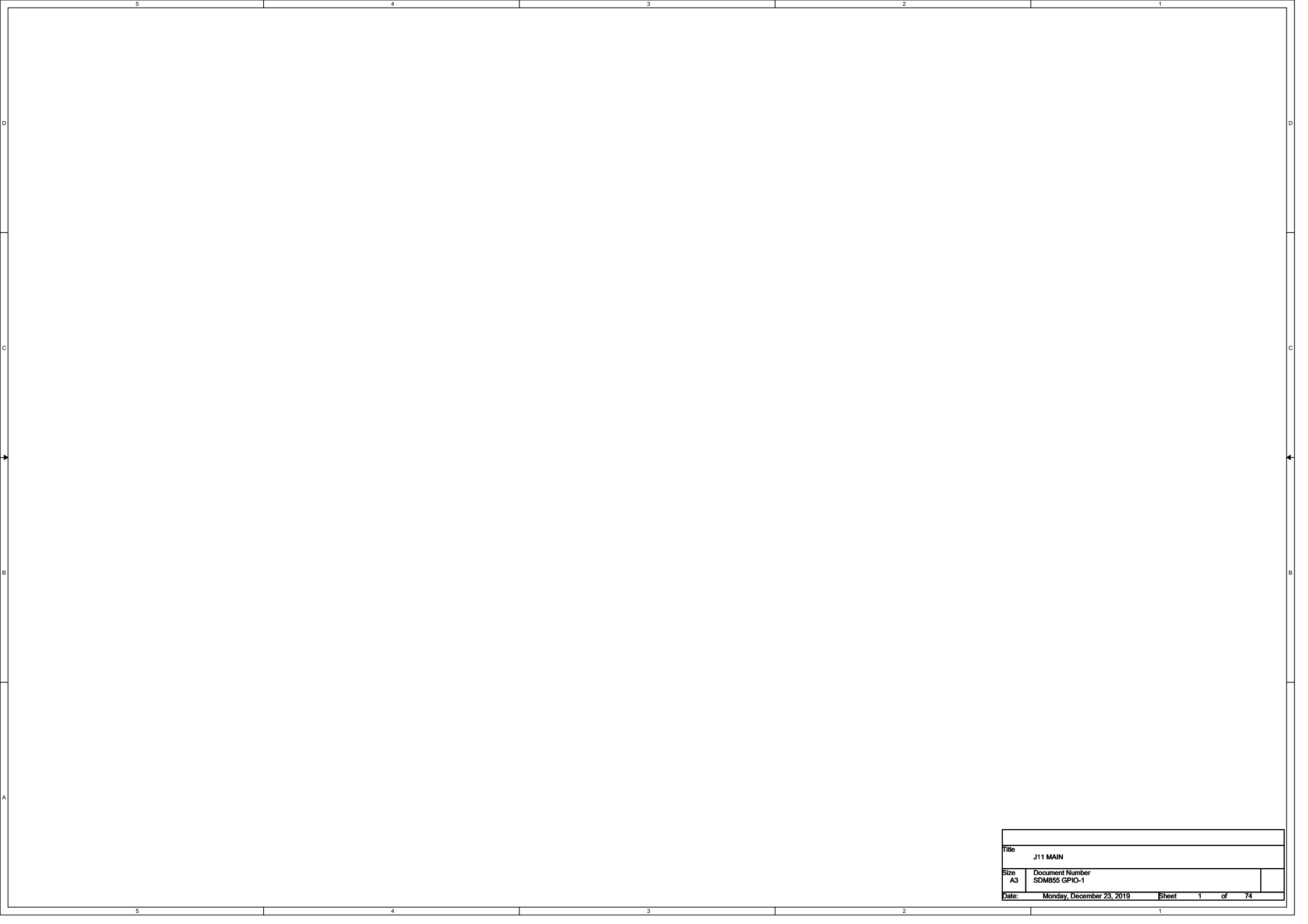
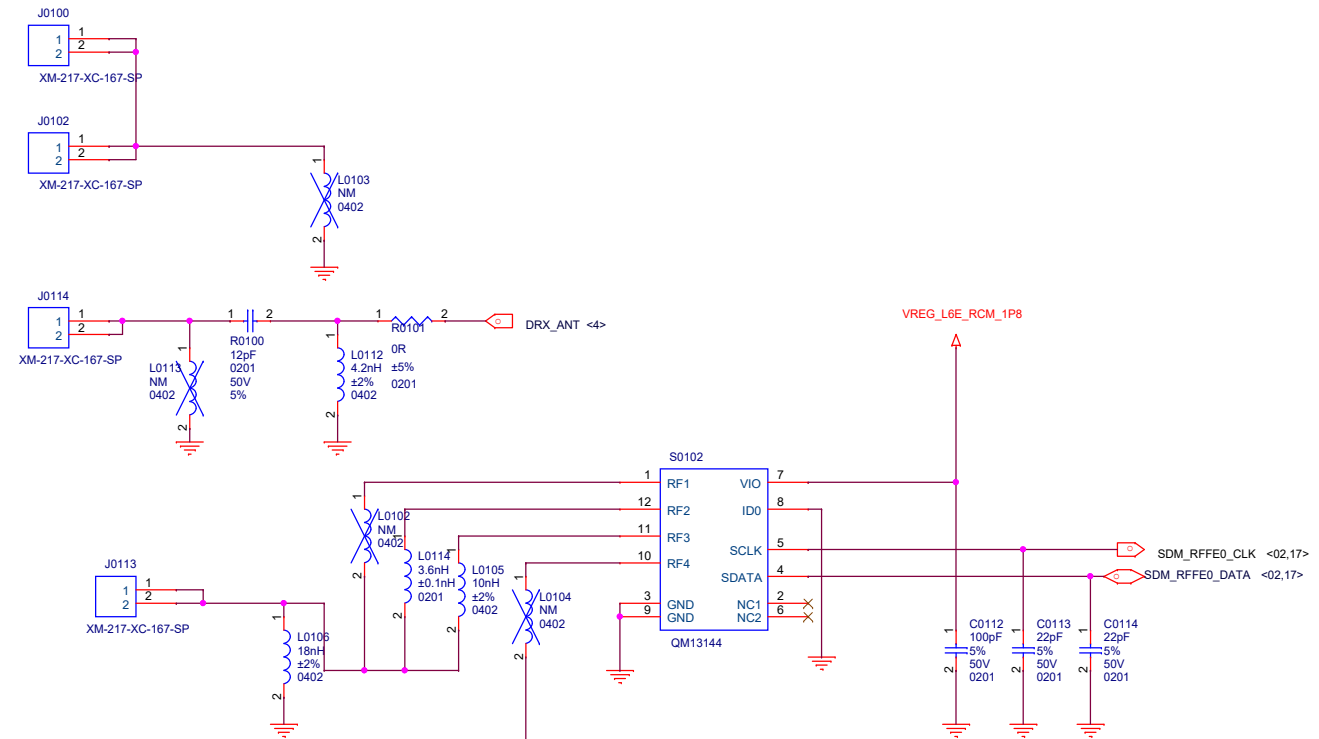
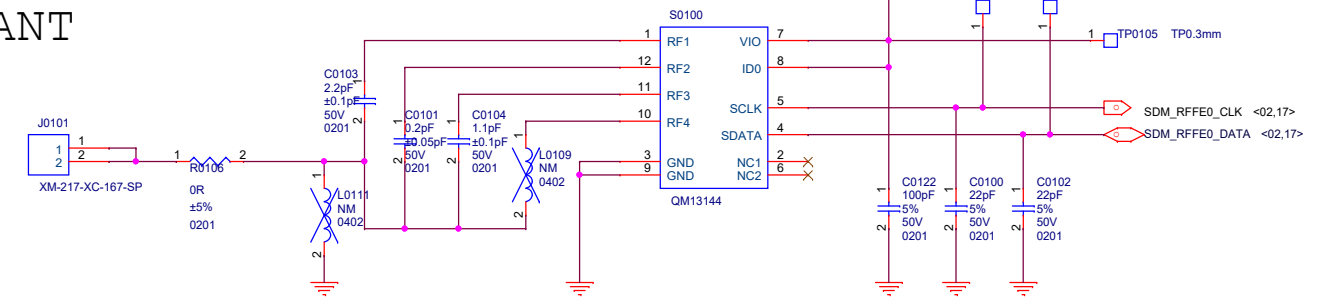
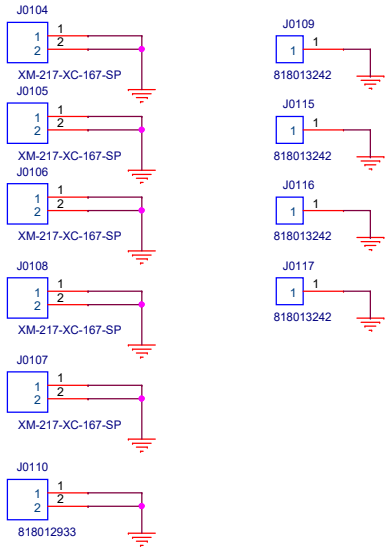




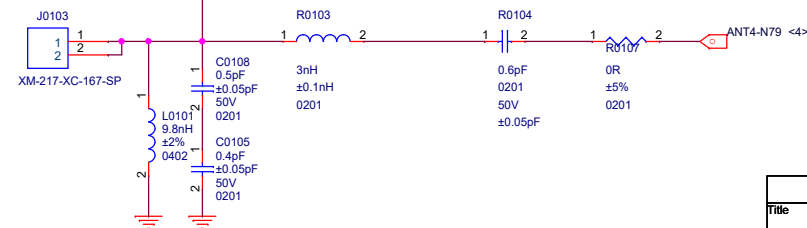
Title			
J11 MAIN			
Size	Document Number		
A3	SDM855 GPIO-1		
Date:	Monday, December 23, 2019	Sheet	1 of 74

DRX_ANT

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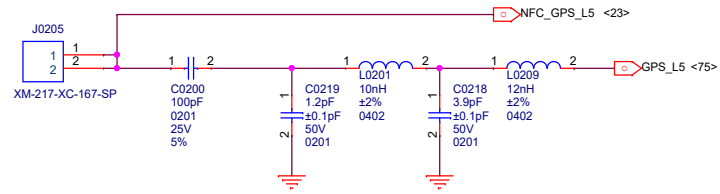
ANT4 n41 TRX+n78+n79 TRX



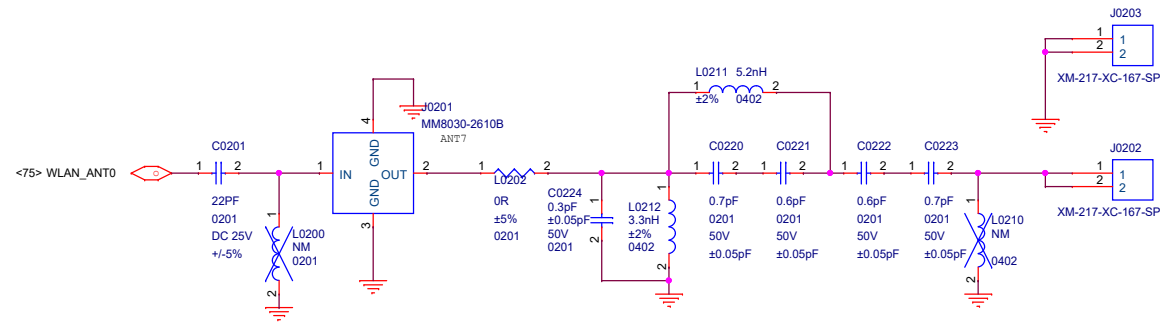
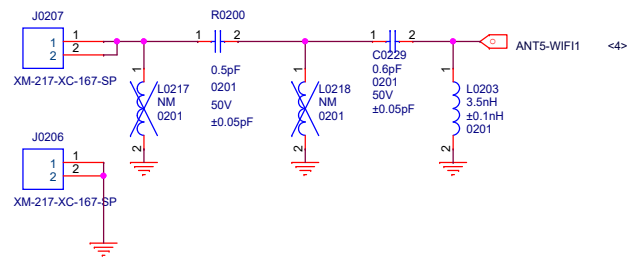
Title		J11 MAIN
Size	A3	Document Number
Date:		Monday, December 23, 2019
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GPS L1+ WIFI2.4G CH0+WIFI 5G ANT2

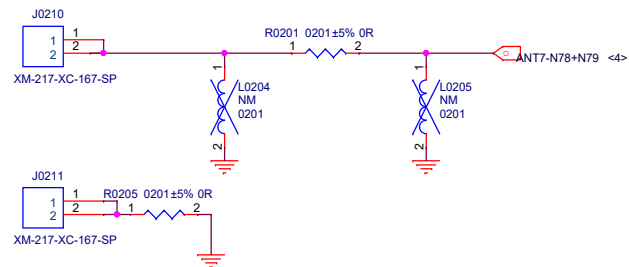
GPS L5



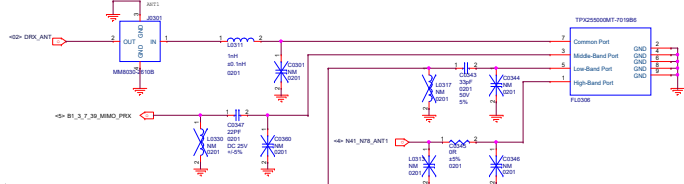
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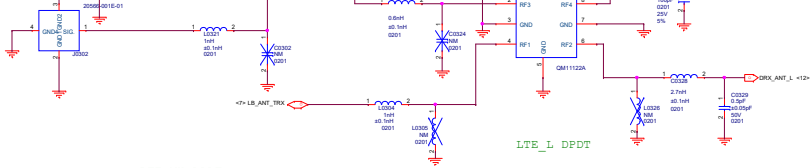
ANT7 N78+N79



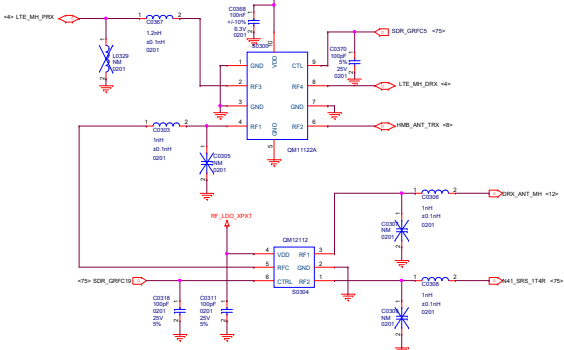
2/3/4G+n41+n79 ANT1



2/3/4G+n41+n79 ANT0

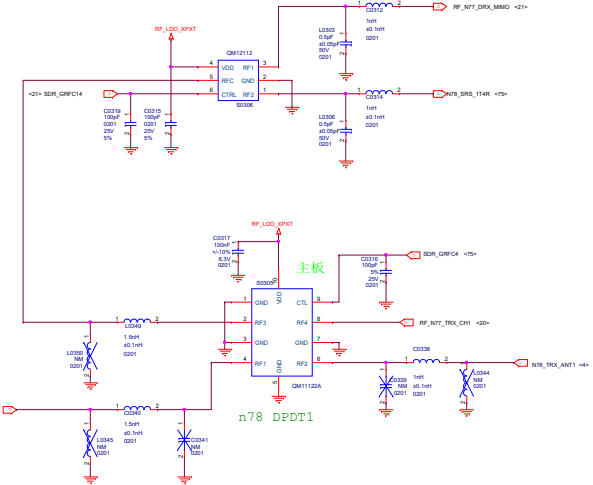
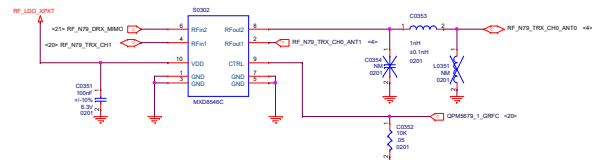


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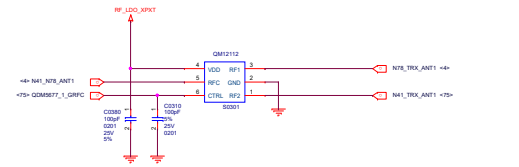


LTE_L DPDT

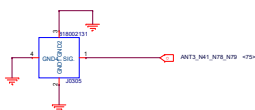
N79 DPDT2 主板



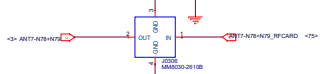
N78 ANT8



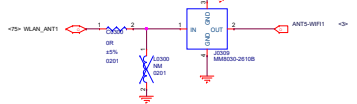
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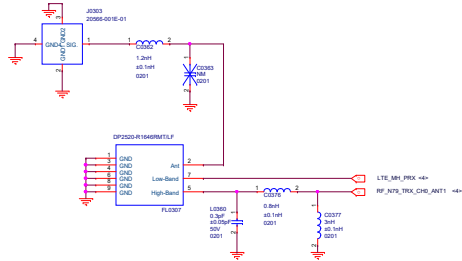
N78 N79 ANT7



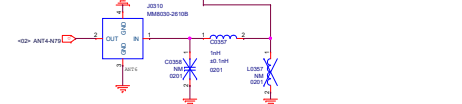
WIFI2.4G+WIFI 5G CH1 ANT5



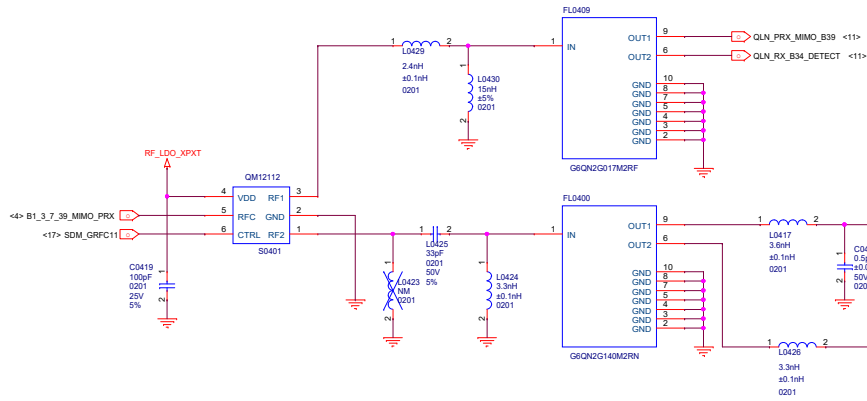
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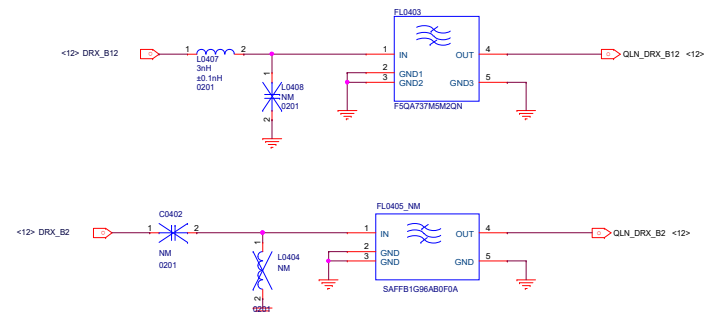
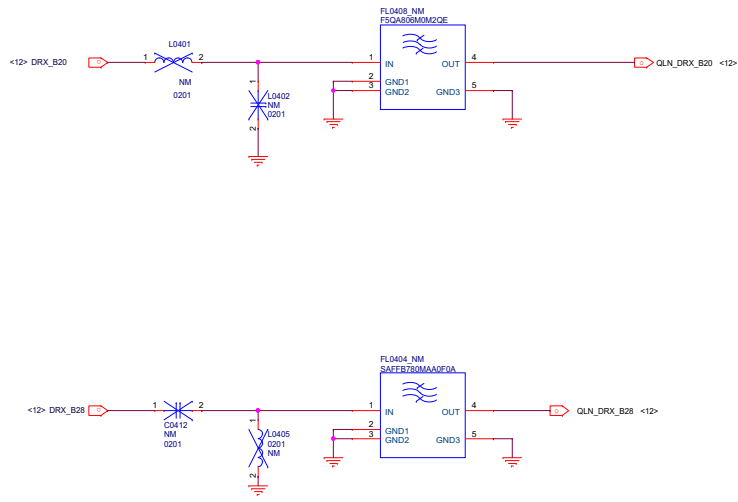
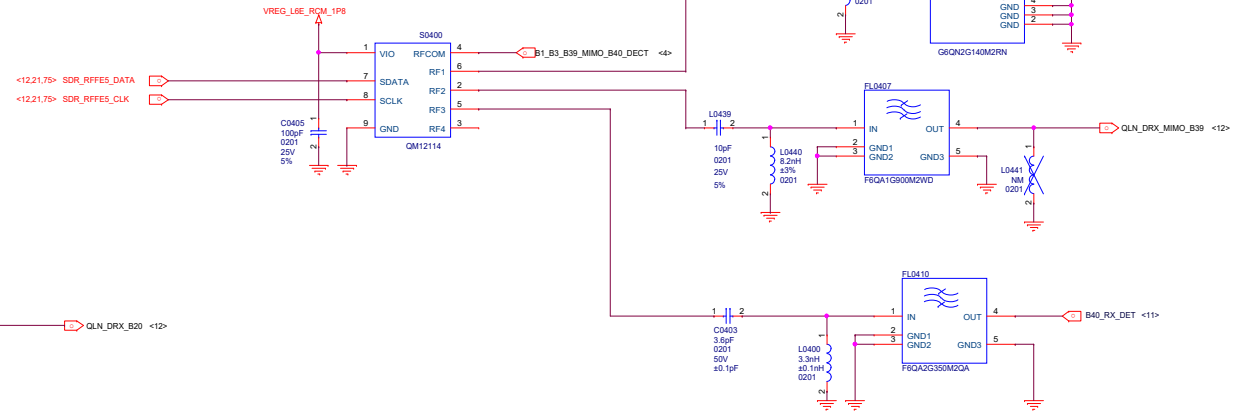
n41 TRX+n78+n79 TRX ANT4



B1+3+7+39 MIMO PRX



B1+3+7+39 MIMO DRX

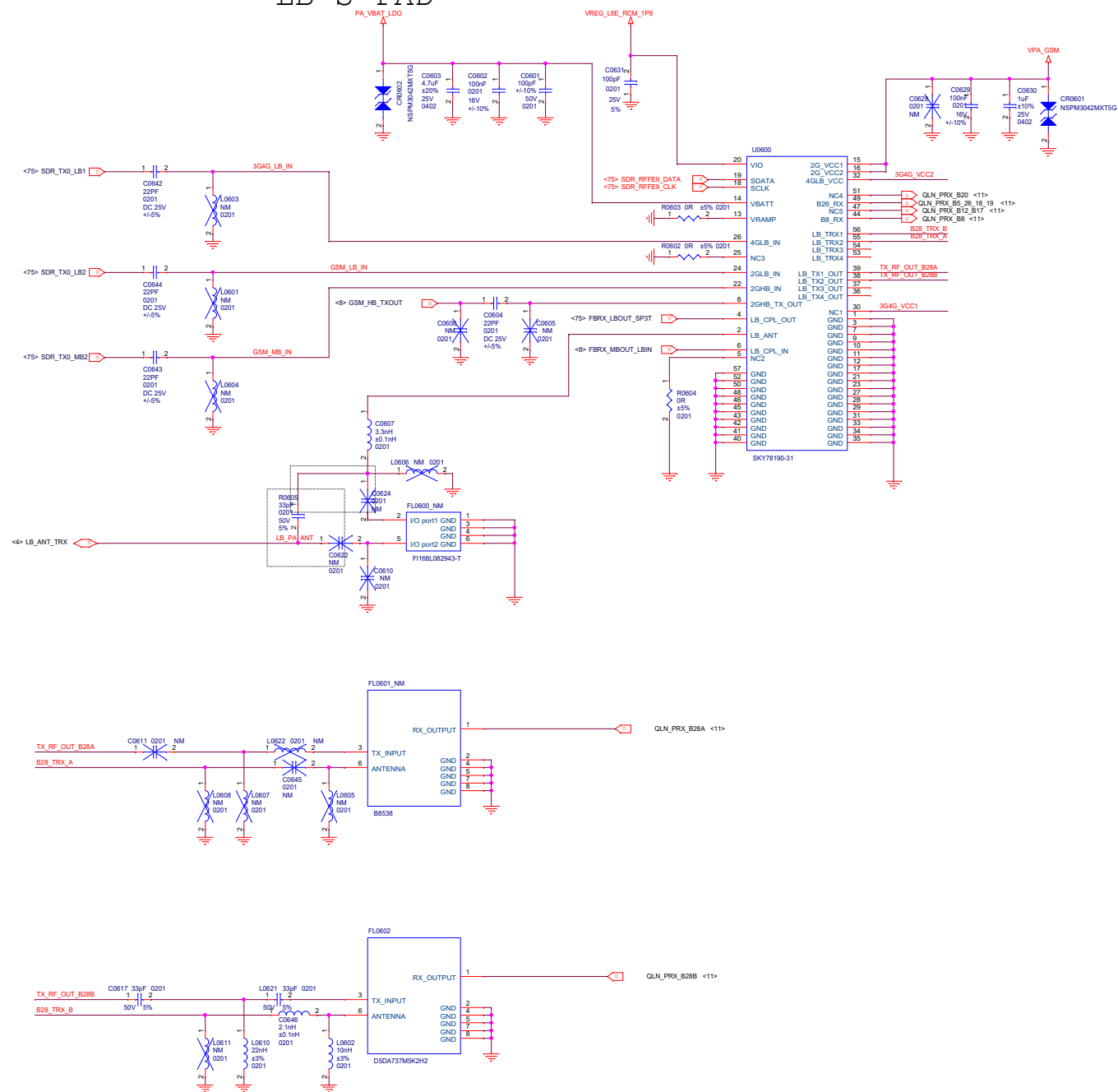


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Size	Document Number	<Doc>
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Date	Monday, December 23, 2019	

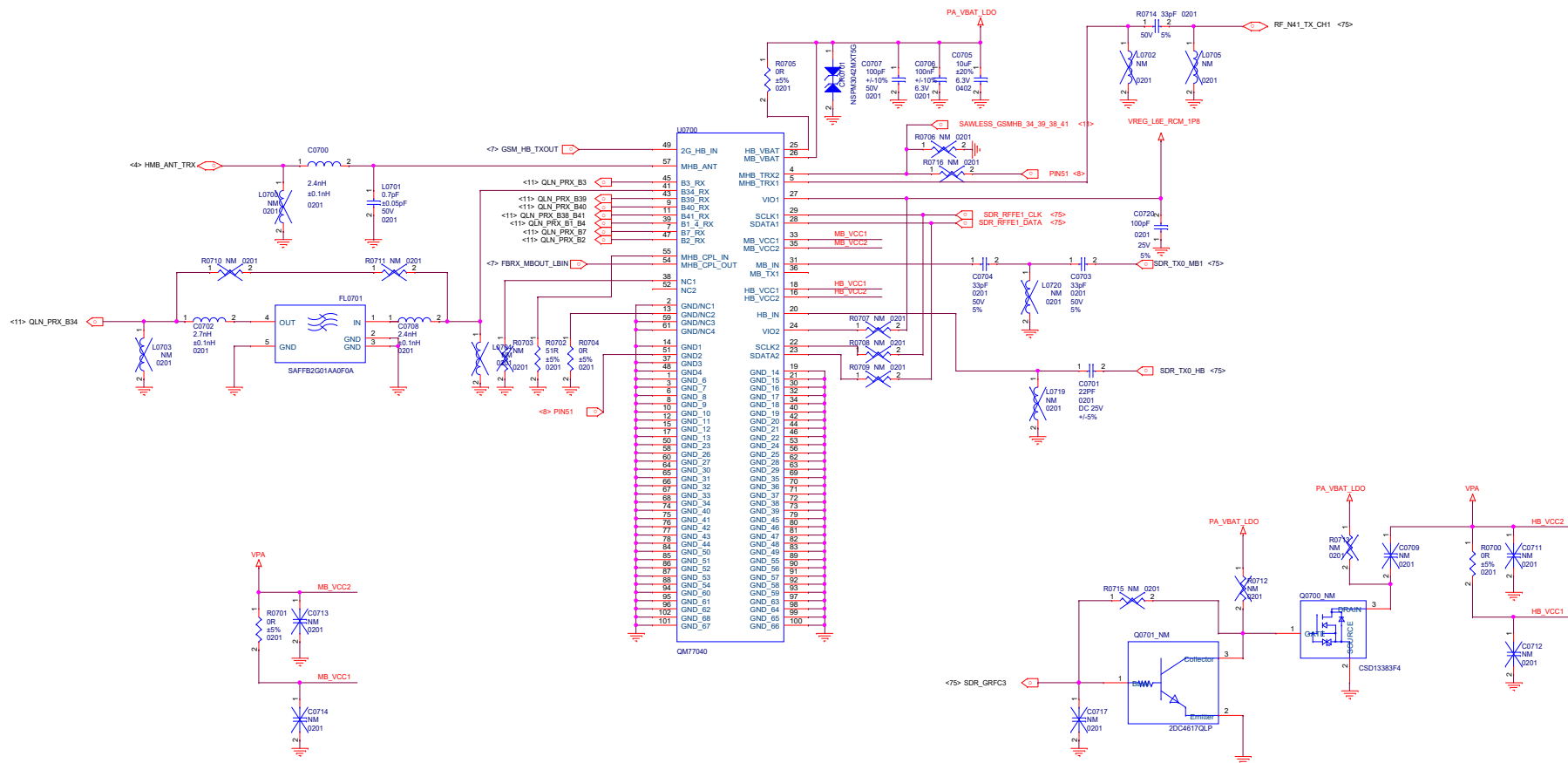


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Size	Document Number
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Date:	Monday, December 23, 2019 Sheet

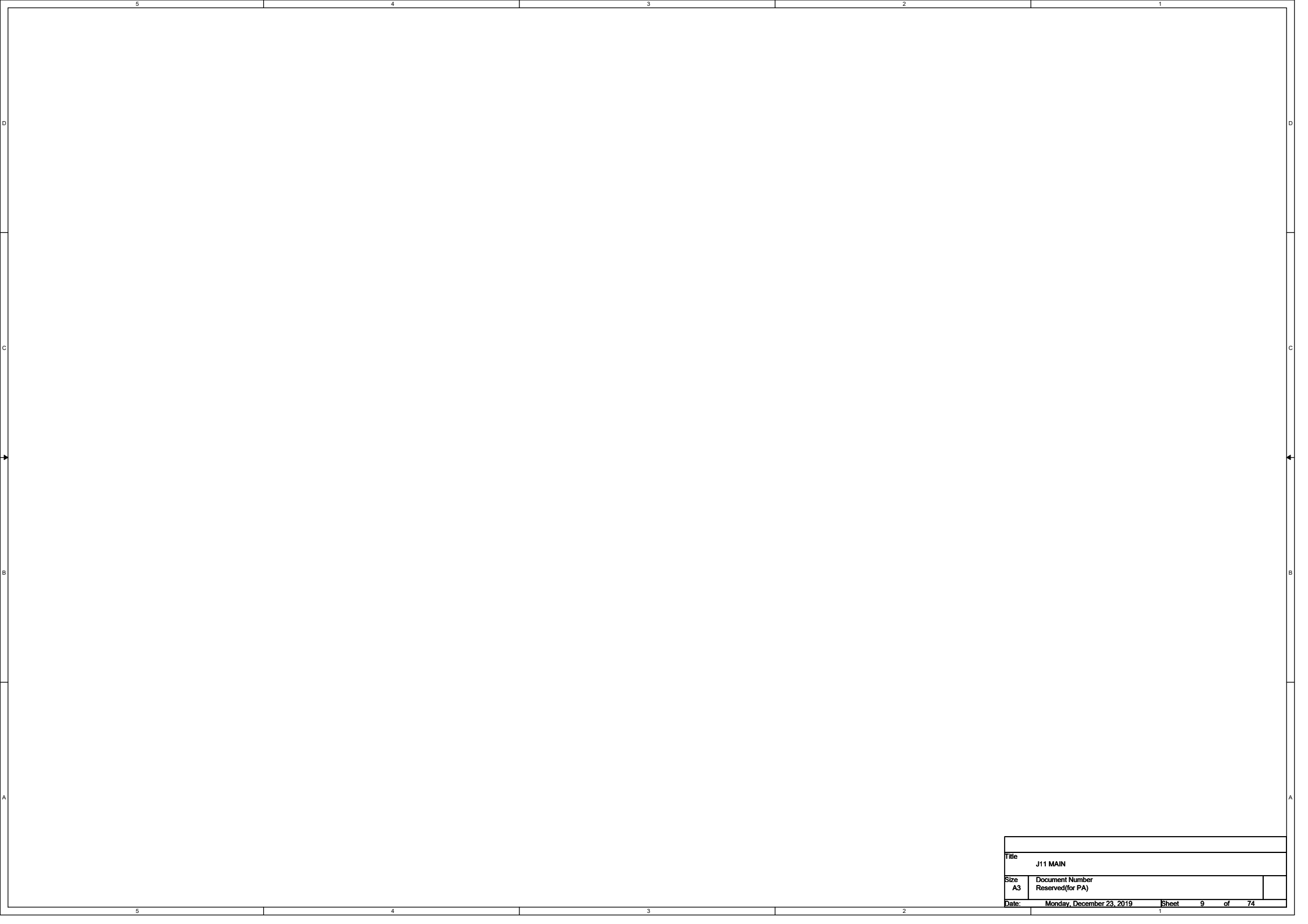
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J11 MAIN		
Size	Document Number	
A2	PA1	
Date:	Monday, December 23, 2019	Sheet



Title		
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Size	Document Number	
A2	PA2	
Date:	Monday, December 23, 2019	Sheet



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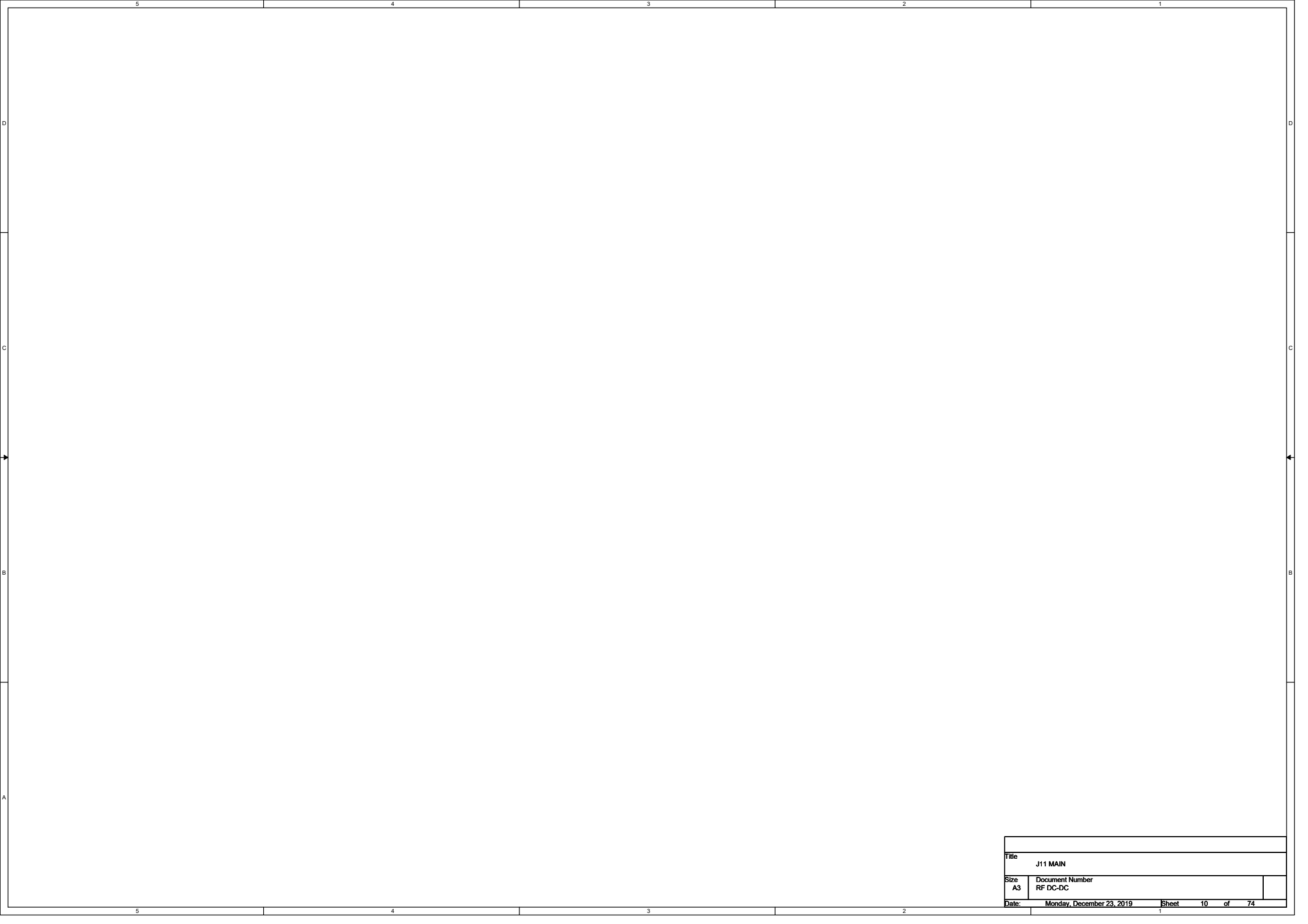
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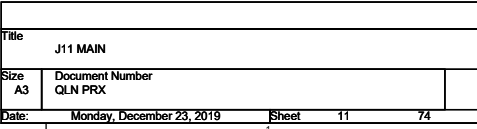
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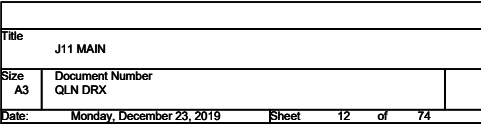
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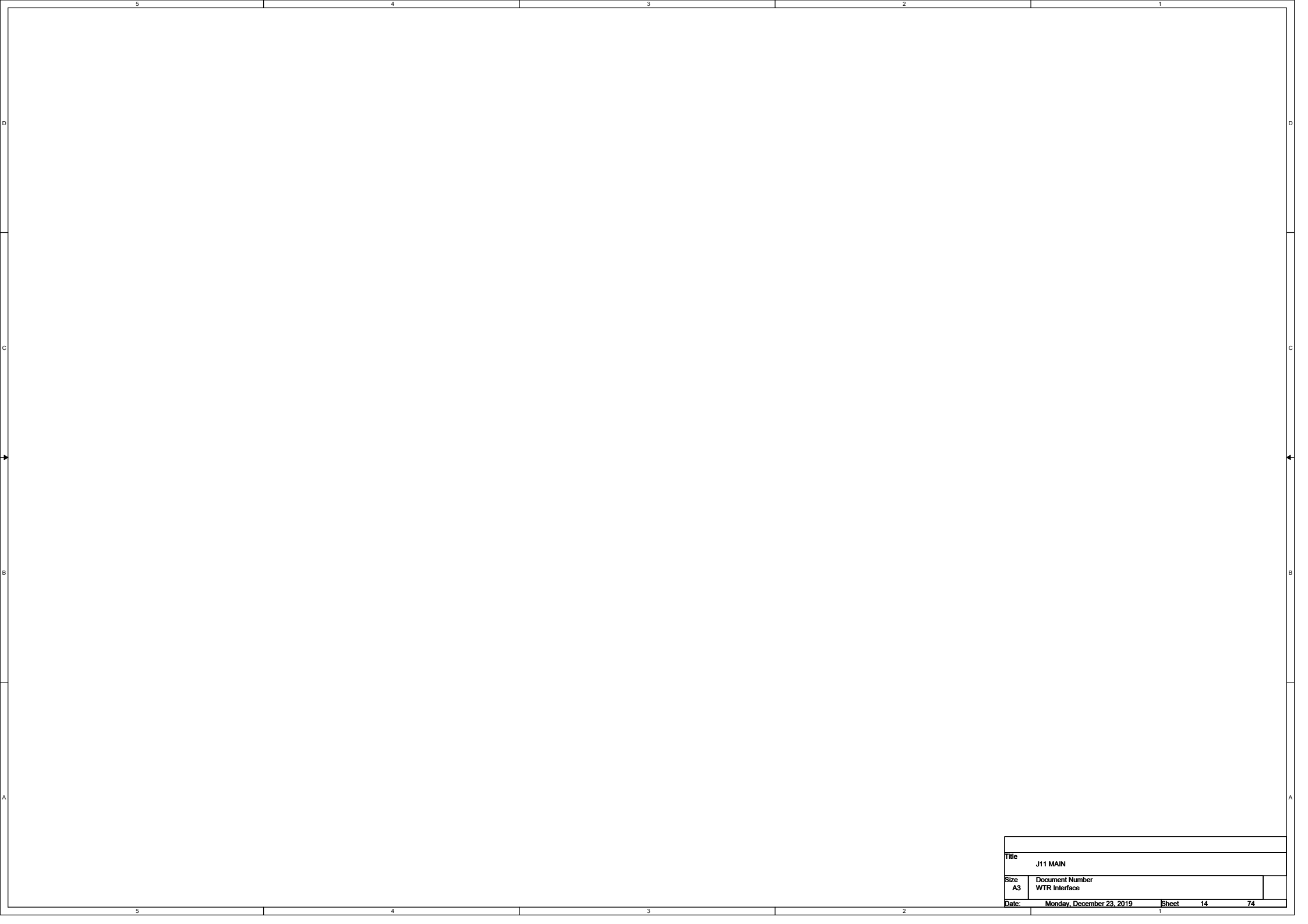


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Size	Document Number		
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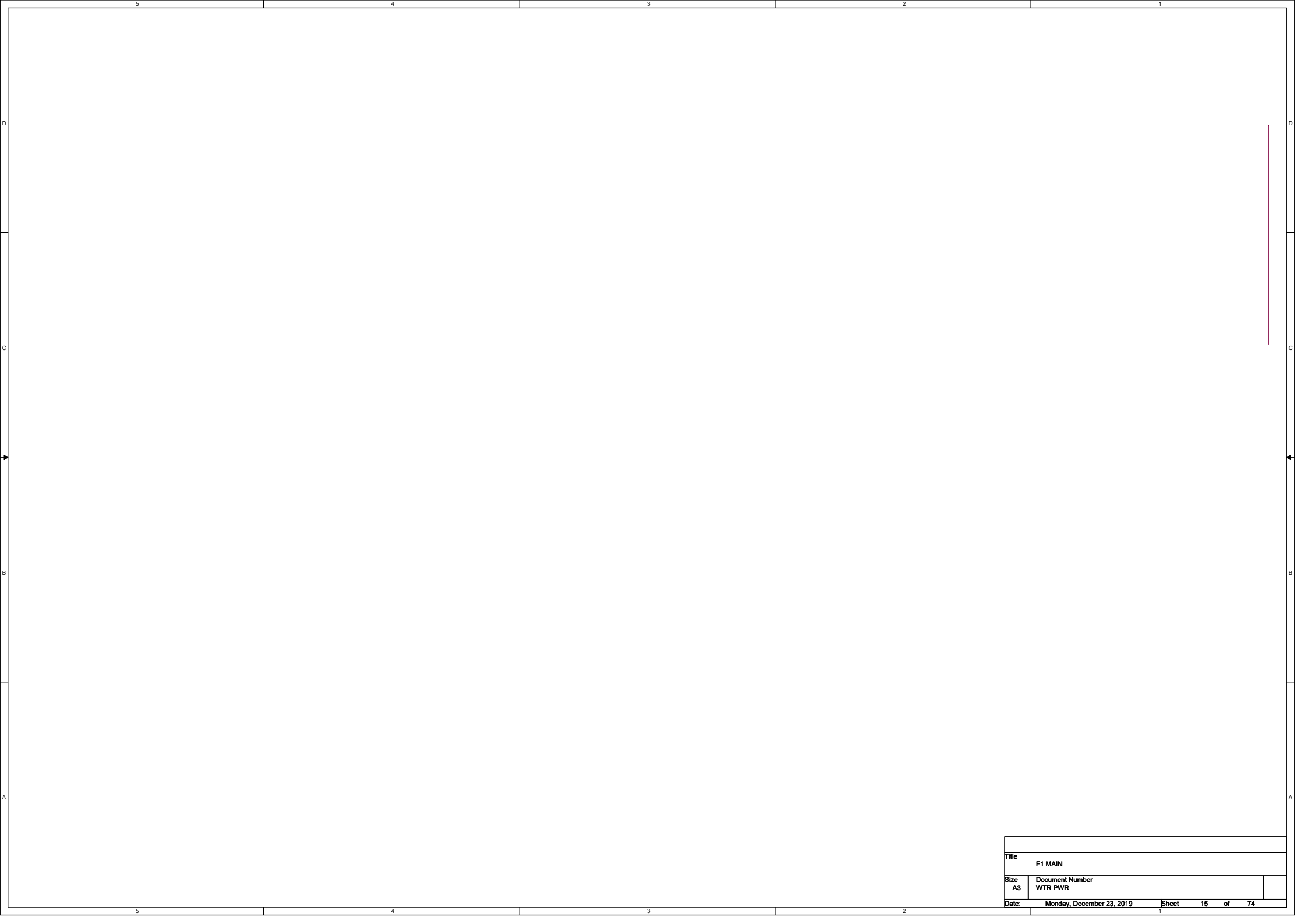




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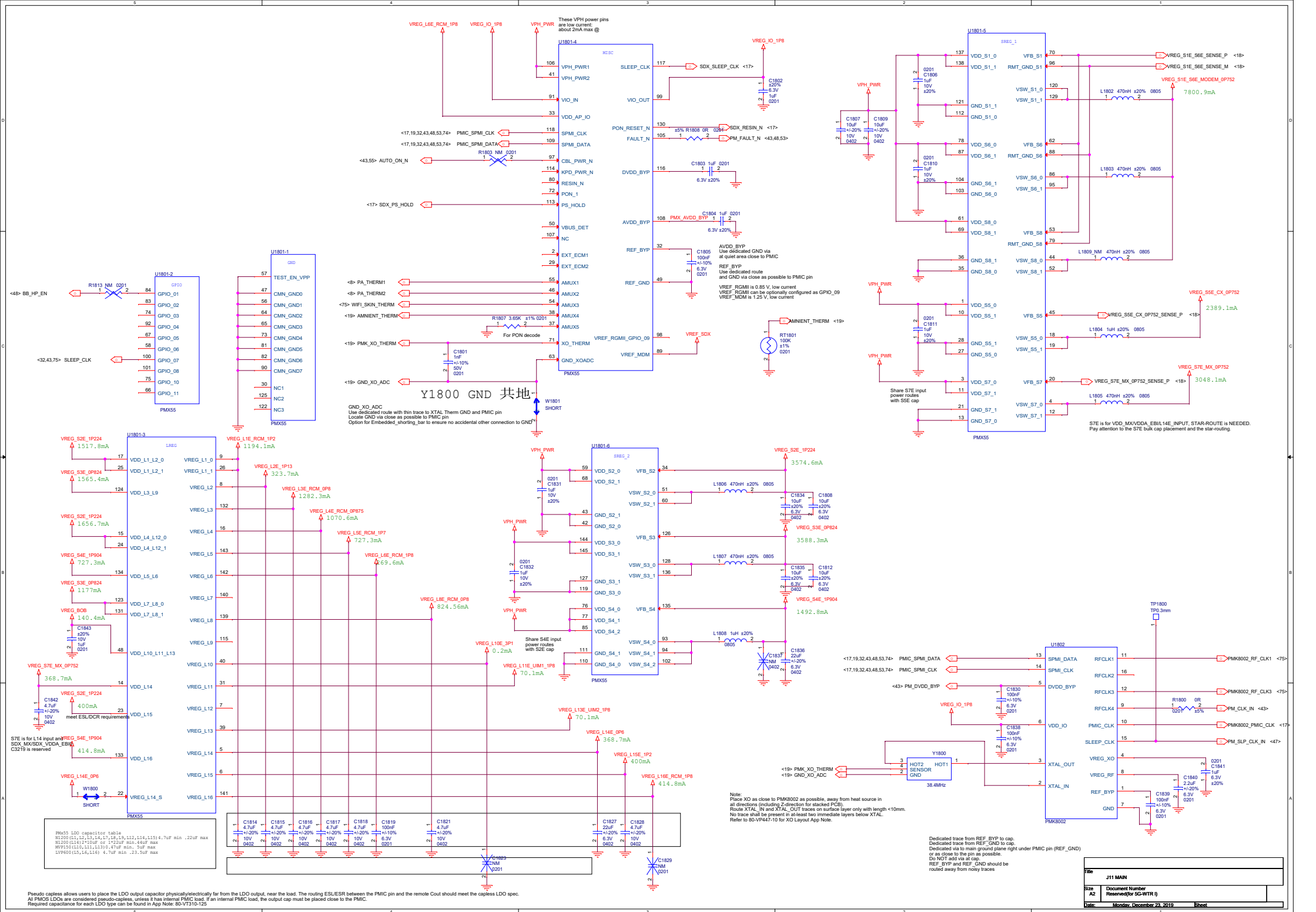
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Date:	Monday, December 23, 2019	Sheet	14 74

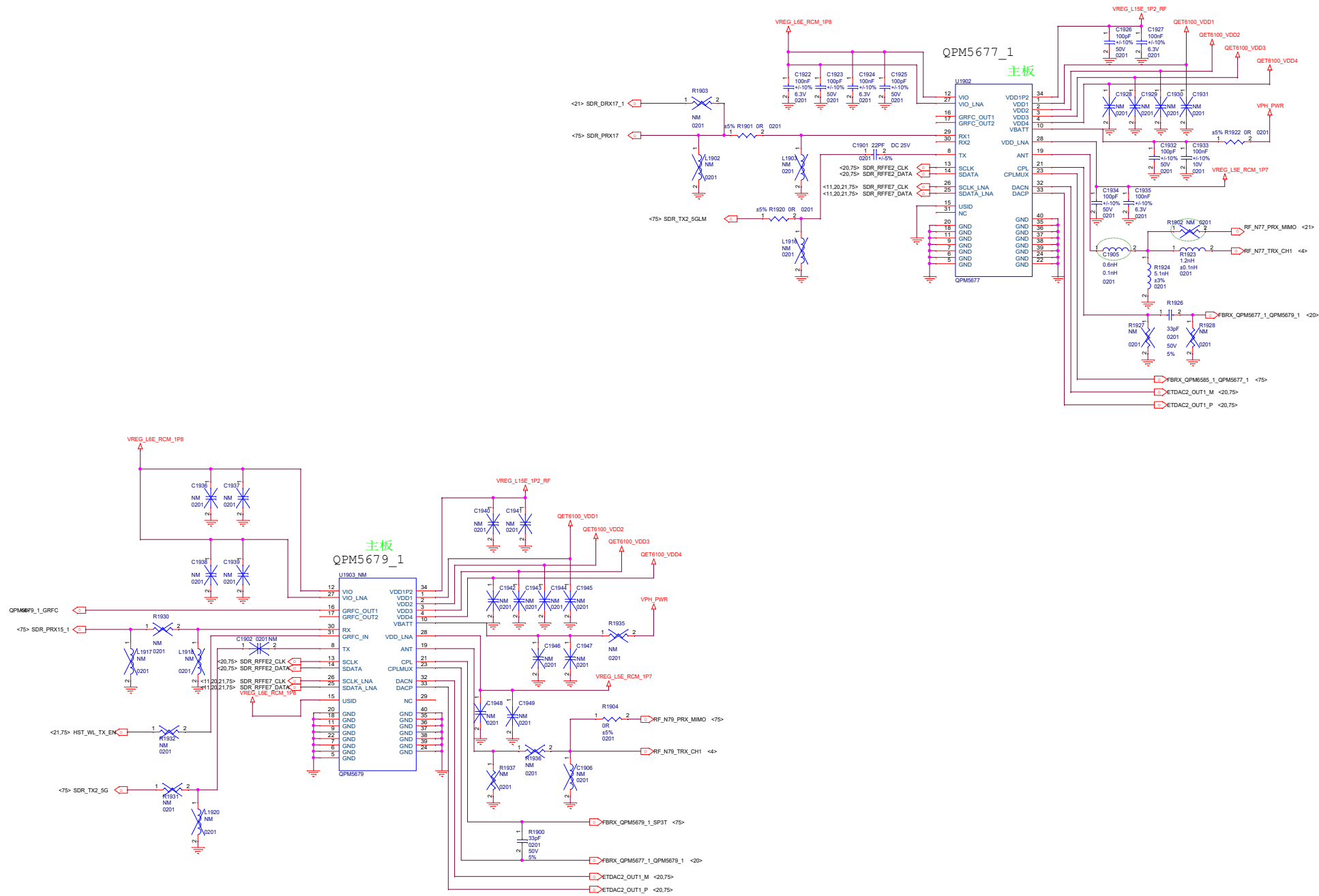


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Size	Document Number
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Size	A3	Document Number Reserved(for WTR)		
Date:	Monday, December 23, 2019		Sheet	16 74

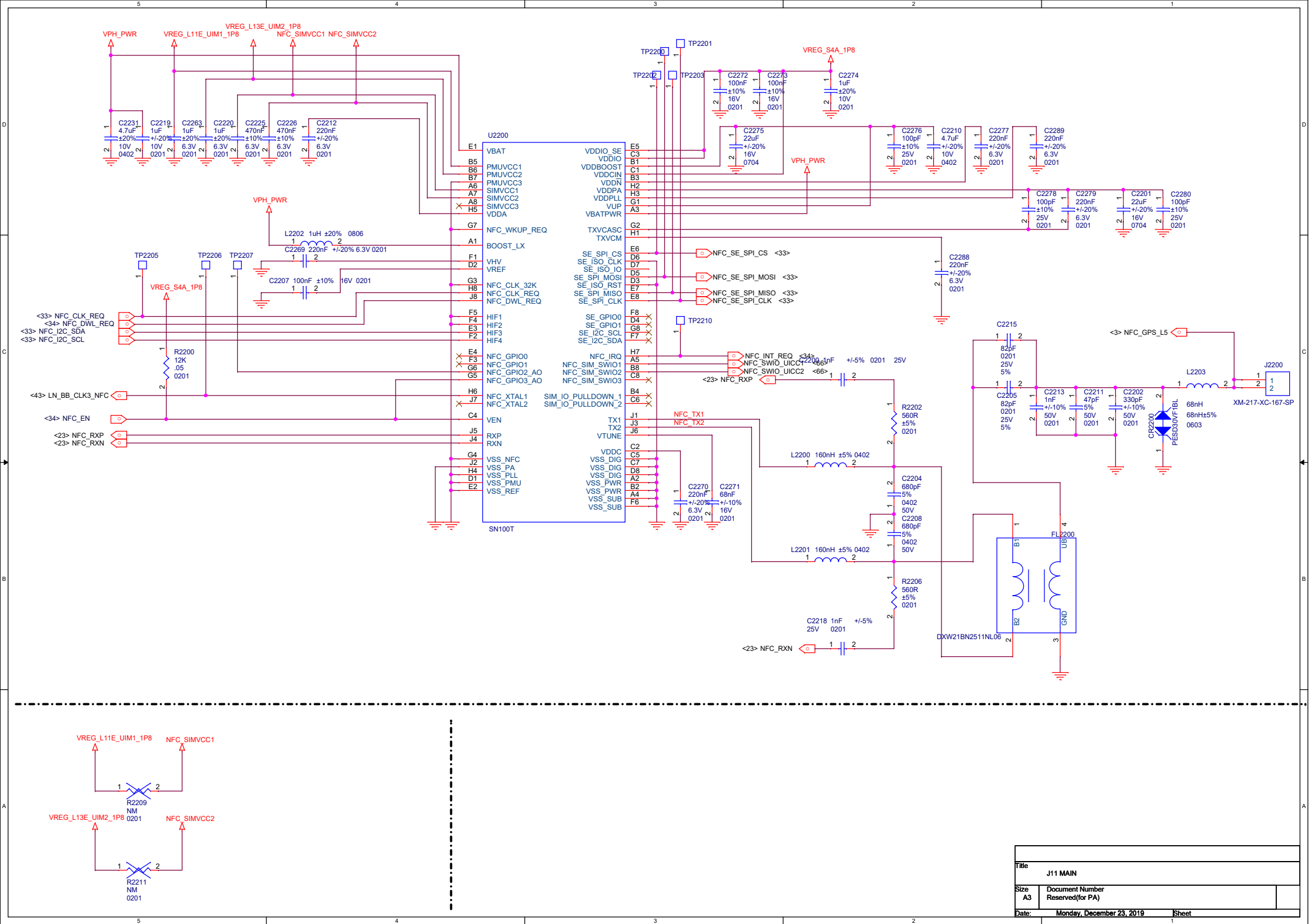


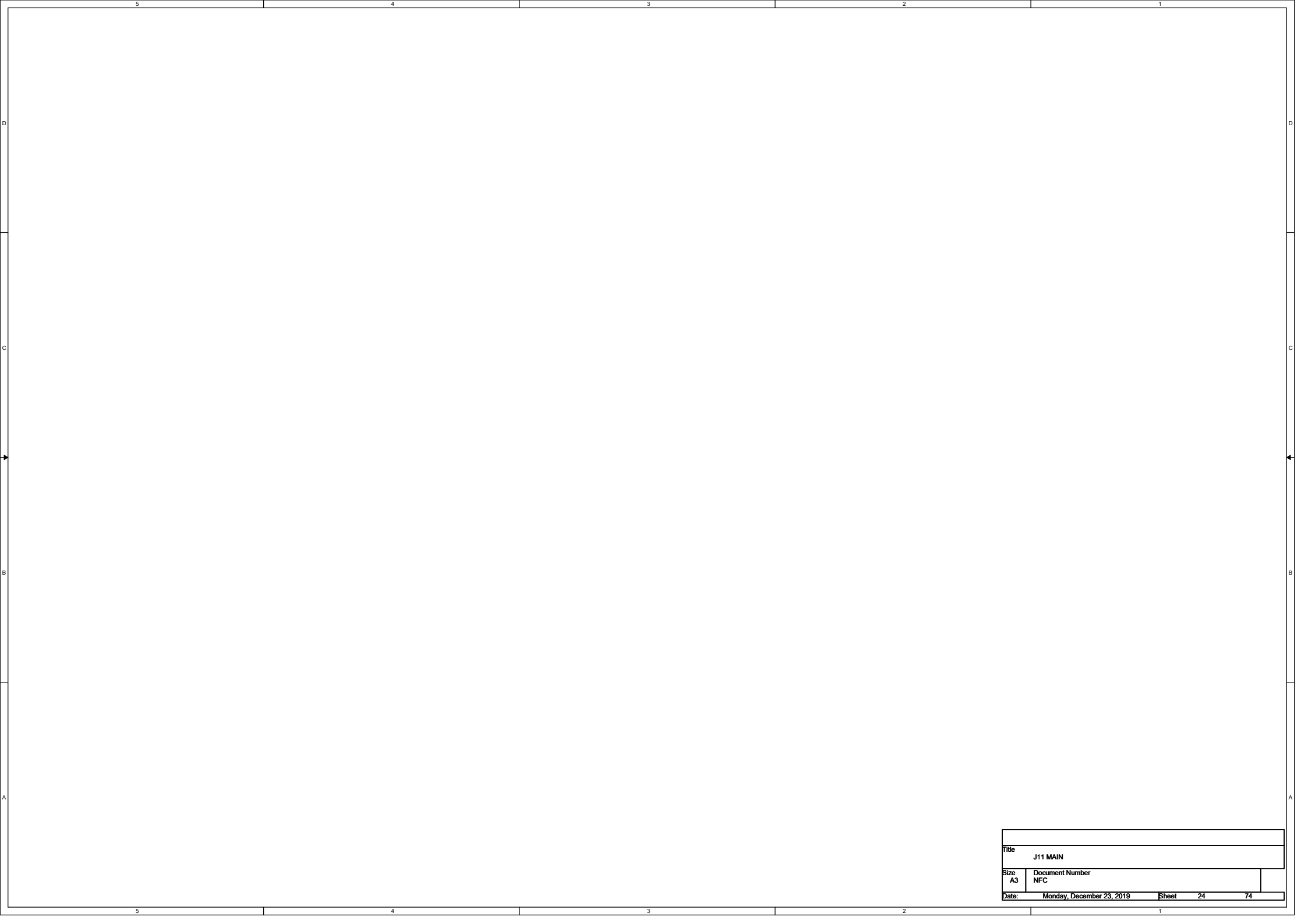


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Date	Monday, December 23, 2019
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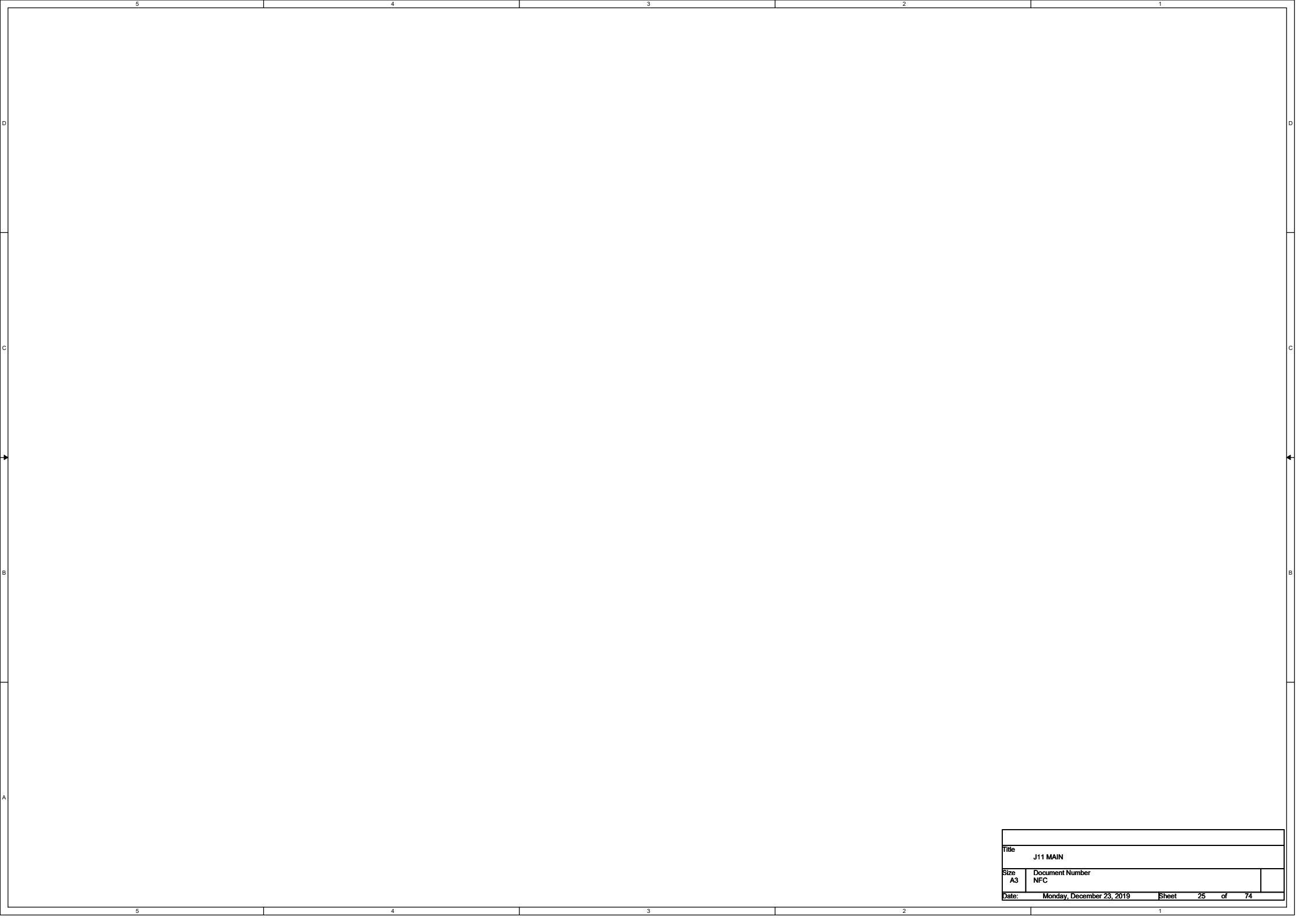


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Date:	Monday, December 23, 2019
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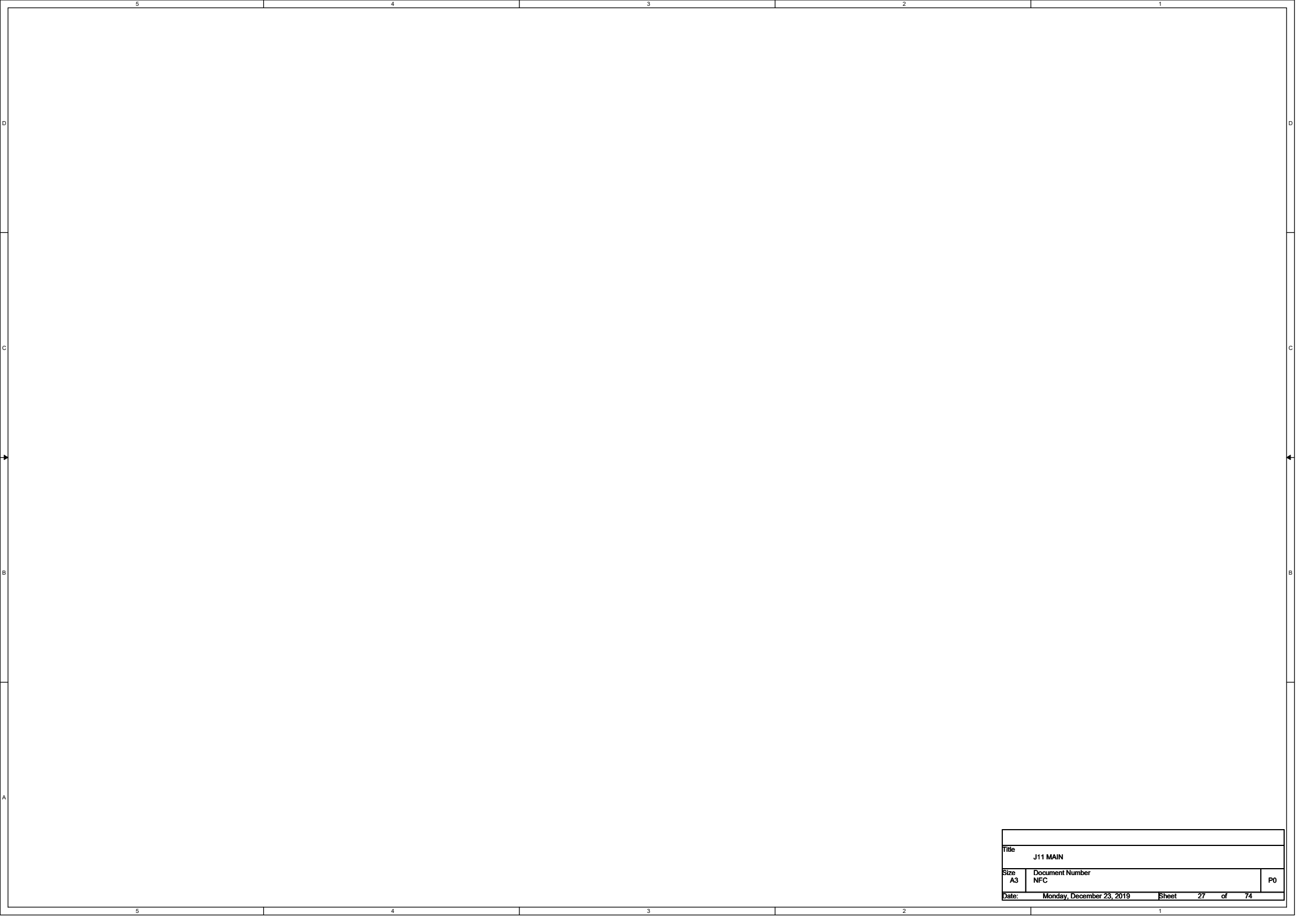
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Date:	Monday, December 23, 2019	Sheet	24 74



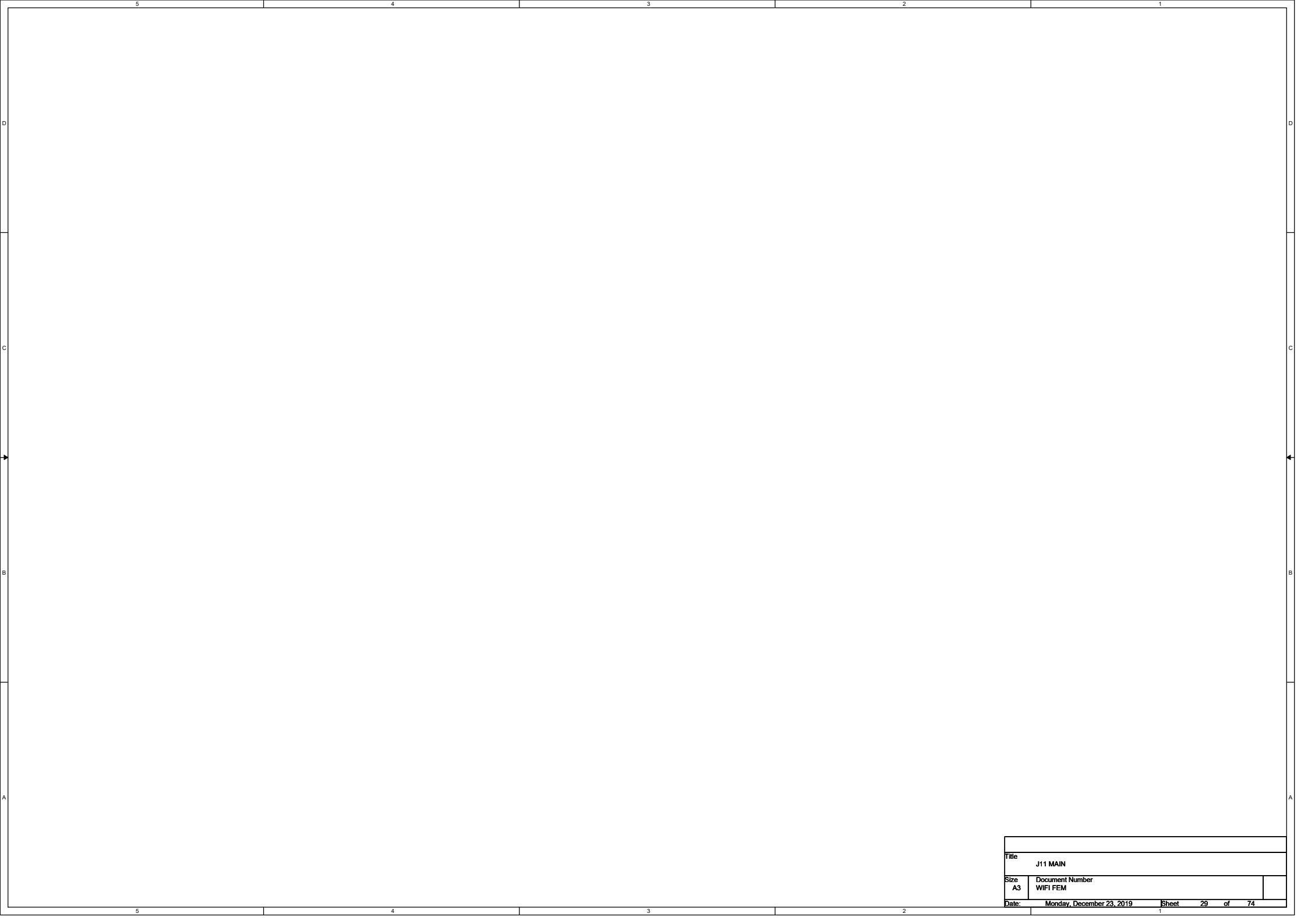
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Size	Document Number		
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Title	
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Size	Document Number
A2	NFC
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Sheet	



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Size	Document Number		P0
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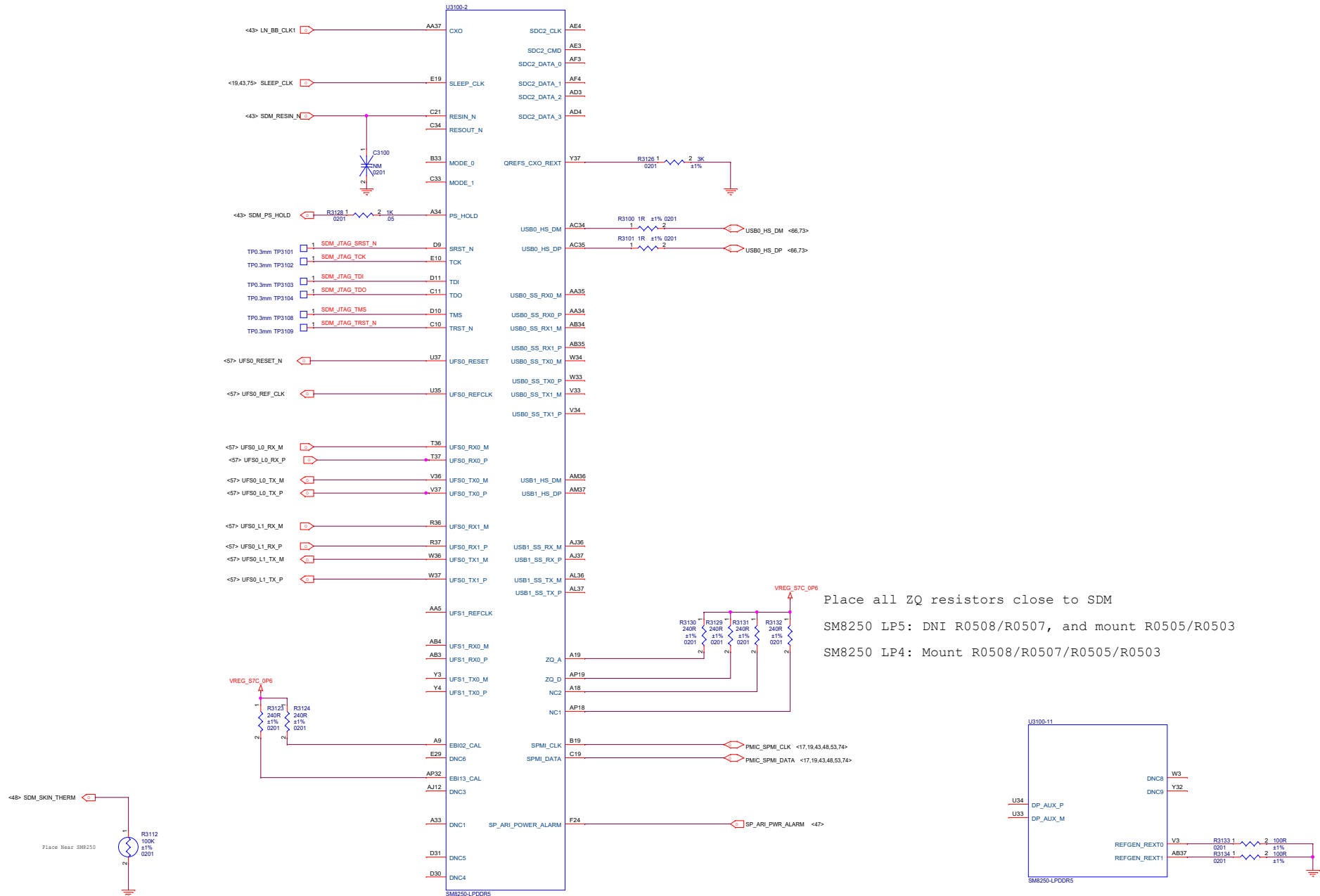
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Date:		Monday, December 23, 2019	Sheet

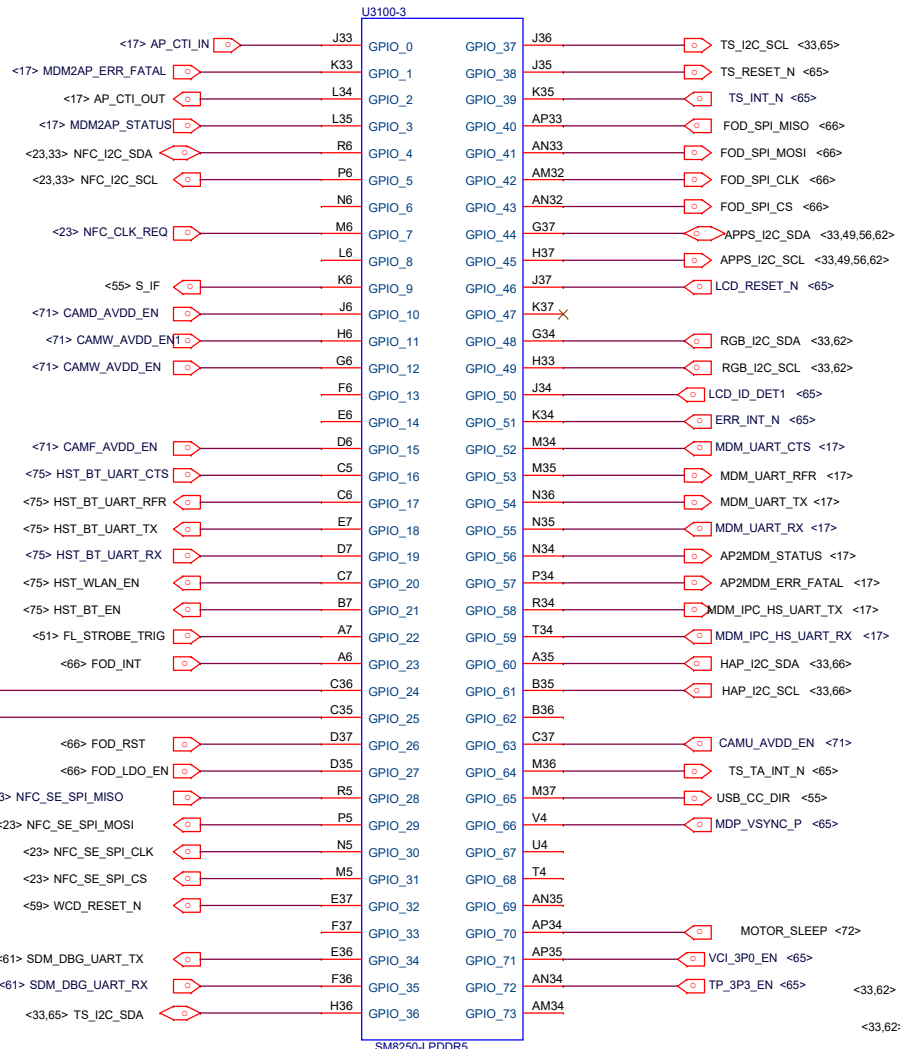
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Title	
J11 MAIN	
Size	Document Number
A3	Reserved(for Analog FM)
Date:	Monday, December 23, 2019
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	74

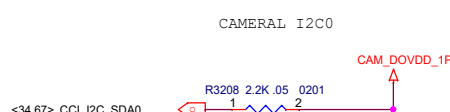
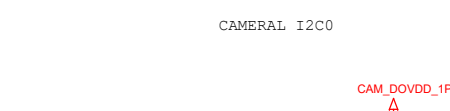
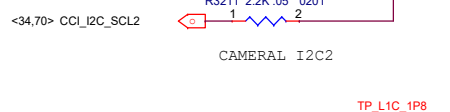
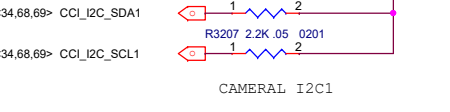
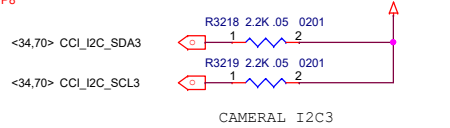
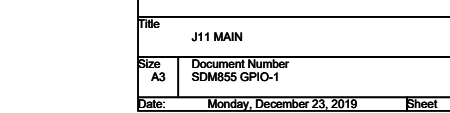
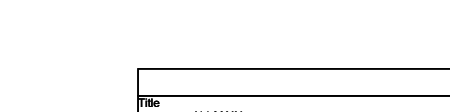
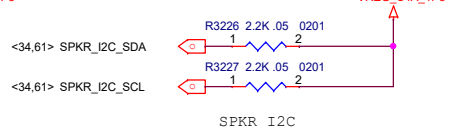
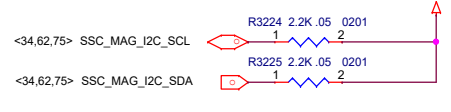
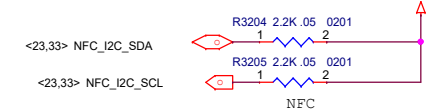
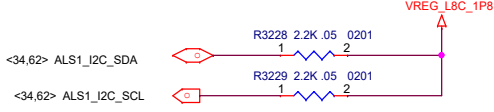
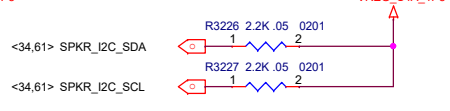
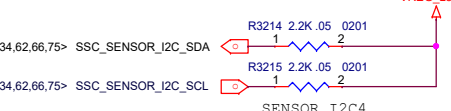
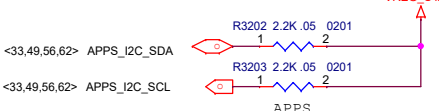
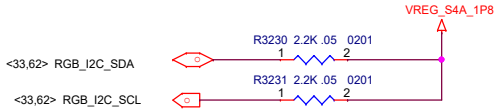
We use current SM8250 symbol as LP5 PKG, and it can be compatible with LP4x PKG



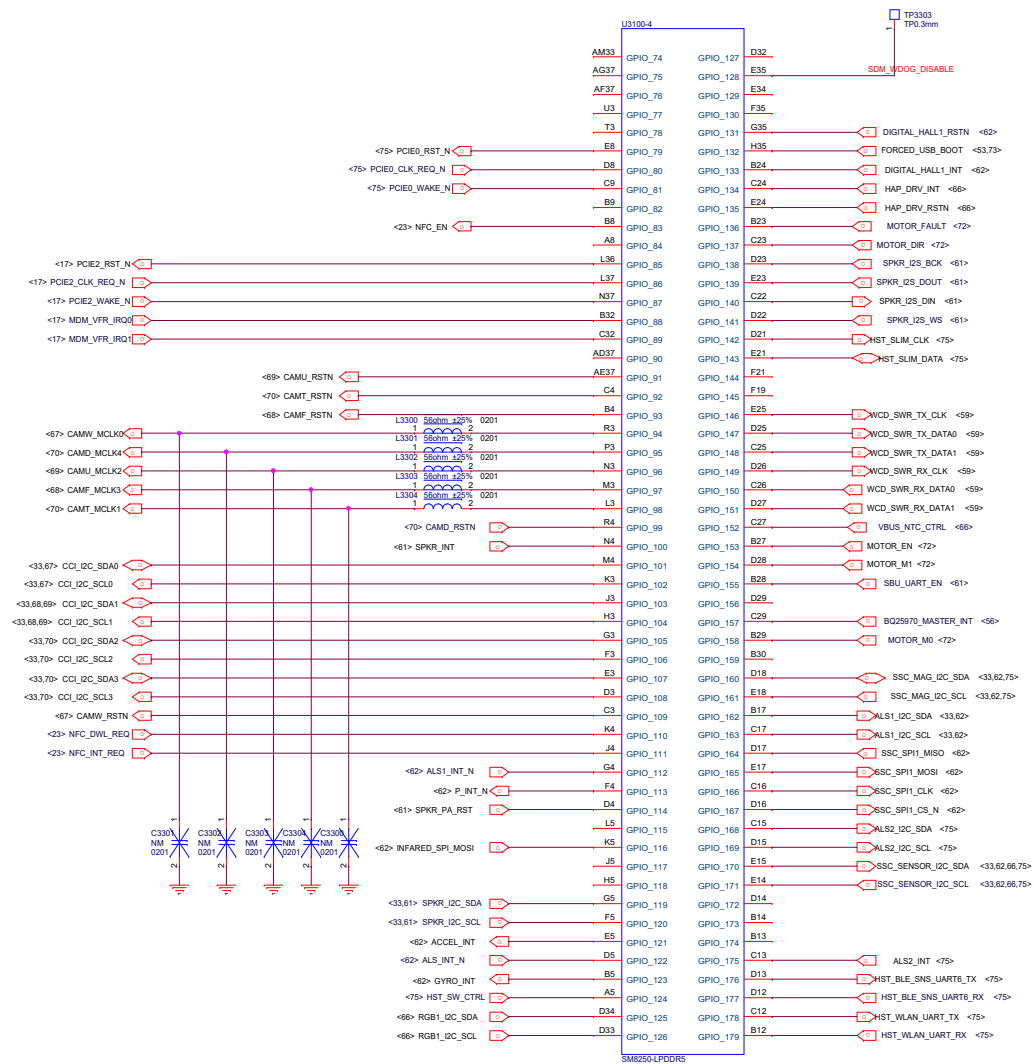
Title		J11 MAIN
Size	Document Number	SCHM855 Control
A2		
Date:	Monday, December 23, 2019	Sheet



Note: External pulls or logic high on BOOT_CONFIG [4:1] (GPIOs - 27, 47, 76 and 90) before RESOUT_N getting asserted high can force SM8250 device to boot from an unintended boot device.



Title			J11 MAIN		
Size	A3		Document Number		
			SDM855 GPIO-1		
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GPIO_128	BOOT_CONFIG(0)	WDOG_DISABLE
GPIO_27	BOOT_CONFIG(1)	FASTBOOT_SEL(0)
GPIO_47	BOOT_CONFIG(2)	FASTBOOT_SEL(1)
GPIO_76	BOOT_CONFIG(3)	FASTBOOT_SEL(2)
GPIO_90	BOOT_CONFIG(4)	FASTBOOT_SEL(3)
GPIO_70	BOOT_CONFIG(5)	APPS_BOOT_FROM_ROM
GPIO_132	N/A	FORCE_USB_BOOT

REAR CAMERA WIDE
64M

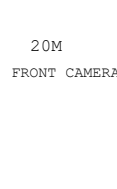
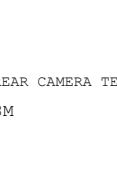
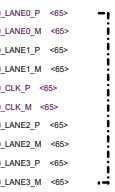
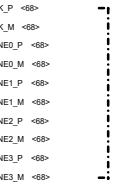
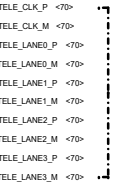
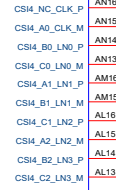
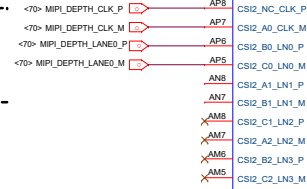
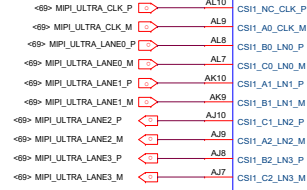
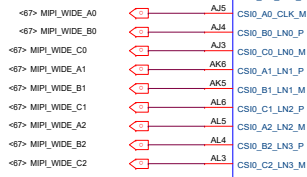
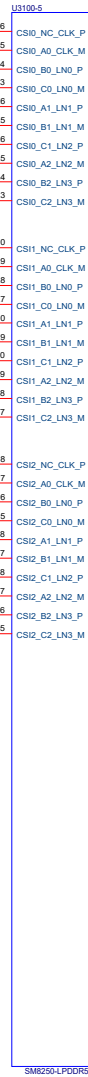
REAR CAMERA ULTRA 13M

REAR CAMERA DEPTH
2M

REAR CAMERA TELE
8M

20M
FRONT CAMERA

DISPLAY



D

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C

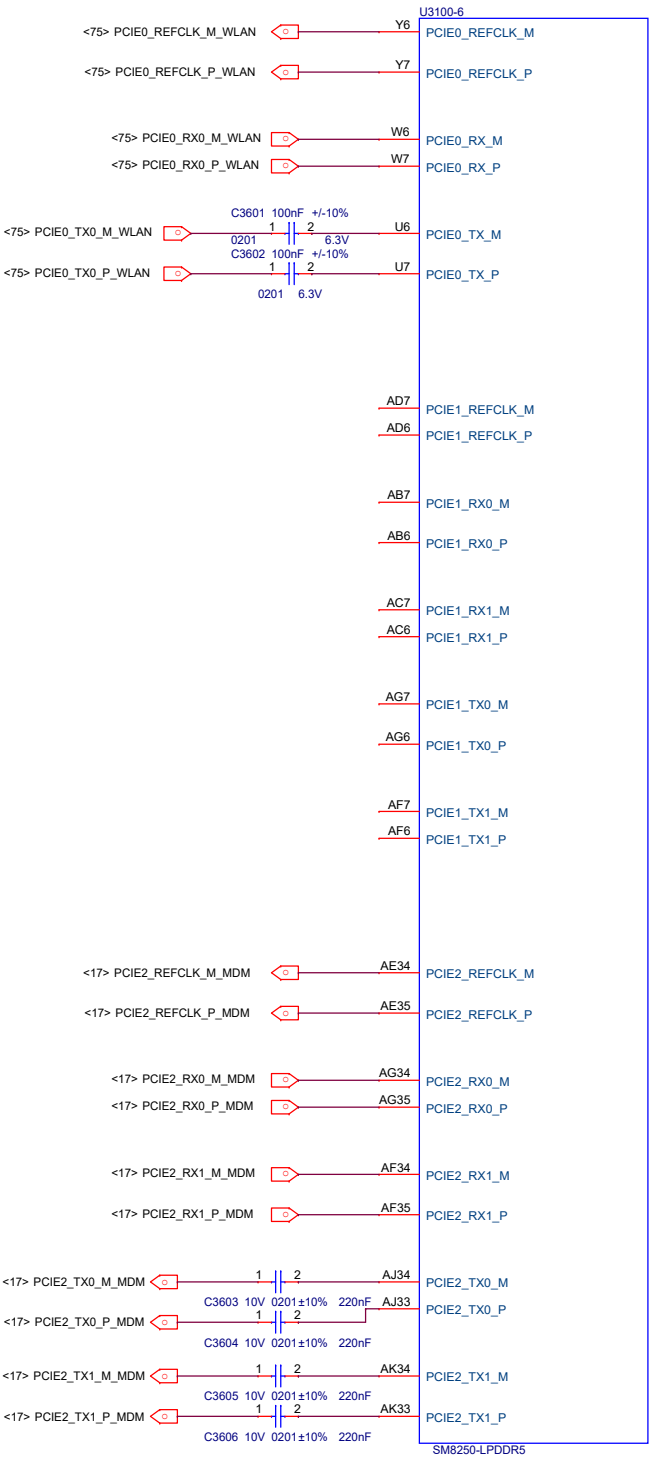
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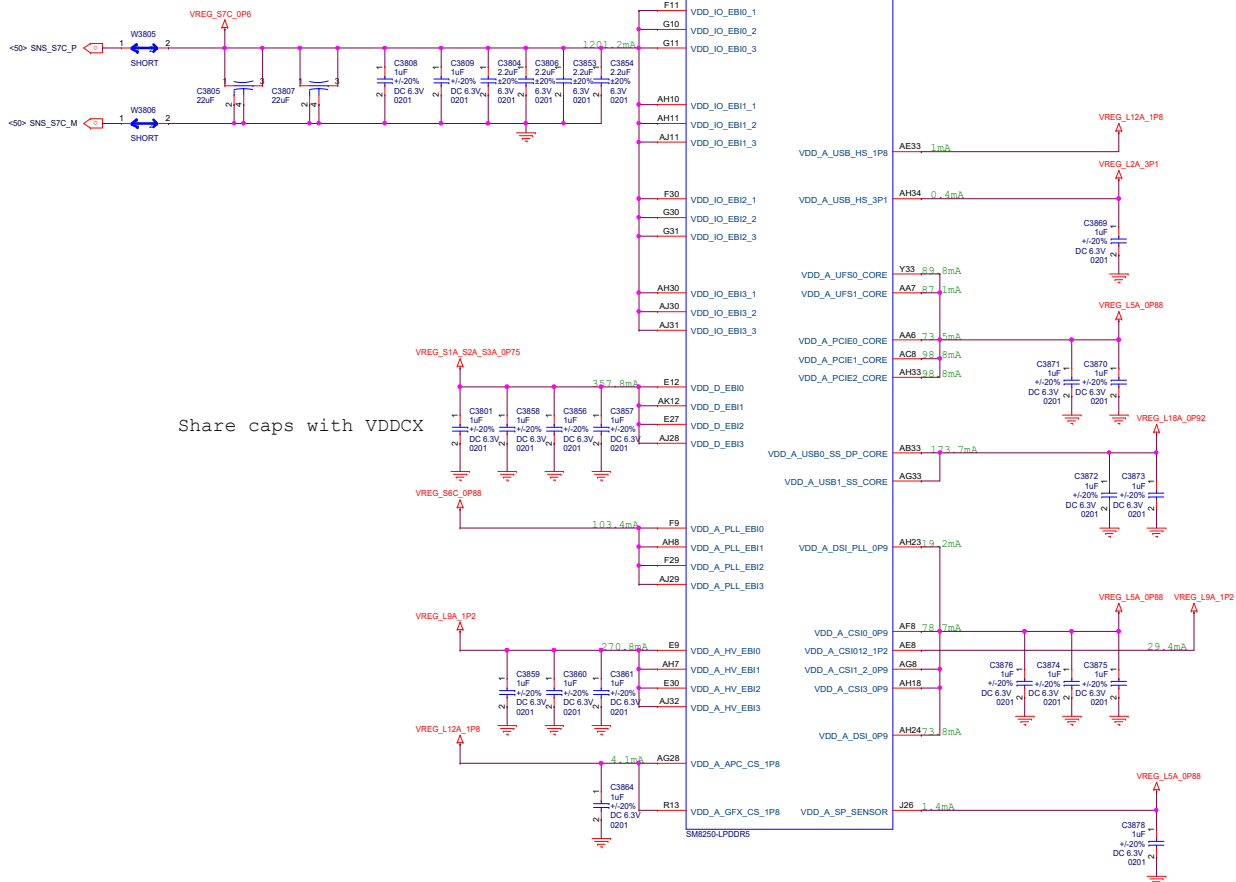
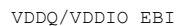
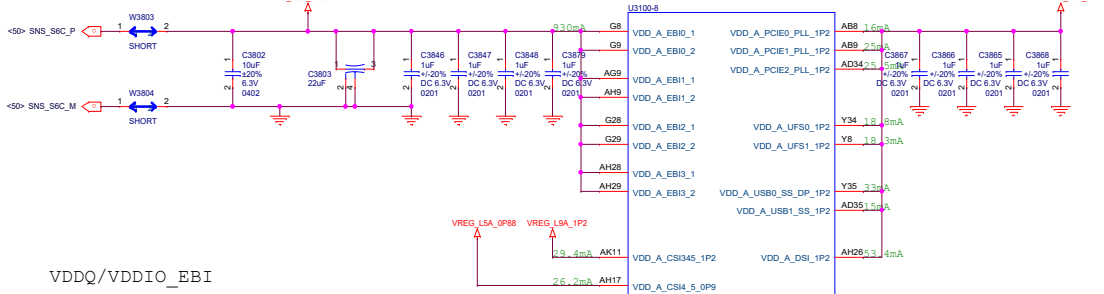
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A

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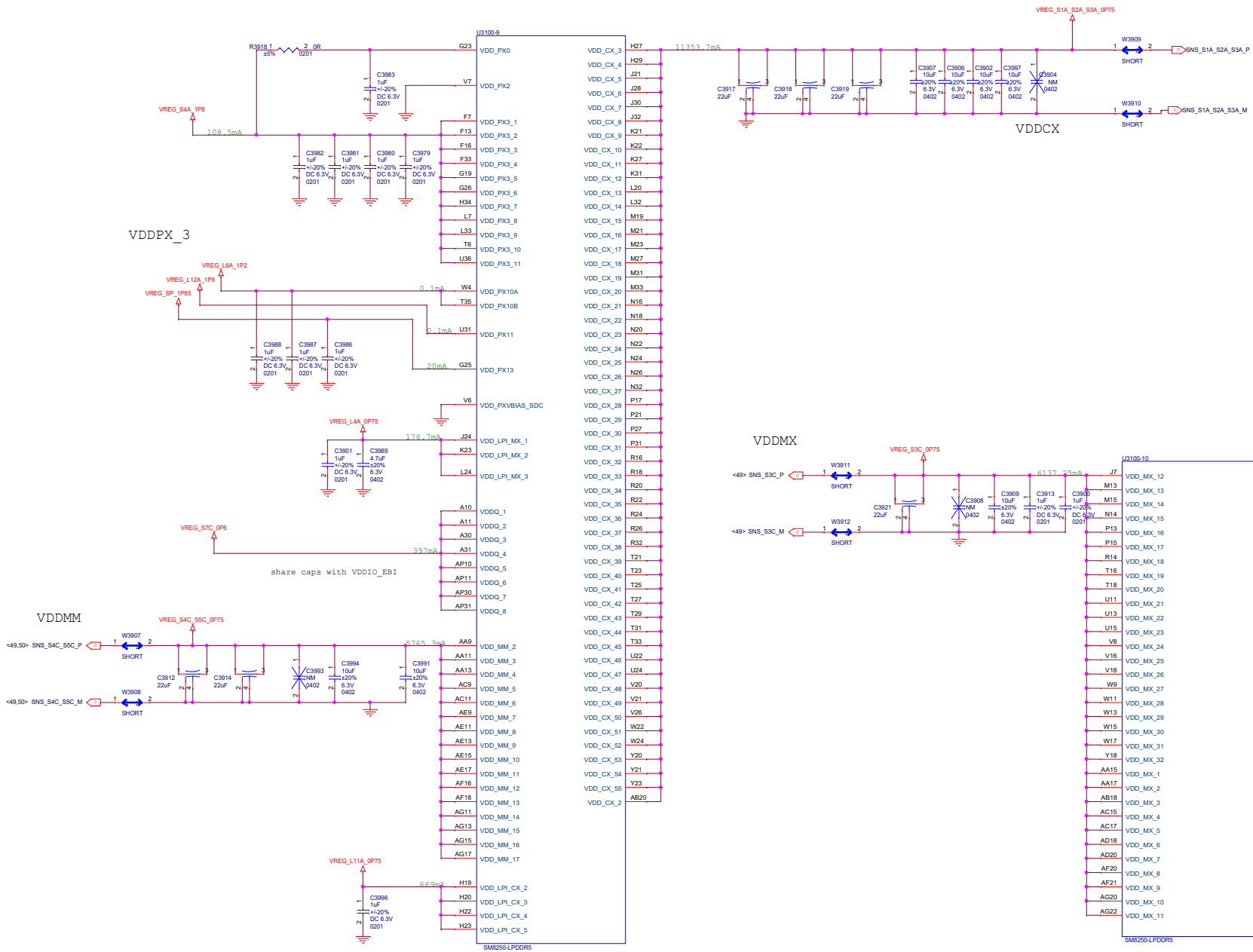
Title J11 MAIN			
Size A4	Document Number Reserved(for MIPI)		
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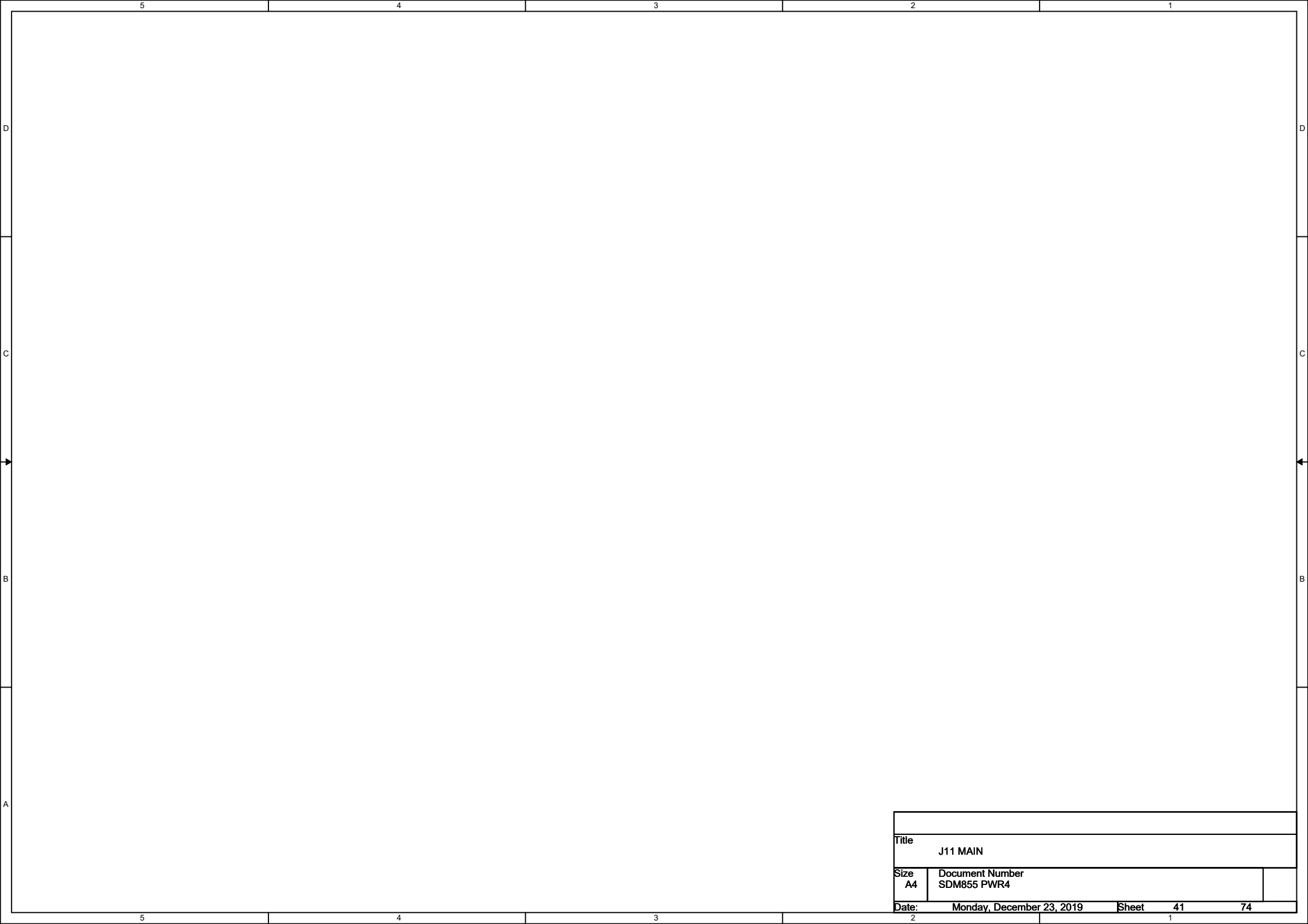




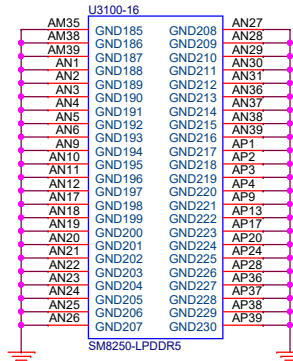
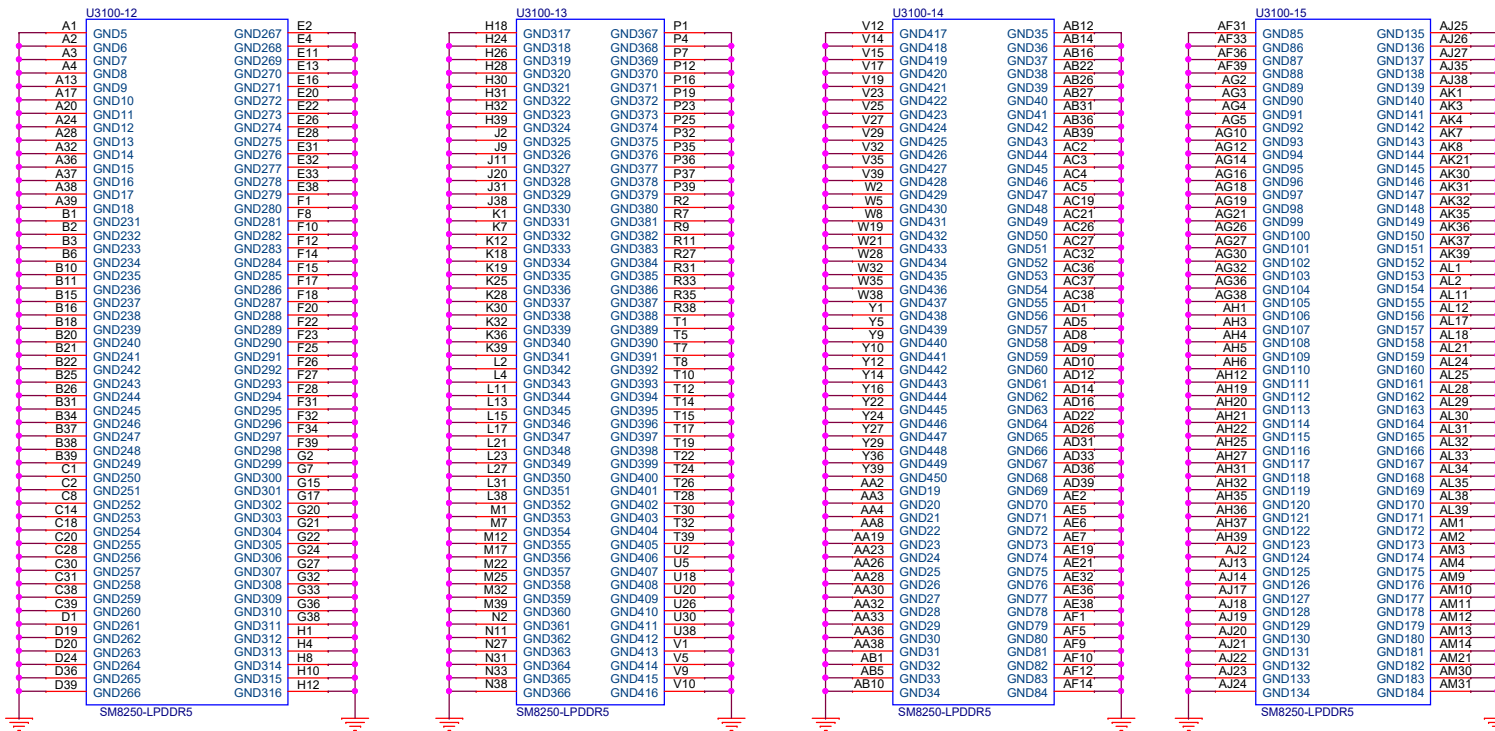
Share caps with VDDCX

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Size A2	Document Number SDM855 PWR2	
Date:	Monday, December 23, 2019	Sheet





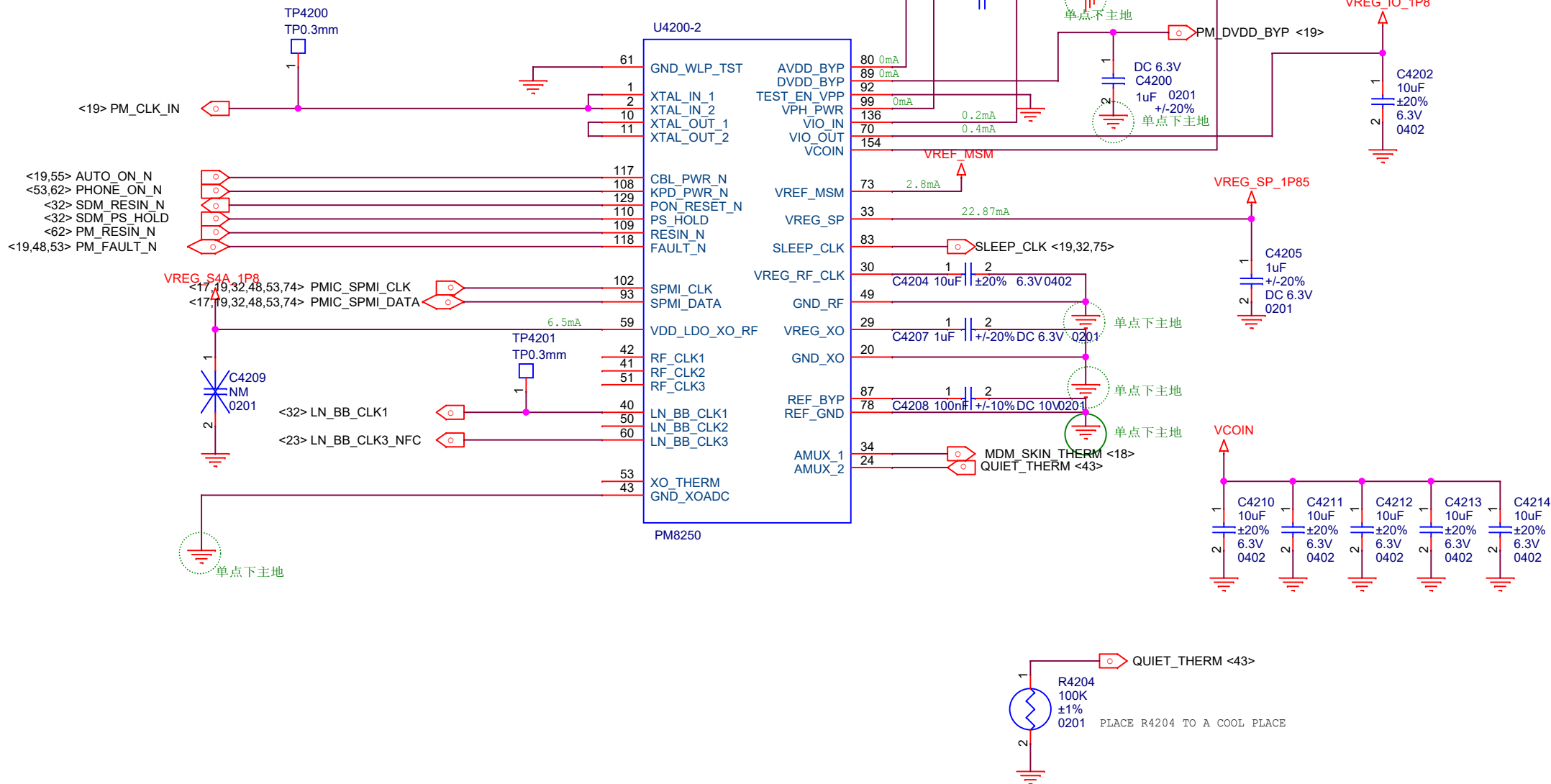
Title J11 MAIN				
Size A4	Document Number SDM855 PWR4			
Date: Monday, December 23, 2019	Sheet 41	74		



Note: Refer to 80-VP447-10 for XO Layout App Note.

Layout Note:

No trace shall be present in at-least two immediate layers below XTAL.
Route XTAL_IN and XTAL_OUT traces on surface layer only, with length
between 3mm and 10mm.



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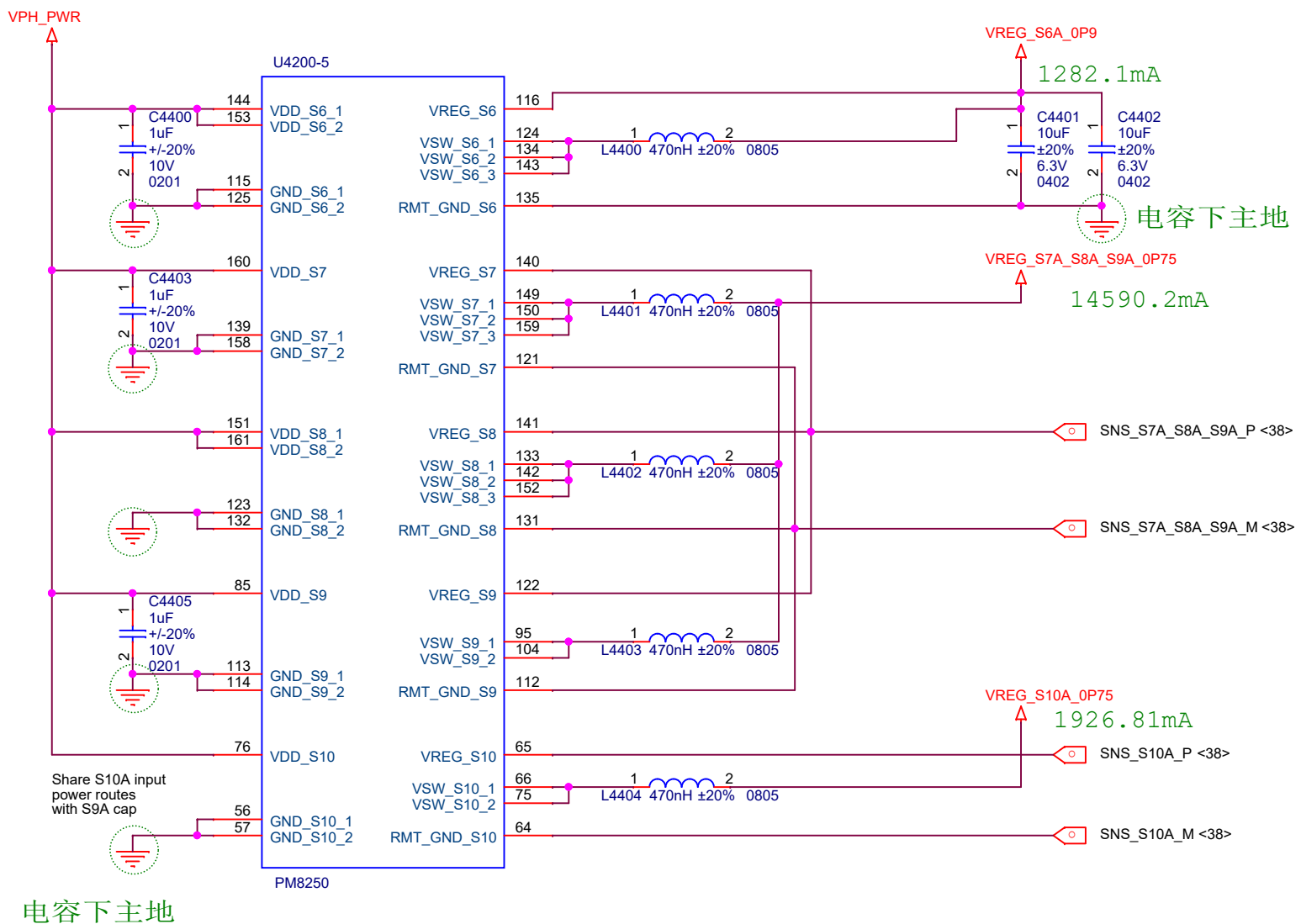
VREG_S1A_S2A_S3A_0P75
11711.5mA

VREG_S4A_1P8
2658.7mA

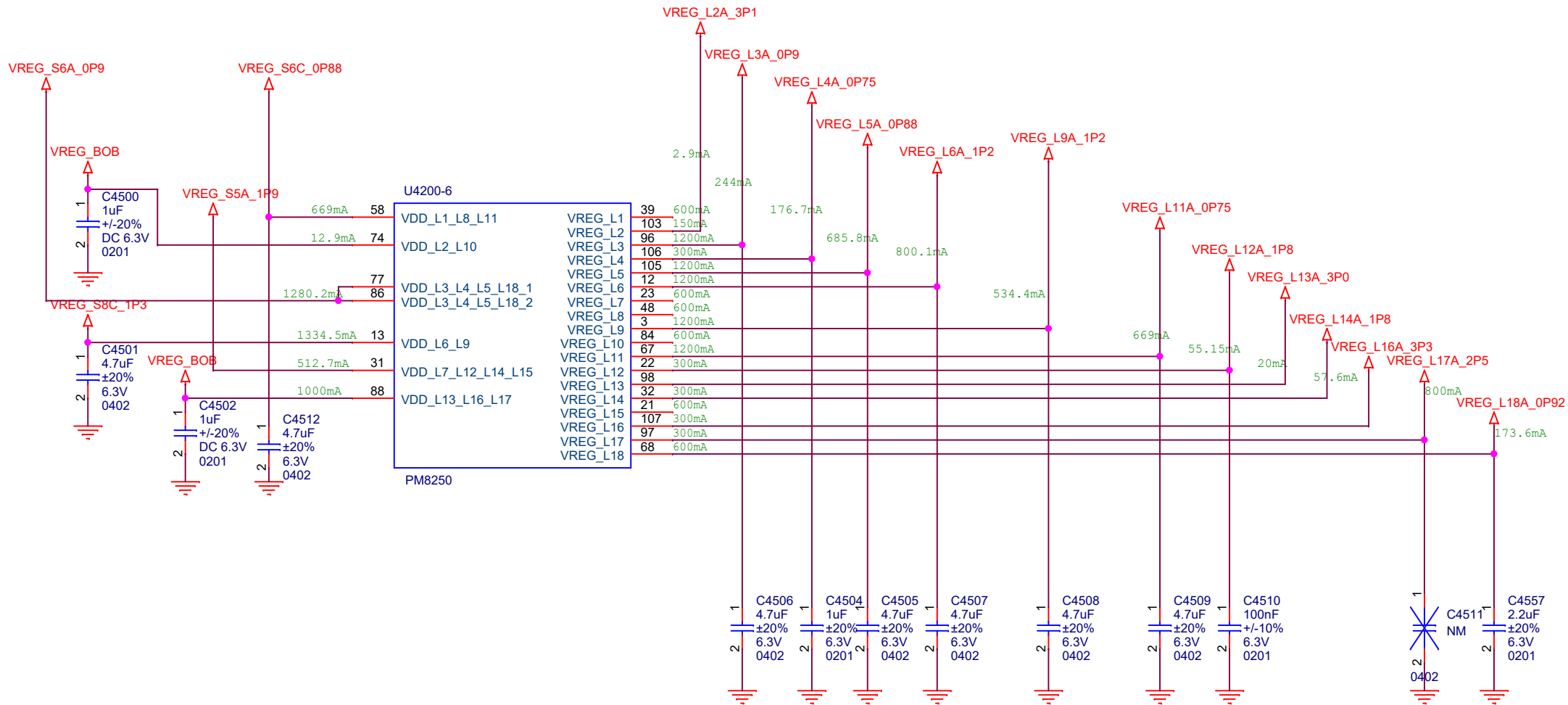
VREG_S5A_1P9
922.7mA

Title		
J11 MAIN		
Size	Document Number	
A4	PM855 BUCK CONVERTER1	
Date:	Monday, December 23, 2019	Sheet 44 of

电容下主地

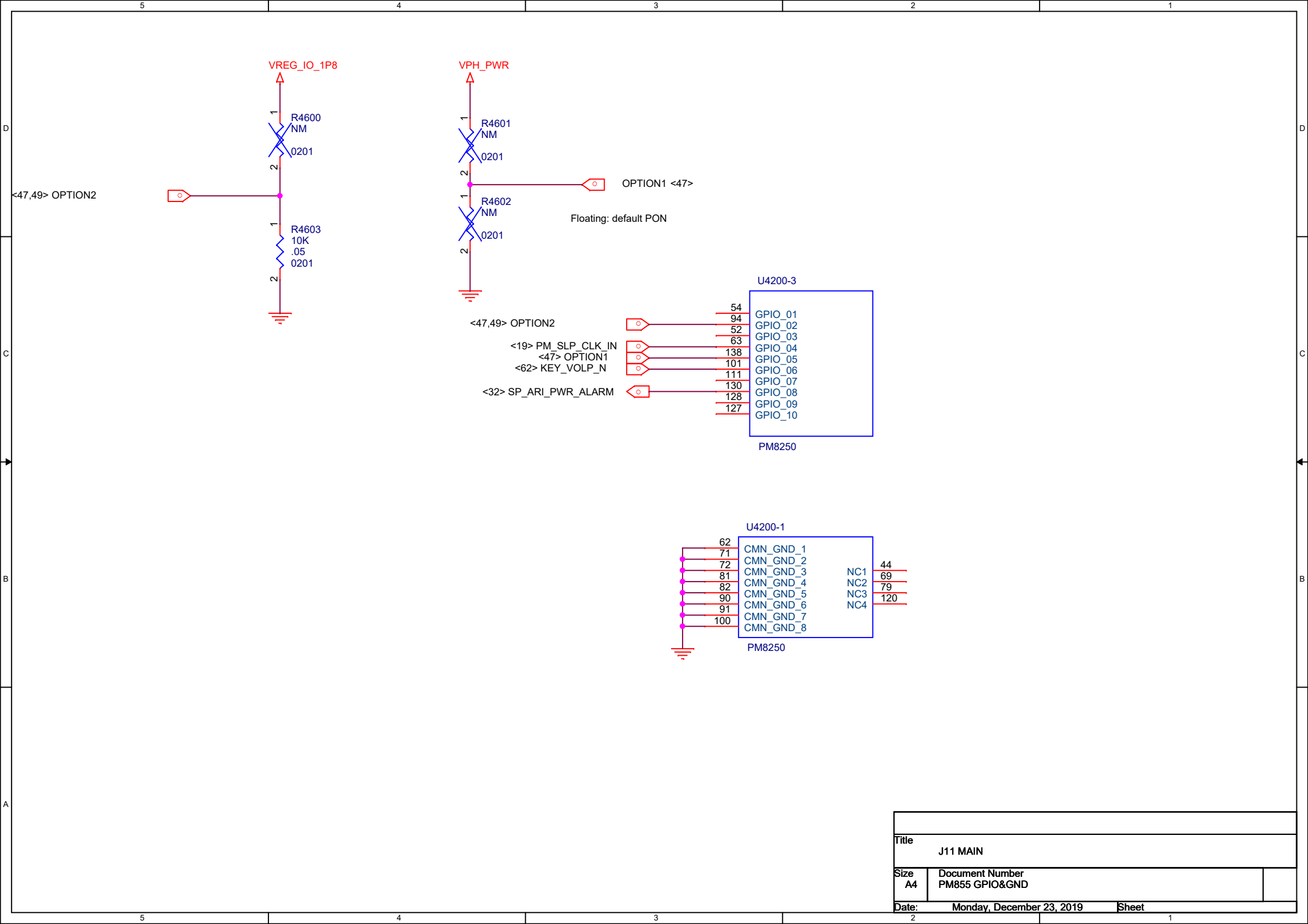


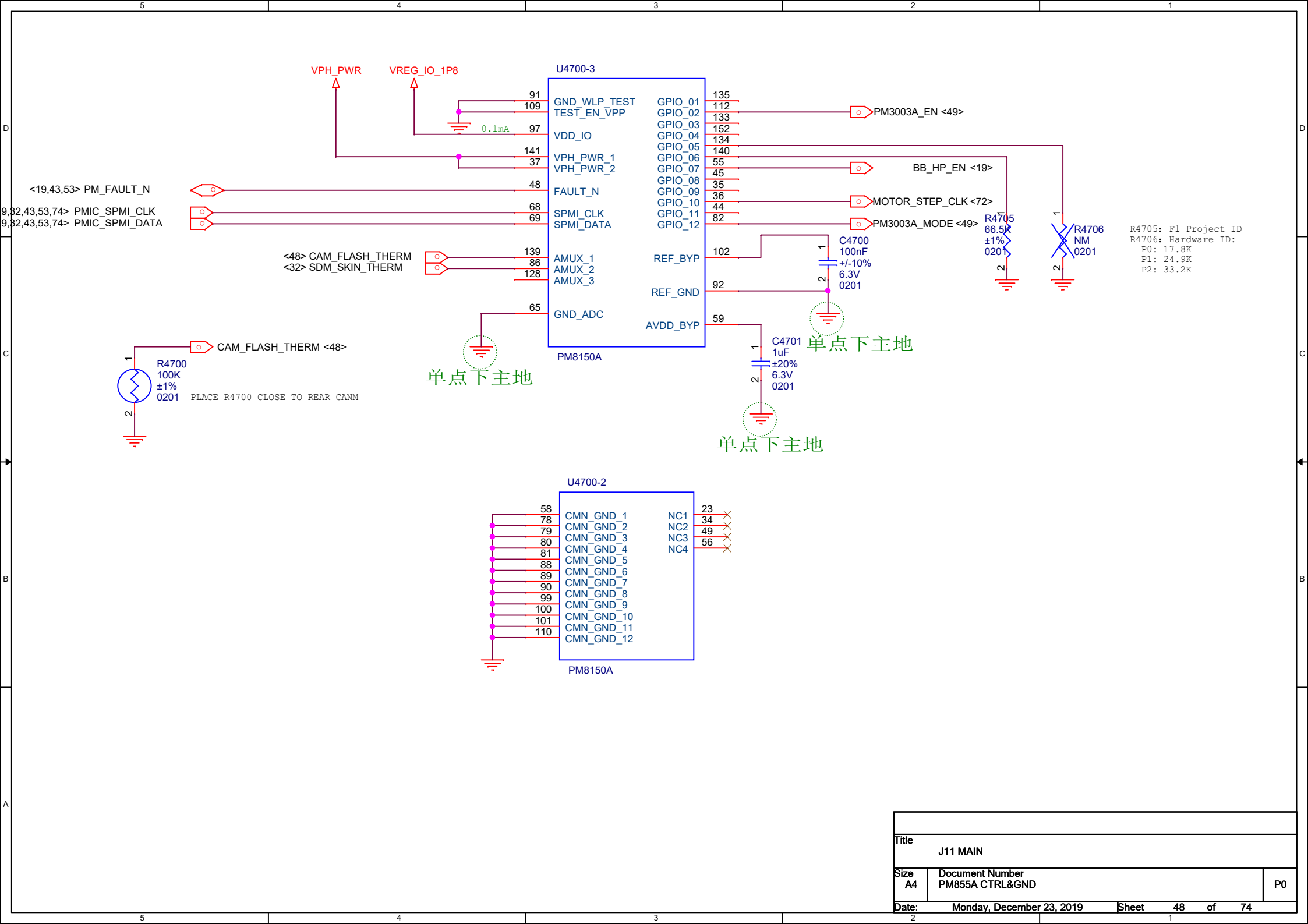
Title		
J11 MAIN		
Size	Document Number	P0
A4	PM855 BUCK CONVERTER2	
Date:	Monday, December 23, 2019	Sheet 45 of 74



Pseudo capless allows users to place the LDO output capacitor physically/electrically far from the LDO output, near the load. The routing ESL/ESR between the PMIC pin and the remote Cout should meet the capless LDO spec. All PMOS LDOs are considered pseudo-capless, unless it has internal PMIC load. If an internal PMIC load, the output cap must be placed close to the PMIC. Required capacitance for each LDO type can be found in App Note: 80-VT310-125

Title		
J11 MAIN		
Size	Document Number	
A4	PM855 LDOs	
Date:	Monday, December 23, 2019	Sheet 46 of 74





R4705: F1 Project ID
R4706: Hardware ID:
P0: 17.8K
P1: 24.9K
P2: 33.2K

Title		
J11 MAIN		
Size	Document Number	P0
A4	PM855A CTRL&GND	
Date:	Monday, December 23, 2019	Sheet 48 of 74

VPH_PWR

C4806
10uF
+/-20%
10V
0402

电容下主地

Note: Similar to PM8250, please ensure that a minimum of three 10uF bulk capacitors are present on PM8150L/A VPH_PWR primarily to support the SMPS buck regulators even if BoB or Lighting Modules are unused. For PM8150L, the three 10uF bulk capacitors on VPH_PWR are fulfilled by the 10uF capacitors for BoB, WLED, and LCDB. For the PM8150A, the three 10uF bulk capacitors on VPH_PWR are fulfilled by the 10uF caps for BoB, OLEDB, ELVDD, and ELVSS.

电容下主地

PM8150A

U4700-5

VDD_S1_1
VDD_S1_2GND_S1_1
GND_S1_2VDD_S2_1
VDD_S2_2
VDD_S2_3GND_S2_1
GND_S2_2

VDD_S3_1

GND_S3_1
GND_S3_2VDD_S4_1
VDD_S4_2GND_S4_1
GND_S4_2

VREG_S1

VSW_S1_1
VSW_S1_2

RMT_GND_S1

VREG_S2

VSW_S2_1
VSW_S2_2
VSW_S2_3

RMT_GND_S2

VREG_S3

VSW_S3_1
VSW_S3_2

RMT_GND_S3

VREG_S4

VSW_S4_1
VSW_S4_2

RMT_GND_S4

SNS_S1C_S2C_P <38>

12314mA

SNS_S1C_S2C_M <38>

VREG_S3C_0P75

6137.4mA

SNS_S3C_P <40>

SNS_S3C_M <40>

VREG_S4C_S5C_0P75

5165.3mA

SNS_S4C_S5C_P <40,50>

SNS_S4C_S5C_M <40,50>

VPH_PWR

C4801
10uF
0402
10V
±20%C4803
100nF
+/-10%
DC 10V
0201

<33,56,62> APPS_I2C_SDA

<33,56,62> APPS_I2C_SCL

R4802 NM 0201

R4803 NM 0201

R4800
0R
±5%
0201R4801
0R
±5%
0201

U4800

PVIN
PVIN
PVIN
VSEL
EN
SDA
SCL
AGND
PGND
PGND
PGND

PM3003A

SW1

SW2

MODE

VOUT

AGND

PGND

PGND

PGND

A2

B2

C2

E3

E1

C3

B3

A3

A1

B1

C1

D1

D2

D3

E2

A3

B3

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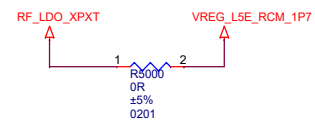
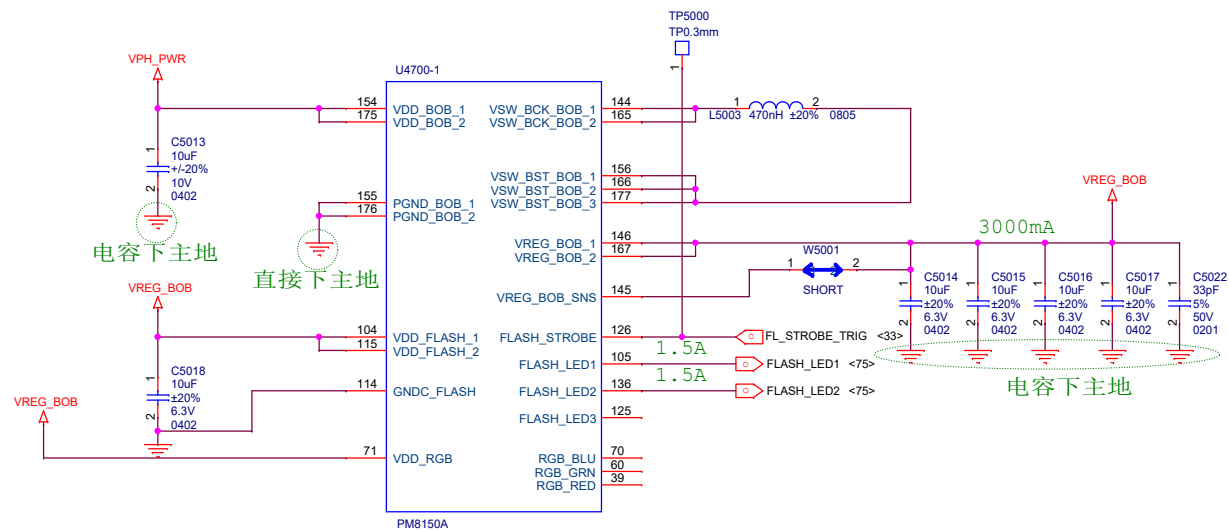
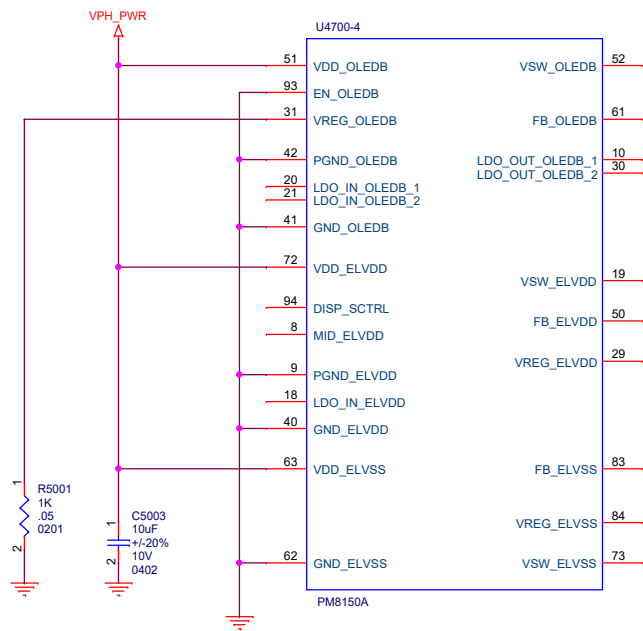
B3

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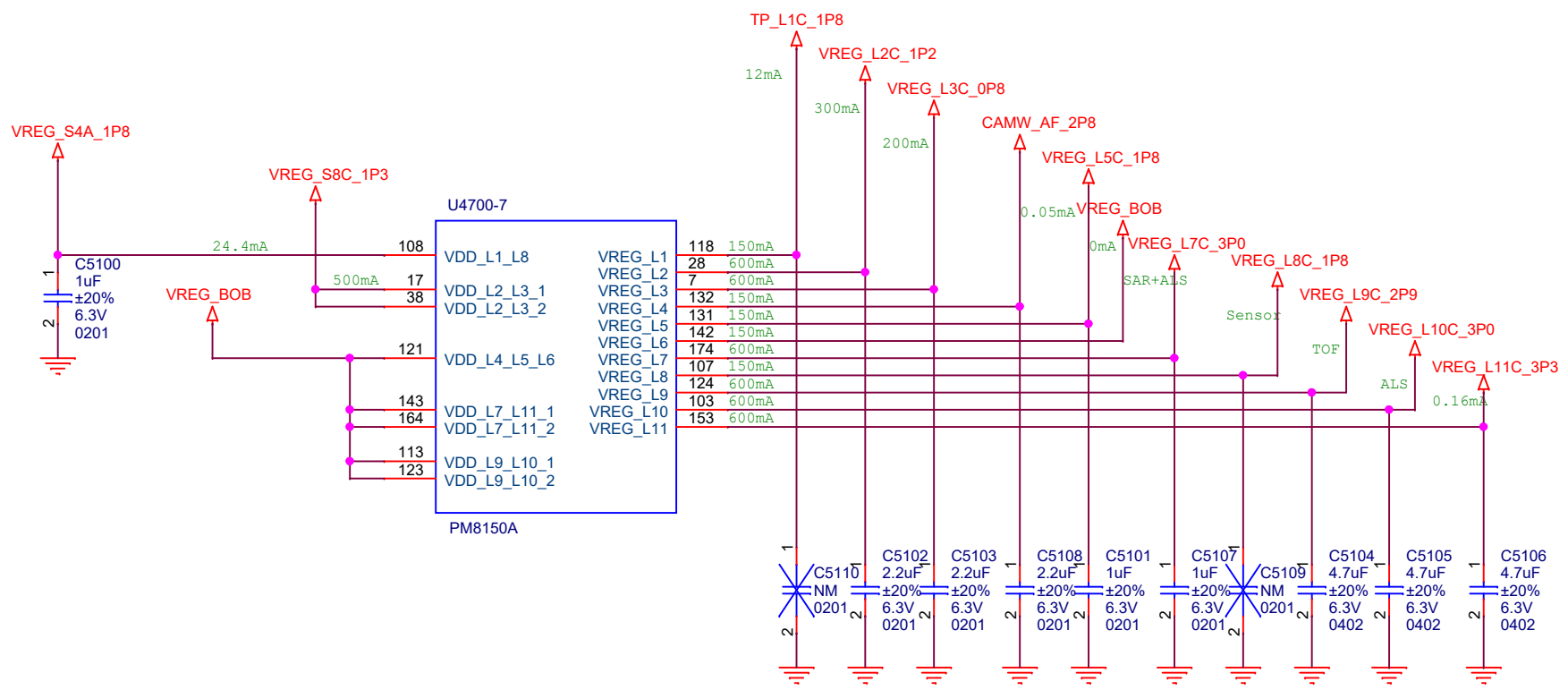
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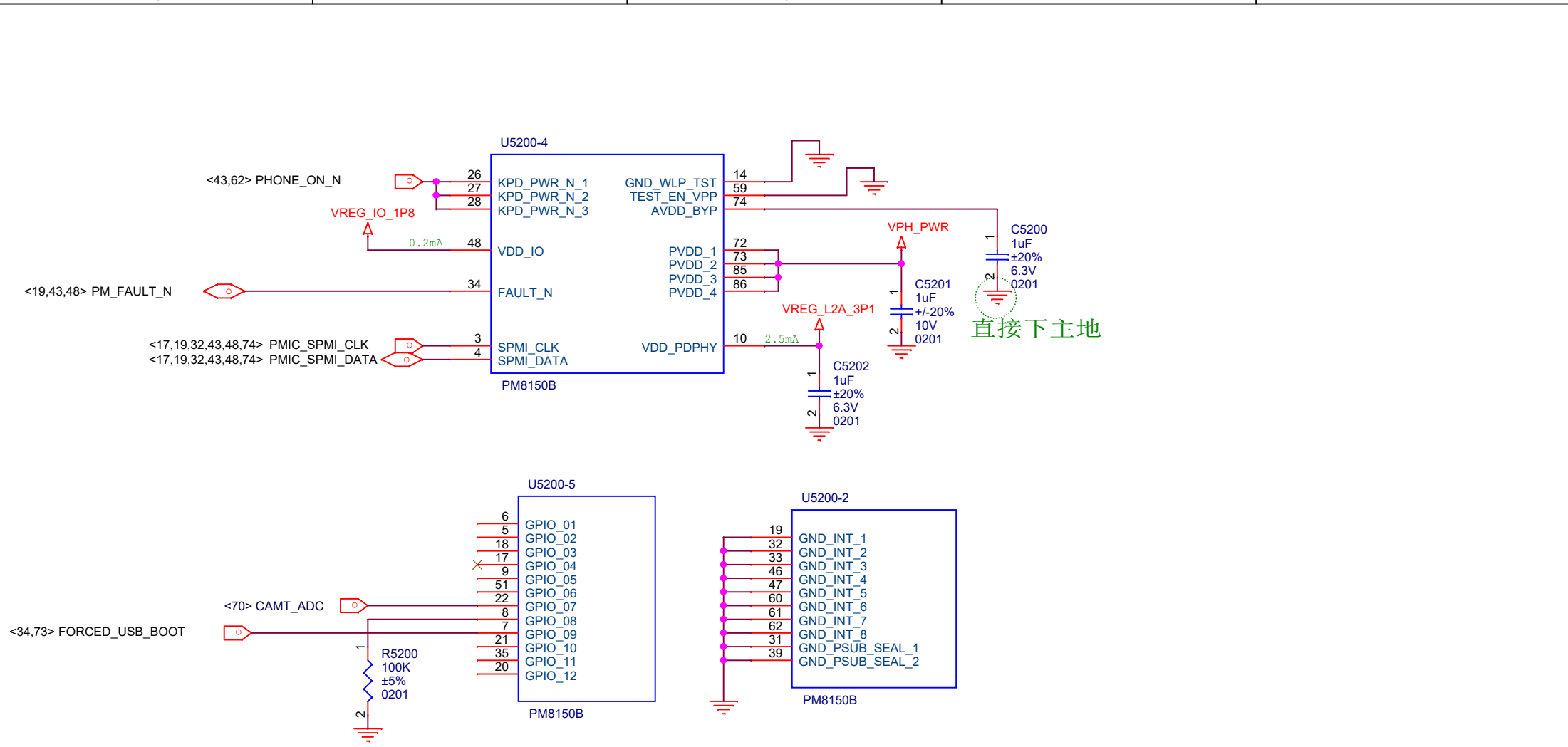
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Title		
J11 MAIN		
Size	Document Number	P0
A4	PM855A BUCK CONVERTER2	
Date:	Monday, December 23, 2019	Sheet 50 of 74

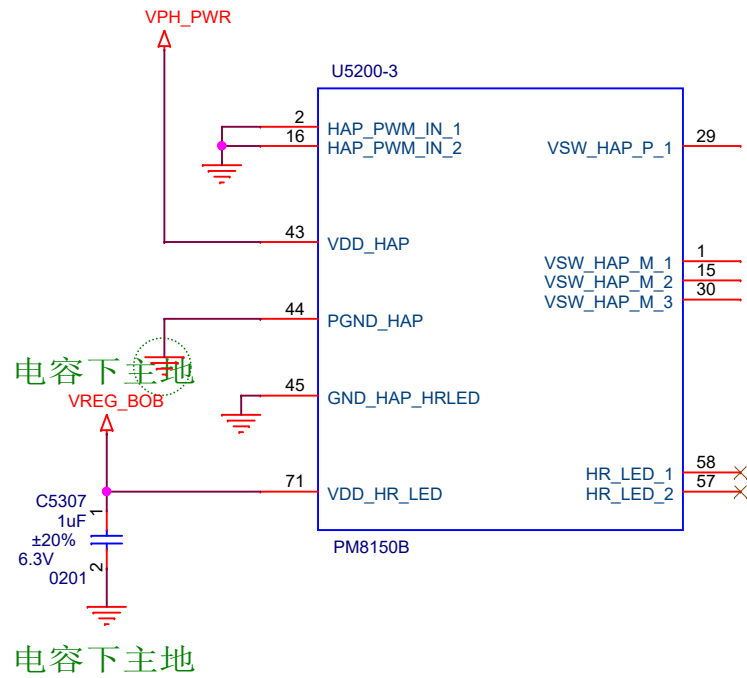


Title		J11 MAIN
Size	Document Number	PM855A AMOLED&BOB&FLASH
A3		
Date:	Monday, December 23, 2019	Sheet 51 of 74

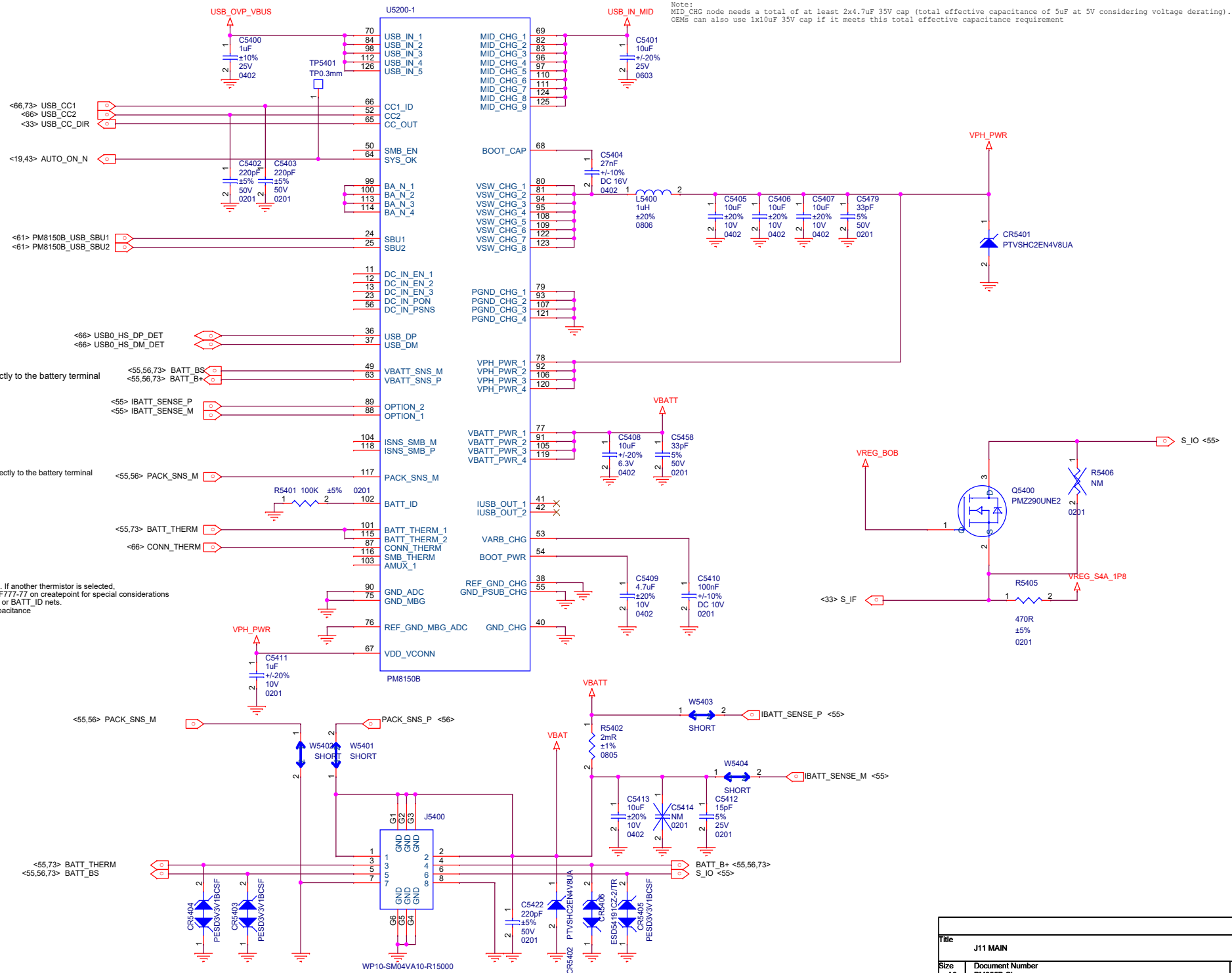


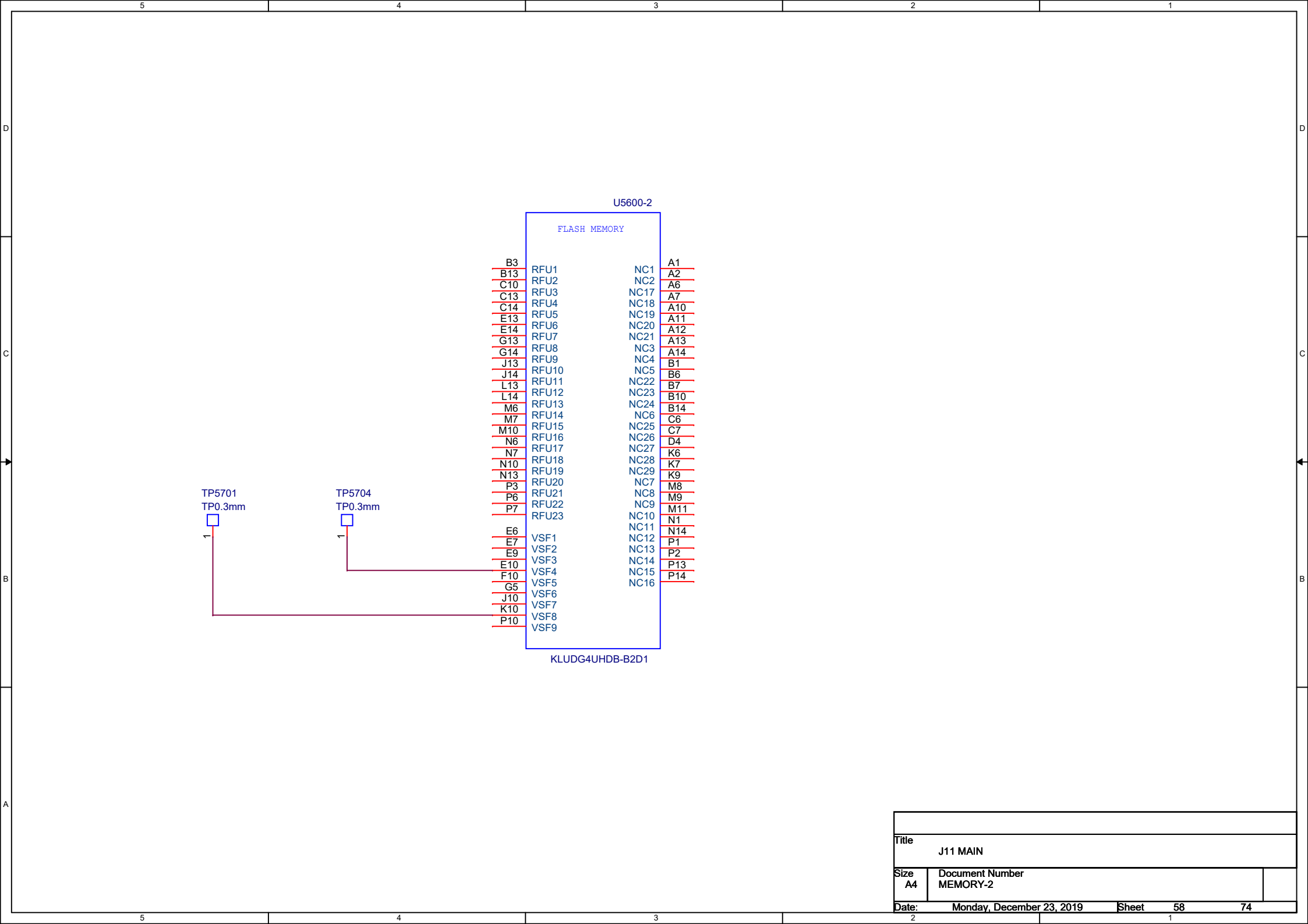


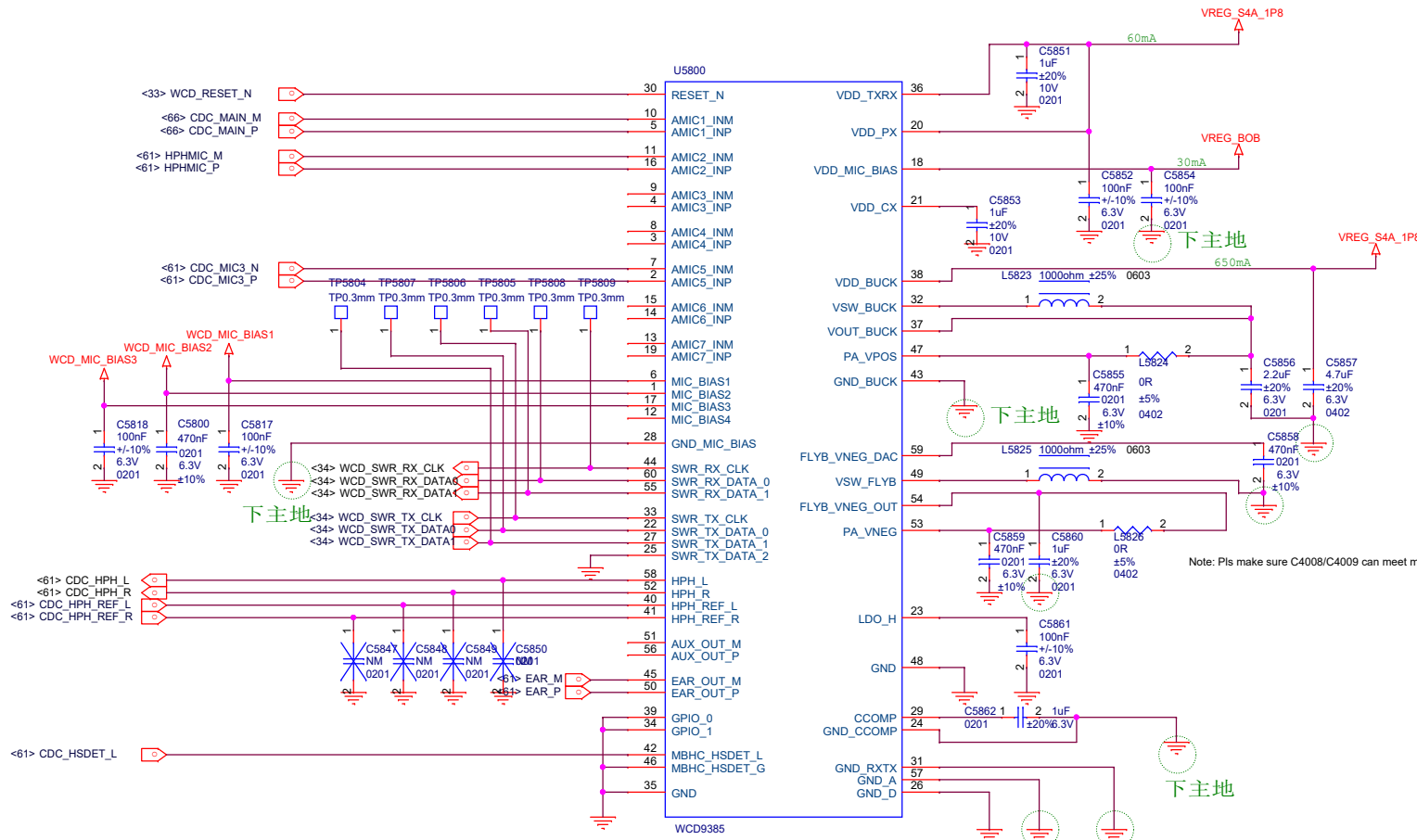
Note: GPIO_04 and GPIO_11 of PM8150B are for internal usage. Keep them float.
Keep GPIO_03 of PM8150B float. Don't use it for other purpose.
GPIO_06 of PM8150B is dedicated for SMB_STAT. Don't use it for other purpose.



Title			
J11 MAIN			
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A4	PM855B HAPTIC		
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NOTE 1: ROUTE AN ISOLATED GROUND TRACE FROM CCOMP_REF TO THE CAP GROUND, THEN VIA TO THE MAIN GROUND PLANE.
NOTE 2: PLACE VDD_BUCK CAP AS CLOSE TO CHIP EDGE AS POSSIBLE AND MINIMIZE LOOP INDUCTANCE
NOTE 3: USE SHORT AND WIDE TRACES FOR BUCK AND FLYBACK RELATED NETS
NOTE 4: ANALOG MIC INPUTS SHOULD BE ISOLATED WITH GROUND FROM NOISY OR SWITCHING SIGNALS AND SUPPLIES

Note: Pls make sure C4008/C4009 can meet minimal capacitance requirement (0.4uF)@1.8V whether your use 1uF or 2.2uF

Title	
J11 MAIN	
Size A3	Document Number WCD9340-1
Date:	Monday, December 23, 2019
Sheet	

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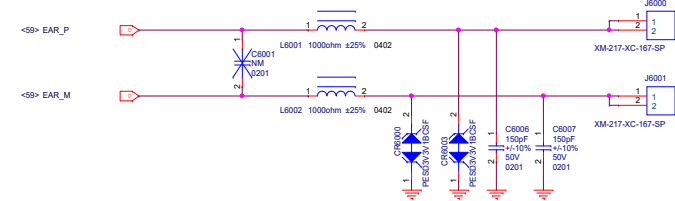
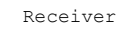
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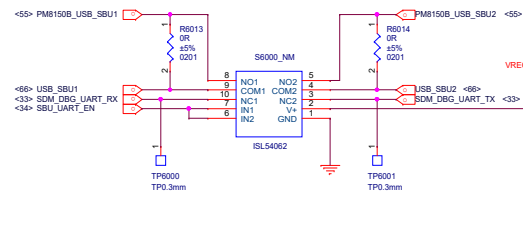
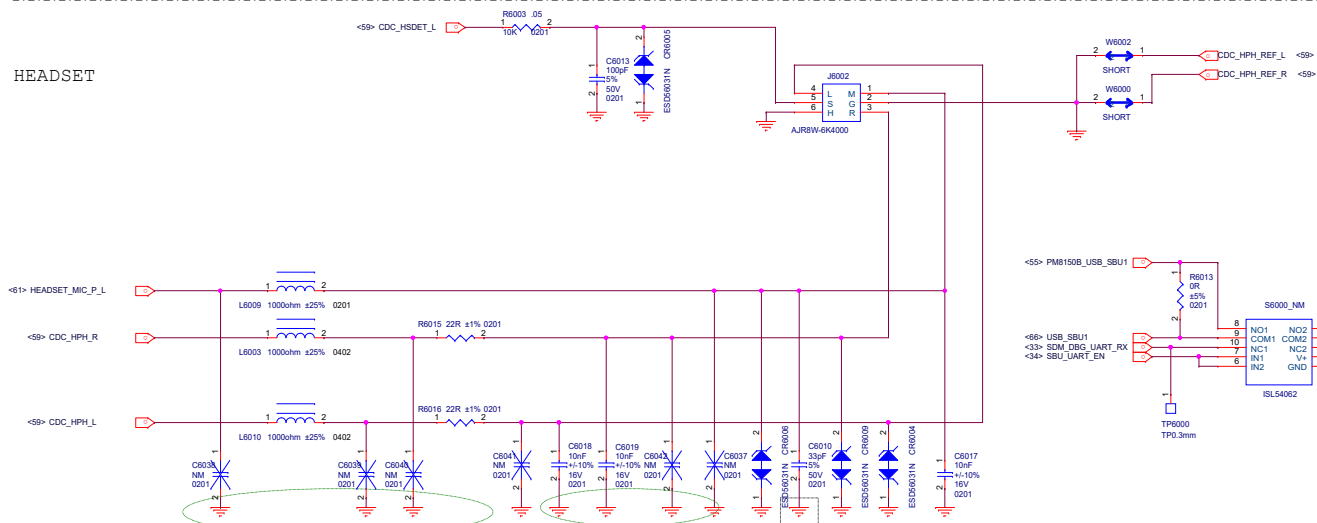
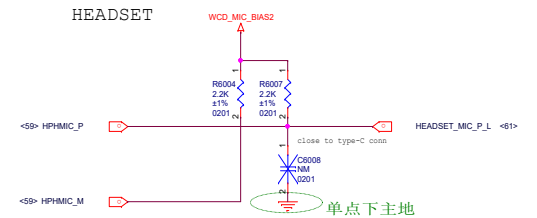
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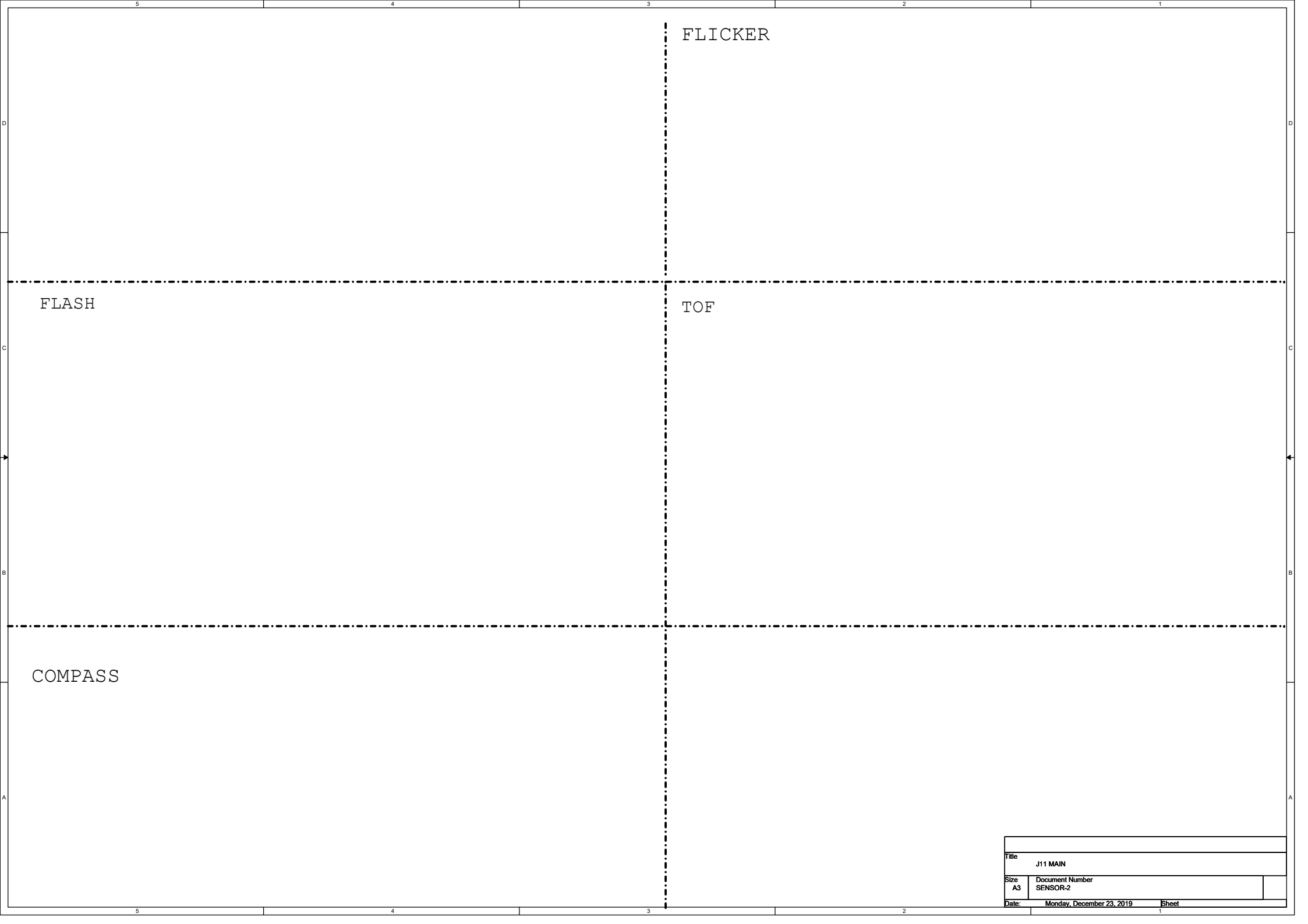
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Title J11 MAIN			
Size A4	Document Number WCD9340-2		
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HEADSET





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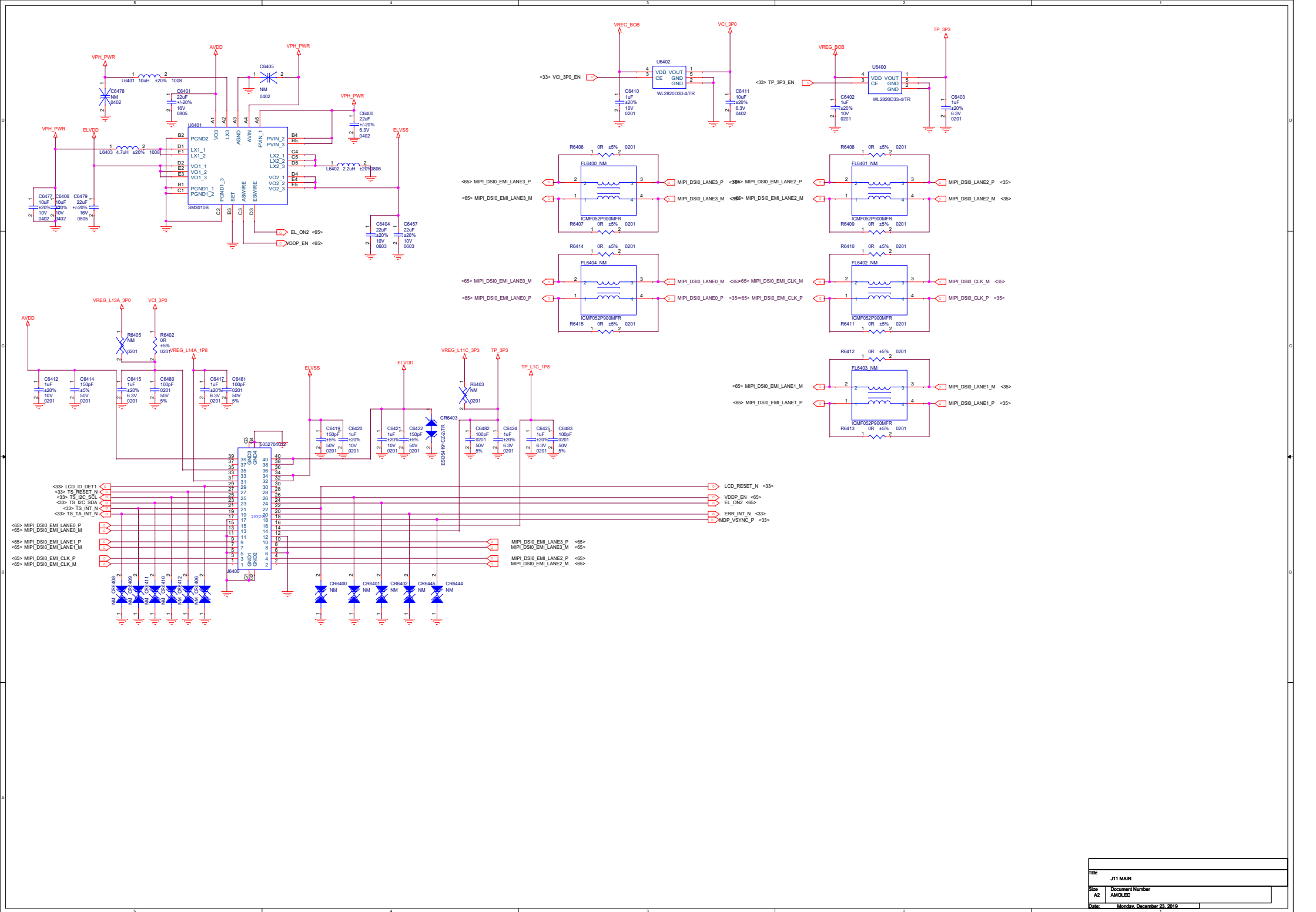
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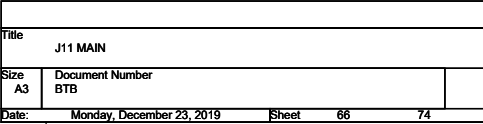
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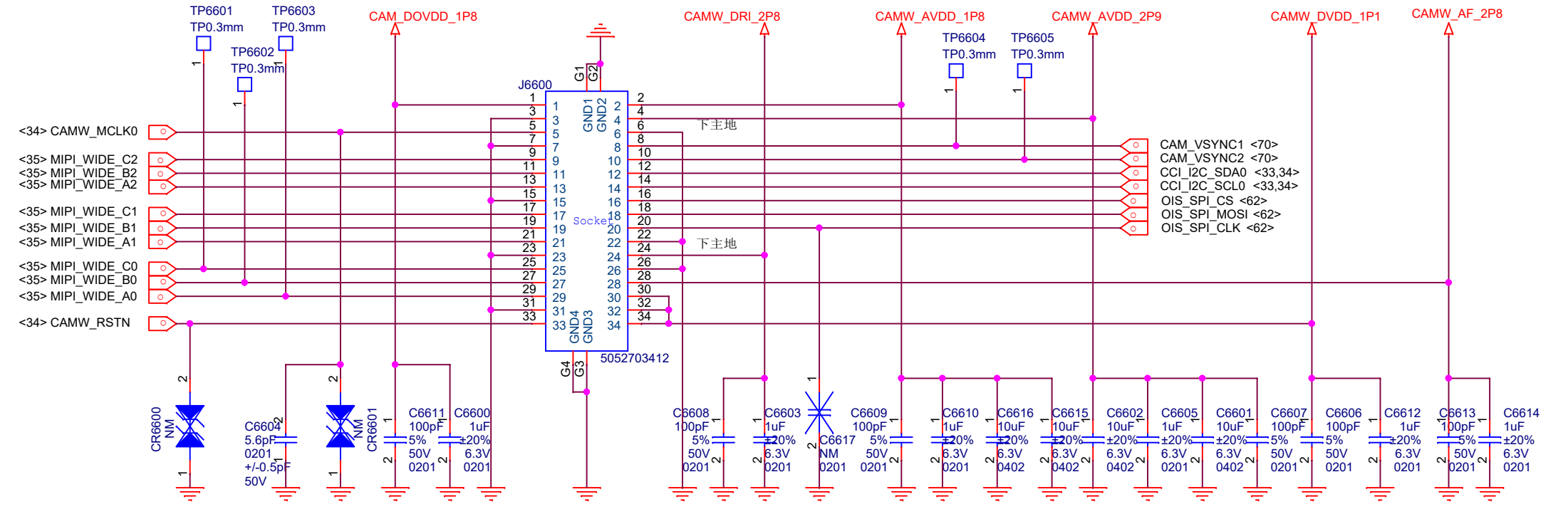
Title J11 MAIN			
Size A4	Document Number SIM		
Date:	Monday, December 23, 2019	Sheet	64 of 74



File	J11 MAIN
Size	A2
Document Number	AMOLEED
Date	Monday, December 23, 2019

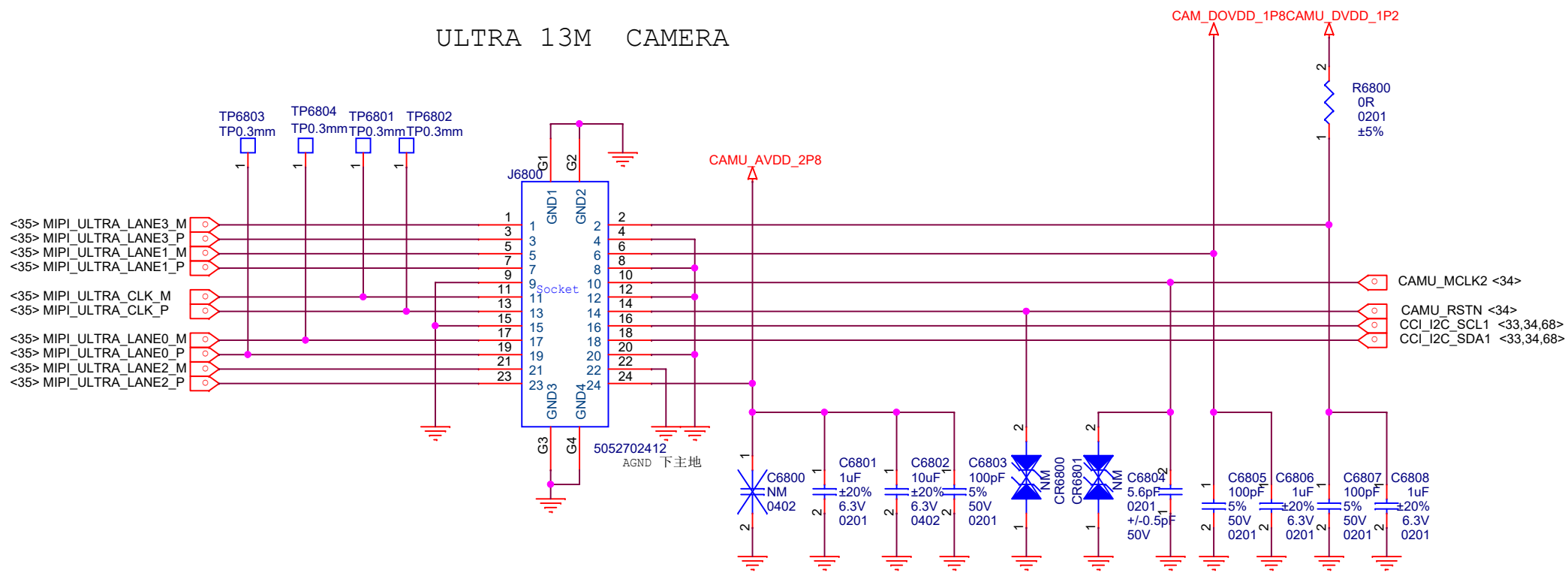


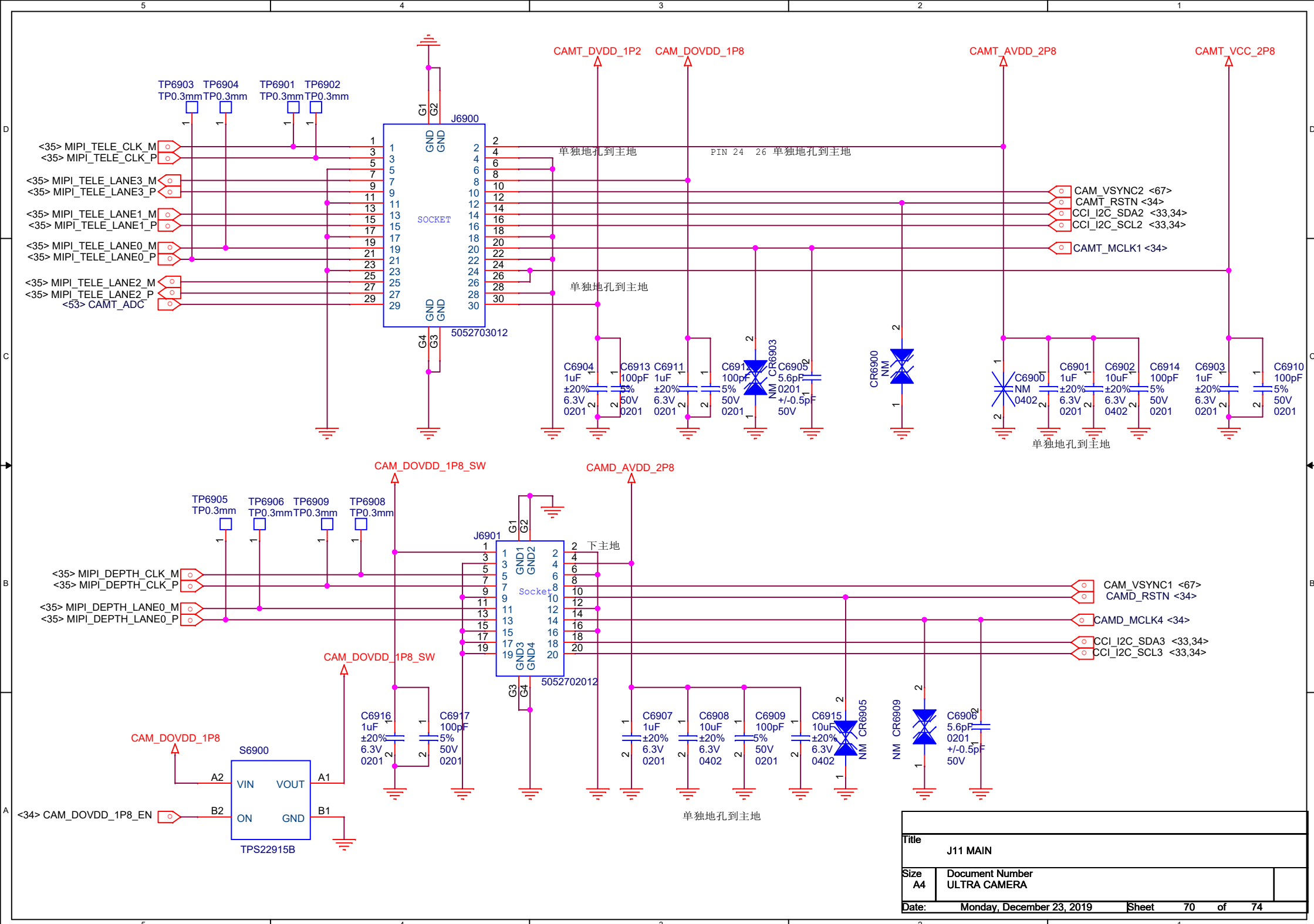
WIDE 64M



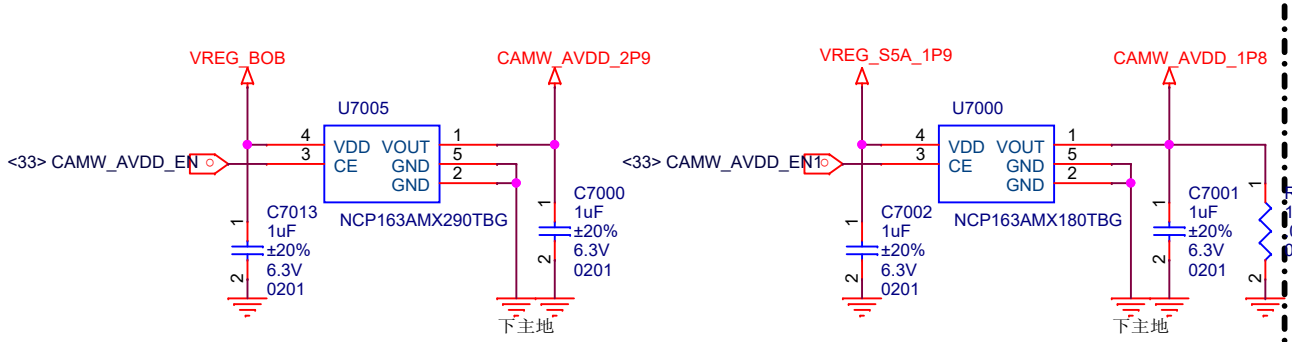
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J11 MAIN		
Size	Document Number	
A4	WIDE&TELE CAMERA	
Date:	Monday, December 23, 2019	Sheet 67 74

ULTRA 13M CAMERA

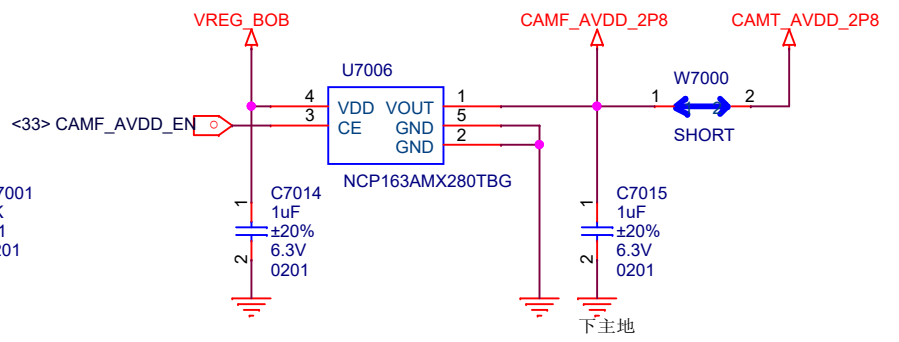




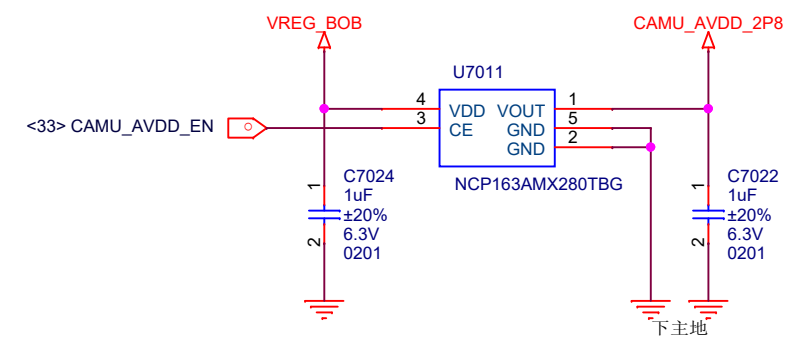
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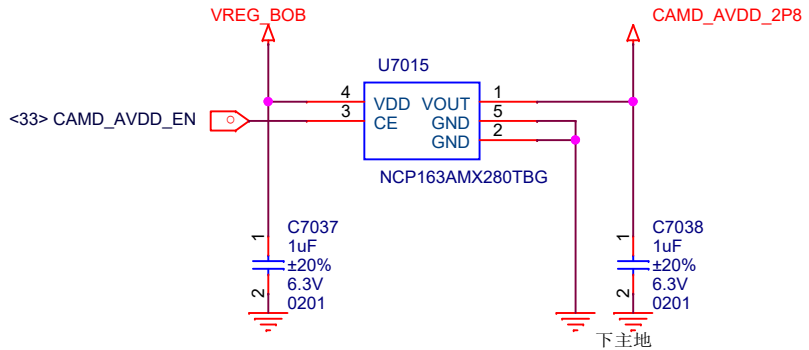
FRONT



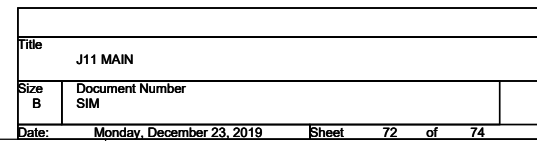
ULTRA

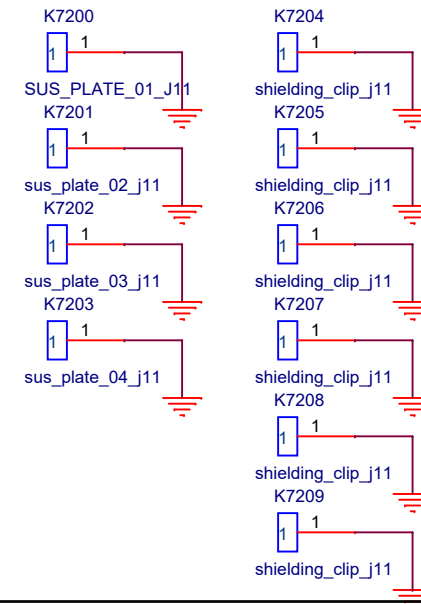
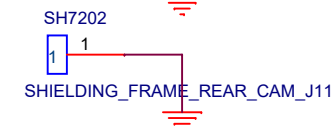
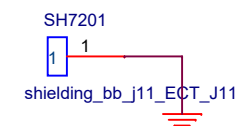
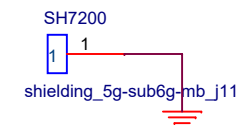
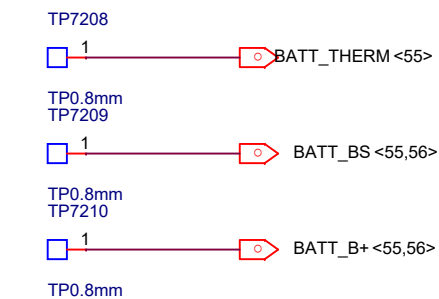
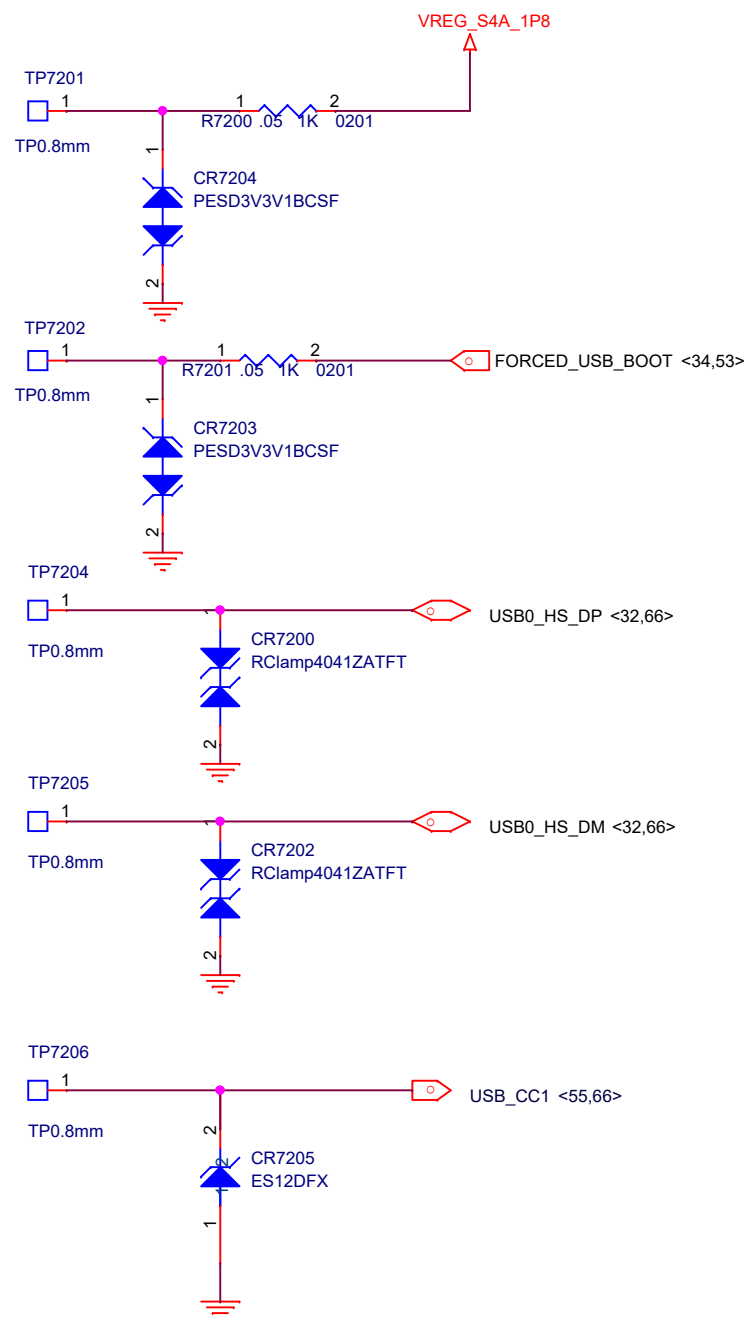
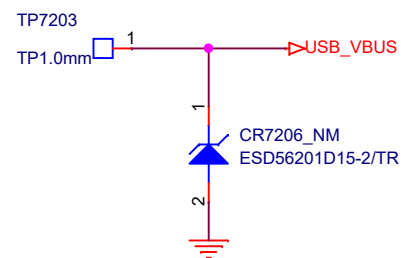
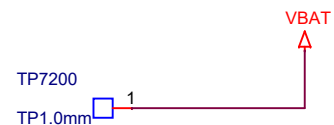


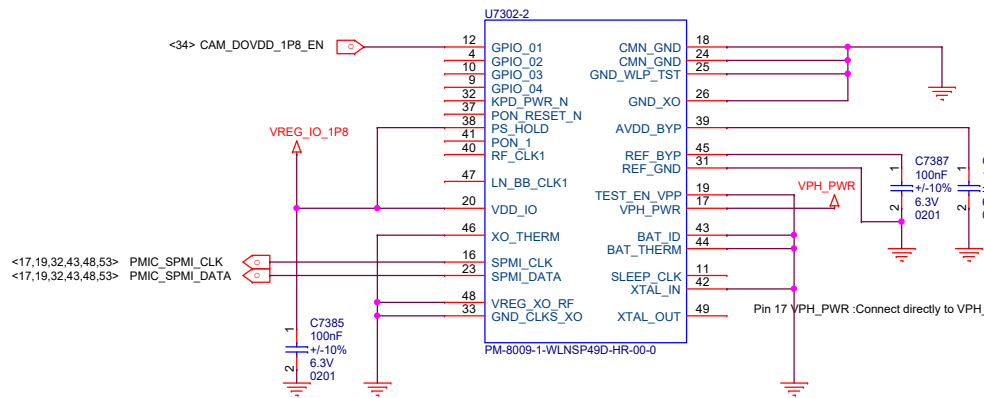
DEPTH



Title		
J11 MAIN		
Size	Document Number	P0
A4	CAMERA LDOs	
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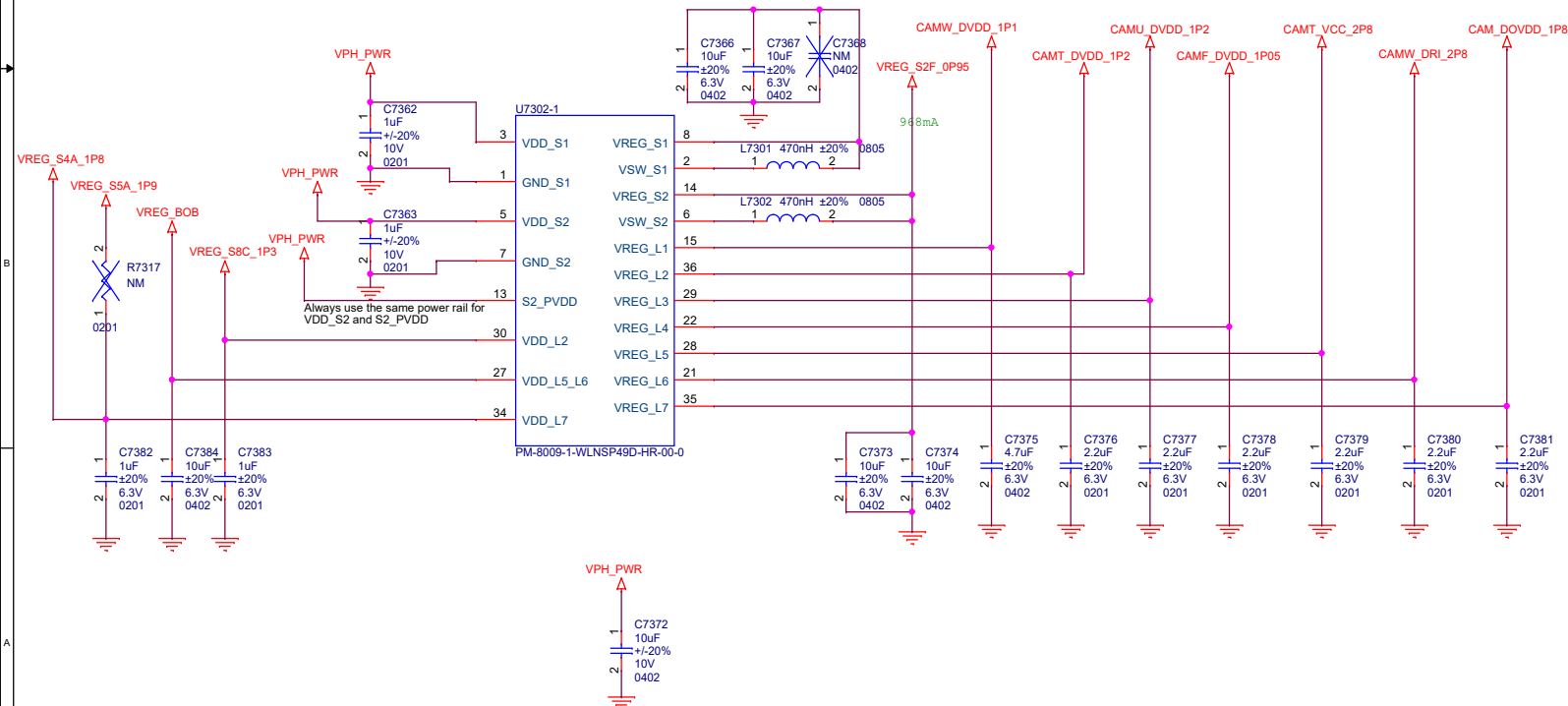
PM8009 AVDD_BYP should be routed away from noisy traces

Trace from pin to cap and ONE dedicated via from cap to main ground plane.
DCR < 200mOhm and ESL < 10nH
VPH Do NOT connect to any other ground.

Dedicated trace from REF_BYP to cap.
Dedicated trace from REF_GND to cap.
Dedicated via to main ground plane right under PMIC pin (REF_GND) or as close to the pin as possible.
Do NOT add via at cap.

REF_BYP and REF_GND should be routed away from noisy traces

S1F will supply L1F, L4F, L3F INTERNALLY
Make sure VREG_S1 is routed with thick track as it carries VIN for L1F L3F L4F



Title	
F1 MAIN	
Size A3	Document Number CAMERA LDOs
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