

D

C

B

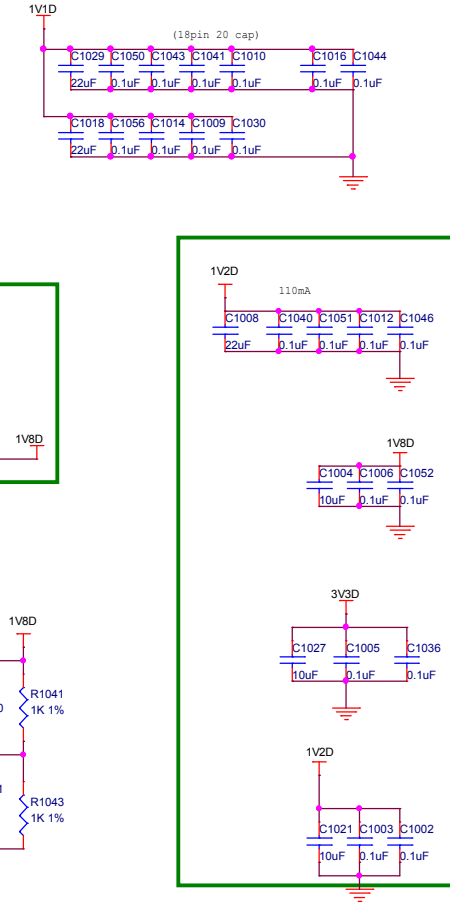
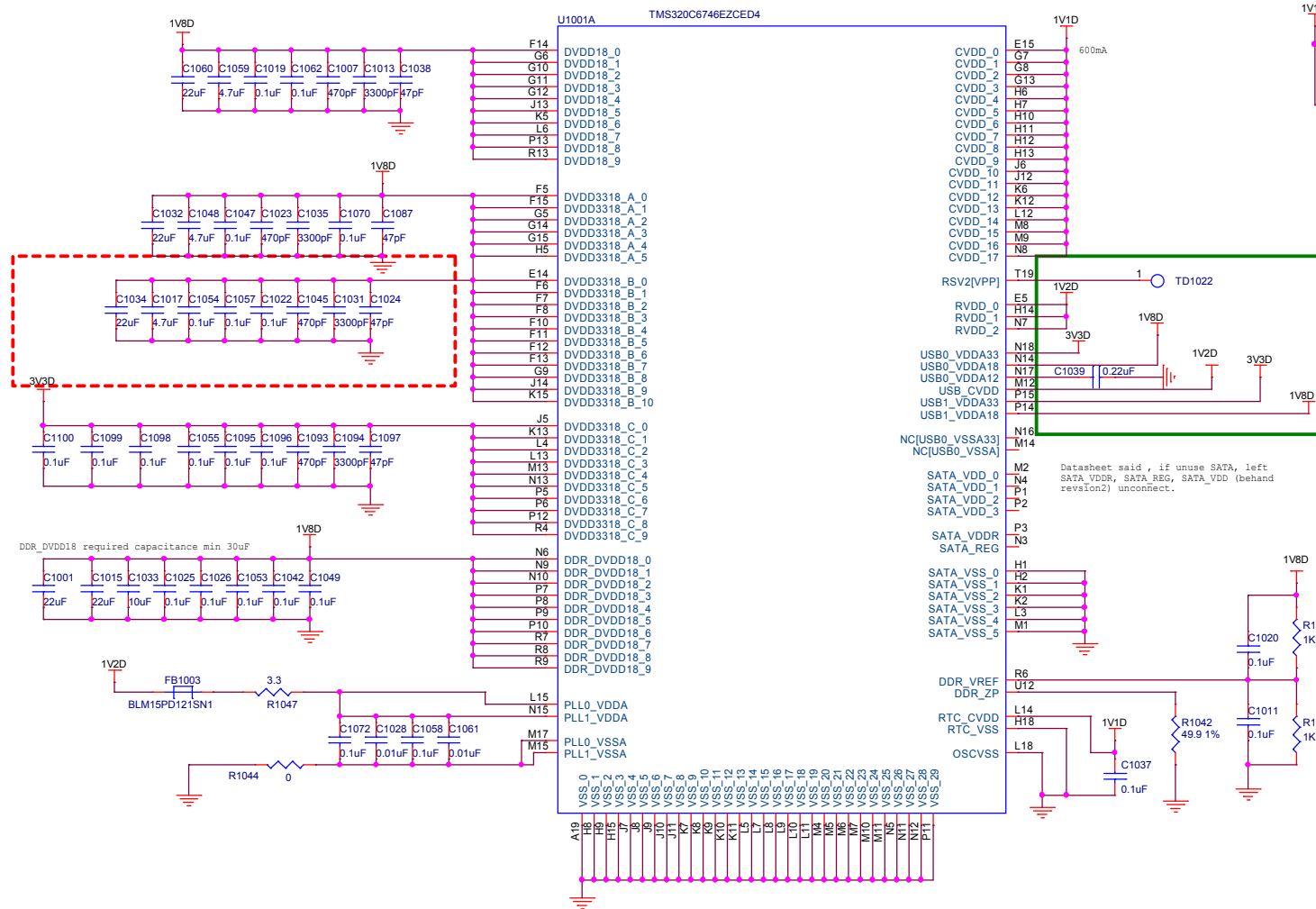
A

D

C

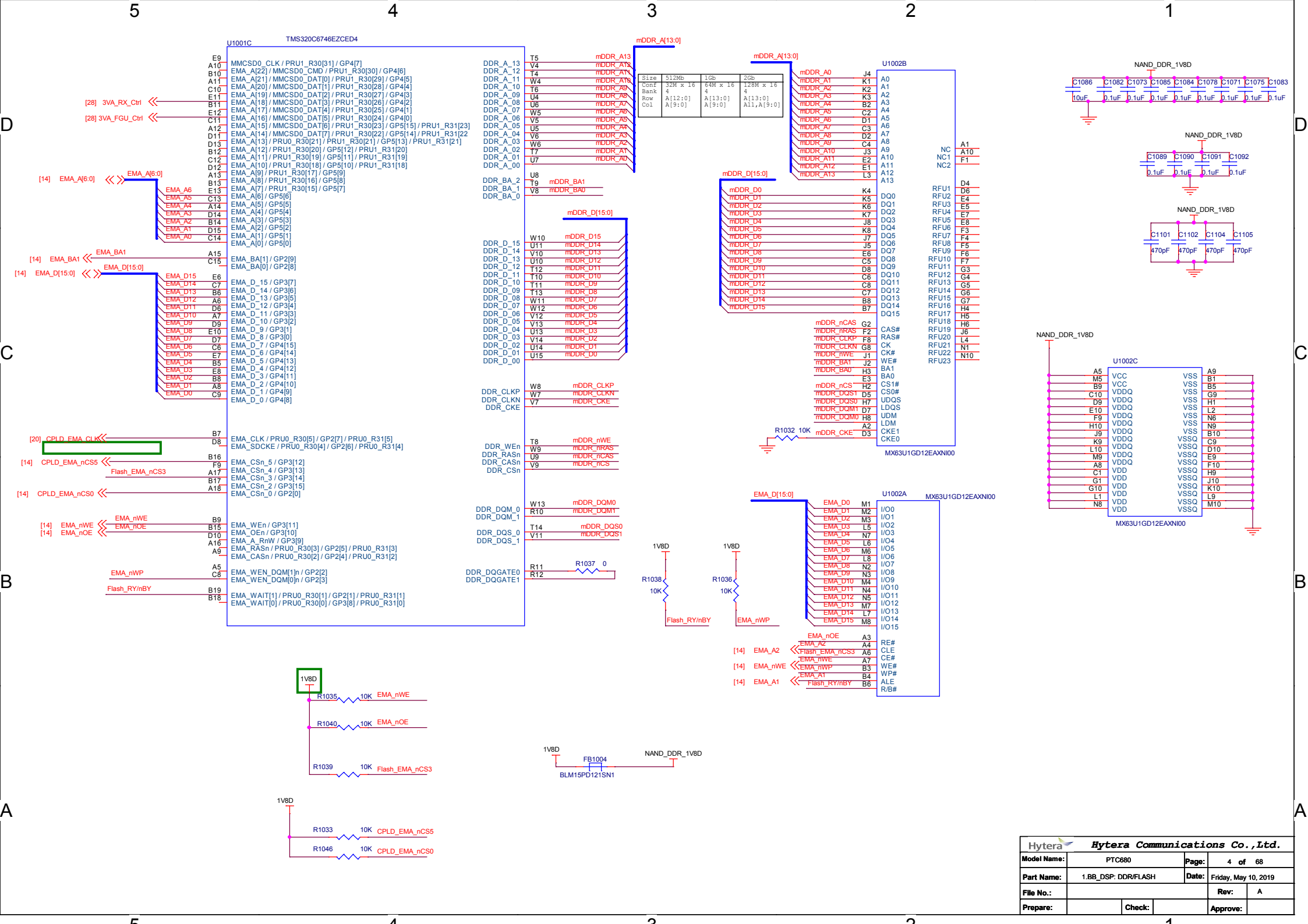
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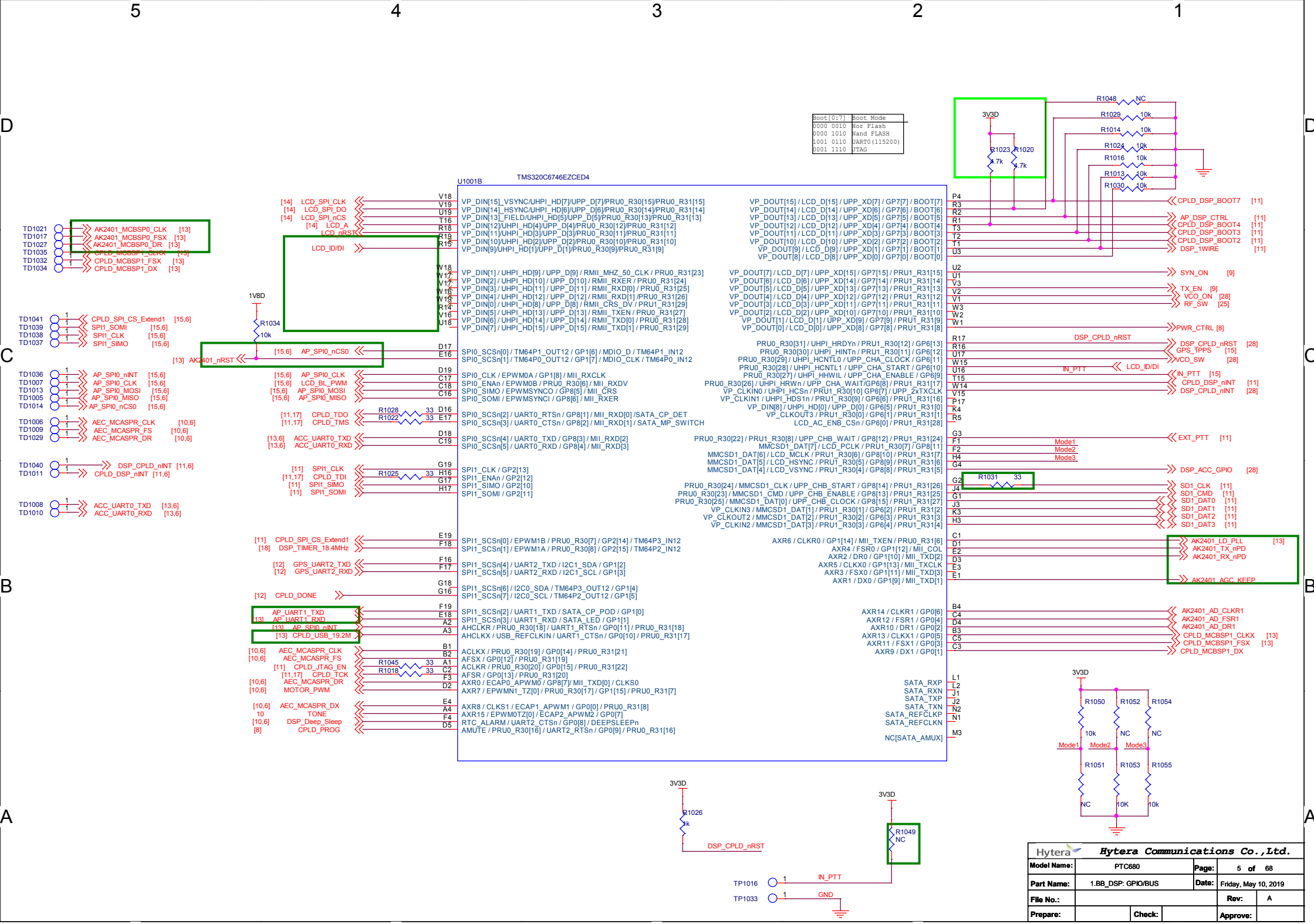
A



Name	Description	Voltage(normal)
DVDD18	1.8V Logic Supply	1.8
DVDD3318_A	Power Group A,B,C	3.3
DVDD3318_B	Dual-voltage IO Supply	3.3
DVDD3318_C	Voltage	3.3
DDR_DVDD18	DDR2 PHY Supply Voltage	1.8
PLL0_VDDA	PLL0 Supply Voltage	1.2
PLL1_VDDA	PLL1 Supply Voltage	1.2
CVDD	Core Logic Supply Voltage (variable)	1.2
RVDD	Internal RAM Supply Voltage	1.2
USB0_VDDA33	USB0 PHY Supply Voltage	3.3
USB0_VDDA18	USB0 PHY Supply Voltage	1.8
USB0_VDDA12	USB0 PHY 1.2-V LDO output	---
USB_CVDD	USB0, USB1 Core Logic Supply Voltage	1.2
USB1_VDDA33	USB1 PHY Supply Voltage	3.3
USB1_VDDA18	USB1 PHY Supply Voltage	1.8
SATA_VDD	SATA Core Logic Supply Voltage	1.2
SATA_VDDR	SATA Internal Regulator Supply Voltage	1.8
SATA_REG	SATA PHY Regulator output	---
DDR_VREF	DDR2/mDDR reference voltage	0.9
RTC_CVDD	RTC Core Logic Supply Voltage	1.2

Hytera Hytera Communications Co., Ltd.			
Model Name:	PTC680	Page:	3 of 68
Part Name:	1.BB_DSP_POWER	Date:	Friday, May 10, 2019
File No.:		Rev:	A
Prepare:		Check:	Approve:





D

C

B

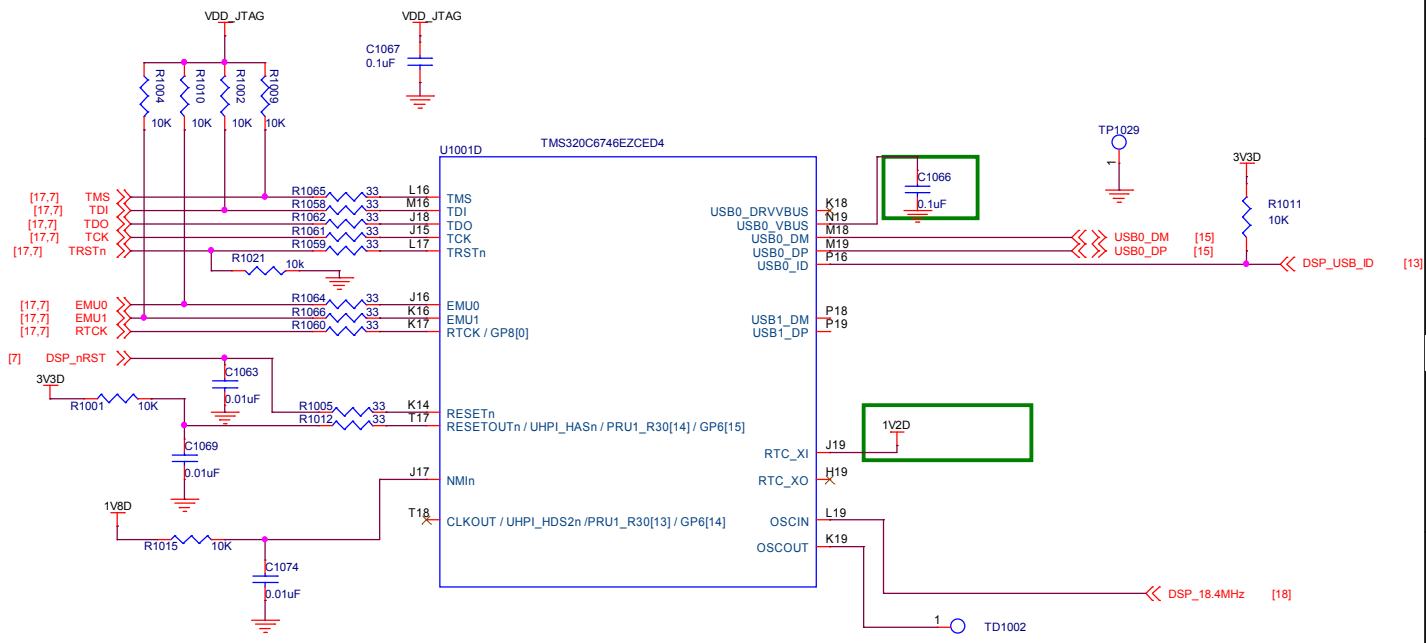
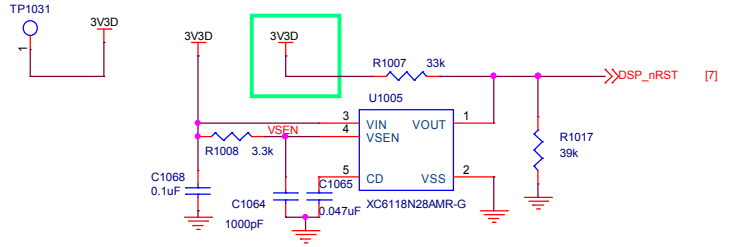
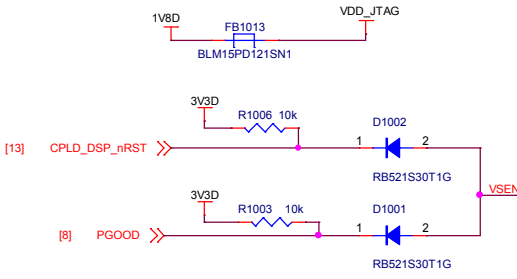
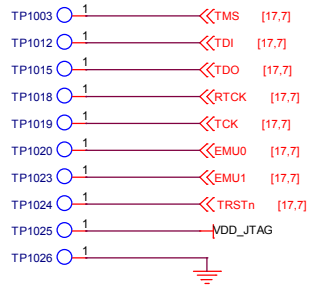
A

D

C

B

A

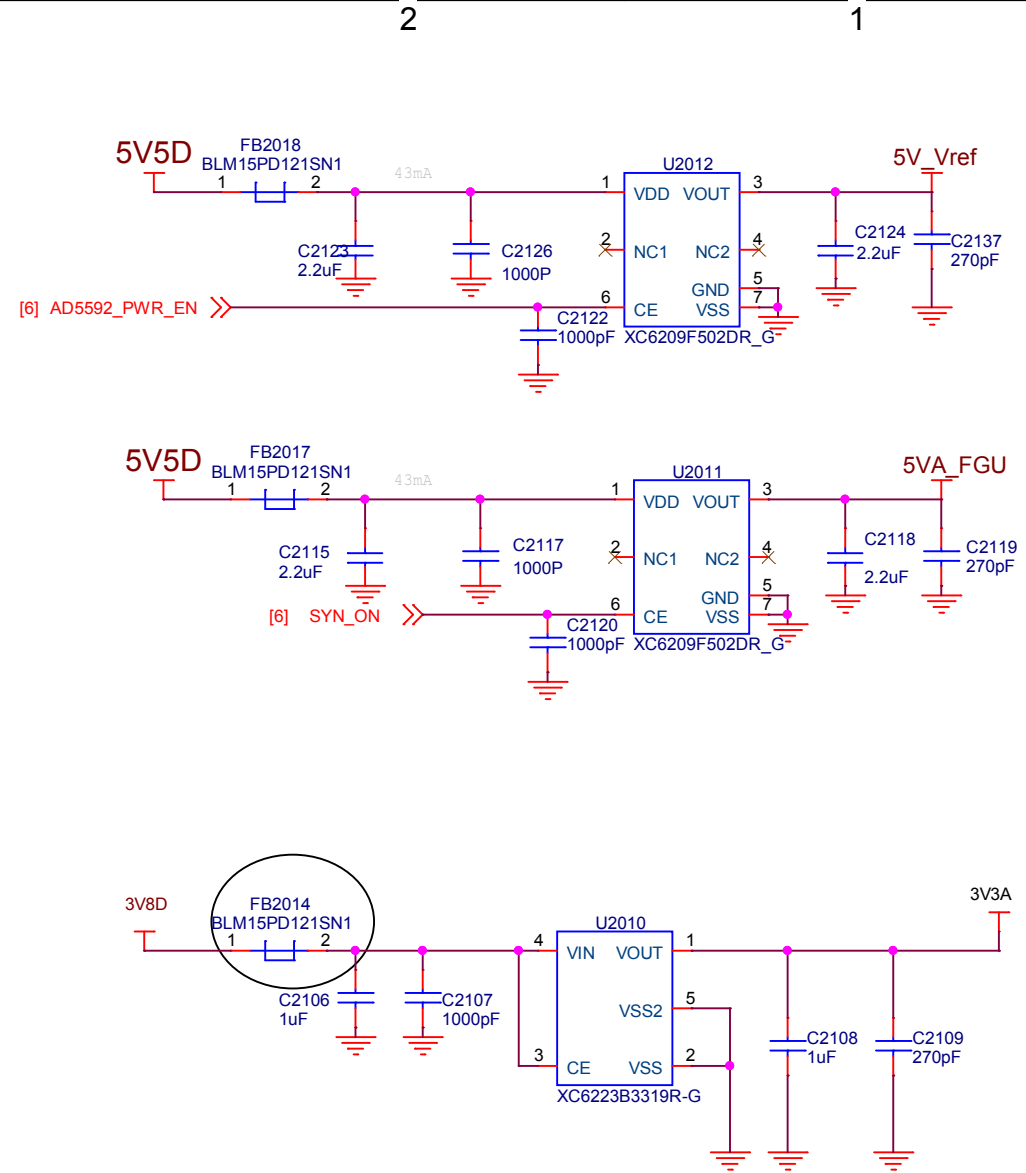
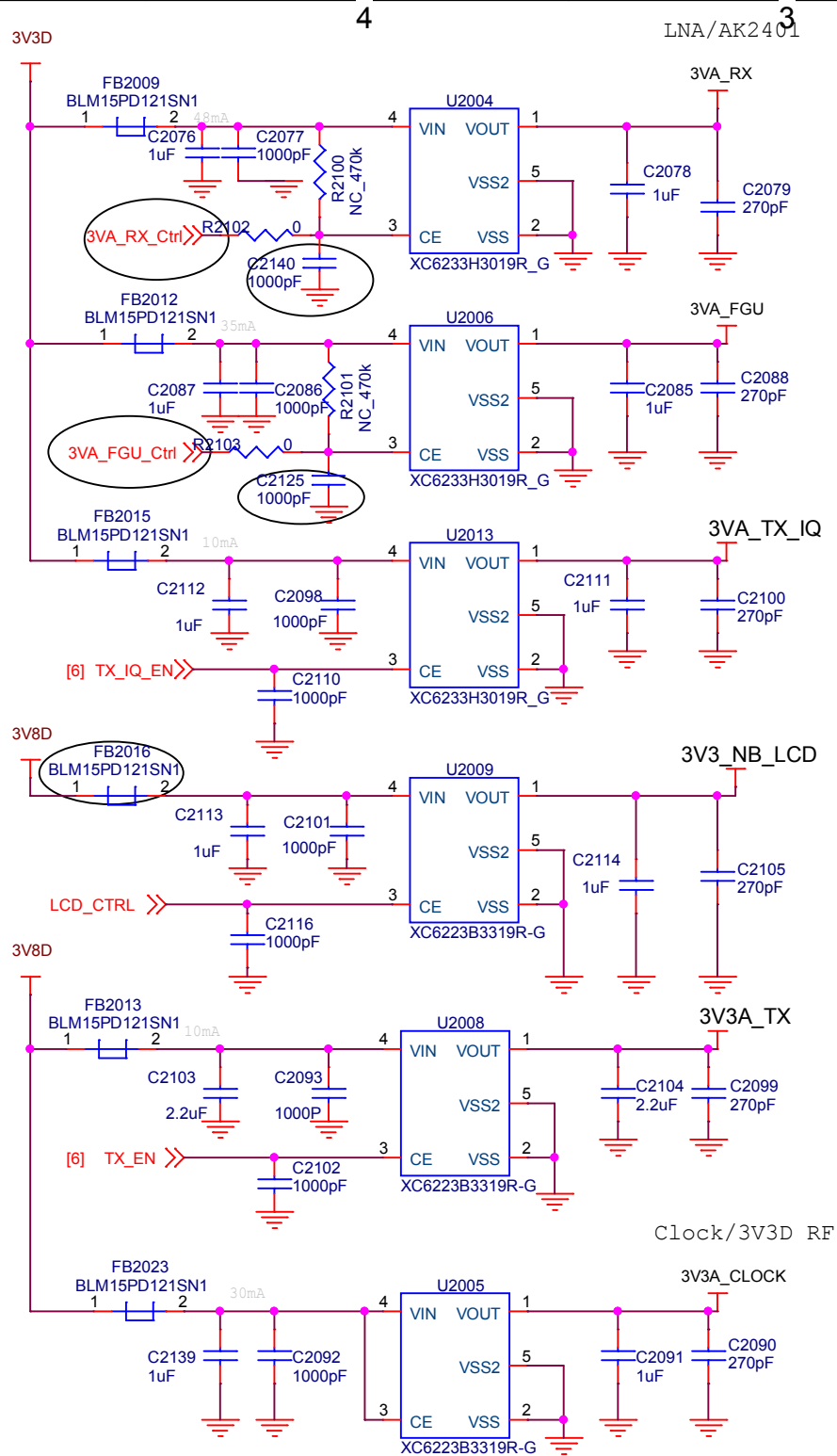


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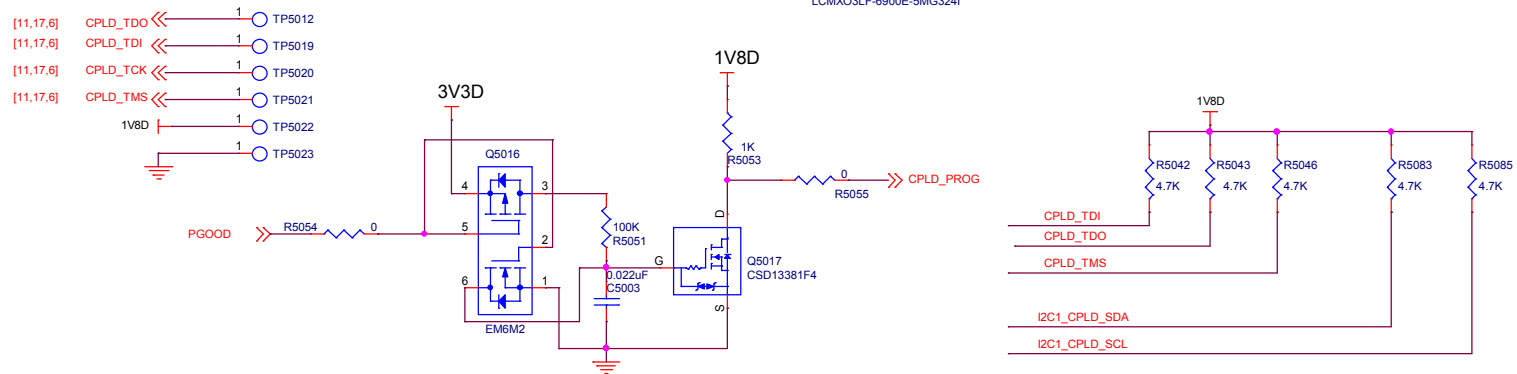
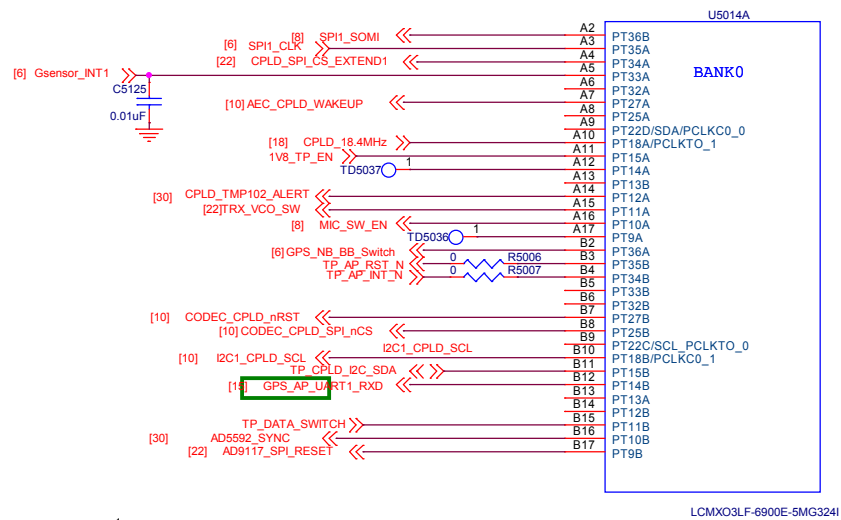
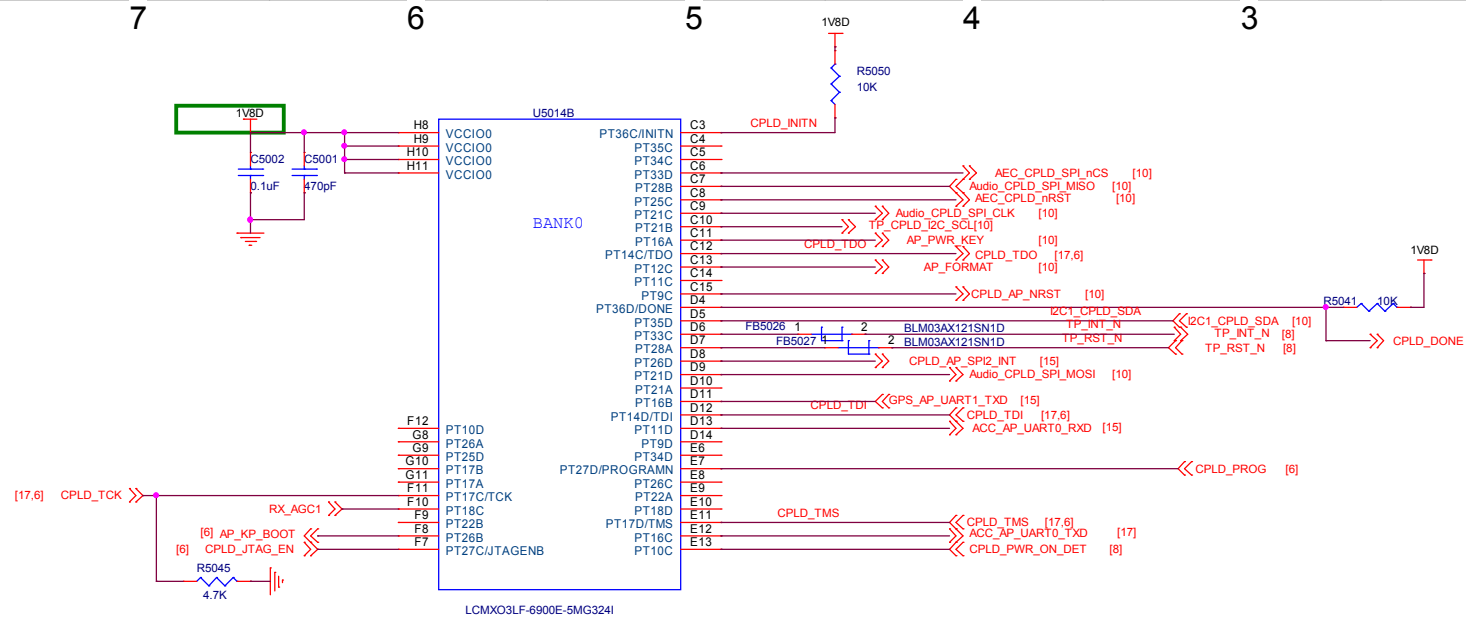
C

B

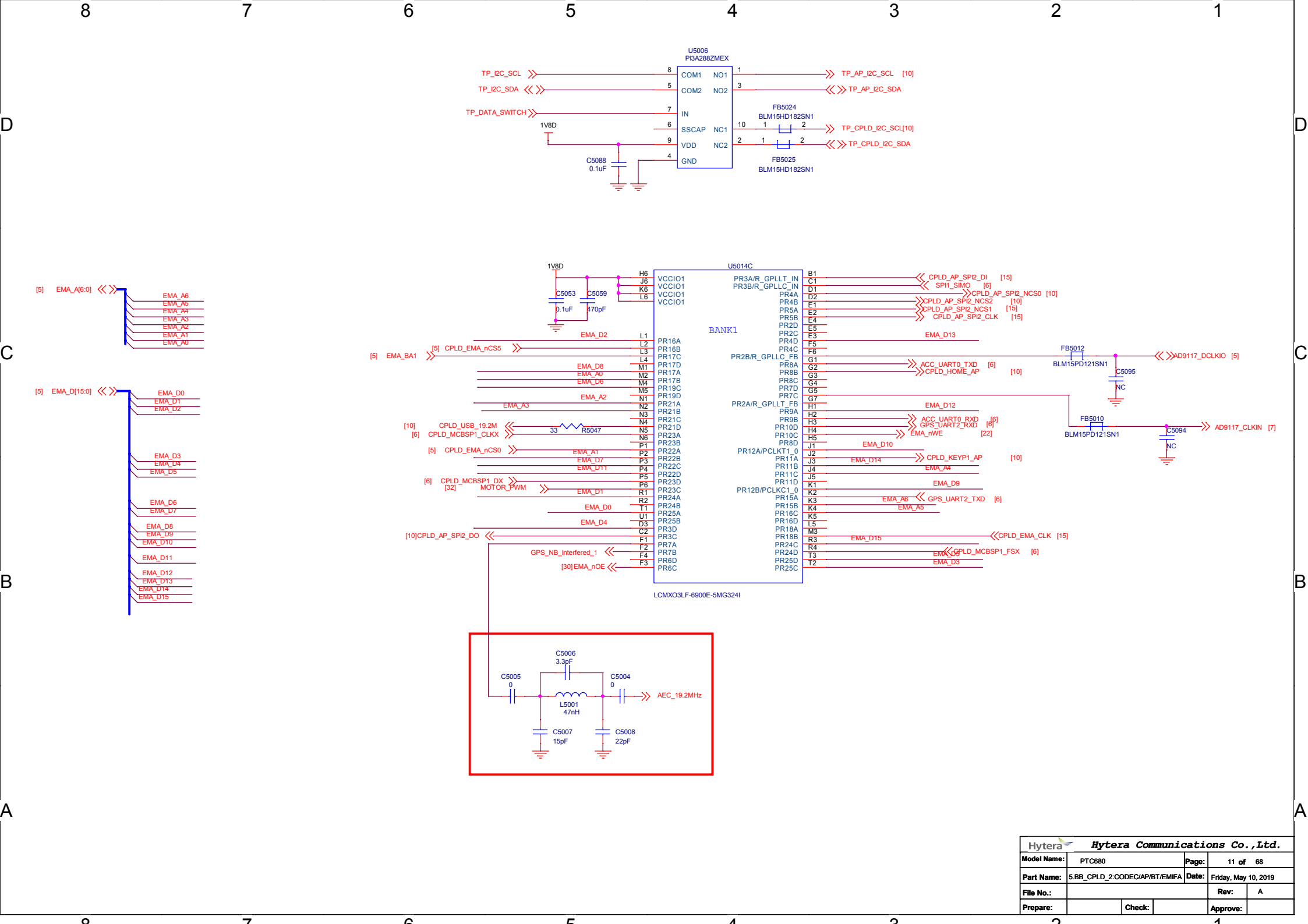
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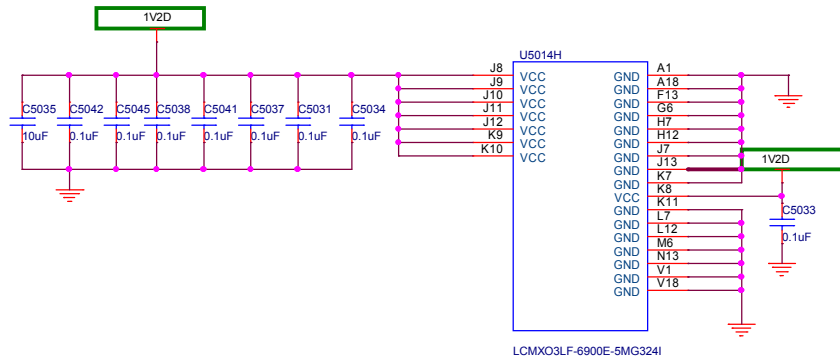
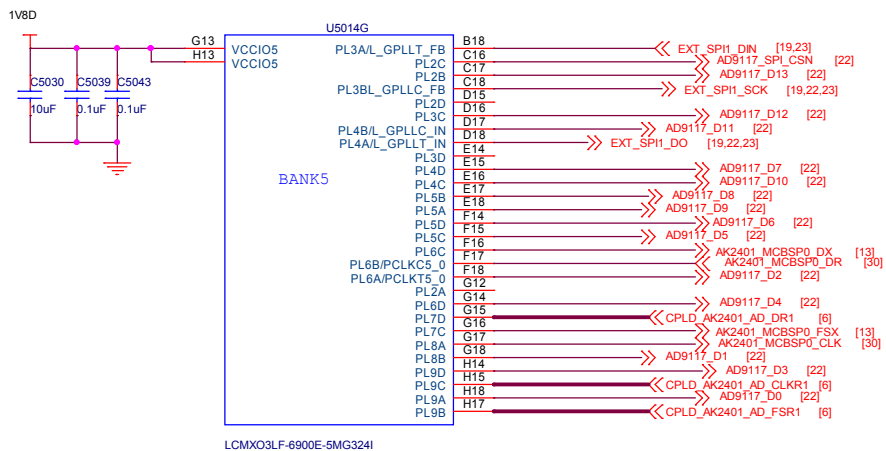
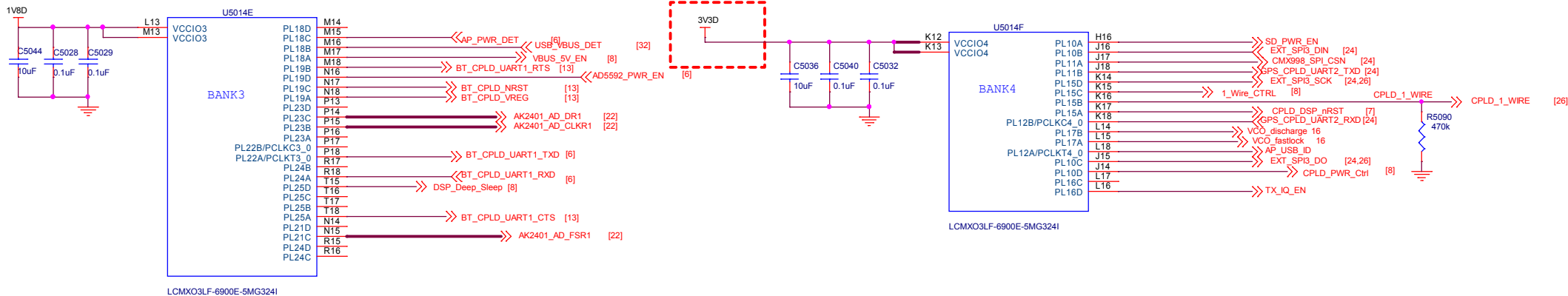


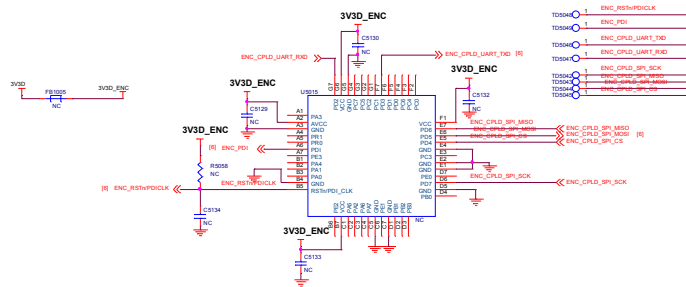
Hytera <i>Hytera Communications Co., Ltd.</i>			
Model Name:	G2.0 JUPITER	Page:	8 of 68
Part Name:	DC-DC	Date:	
File No.:		Rev:	V1.0
Prepare:		Check:	Friday, May 10, 2019
		Approve:	



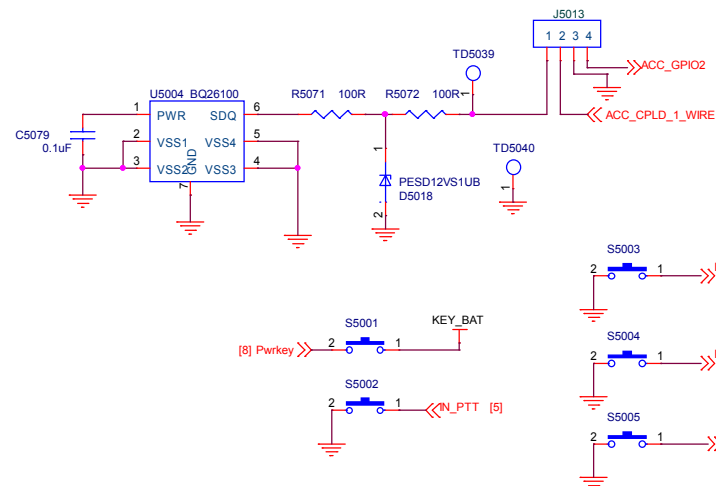
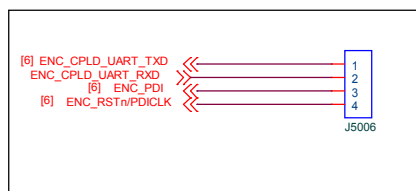
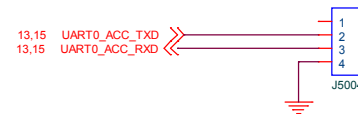
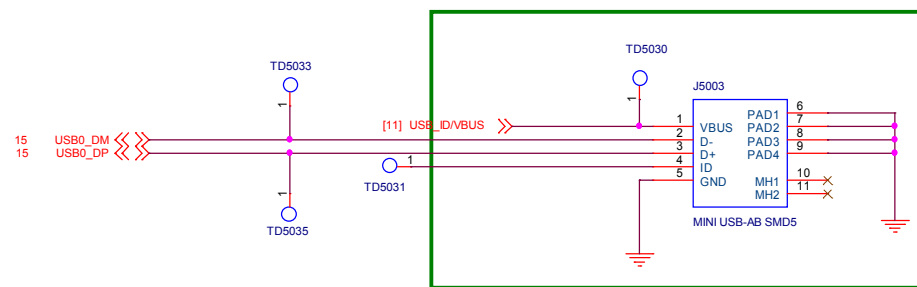
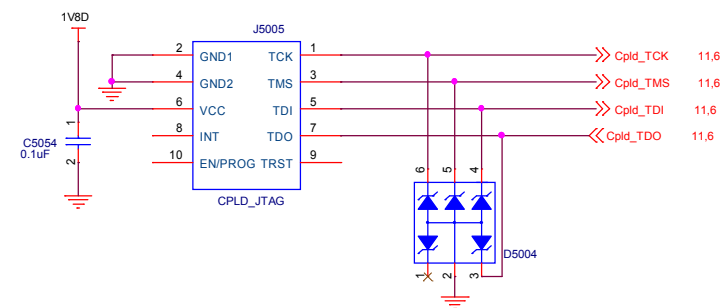
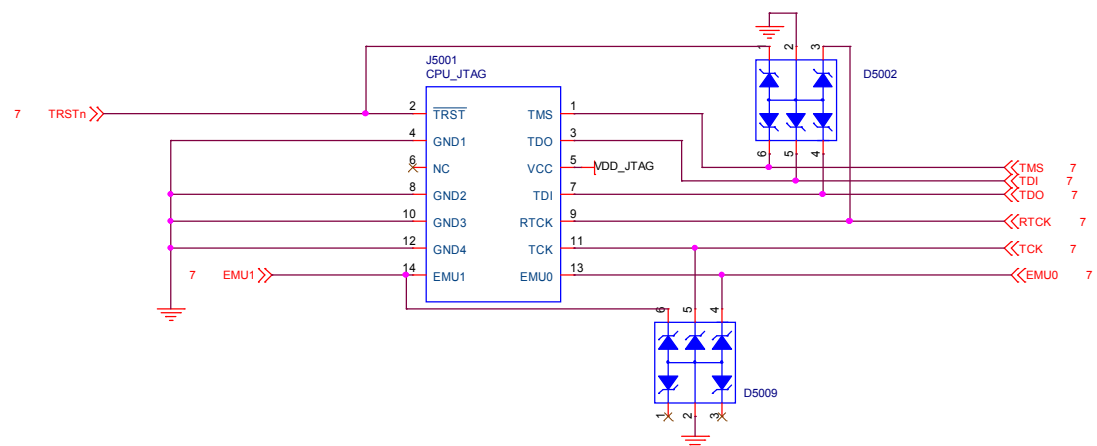
 Hytera Communications Co., Ltd.	
Model Name:	PTC680 Page: 10 of 68
Part Name:	5.BB_CPLD_1:PLL/AD/DAKB/JTAG Date: Friday, May 10, 2019
File No.:	
Prepare:	Check:
	Rev: A
	Approve:







Hytera		Hytera Communications Co., Ltd.	
Model Name:	PTC690	Page:	14 of 68
Part Name:	5.B8_MAXQ1850	Date:	Friday, May 10, 2019
File No.:		Rev:	A
Prepare:		Check:	Approve:



 Hytera Communications Co., Ltd.	
Model Name:	PTC680
Page:	17 of 68
Part Name:	5.BB_Perl_3: DEBUE /UART / USB
Date:	Friday, May 10, 2019
File No.:	Rev: A
Prepare:	Check: Approve:

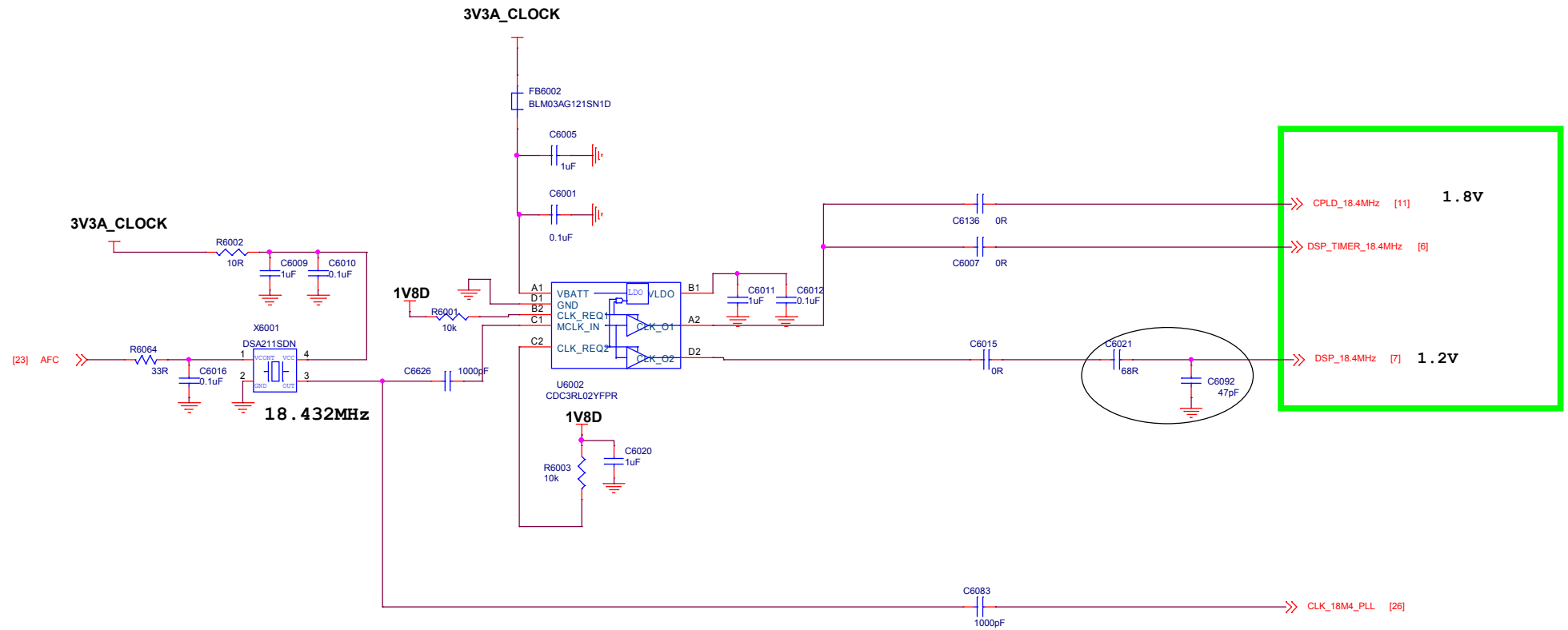
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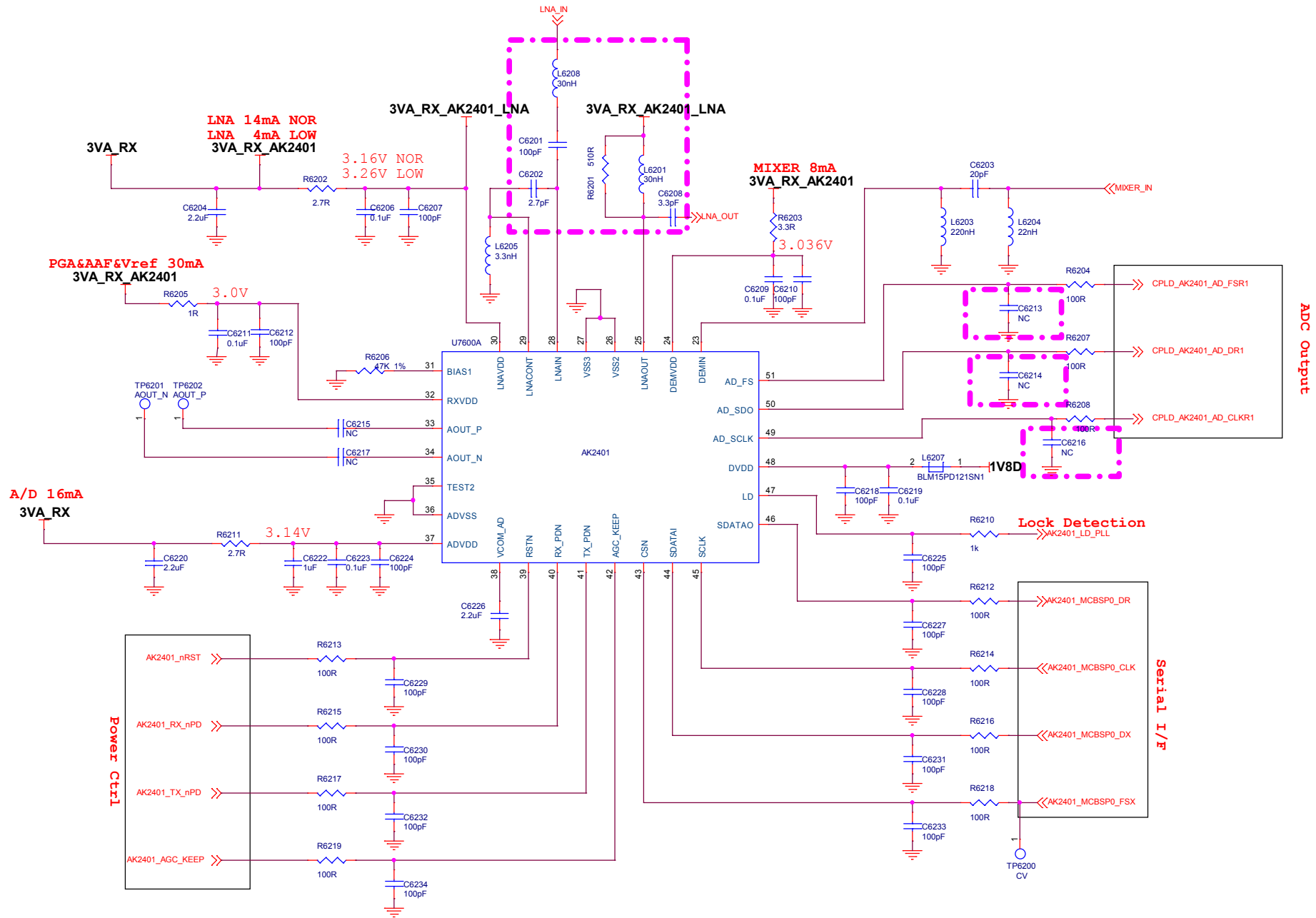
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3

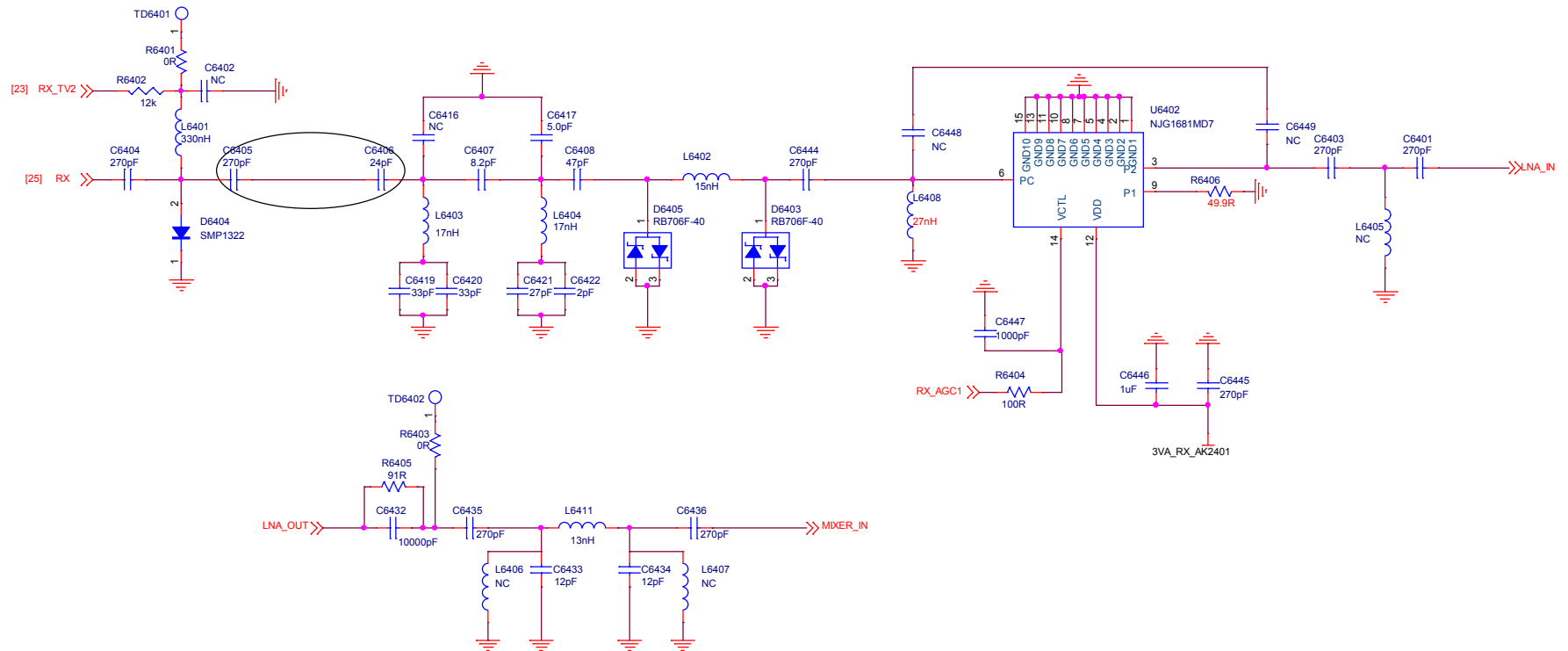
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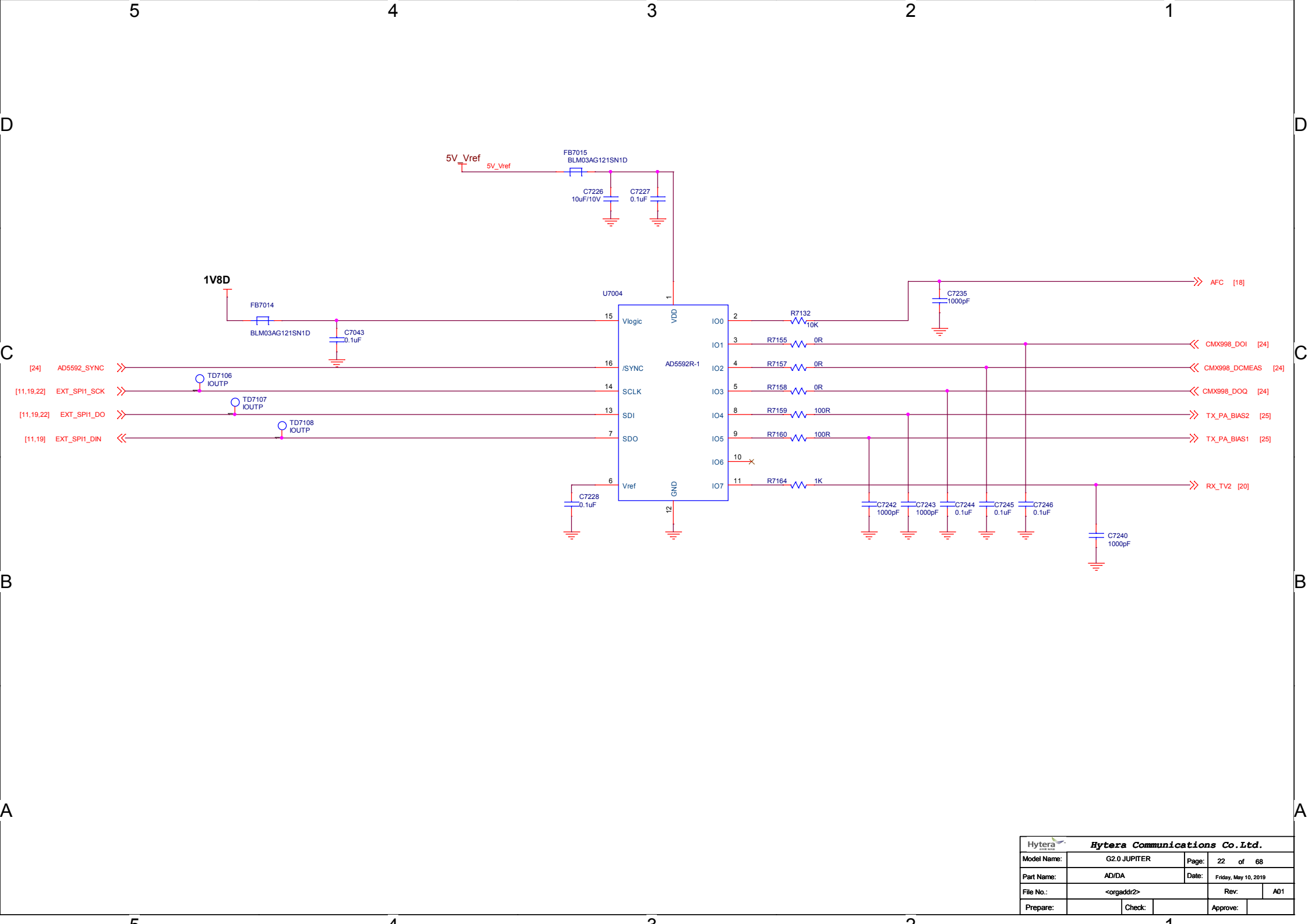
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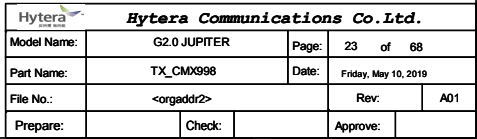


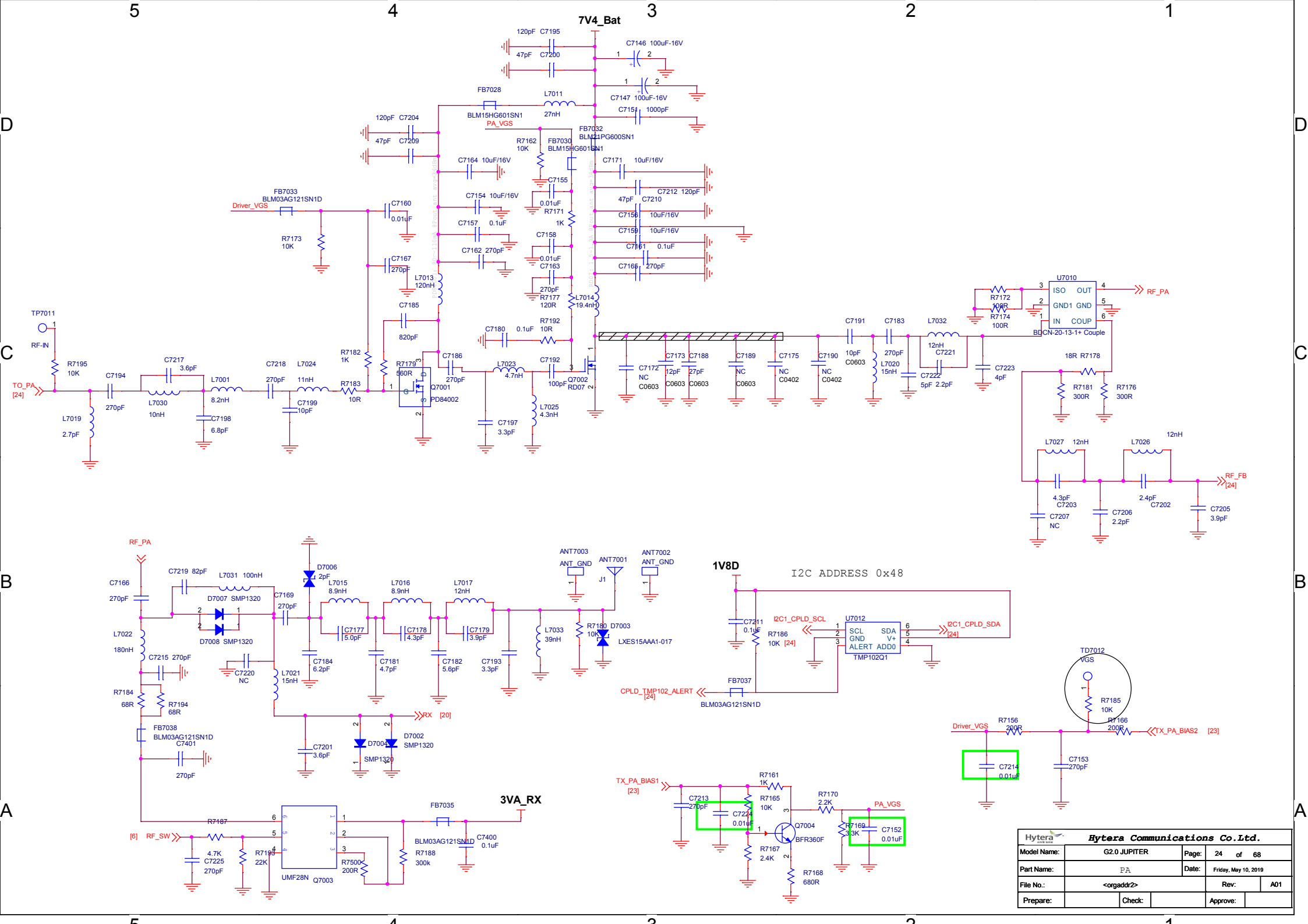


RX-FRONT-END

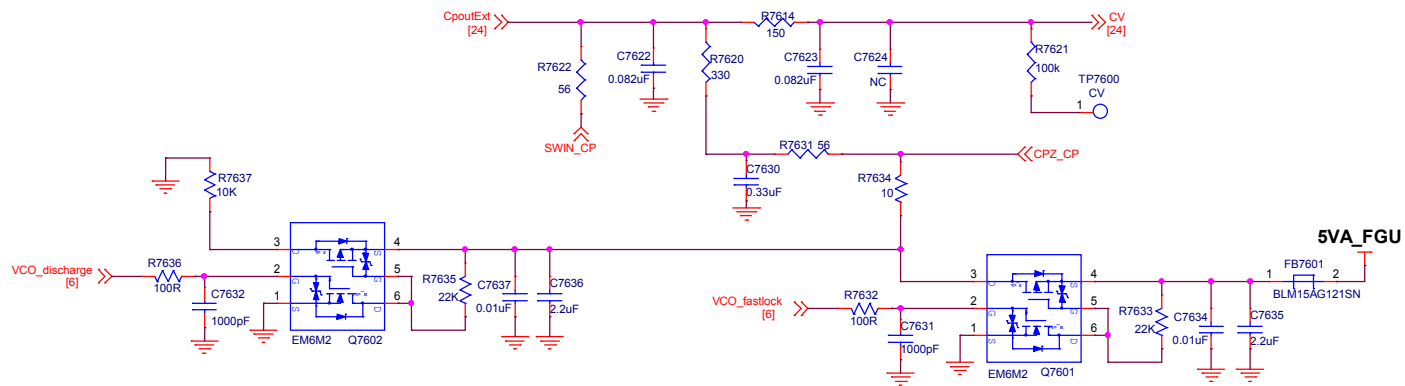
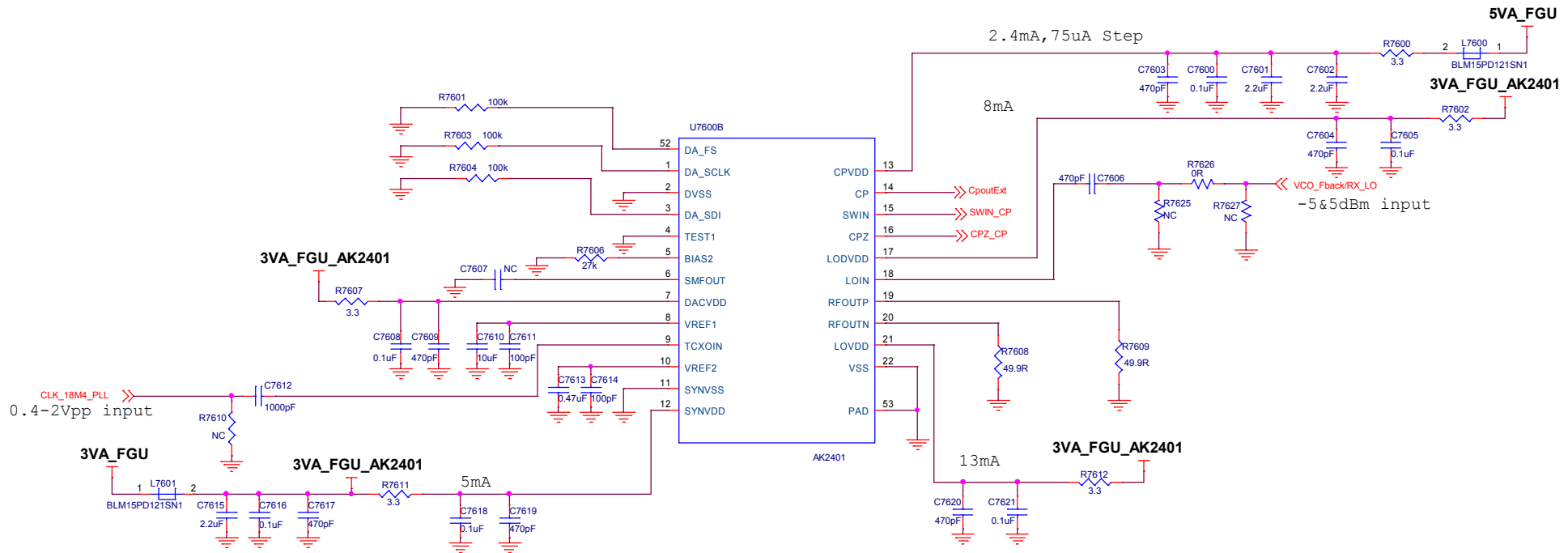


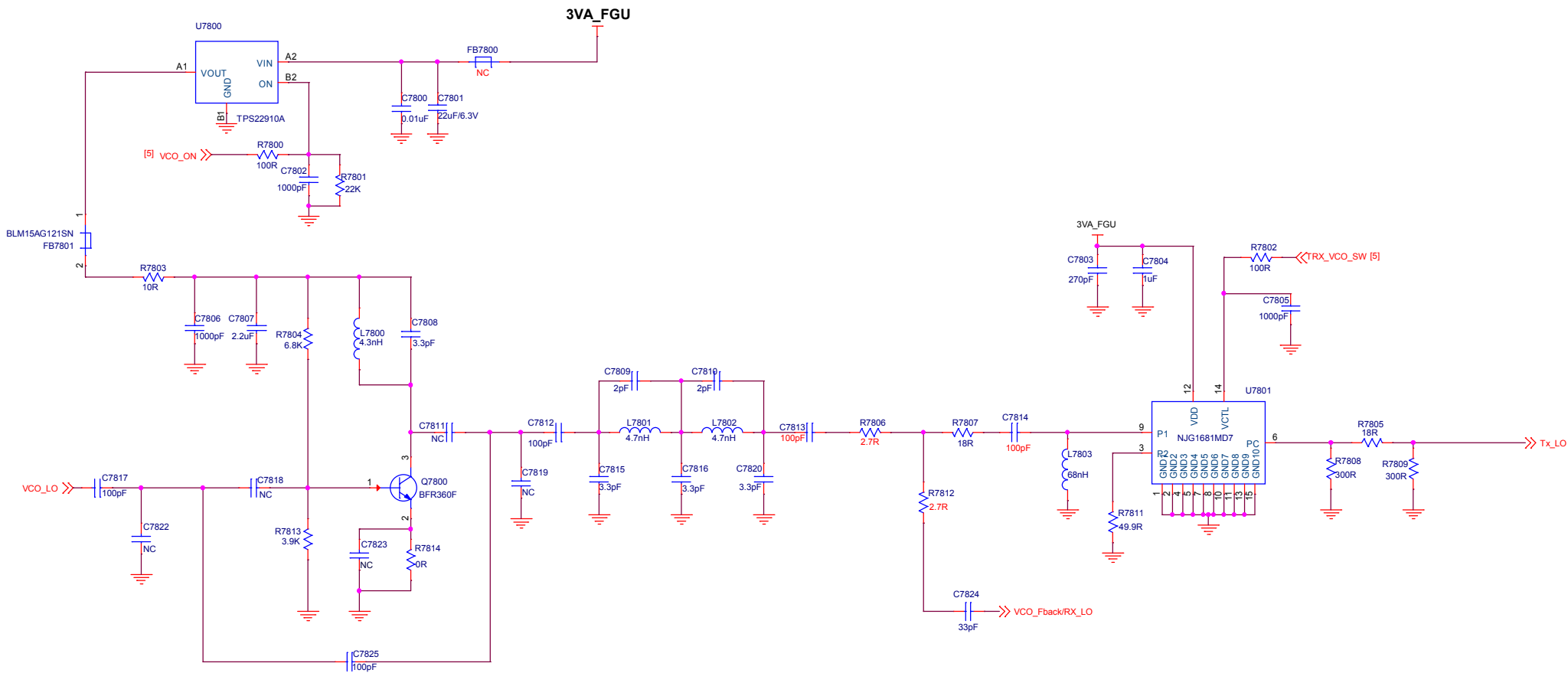


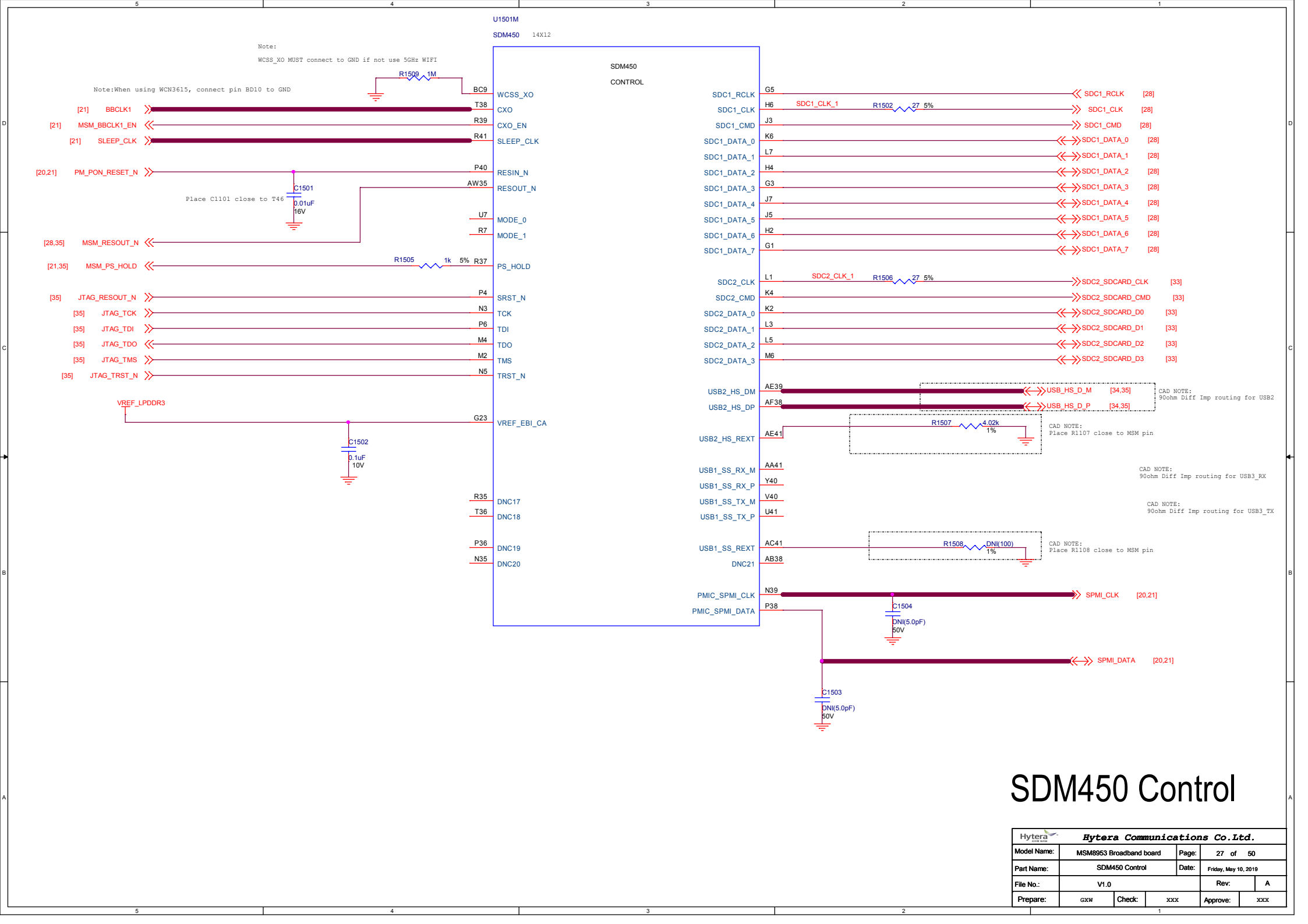


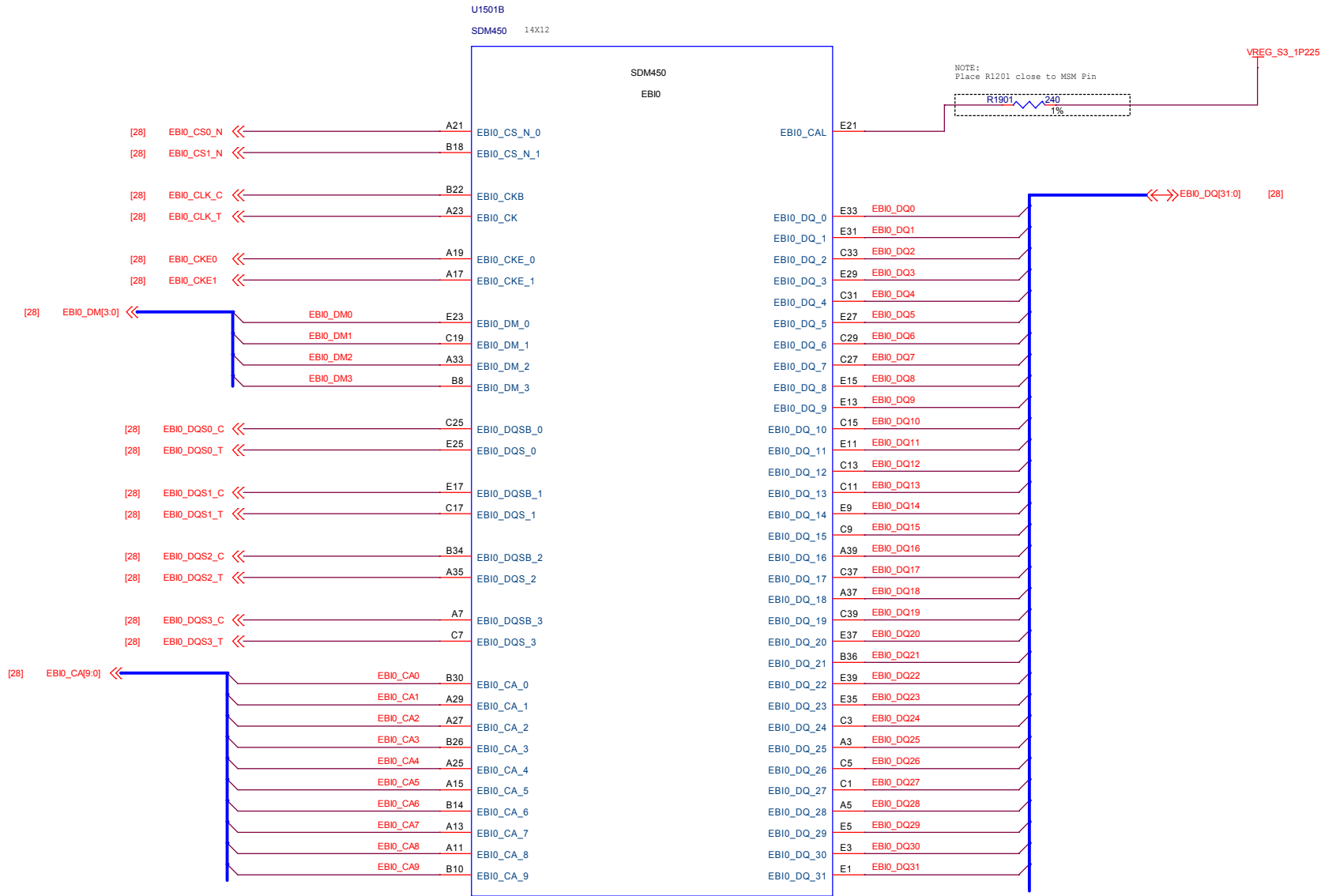


FGU-PLL³



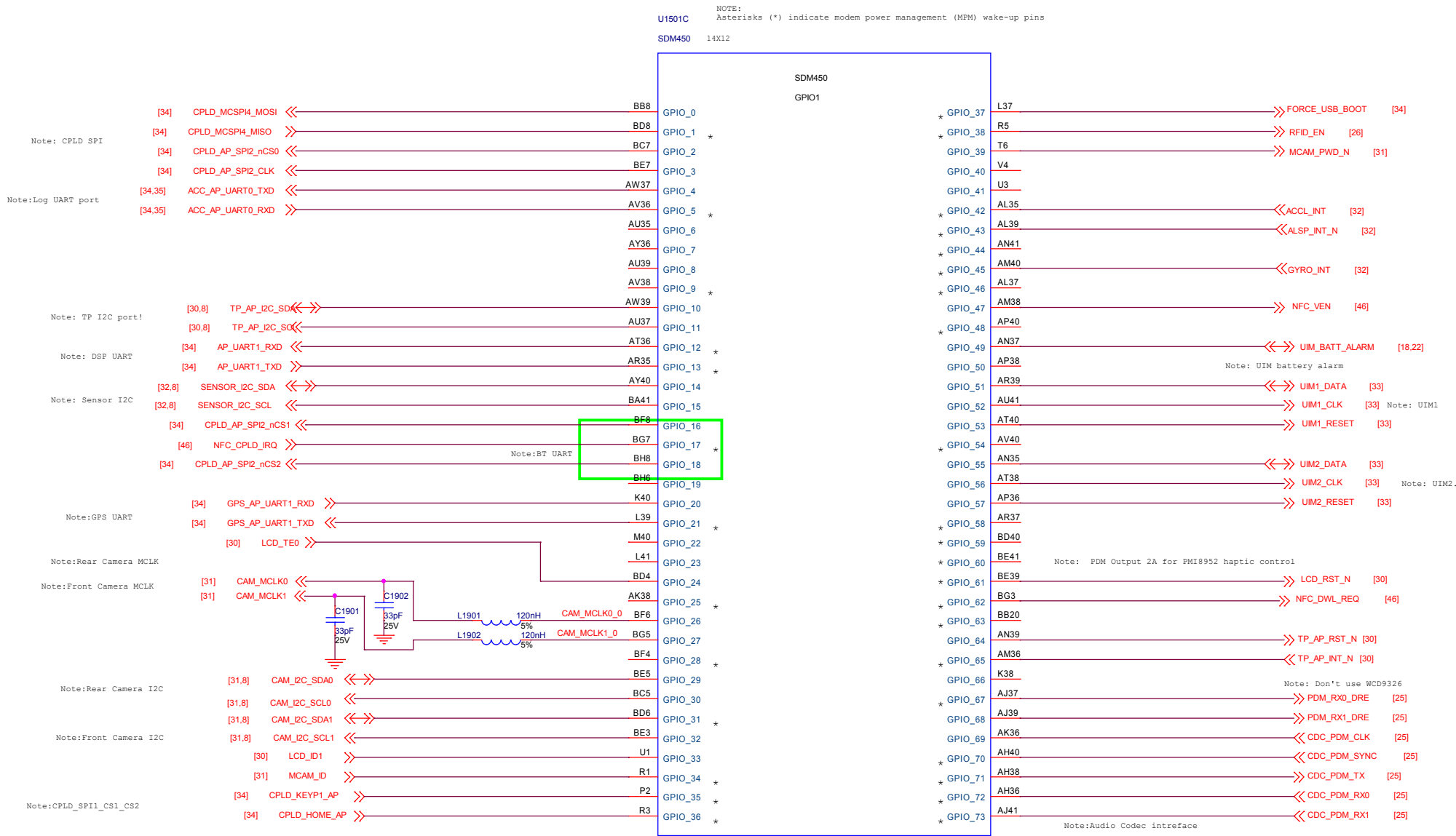




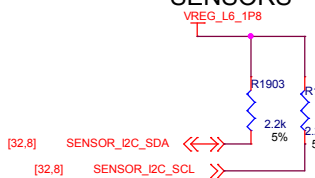


MSM8953 EBI

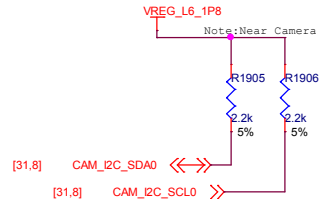
Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	28 of 50
Part Name:	MSM8953 EBI			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	GXW	Check:	xxx	Approve:	xxx



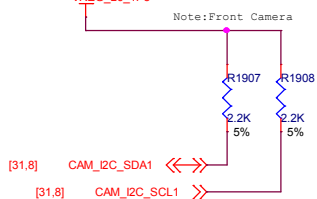
SENSORS



CAMERAS



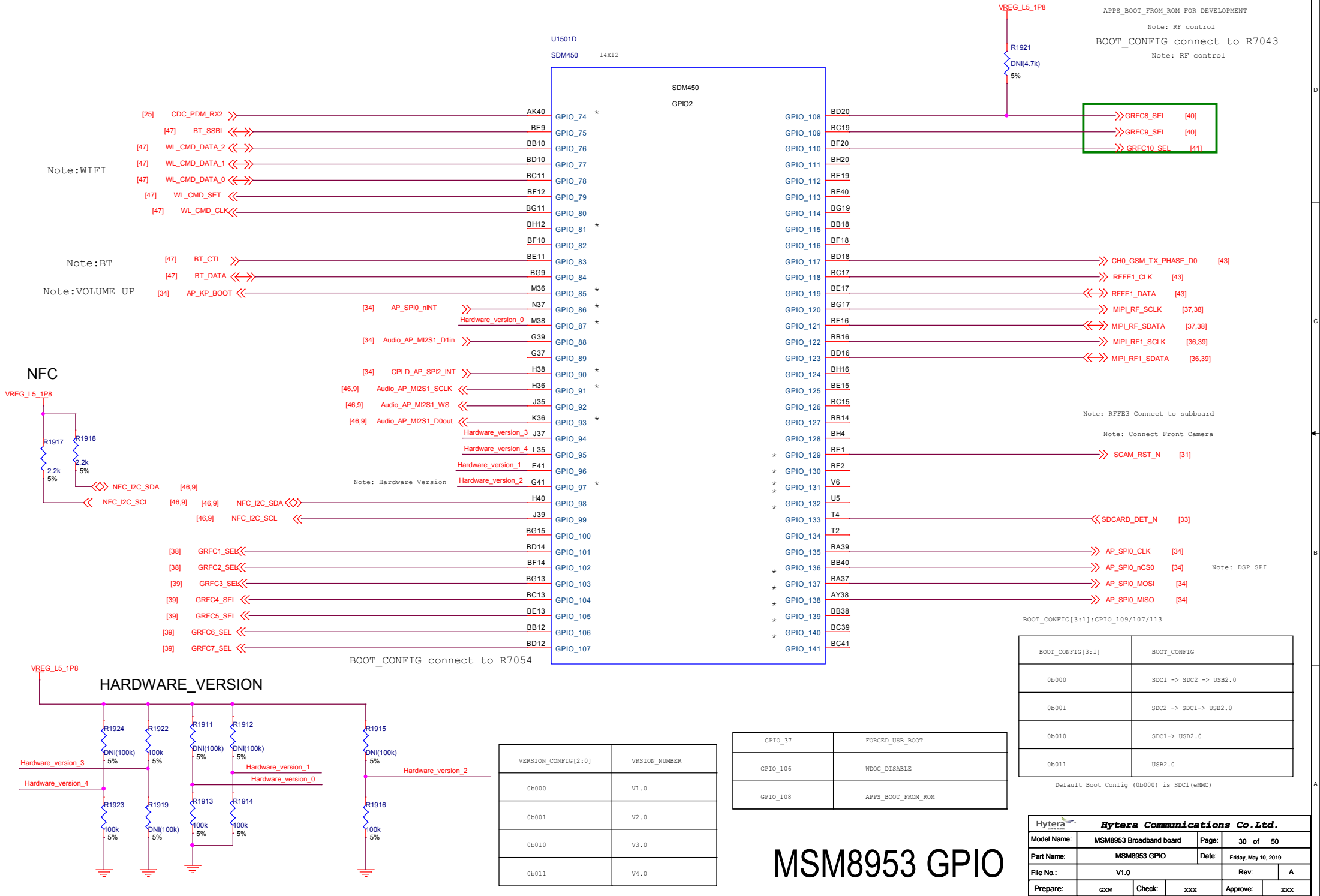
CAMERAS



TOUCHSCREEN

MSM8953 GPIO

Hytera Communications Co.Ltd.				
Model Name:	MSM8953 Broadband board	Page:	29	of 50
Part Name:	MSM8953 GPIO	Date:	Friday, May 10, 2019	
File No.:	V1.0	Rev:		A
Prepare:	GXW	Check:	xxx	Approve: xxx

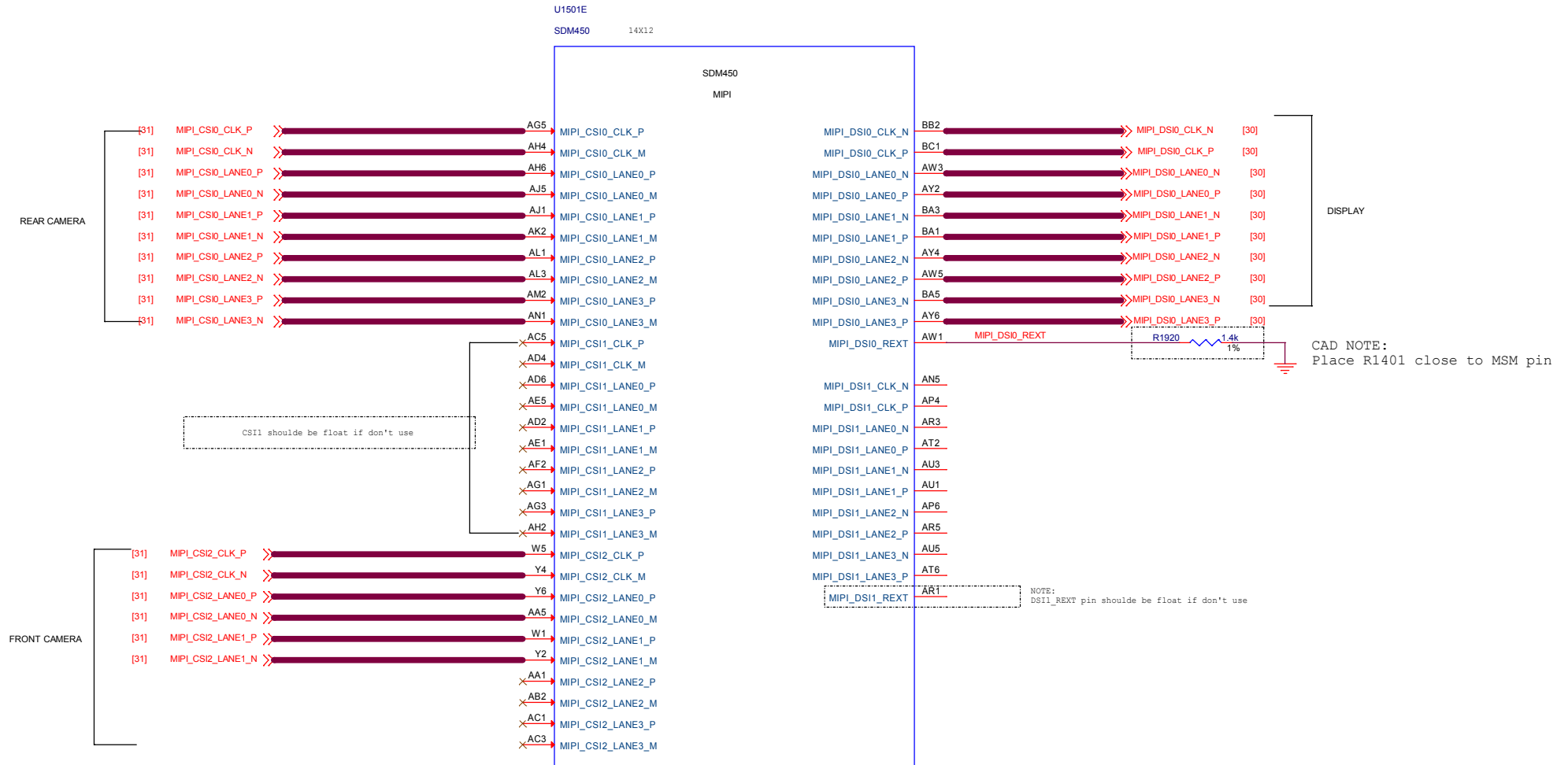


MSM8953 GPIO

BOOT_CONFIG[3:1]	BOOT_CONFIG
0b000	SDC1 -> SDC2 -> USB2.0
0b001	SDC2 -> SDC1-> USB2.0
0b010	SDC1-> USB2.0
0b011	USB2.0

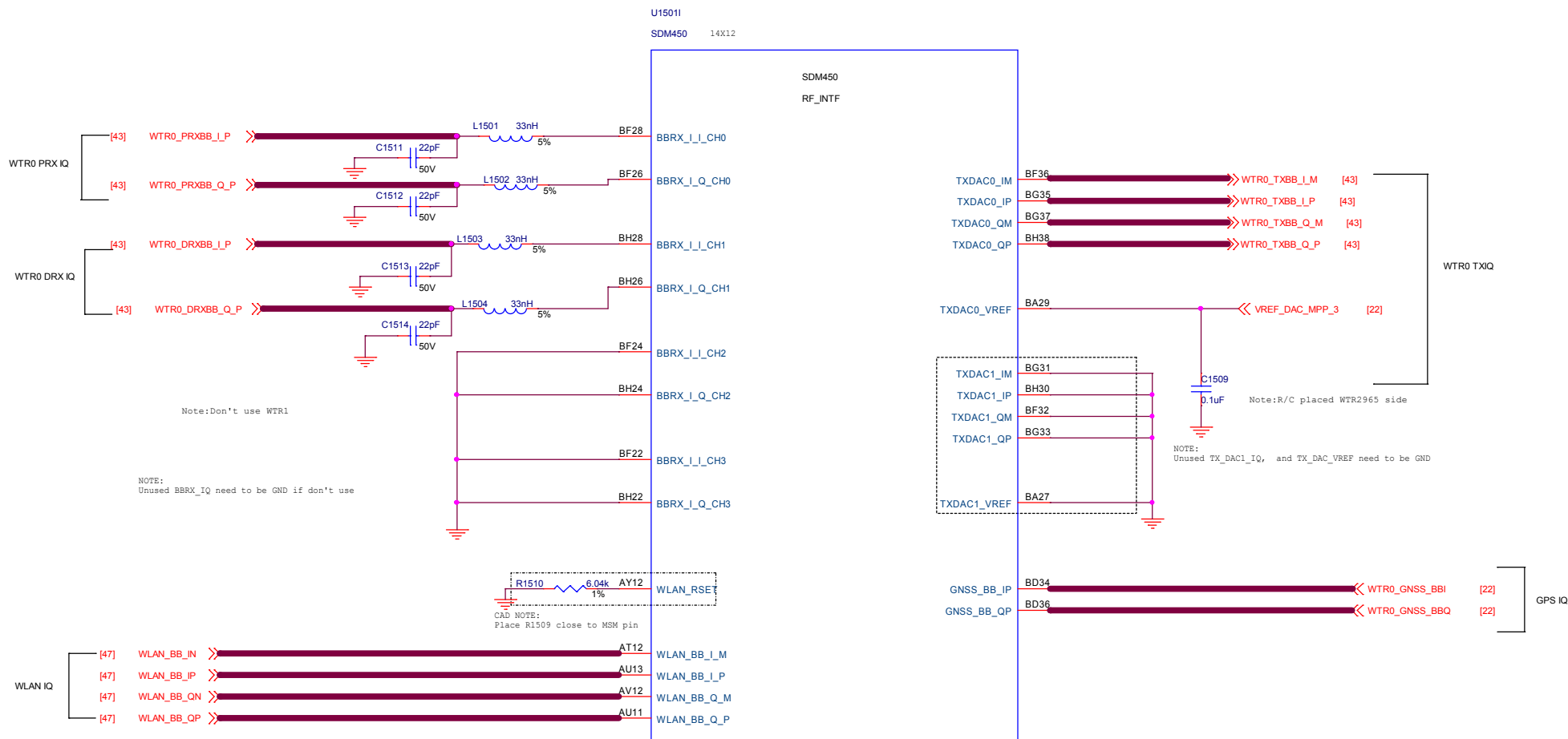
Default Boot Config (0b000) is SDC1 (eMMC)

Hytera Bytera Communications Co.Ltd.					
Model Name:	MSM8953 Broadband board		Page:	30 of 50	
Part Name:	MSM8953 GPIO		Date:	Friday, May 10, 2019	
File No.:	V1.0		Rev:	A	
Prepare:	gxw	Check:	xxx	Approve:	xxx



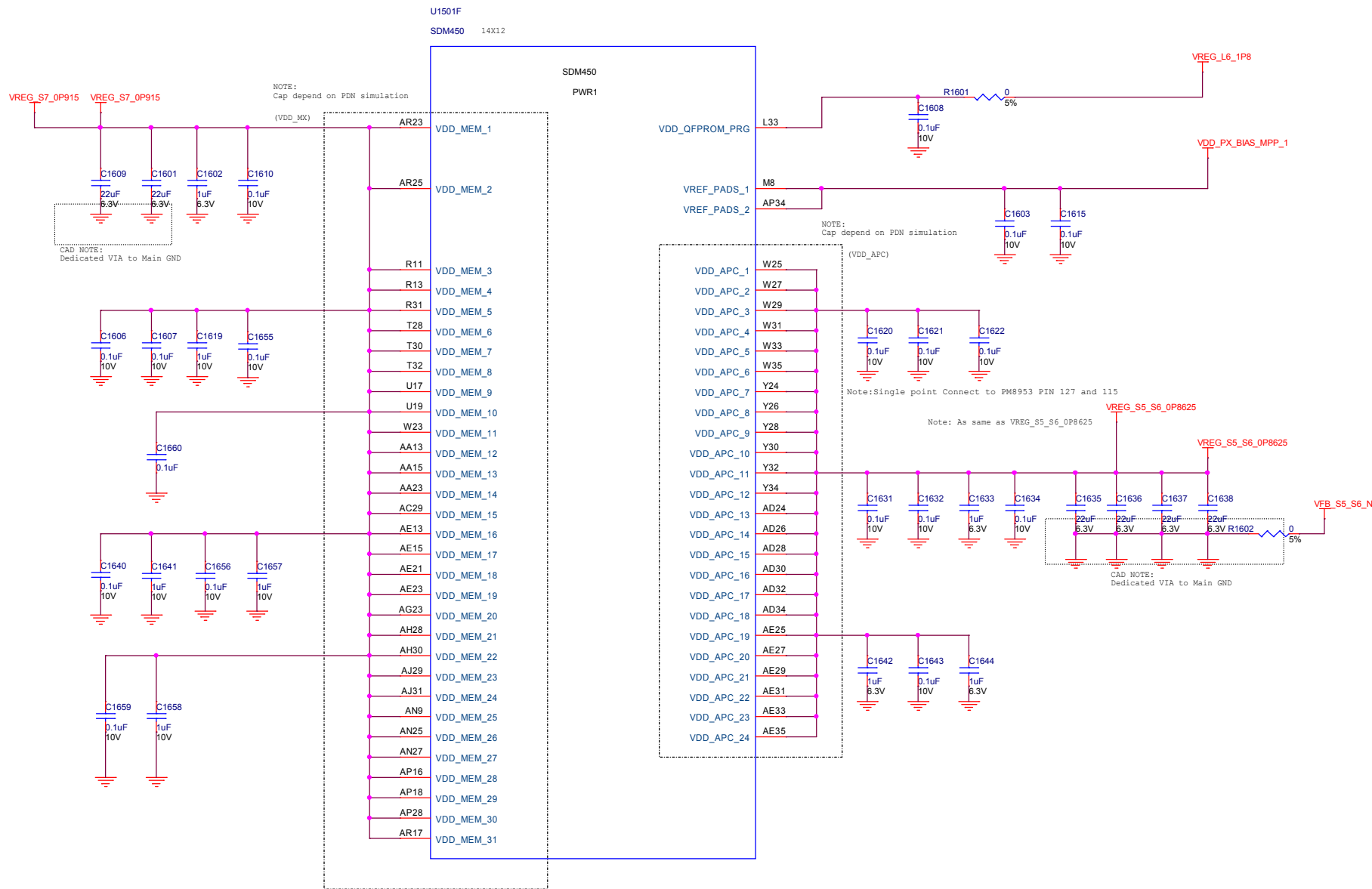
MSM8953 MIPI

Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	31 of 50
Part Name:	MSM8953 MIPI			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	GXW	Check:	XXX	Approve:	XXX



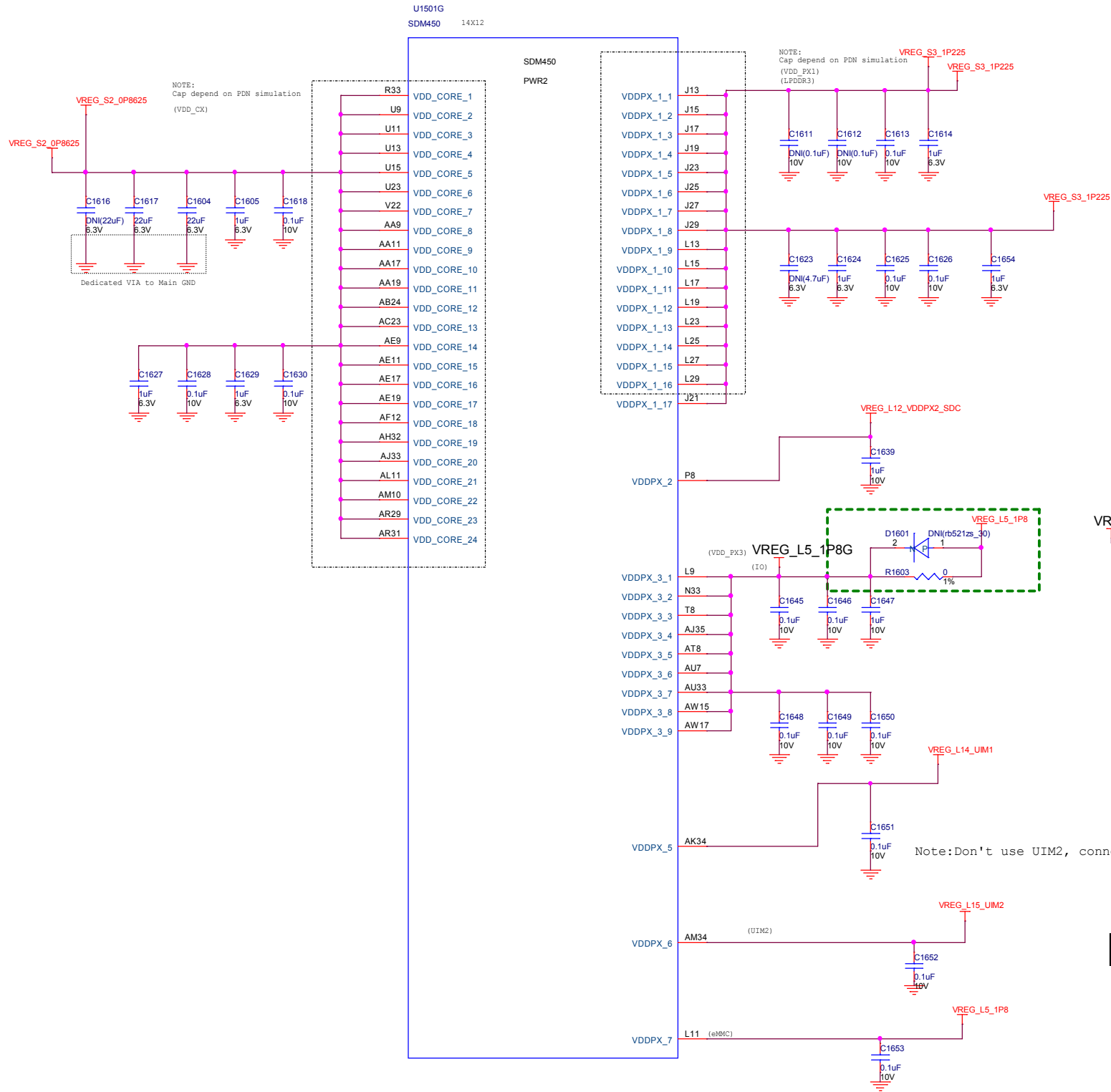
MSM8953 RF

Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	32 of 50
Part Name:	MSM8953 RF			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	GXW	Check:	XXX	Approve:	XXX



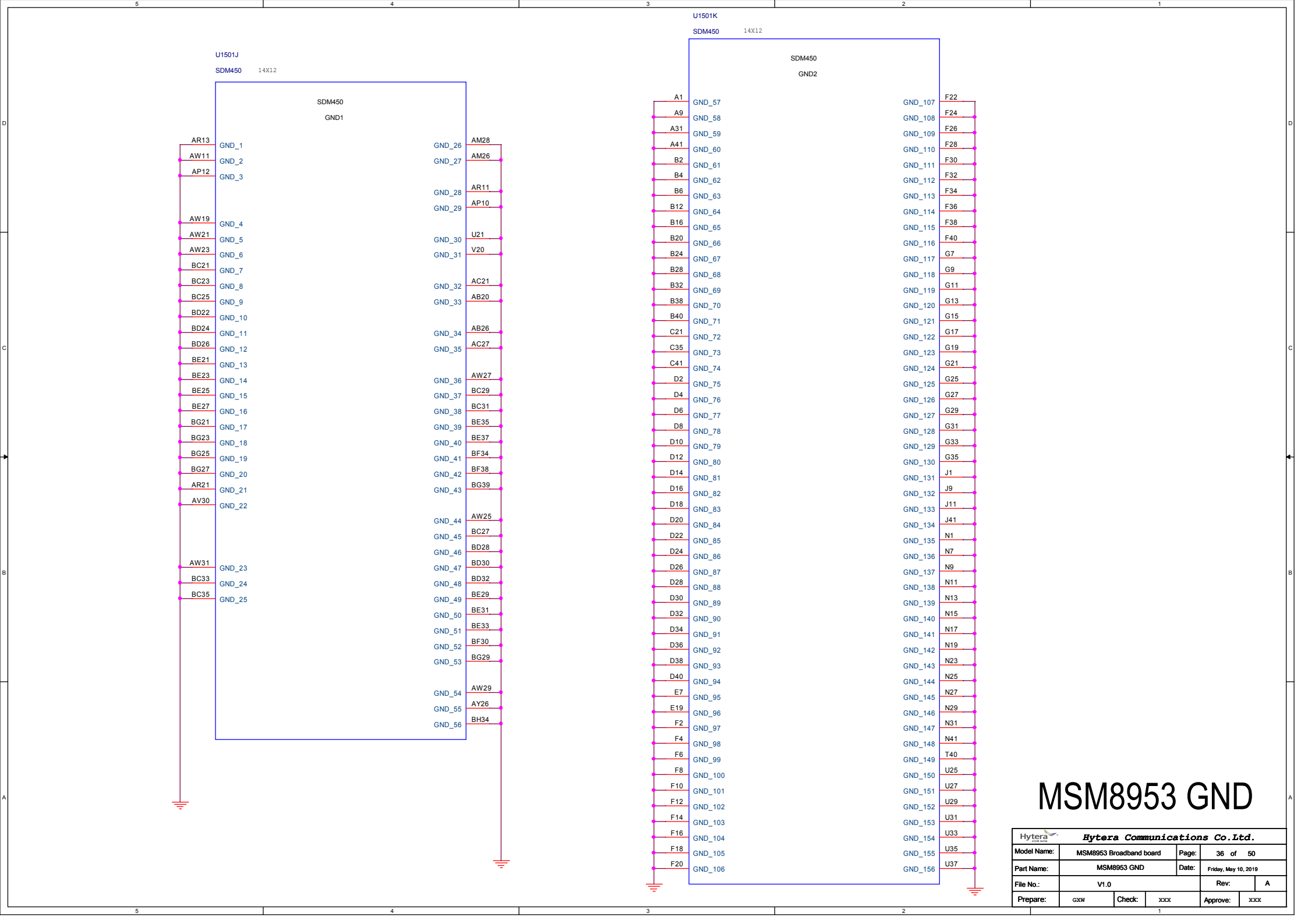
MSM8953 POWER1

Hytera		Hytera Communications Co.Ltd.	
Model Name:	MSM8953 Broadband board	Page:	33 of 50
Part Name:	MSM8953 POWER1	Date:	Friday, May 10, 2019
File No.:	V1.0	Rev:	A
Prepare:	GXW	Check:	xxx
Approve:	xxx		



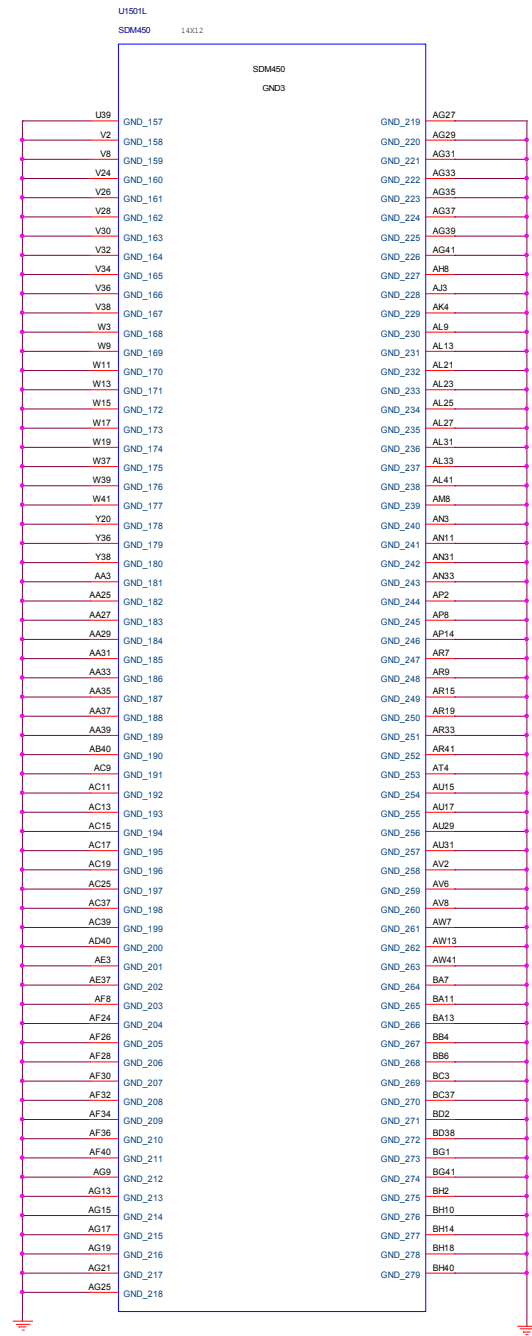
MSM8953 POWER1

Hytera		Hytera Communications Co.Ltd.	
Model Name:	MSM8953 Broadband board	Page:	34 of 50
Part Name:	MSM8953 POWER1	Date:	Friday, May 10, 2019
File No.:	V1.0	Rev:	A
Prepare:	gxw	Check:	xxxx
Approve:	xxxx		



MSM8953 GND

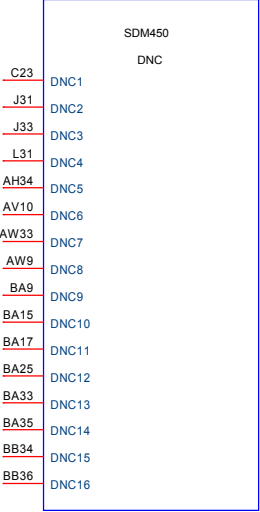
Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	36 of 50
Part Name:	MSM8953 GND			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	cxw	Check:	xxx	Approve:	xxx



MSM8953 GND

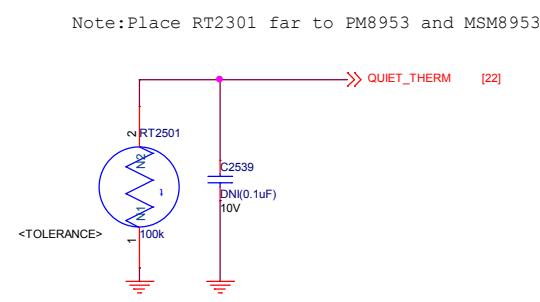
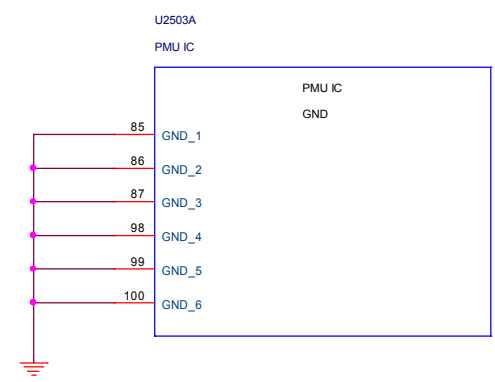
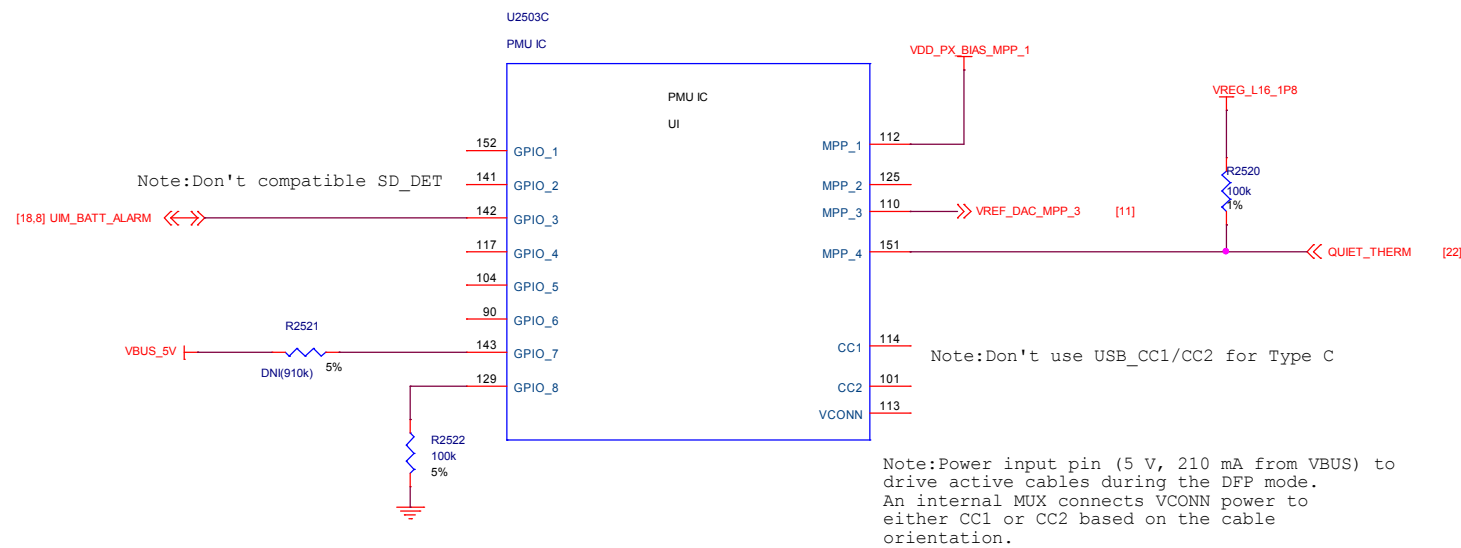
Hytera		Bytera Communications Co.,Ltd.	
Model Name:	MSM8953 Broadband board	Page:	37 of 50
Part Name:	MSM8953 GND	Date:	Friday, May 10, 2019
File No.:	V1.0	Rev:	A
Prepare:	GXX	Check:	XXX
Approve:			XXX

U1501A
SDM450 14X12



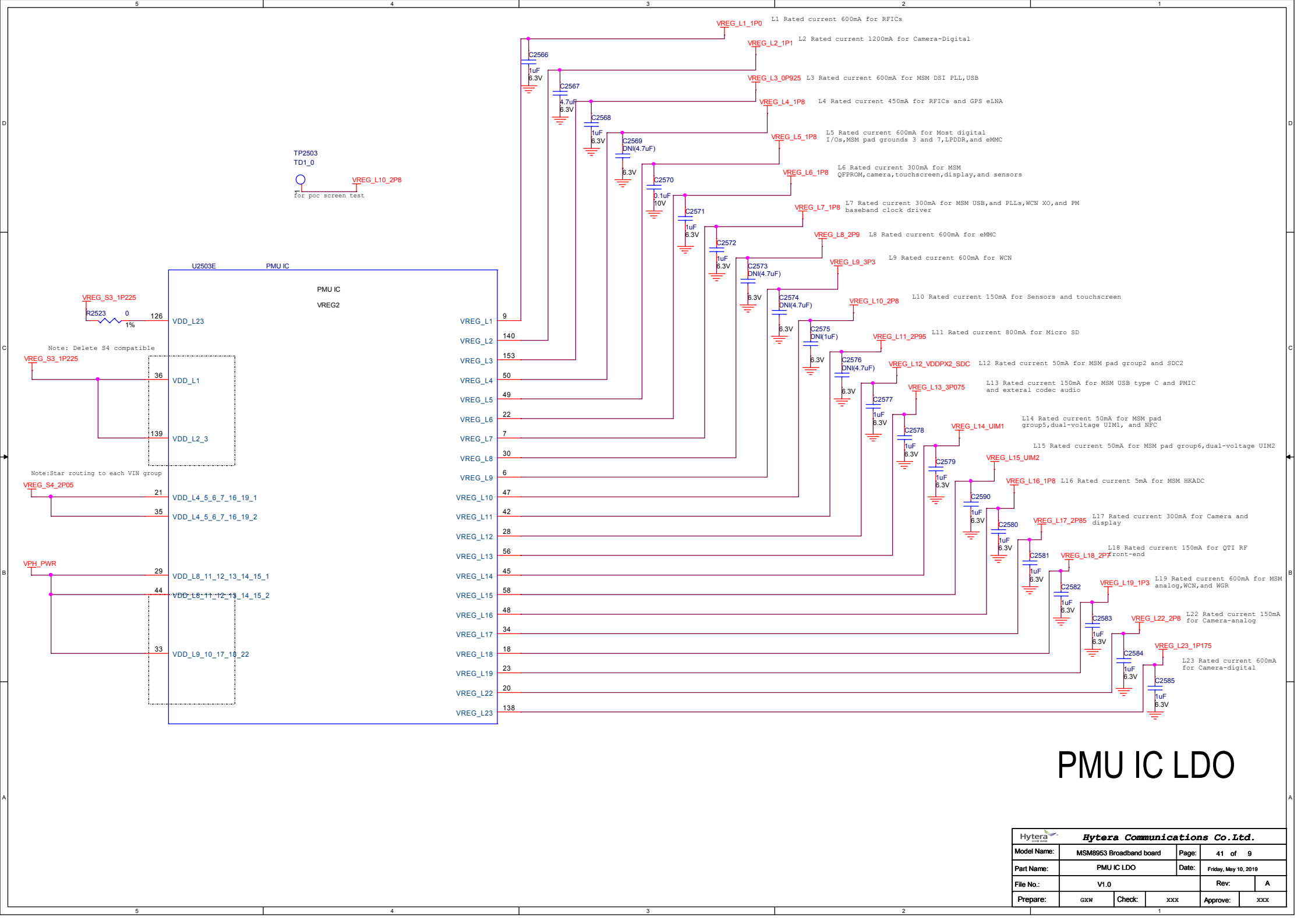
MSM8953 GND

Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	38 of 50
Part Name:	MSM8953 GND			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	gxw	Check:	xxx	Approve:	xxx



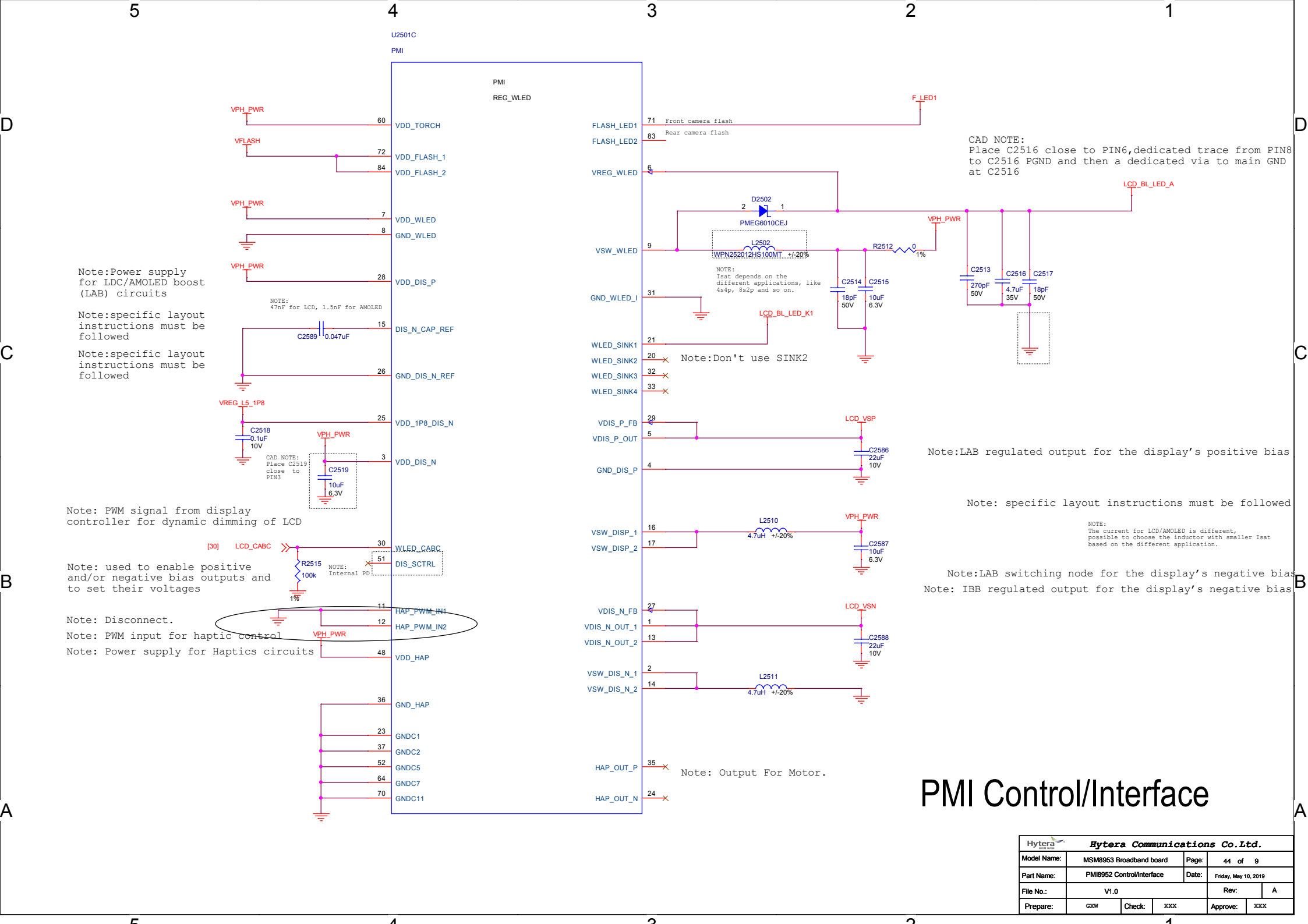
PMU IC Control/Interface

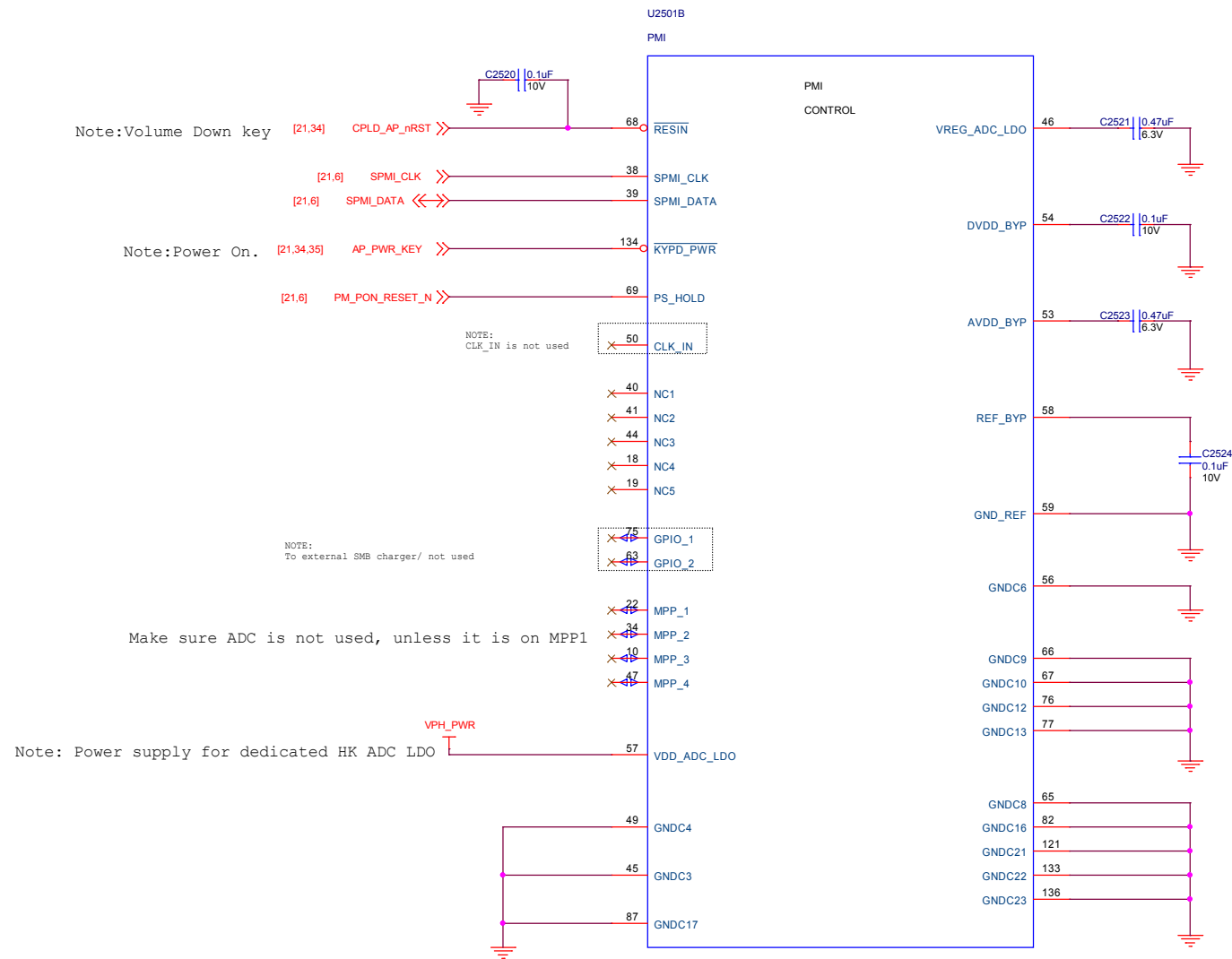
Hytera		Hytera Communications Co.Ltd.	
Model Name:	MSM8953 Broadband board	Page:	40 of 9
Part Name:	PM8953 Control/Interface	Date:	Friday, May 10, 2019
File No.:	V1.0	Rev:	A
Prepare:	GXW	Check:	XXXX
Approve:	XXXX		



PMU IC LDO

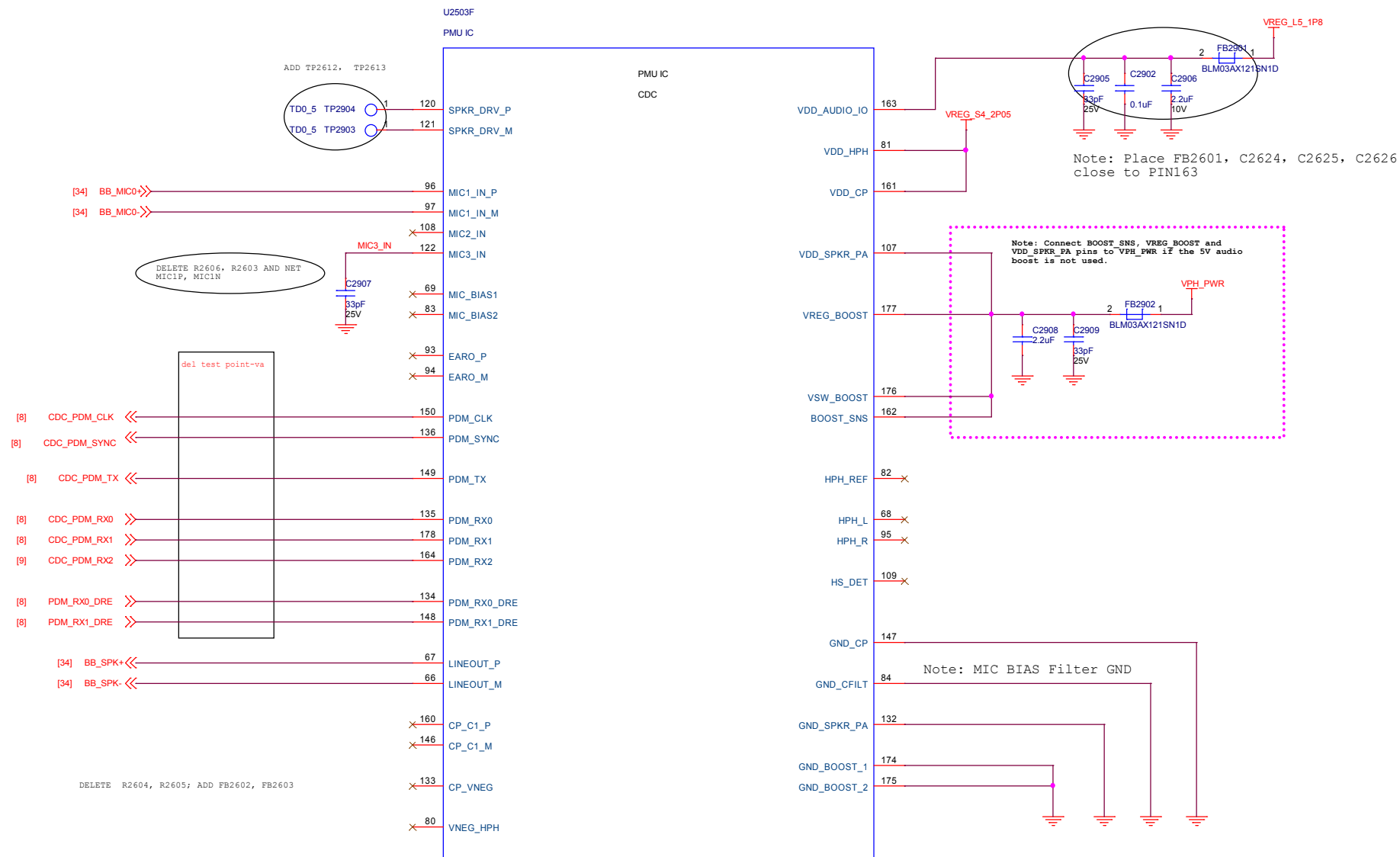
Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board		Page:	41 of 9	
Part Name:	PMU IC LDO		Date:	Friday, May 10, 2019	
File No.:	V1.0		Rev:	A	
Prepare:	GXW	Check:	XXX	Approve:	XXX





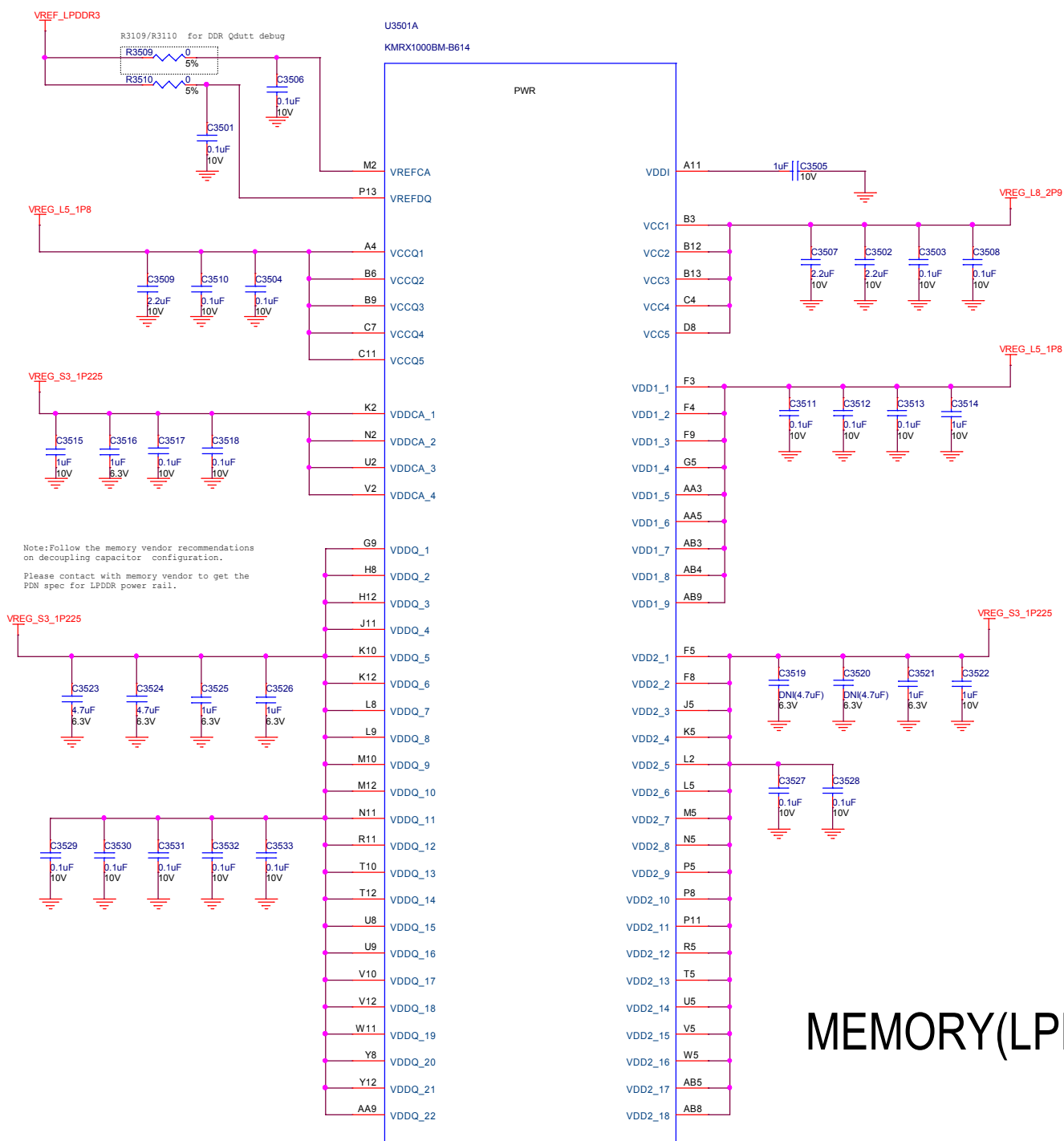
PMI Control/Interface

Hytera		Hytera Communications Co.Ltd.		
Model Name:	MSM8953 Broadband board		Page:	45 of 9
Part Name:	PMB952 Control/Interface		Date:	Friday, May 10, 2019
File No.:	V1.0		Rev:	A
Prepare:	GXW	Check:	XXX	Approve: XXX



PMU IC AUDIO CODEC

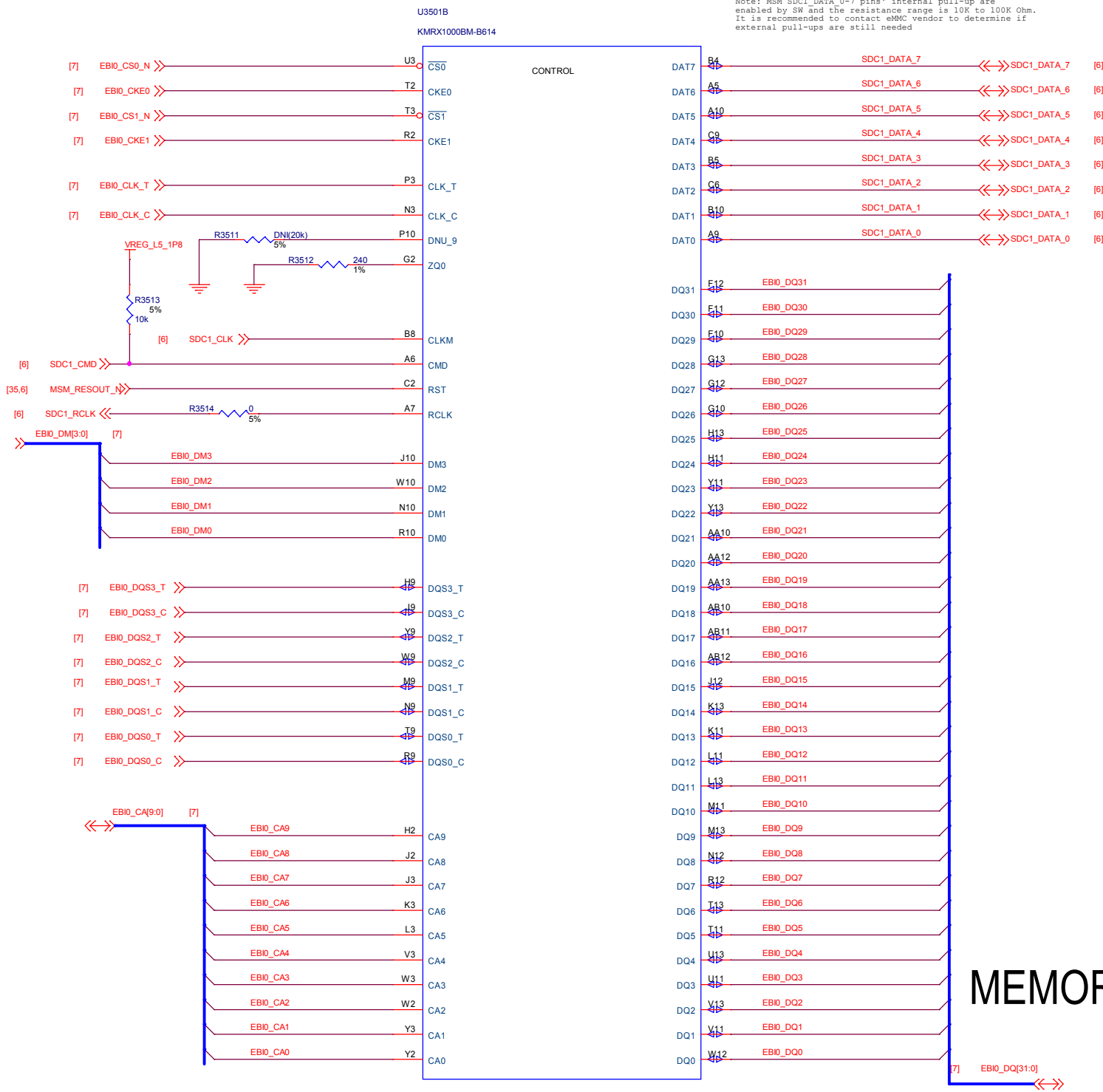
Hytera		Hytera Communications Co.Ltd.		
Model Name:	MSM8953 Broadband board	Page:	47	of 9
Part Name:	PM8953 AUDIO CODEC	Date:	Friday, May 10, 2019	
File No.:	V1.0	Rev:	A	
Prepare:	GXW	Check:	XXX	Approve: XXX



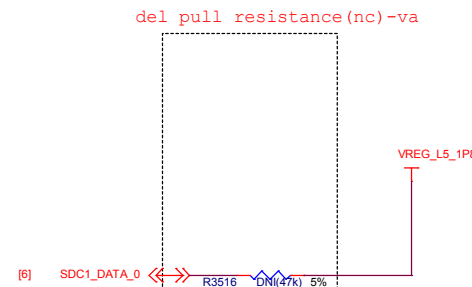
Note: Follow the memory vendor recommendations on decoupling capacitor configuration.
Please contact with memory vendor to get the PDN spec for LPDDR power rail.

MEMORY(LPDDR3+EMMC V5.1)

Hytera		Hytera Communications Co., Ltd.			
Model Name:	MSM8953 Broadband board		Page:	48 of 50	
Part Name:	MEMORY(LPDDR3+EMMC V5.1		Date:	Friday, May 10, 2019	
File No.:	V1.0		Rev:	A	
Prepare:	GXW	Check:	xxx	Approve:	xxx

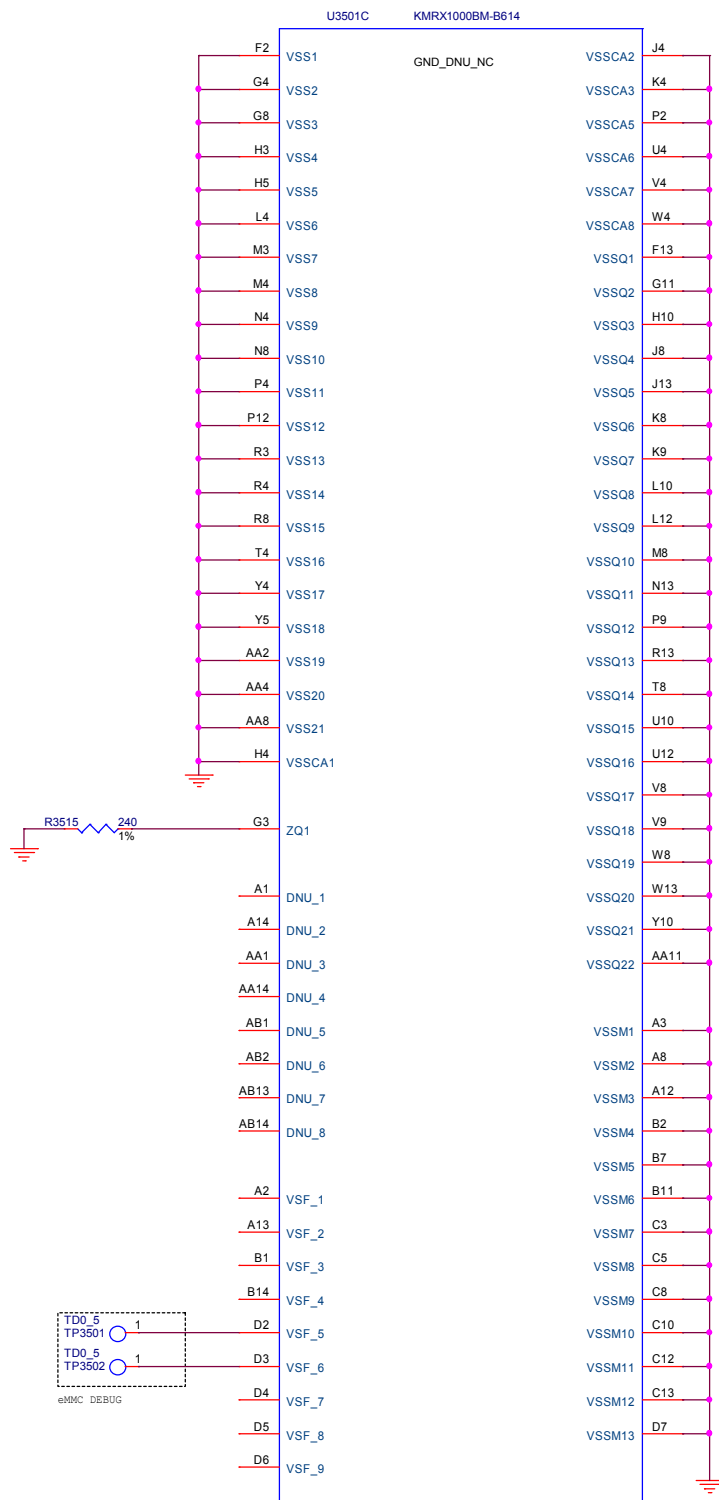


Note: MSM SDC1_DATA 0-7 pins' internal pull-up are enabled by SW and the resistance range is 10K to 100K Ohm. It is recommended to contact @MWC vendor to determine if external pull-ups are still needed



MEMORY(LPDDR3+EMMC V5.1)

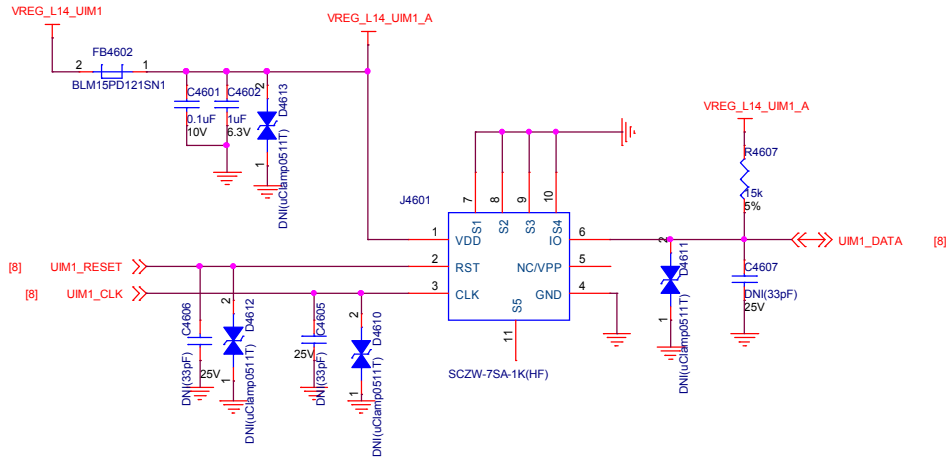
Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board	Page:	49 of 50		
Part Name:	MEMORY(LPDDR3+EMMC V5.1	Date:	Friday, May 10, 2019		
File No.:	V1.0	Rev:	A		
Prepare:	GXW	Check:	XXX	Approve:	XXX



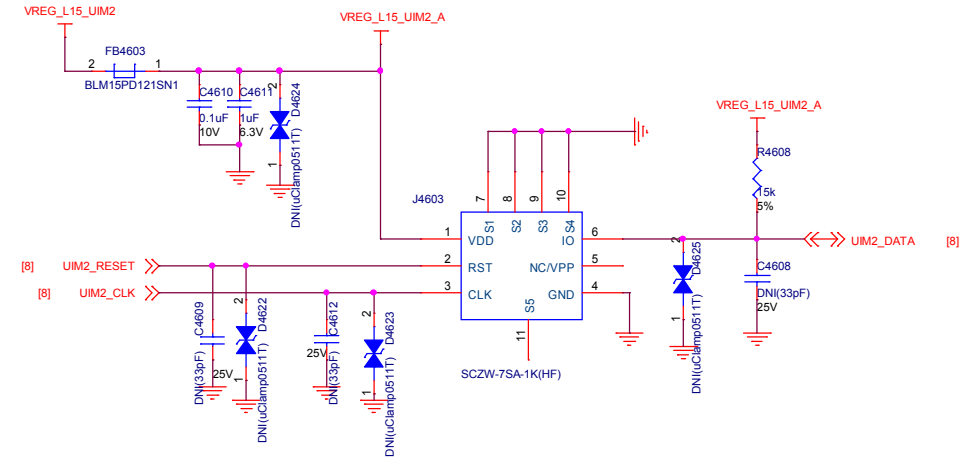
MEMORY(LPDDR3+EMMC V5.1)

Hytera		Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board			Page:	50 of 50
Part Name:	MEMORY(LPDDR3+EMMC V5.1			Date:	Friday, May 10, 2019
File No.:	V1.0			Rev:	A
Prepare:	GXW	Check:	XXX	Approve:	XXX

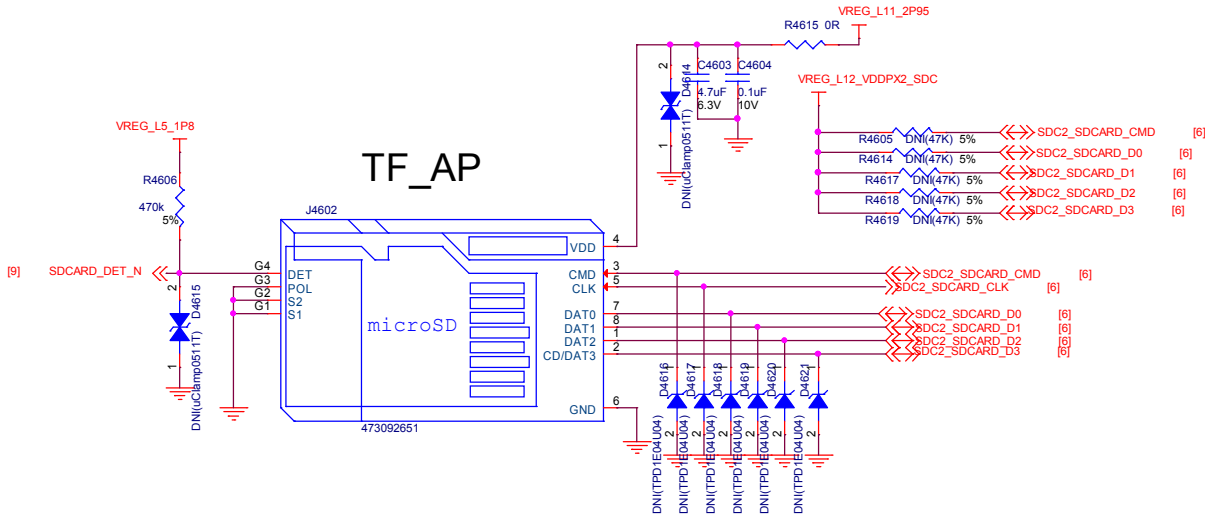
WB SIM1



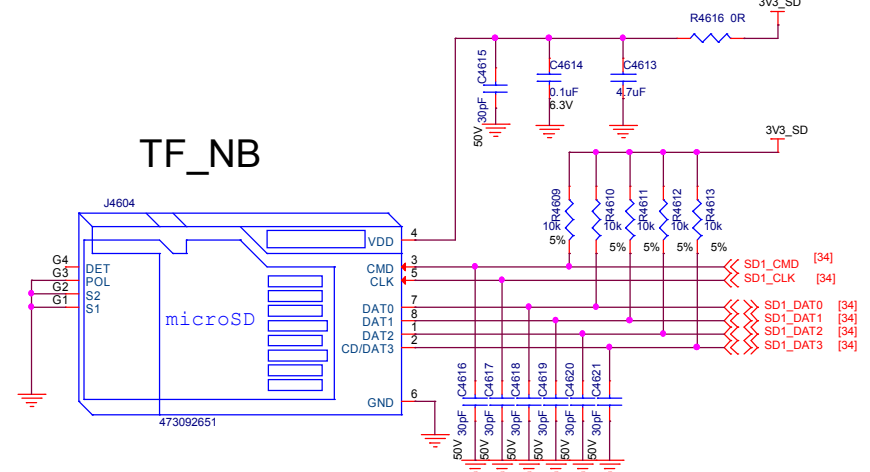
WB SIM2



WB TF card

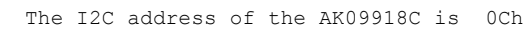


NB TF card



Hytera Communications Co.Ltd.					
Model Name:	MSM8953 Broadband board	Page:	52	of	50
Part Name:	SIM/TF card	Date:	Friday, May 10, 2019		
File No.:	V1.0	Rev:	A		
Prepare:	gxw	Check:	xxx	Approve:	xxx

PRESSURE_SENSOR

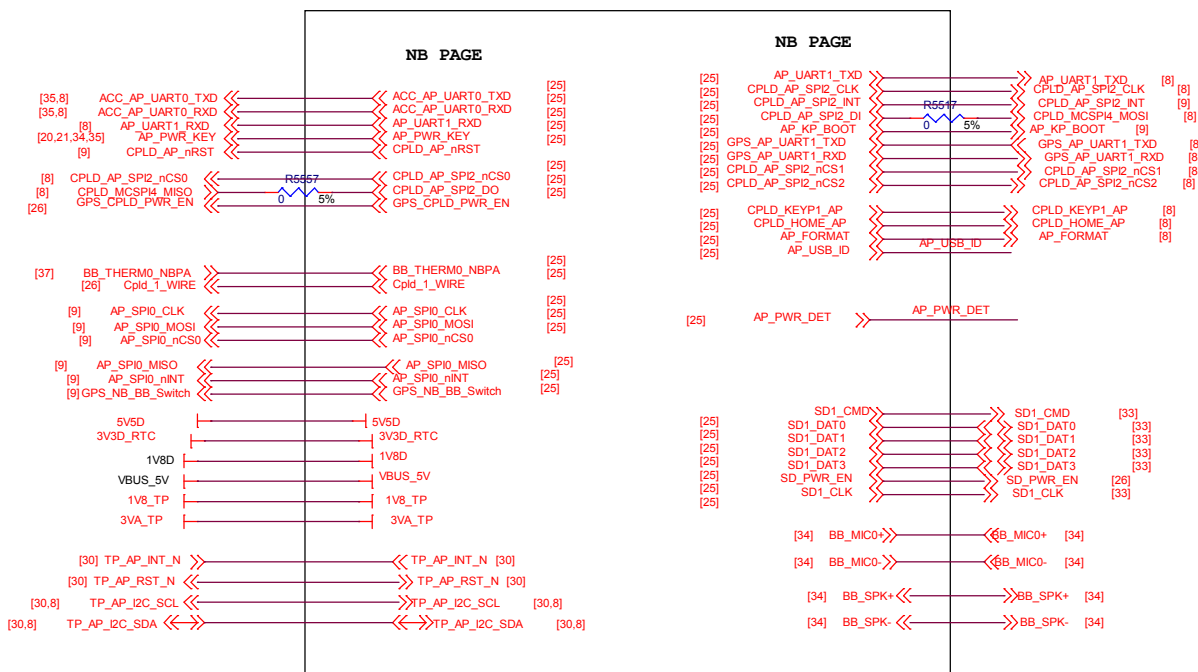


ICM-20600 is compatible with BMI160
If BMI160,C4405-NC, R4406-NC

The I2C address of the ICM-20600 is 0x68 or 0x69

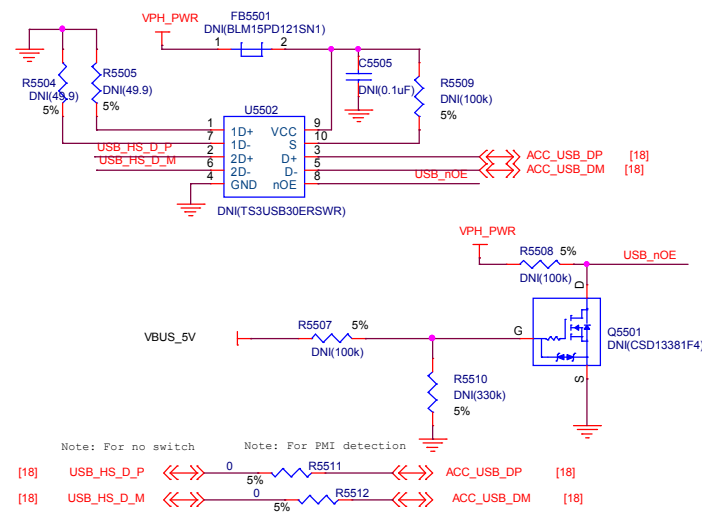
Sensor

 Hytera Communications Co. Ltd.			
Model Name:	MSM8953 Broadband board	Page:	54 of 50
Part Name:	Sensor	Date:	Friday, May 10, 2019
File No.:	V1.0		Rev: A
Prepare:	gxxw	Check:	xxxx
		Approve:	xxxx



S	nOE	FUNCTION
X	H	Disconnect
L	L	D=1D
H	L	D=2D

Out of main board PCB Part
These will be placed out of main board PCB.



Note: For no switch

[18] USB_HS_D_P $\longleftrightarrow$

[18] USB_HS_D_M $\longleftrightarrow$

 Hytera Communications Co.Ltd.			
Model Name:	MSM8953 Broadband board	Page:	55 of 50
Part Name:	Connector(USB/A-DSP/ANT)	Date:	Friday, May 10, 2019
File No.:	V1.0		Rev: A
Prepare:	GXXM	Check:	XXXX
		Approve:	XXX

NPT Point

PCBA AUTOMATIC TEST point

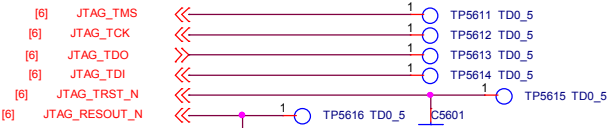
JTAG TEST POINT



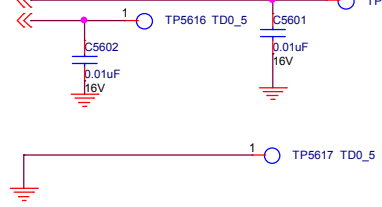
Boot_config [0], WDOG_DISABLE delete this test point and replaced by R7008/GRPC6_SEL



Note:LOG UART

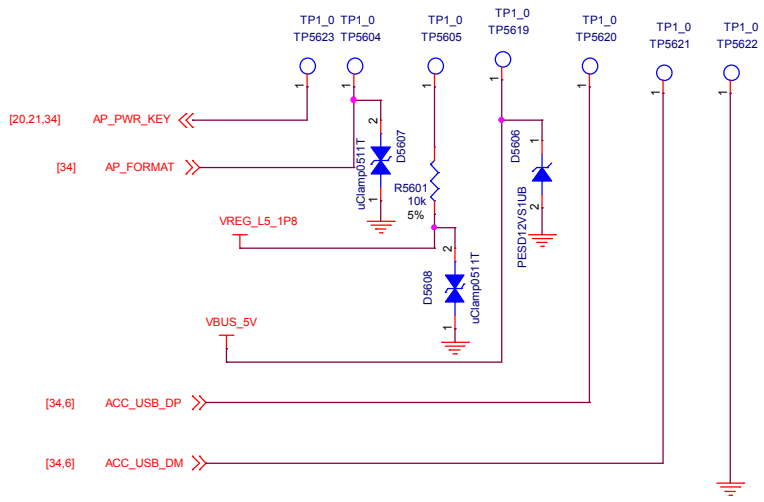


Note:Debug point



Test Point

Note:TP5220/21 Place on the line of USB D+/-



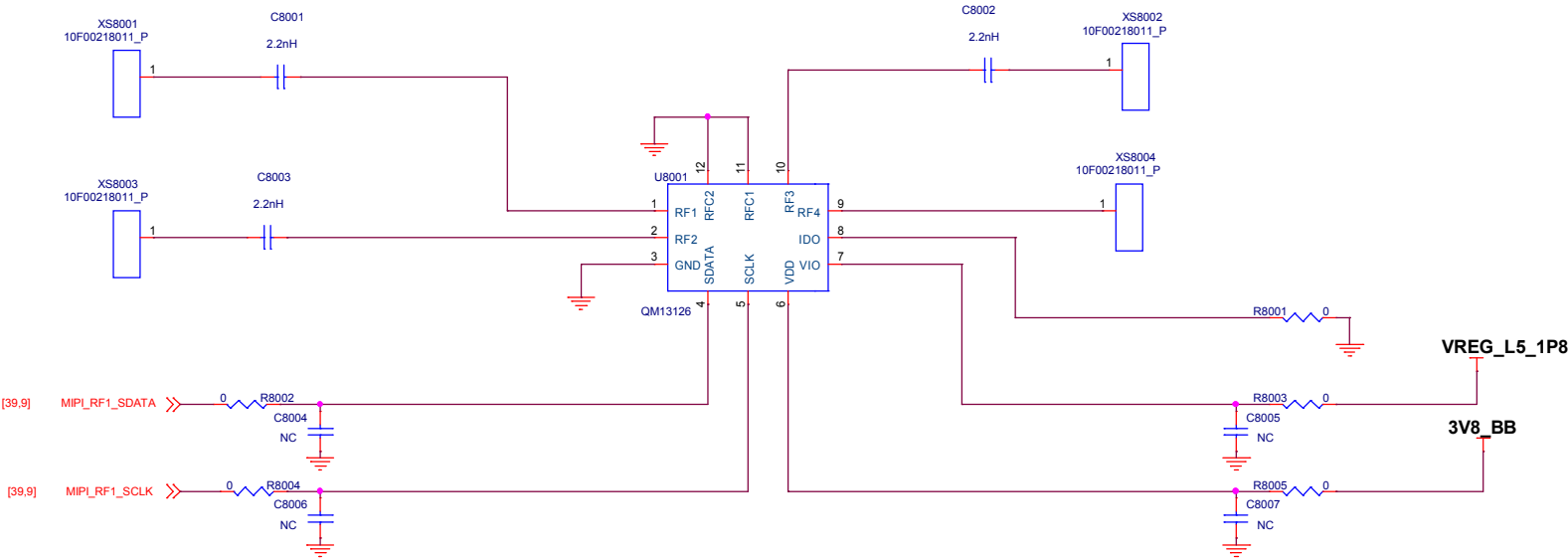
Note:Place ESD close to TP5220/21

Signal	Description
KPSNS0	Volume Up
PM RST N	Volume Down
KYPD PWR N	POWER ON
PM RST N + KYPD_PWR_N	Hardware Reset

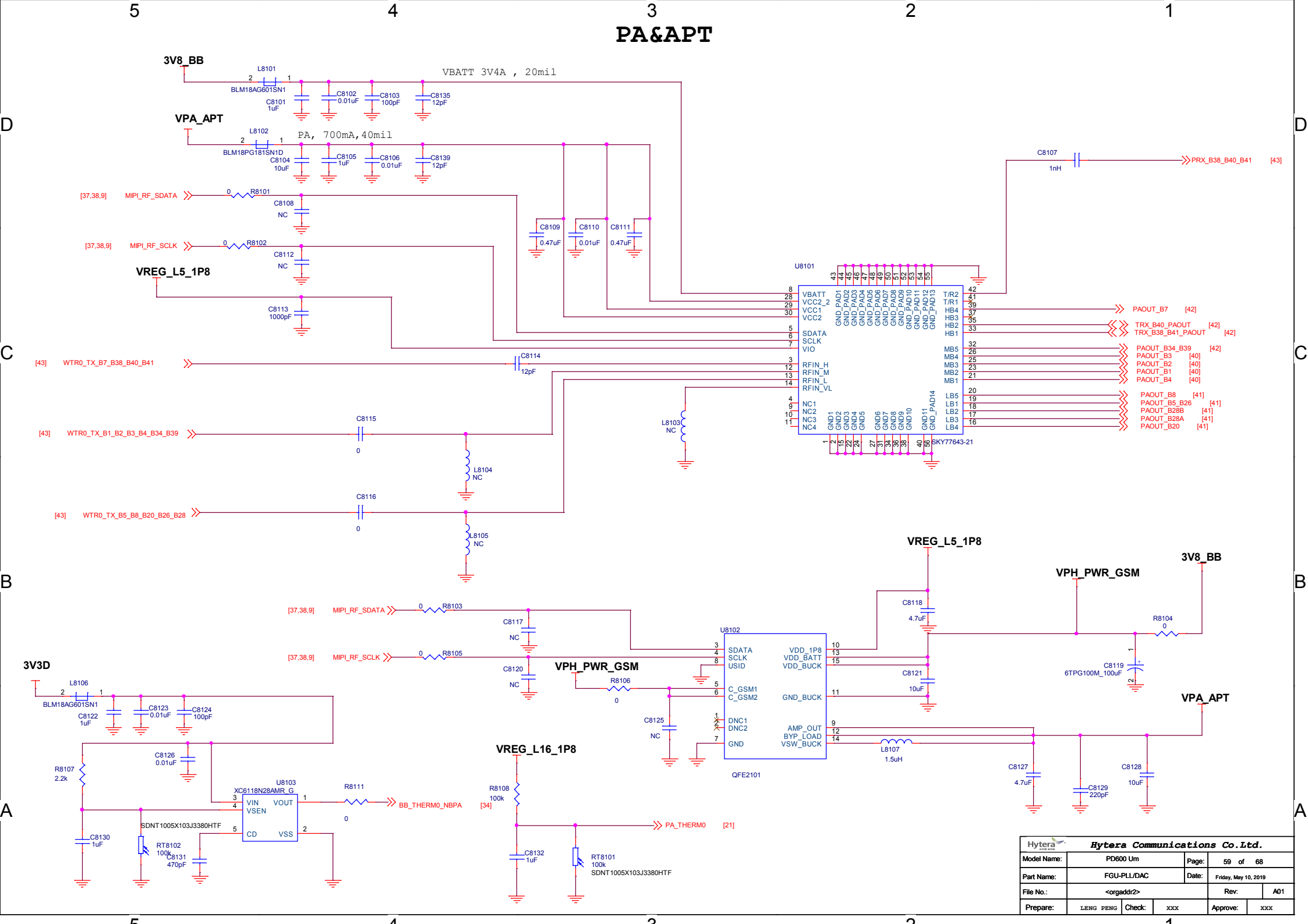
TP/GND/Shielding

Hytera Communications Co.Ltd.					
Model Name:	MSM8953 Broadband board		Page:	56 of 50	
Part Name:	TP/GND/Shielding		Date:	Friday, May 10, 2019	
File No.:	V1.0		Rev:	A	
Prepare:	GXW	Check:	XXX	Approve:	XXX

ANT Tuner

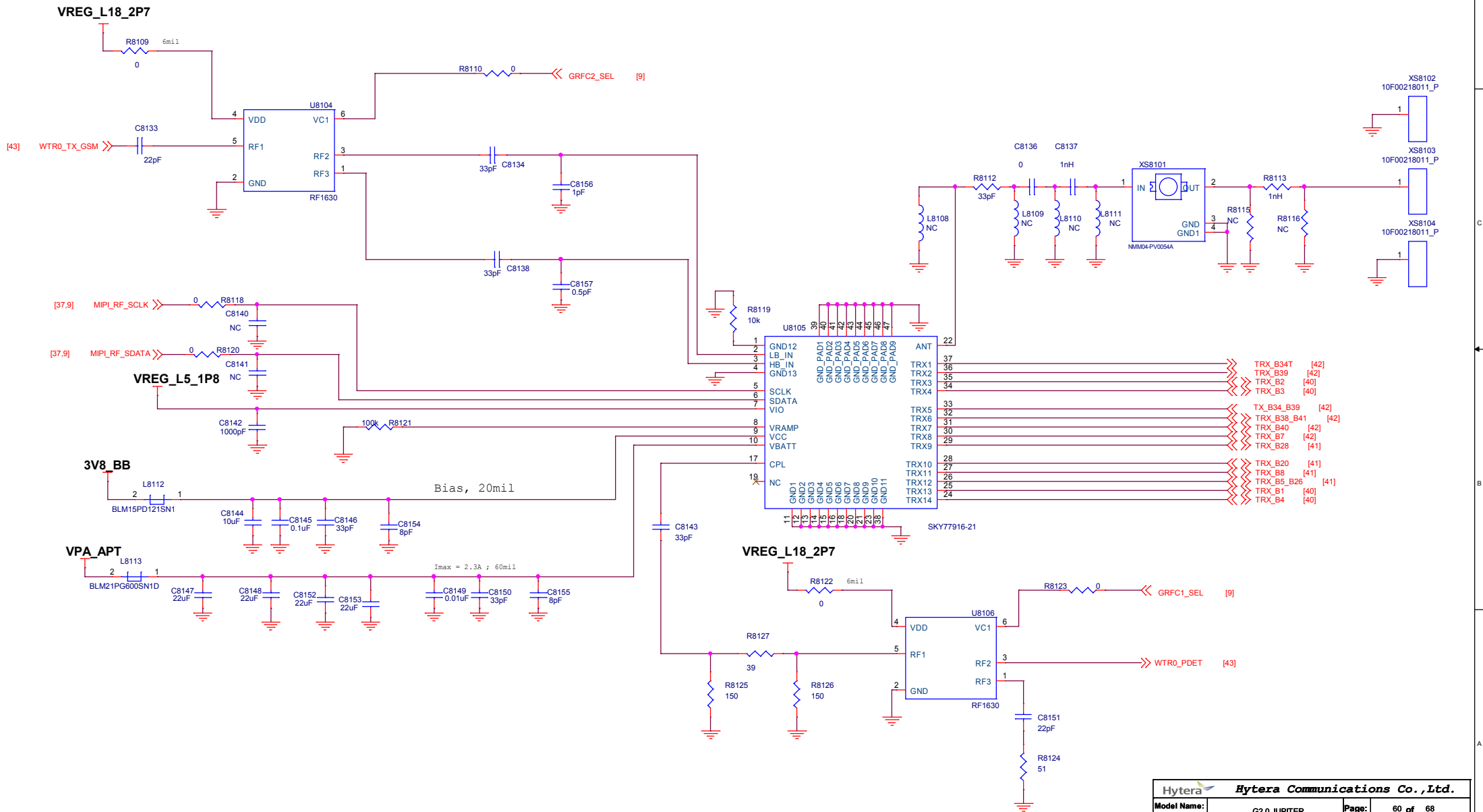


PA&APT



Hytera Communications Co., Ltd.				
Model Name:	PD600 Um	Page:	59 of 68	
Part Name:	FGU-PLL/DAC	Date:	Friday, May 10, 2019	
File No.:	<orgaddr2>		Rev:	A01
Prepare:	LENG PENG	Check:	xxx	Approve: xxx

ANT Switch



B1_B2_B3_B4

D

D

C

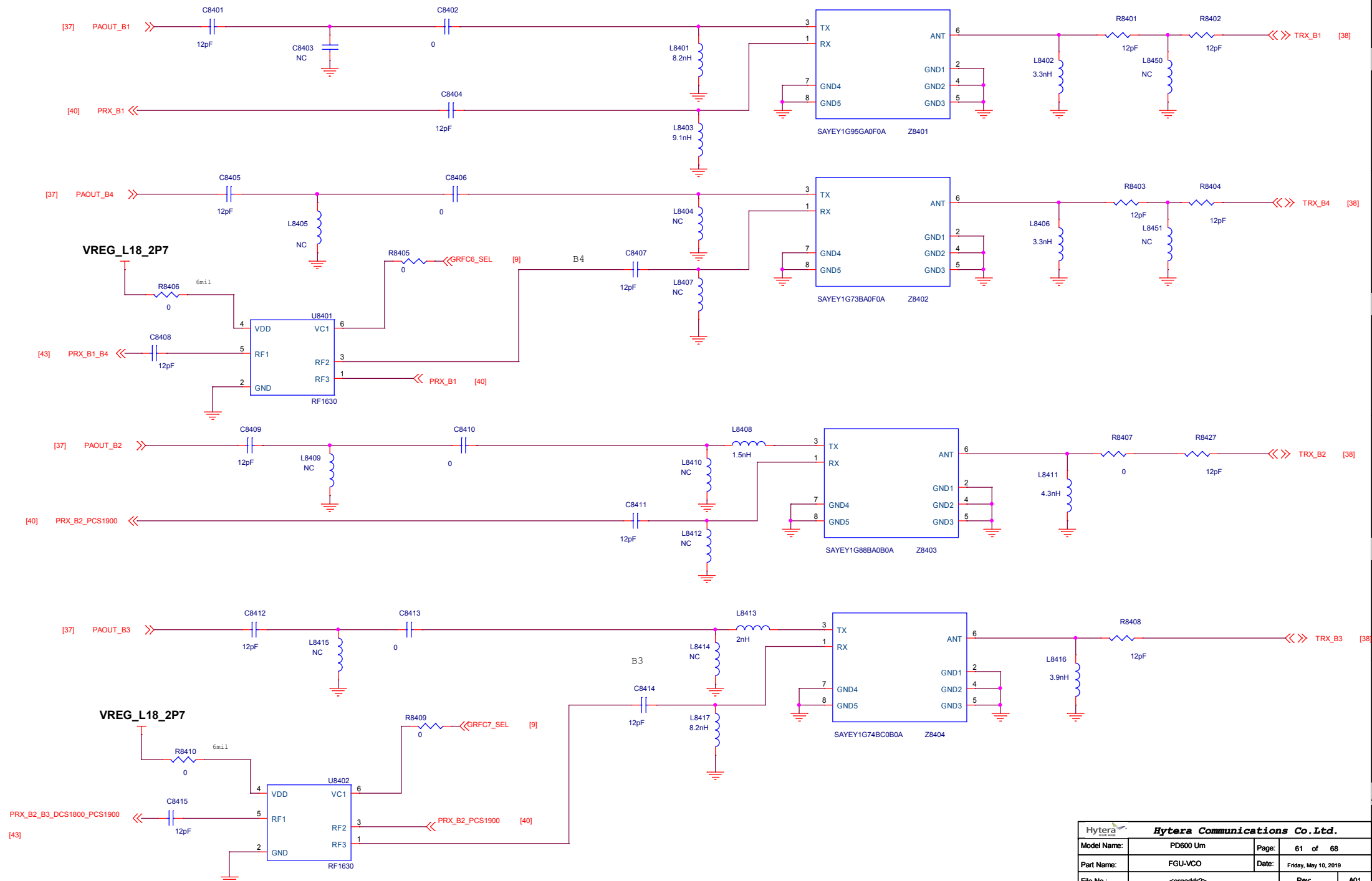
C

B

B

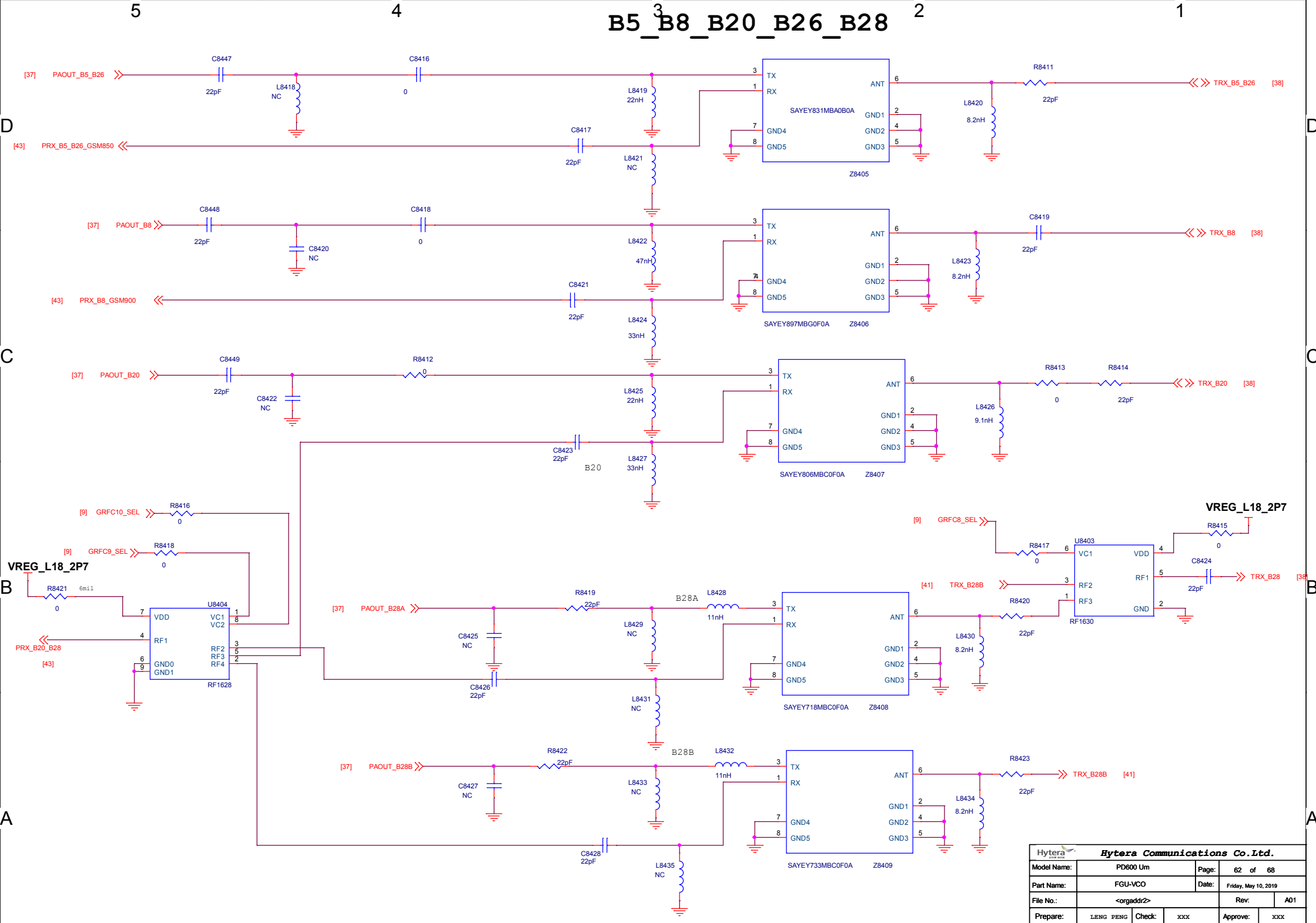
A

A

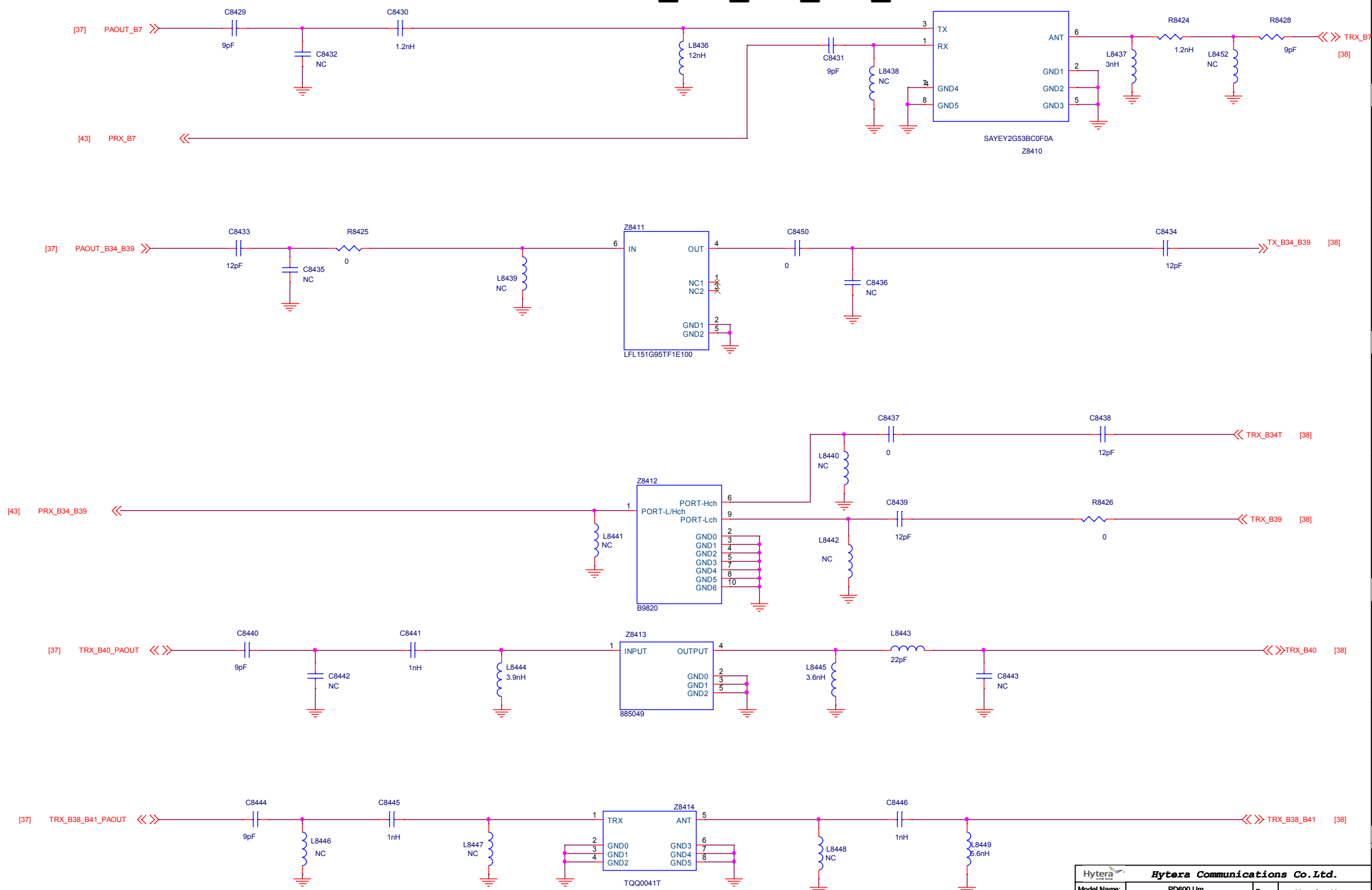


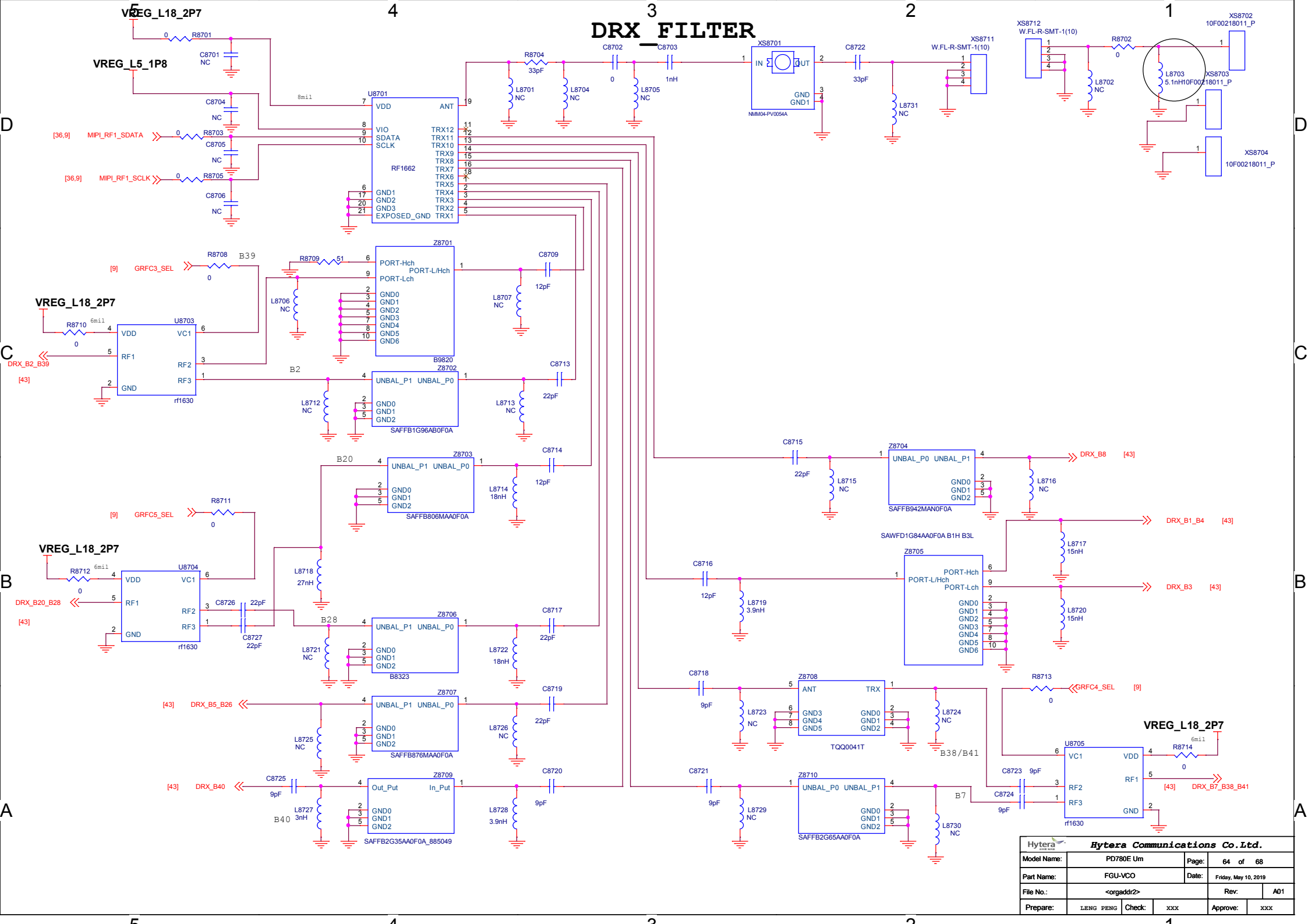
Note: only the GSM850/1900, CDMA BC0, LTE Band 2/4/5/7/26/38/40/41 can be used in USA market.

Hytera Communications Co., Ltd.			
Model Name:	PD600 Um	Page:	61 of 68
Part Name:	FGU-VCO	Date:	Friday, May 10, 2019
File No.:	<orgaddr2>		Rev: A01
Prepare:	LENG FENG	Check:	xxx
Approve:	xxx		

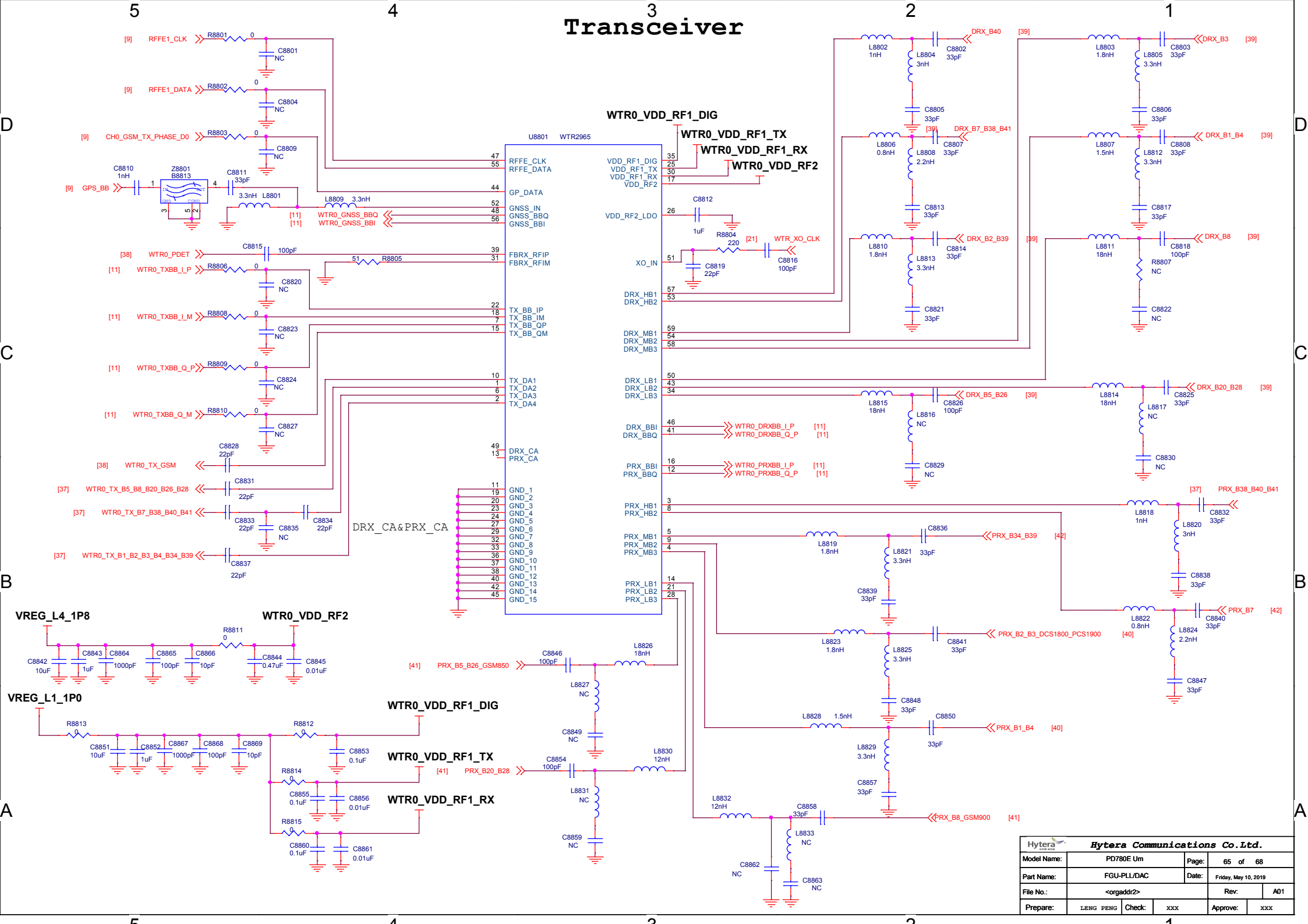


B7_B38_B39_B40_B41

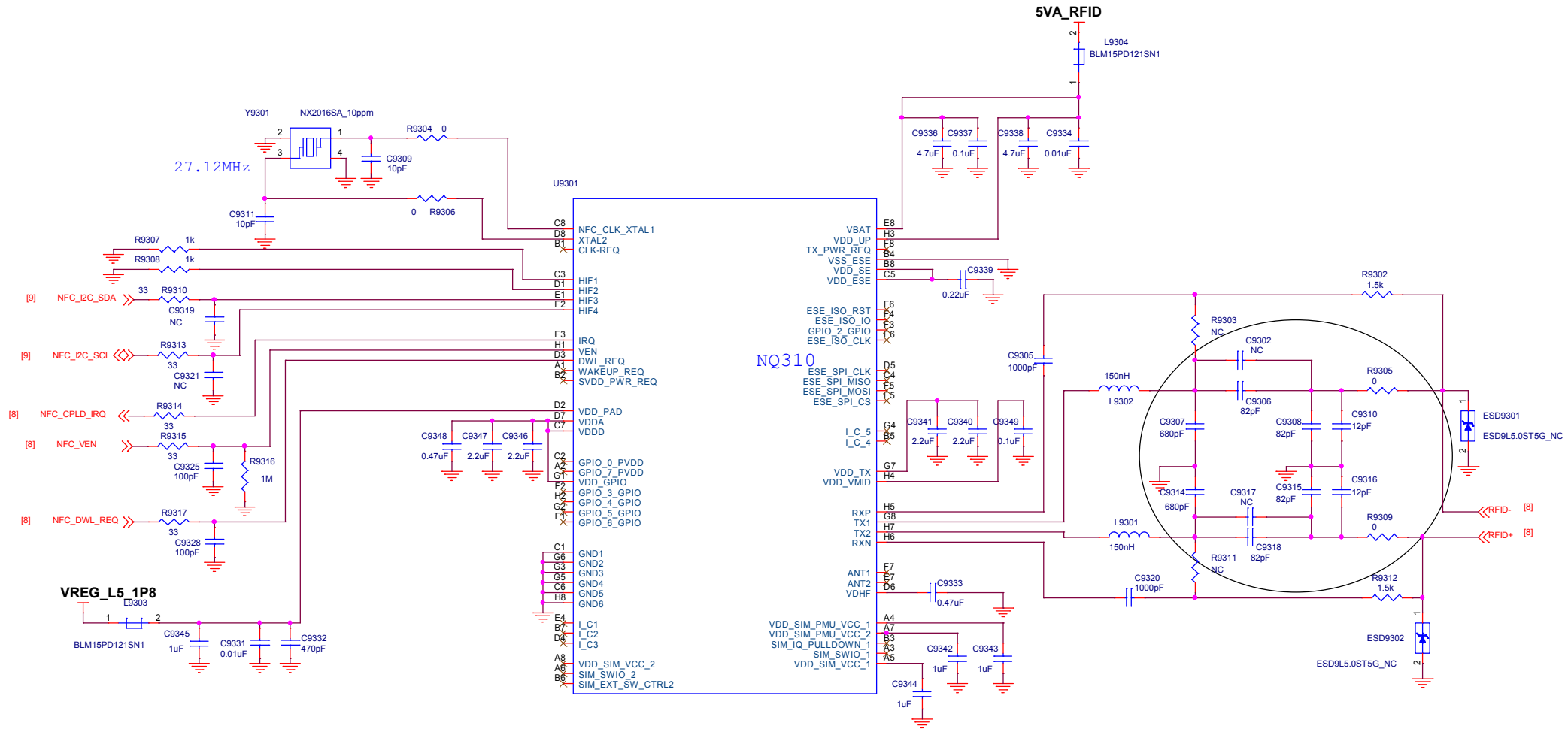


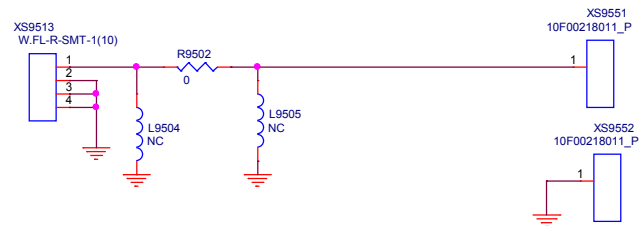


Transceiver



RFID





Hytera 		Hytera Communications Co., Ltd.	
Model Name:	PDC680 NB	Page:	68 of 68
Part Name:	BT_ANT_Pogopin	Date:	Friday, May 10, 2019
File No.:		Rev:	A
Prepare:		Check:	Approve: