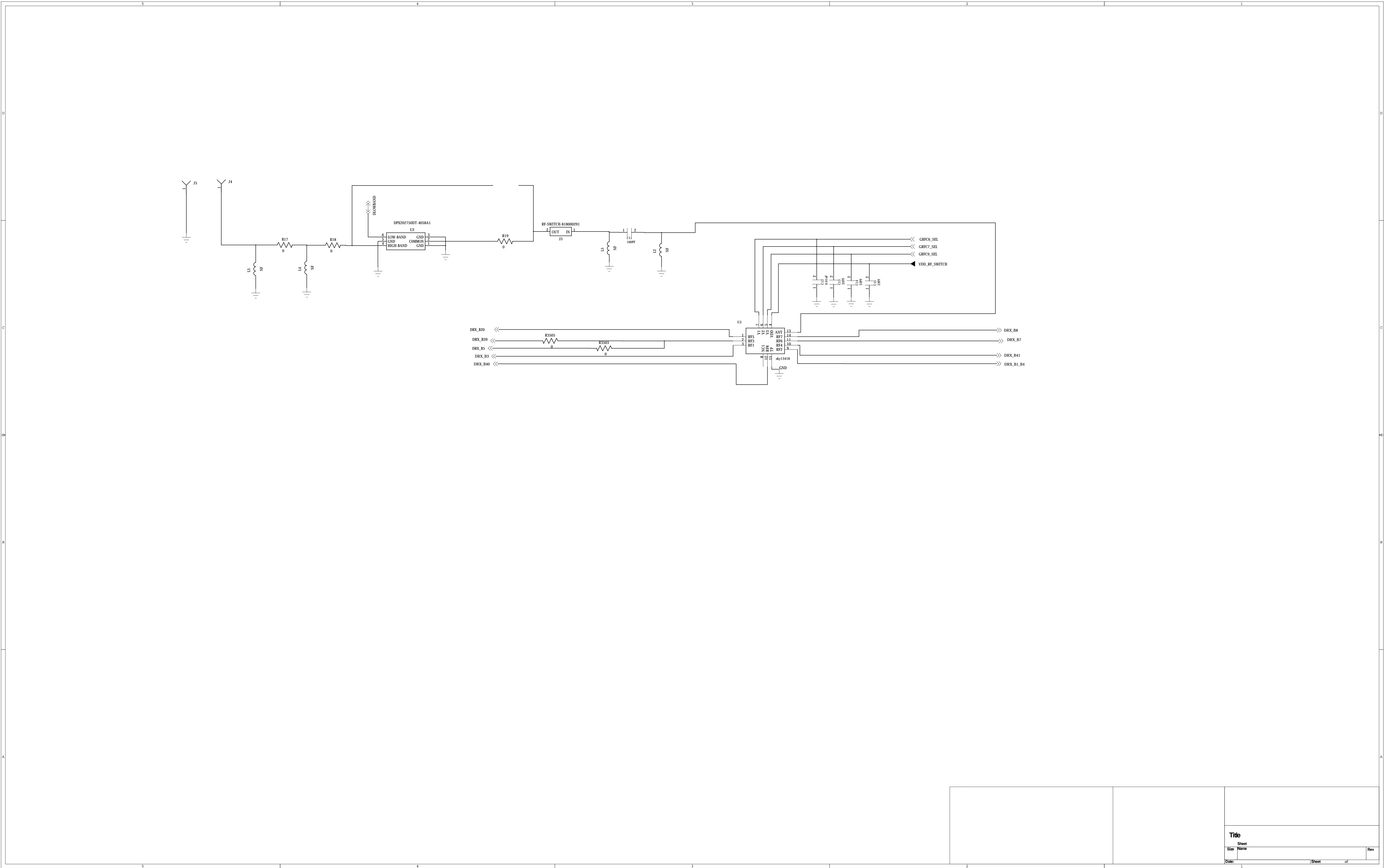
Band20



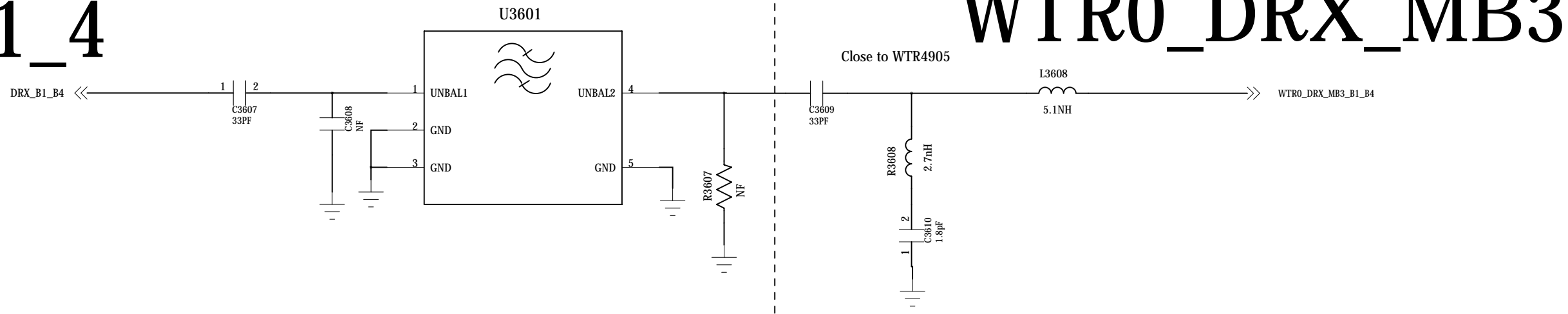
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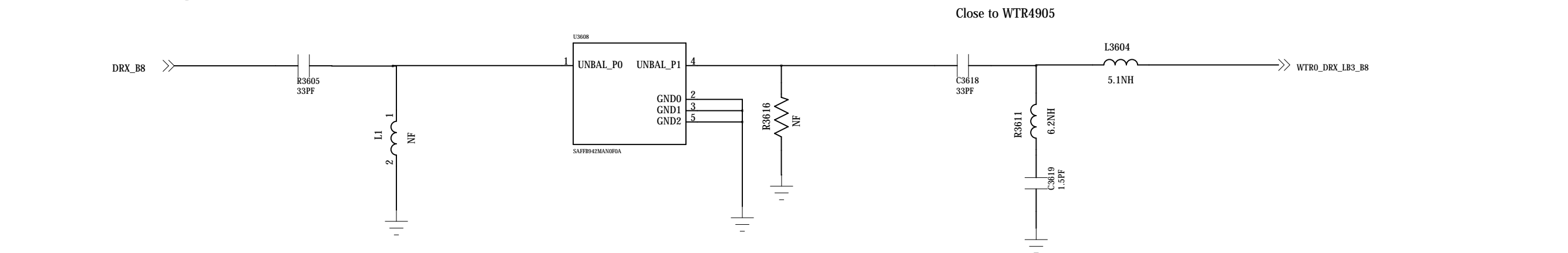


Band1_4



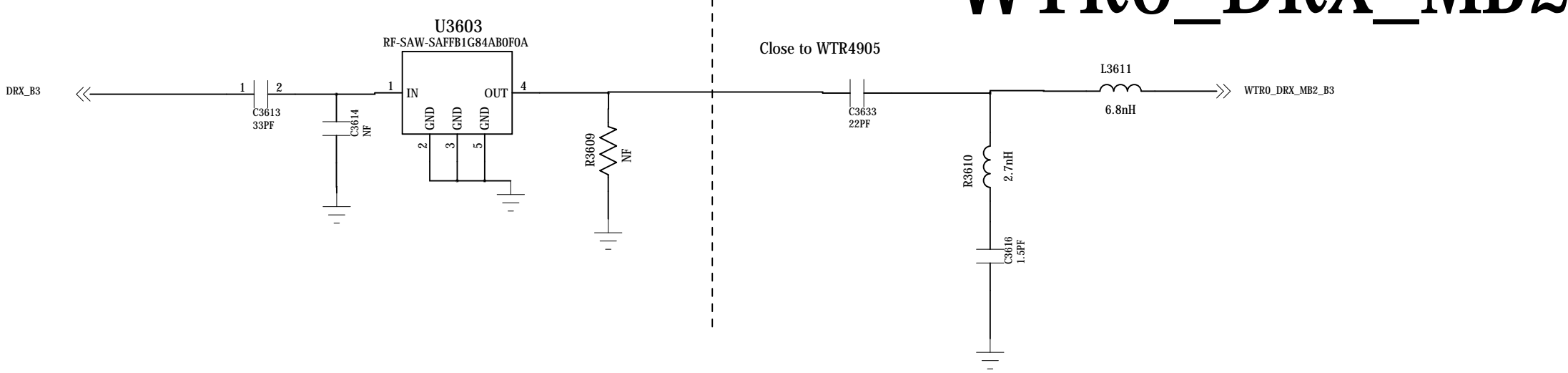
WTR0_DRX_MB3

Band8



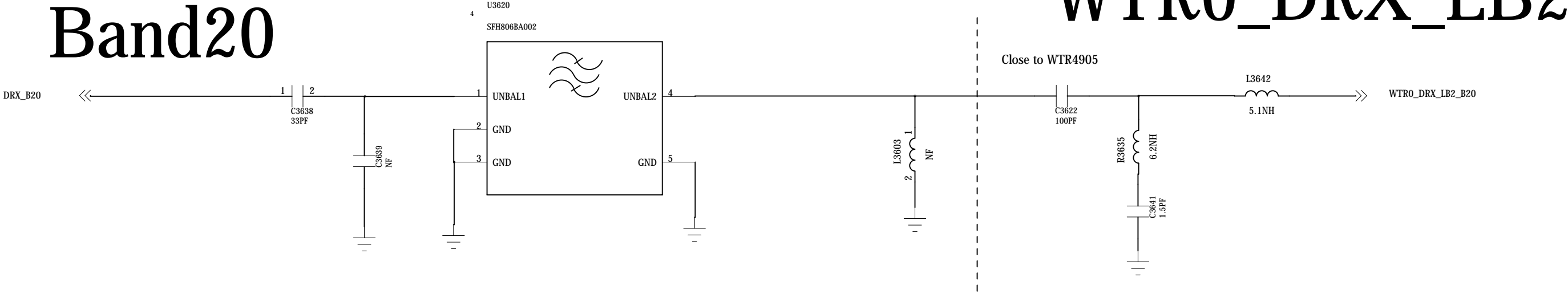
WTR0_DRX_LB3

Band3



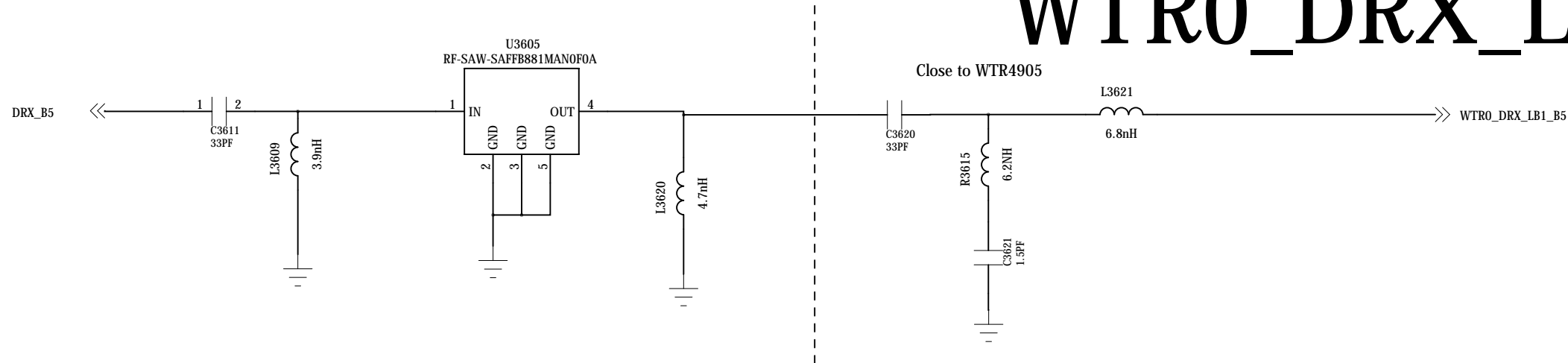
WTR0_DRX_MB2

Band20



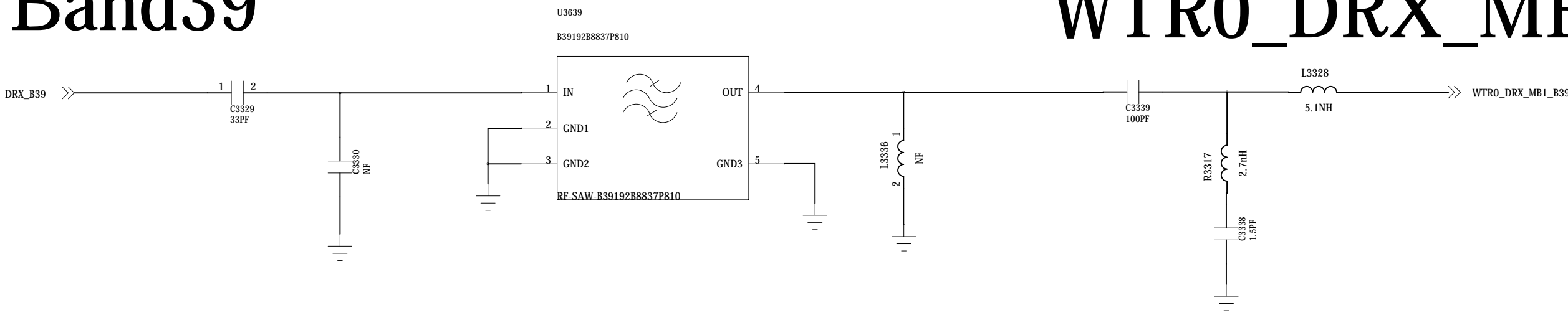
WTR0_DRX_LB2

Band5



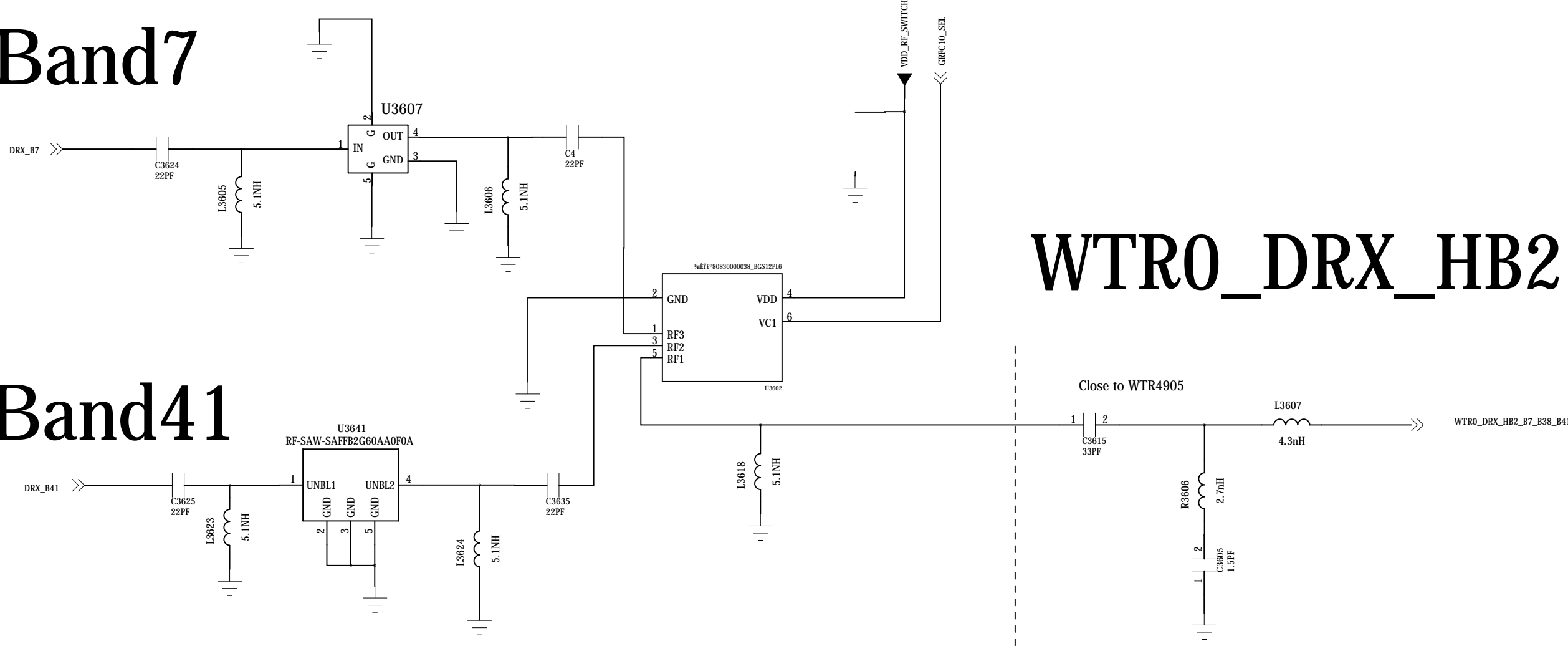
WTR0_DRX_LB1

Band39



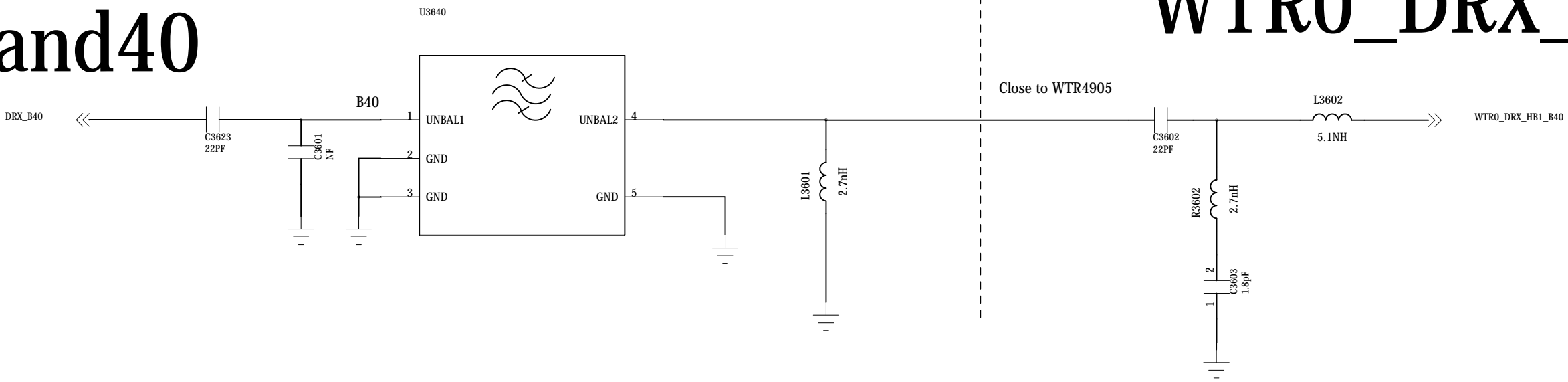
WTR0_DRX_MB1

Band7



WTR0_DRX_HB2

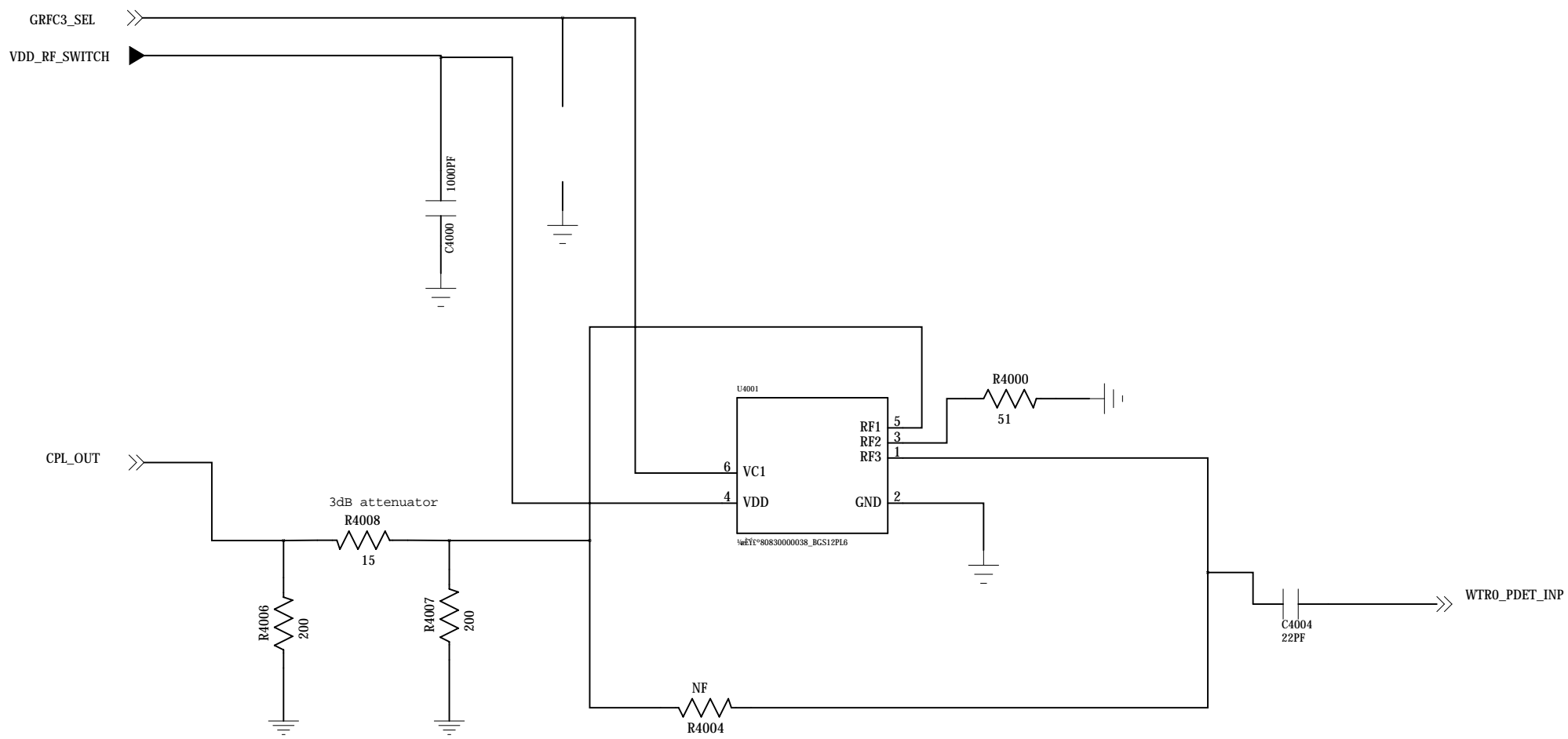
Band40



WTR0_DRX_HB1

Note:The matching need close to WTR, RX ports have DC at the pin, so it need DC block,

SPDT



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<div>Note: Use a signle low impedance power plane/fill VPA for all ET PA VCC1/VCC2.</div> <div>Refer to 80-NA681-91 rev.B or later revisions for more layout details.</div>													
<div><div></div><div></div><div><table><tr><td colspan="3">Title</td></tr><tr><td>Sheet</td><td>Name</td><td>Rev</td></tr><tr><td>Date:</td><td>Sheet</td><td>of</td></tr></table></div></div>					Title			Sheet	Name	Rev	Date:	Sheet	of
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Date:	Sheet	of											
5	4	3	2	1									

WCN

The diagram illustrates the WCN interface, showing connections between the WCN chip and various external components and pins. The components include:

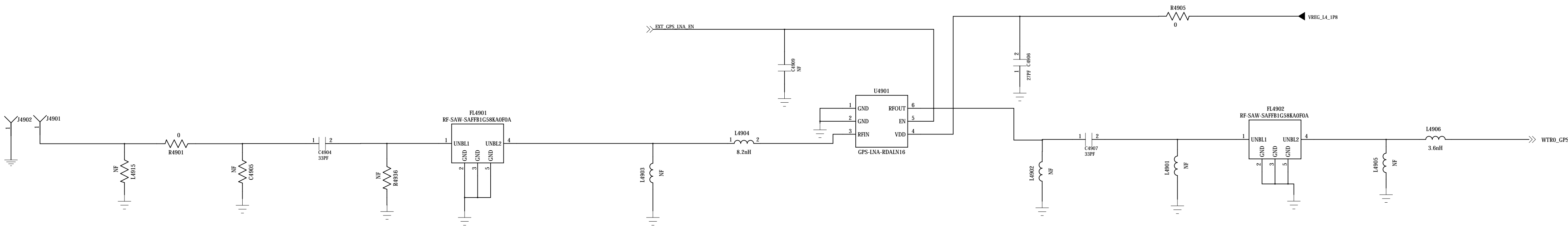
- U4501-A**: WCN chip, connected to various pins and components.
- U4501-B**: WCN chip, connected to various pins and components.
- DPK2027500T-4058A1**: WCN chip, connected to various pins and components.
- U4502**: WCN chip, connected to various pins and components.

The connections are as follows:

- U4501-A** connections:
 - WLAN_BB_IP (pin 42) to WLAN_BB_IP
 - WLAN_BB_IN (pin 46) to WLAN_BB_IN
 - WLAN_BB_QN (pin 45) to WLAN_BB_QN
 - WLAN_BB_QP (pin 41) to WLAN_BB_QP
 - NC (pin 32) to NC
 - WL_BT_RFIO (pin 18) to WL_BT_RFIO
 - WL_CMD_SET (pin 10) to WL_CMD_SET
 - WL_CMD_CLK (pin 1) to WL_CMD_CLK
 - WL_CMD_DATA2 (pin 14) to WL_CMD_DATA2
 - WL_CMD_DATA1 (pin 19) to WL_CMD_DATA1
 - WL_CMD_DATA0 (pin 20) to WL_CMD_DATA0
 - BT_CTL (pin 25) to BT_CTL
 - BT_SSBI (pin 36) to BT_SSBI
 - BT_DATA (pin 47) to BT_DATA
 - GND1 (pin 6) to GND1
- U4501-B** connections:
 - VDD_IO_IP3 (pin 28) to VDD_IO_IP3
 - VDD_DG_IP3 (pin 23) to VDD_DG_IP3
 - VDD_FM_IP3 (pin 43) to VDD_FM_IP3
 - VDD_FM_RXIF_IP3 (pin 44) to VDD_FM_RXIF_IP3
 - VDD_FM_PLL_IP3 (pin 40) to VDD_FM_PLL_IP3
 - VDD_FM_VCO_IP3 (pin 39) to VDD_FM_VCO_IP3
 - VDD_WL_BT_RX_IP3 (pin 37) to VDD_WL_BT_RX_IP3
 - VDD_WL_BT_DG_IP3 (pin 5) to VDD_WL_BT_DG_IP3
 - VDD_WL_TX_BB_IP3 (pin 2) to VDD_WL_TX_BB_IP3
 - VDD_WL_2GPA_IP3 (pin 4) to VDD_WL_2GPA_IP3
 - VDD_WL_UGC_IP3 (pin 3) to VDD_WL_UGC_IP3
 - VDD_WL_IO_IP3 (pin 15) to VDD_WL_IO_IP3
 - VDD_WL_PLL_IP3 (pin 12) to VDD_WL_PLL_IP3
 - VDD_WL_PA_3P3 (pin 17) to VDD_WL_PA_3P3
 - VDD_BT_TXDA_3P3 (pin 9) to VDD_BT_TXDA_3P3
- DPK2027500T-4058A1** connections:
 - WLAN_BB_IP (pin 42) to WLAN_BB_IP
 - WLAN_BB_IN (pin 46) to WLAN_BB_IN
 - WLAN_BB_QN (pin 45) to WLAN_BB_QN
 - WLAN_BB_QP (pin 41) to WLAN_BB_QP
 - NC (pin 32) to NC
 - WL_BT_RFIO (pin 18) to WL_BT_RFIO
 - WL_CMD_SET (pin 10) to WL_CMD_SET
 - WL_CMD_CLK (pin 1) to WL_CMD_CLK
 - WL_CMD_DATA2 (pin 14) to WL_CMD_DATA2
 - WL_CMD_DATA1 (pin 19) to WL_CMD_DATA1
 - WL_CMD_DATA0 (pin 20) to WL_CMD_DATA0
 - BT_CTL (pin 25) to BT_CTL
 - BT_SSBI (pin 36) to BT_SSBI
 - BT_DATA (pin 47) to BT_DATA
 - GND1 (pin 6) to GND1
- U4502** connections:
 - WLAN_BB_IP (pin 42) to WLAN_BB_IP
 - WLAN_BB_IN (pin 46) to WLAN_BB_IN
 - WLAN_BB_QN (pin 45) to WLAN_BB_QN
 - WLAN_BB_QP (pin 41) to WLAN_BB_QP
 - NC (pin 32) to NC
 - WL_BT_RFIO (pin 18) to WL_BT_RFIO
 - WL_CMD_SET (pin 10) to WL_CMD_SET
 - WL_CMD_CLK (pin 1) to WL_CMD_CLK
 - WL_CMD_DATA2 (pin 14) to WL_CMD_DATA2
 - WL_CMD_DATA1 (pin 19) to WL_CMD_DATA1
 - WL_CMD_DATA0 (pin 20) to WL_CMD_DATA0
 - BT_CTL (pin 25) to BT_CTL
 - BT_SSBI (pin 36) to BT_SSBI
 - BT_DATA (pin 47) to BT_DATA
 - GND1 (pin 6) to GND1

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