

AMC_Connector



TITLE

AMC_FMC_Carrier_Board

SIZE

A3

DWG NO

REV

1.0

3

DRAWN BY

G.Kasprowicz

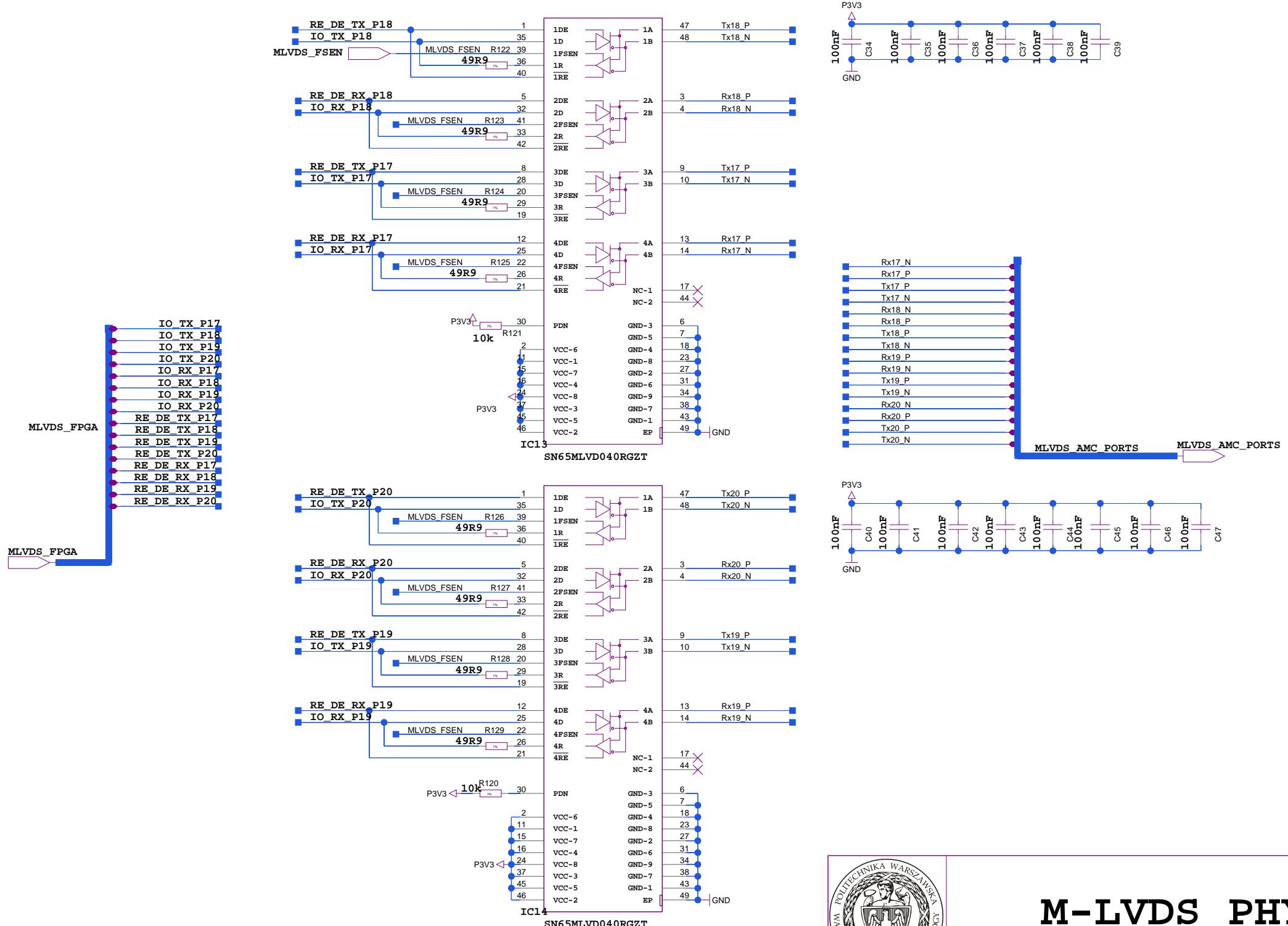
SHEET

2

of

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38



TITLE

SIZE DWG NO

A3

11

1.0

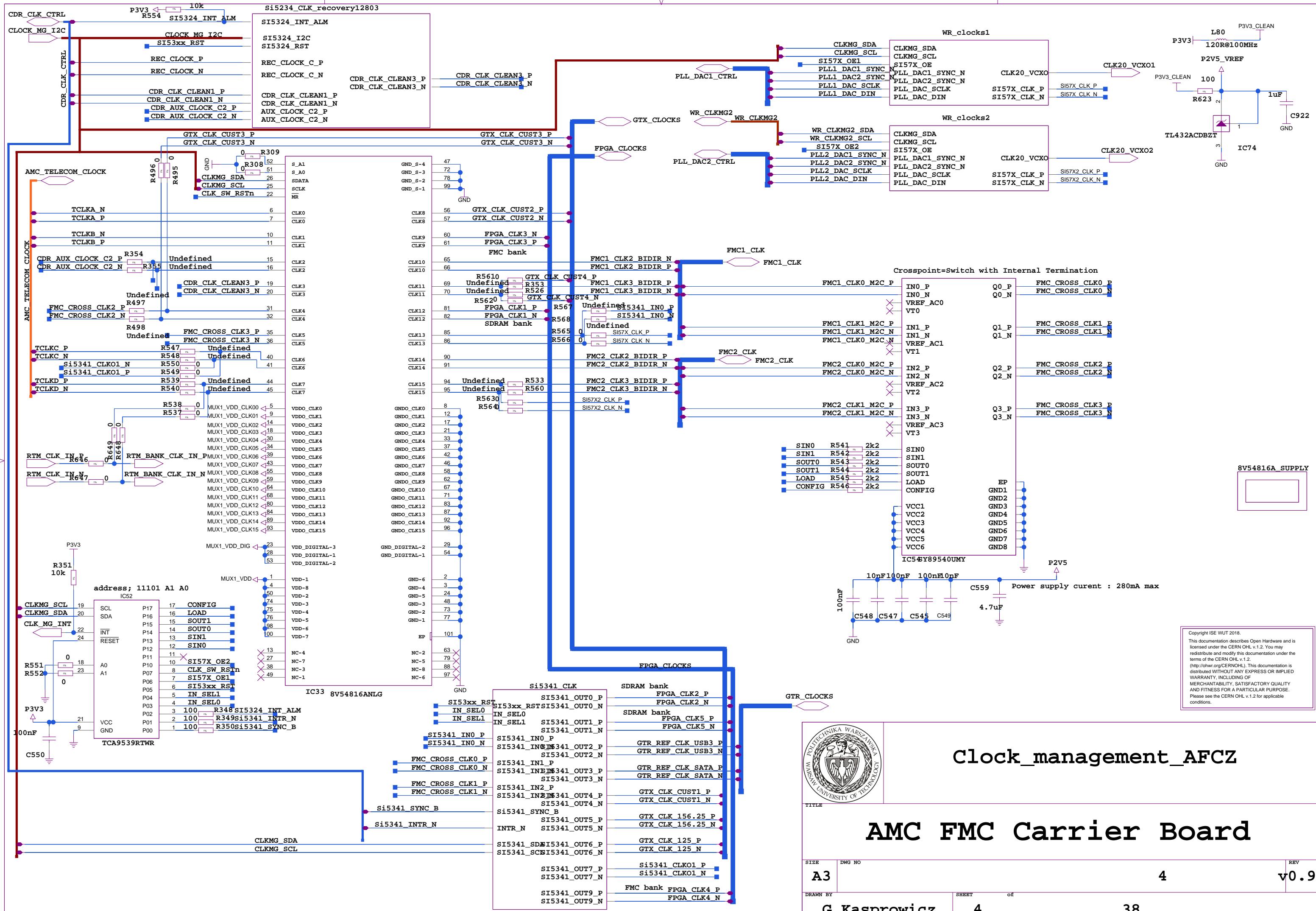
DRAWN BY

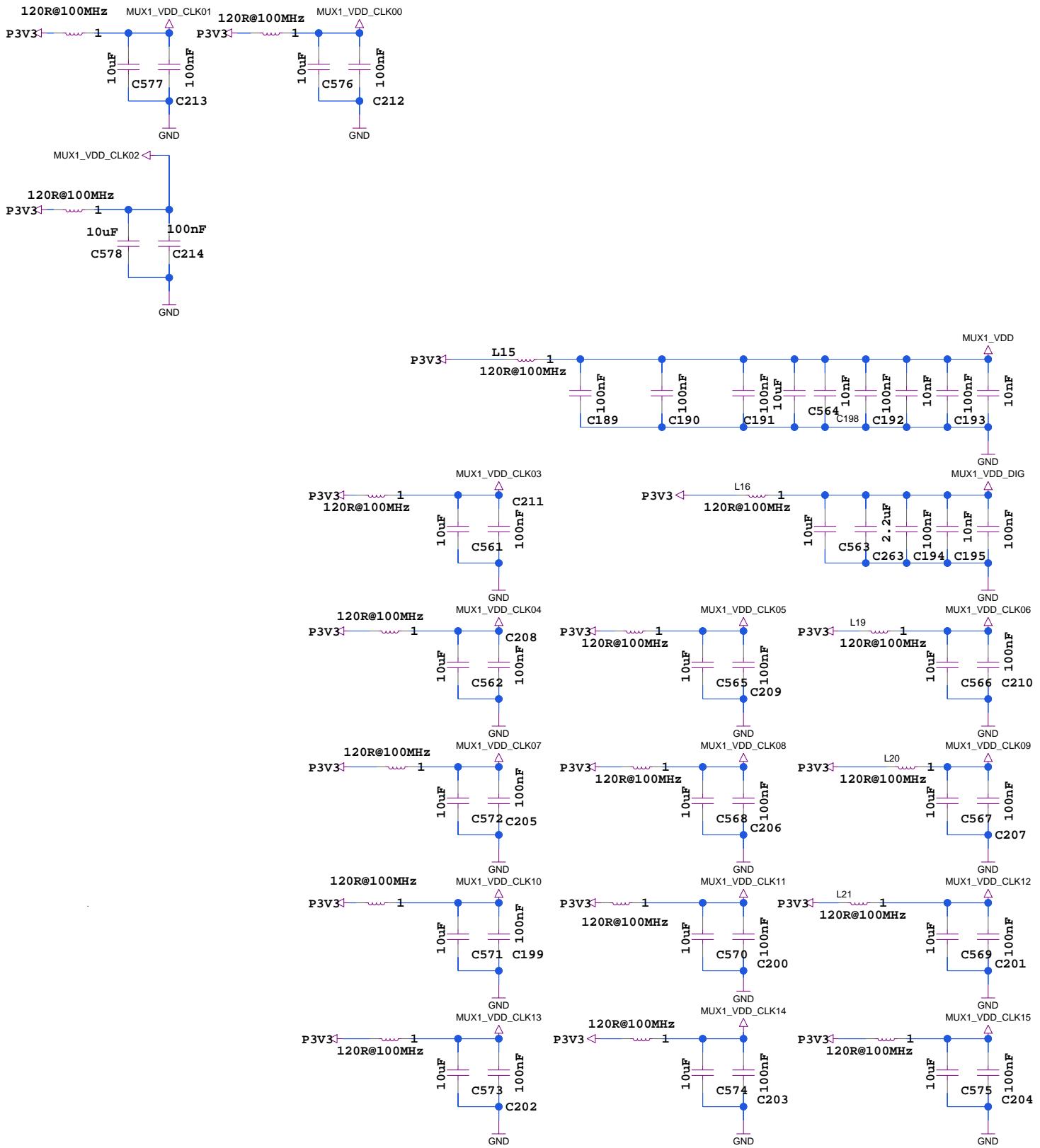
G.Kasprowicz

SHEET OF

3

38

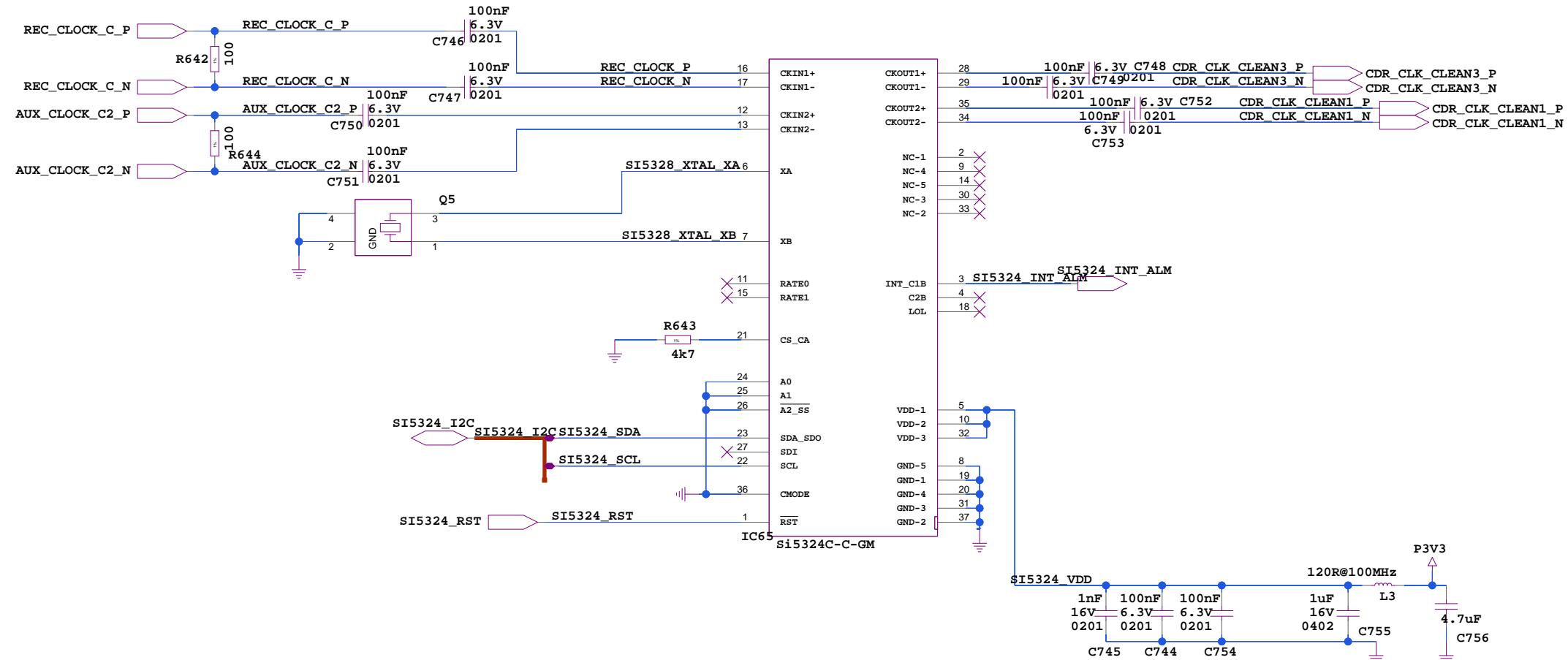




8V54816A_SUPPLY

AMC FMC Carrier Board

SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET	of
G.Kasprowicz	5	38

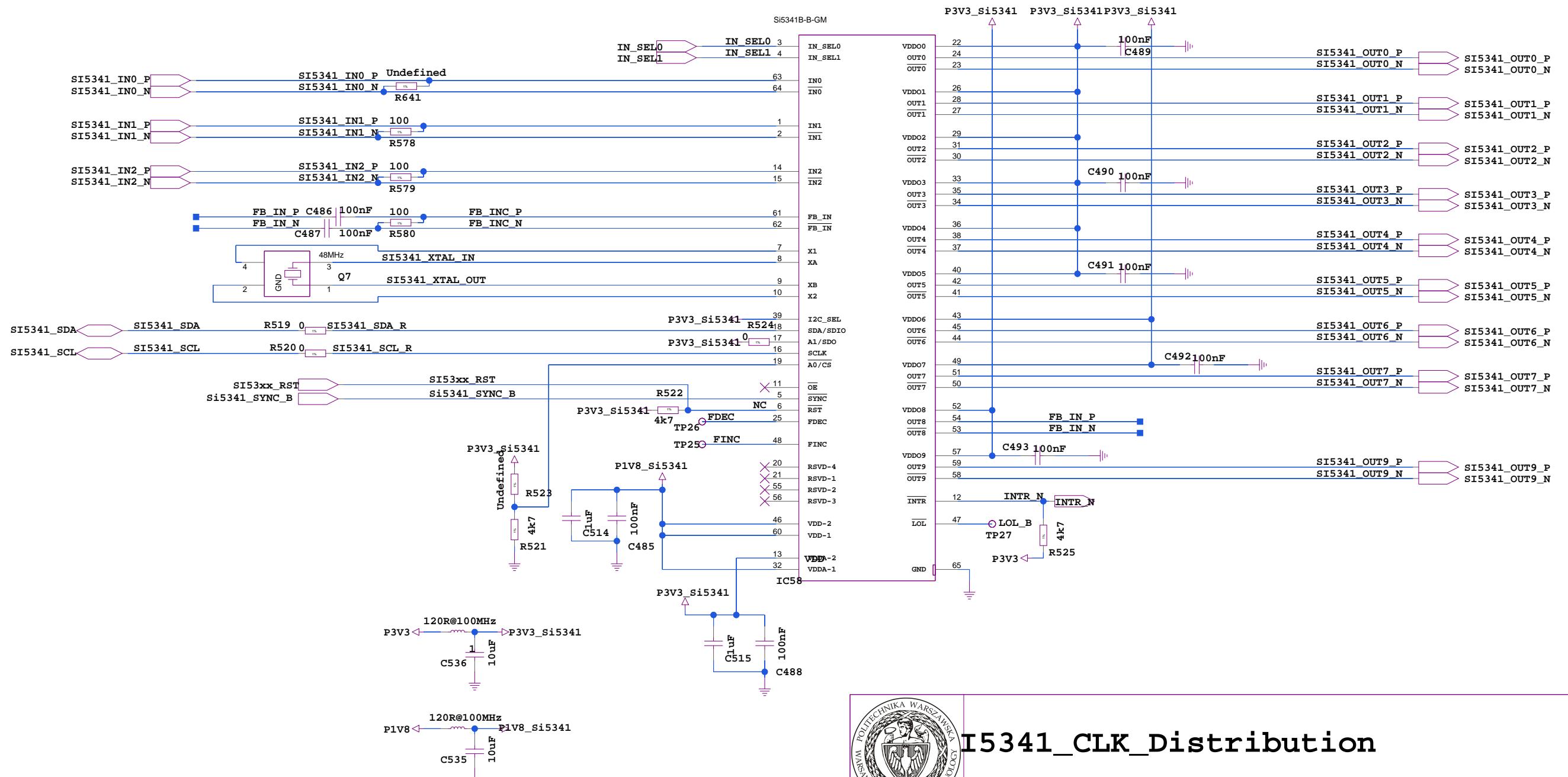


SI5324_CLK_RECOVERY

AMC FMC Carrier Board

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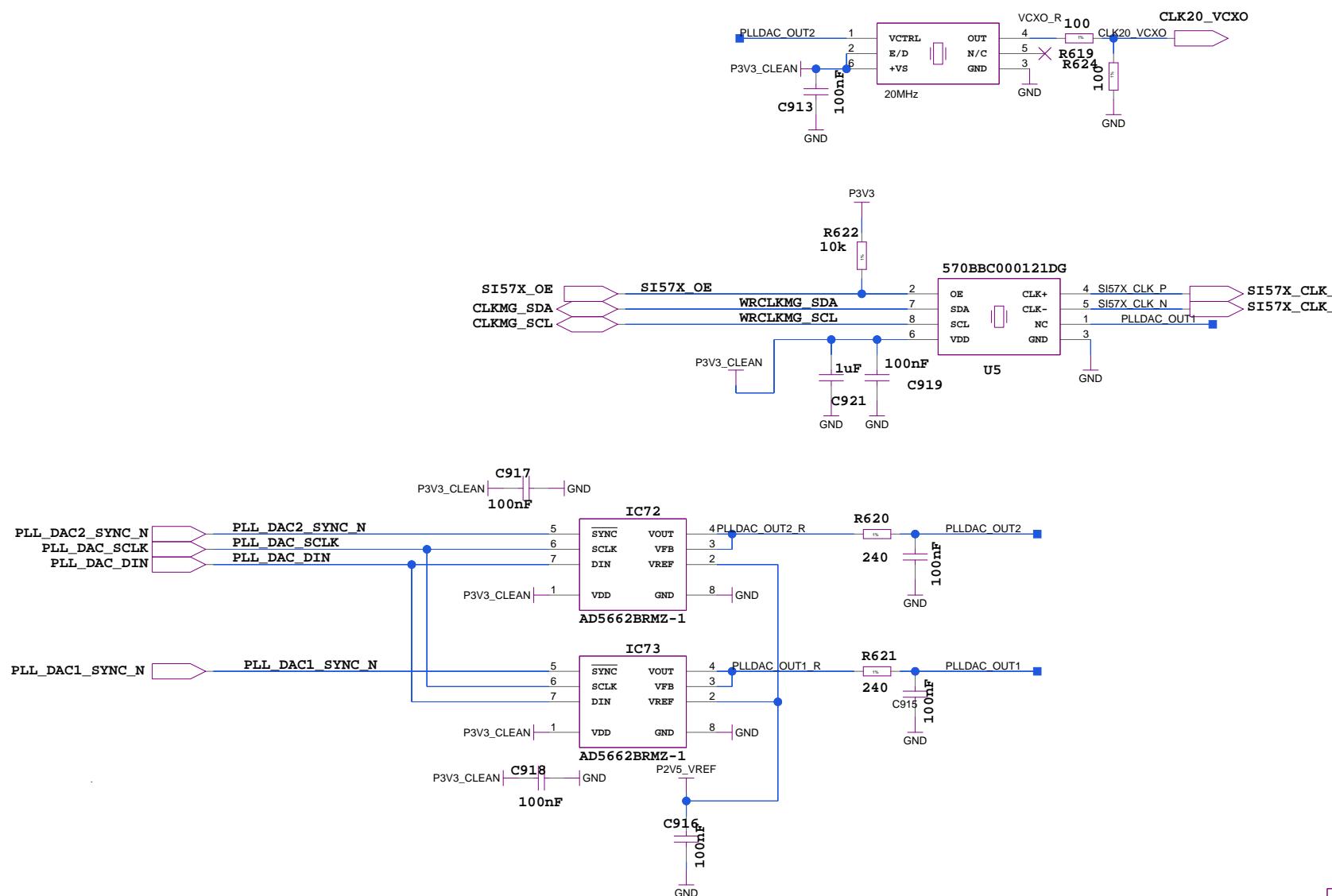
SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	6	39



I5341_CLK_Distribution

AMC FMC Carrier Board

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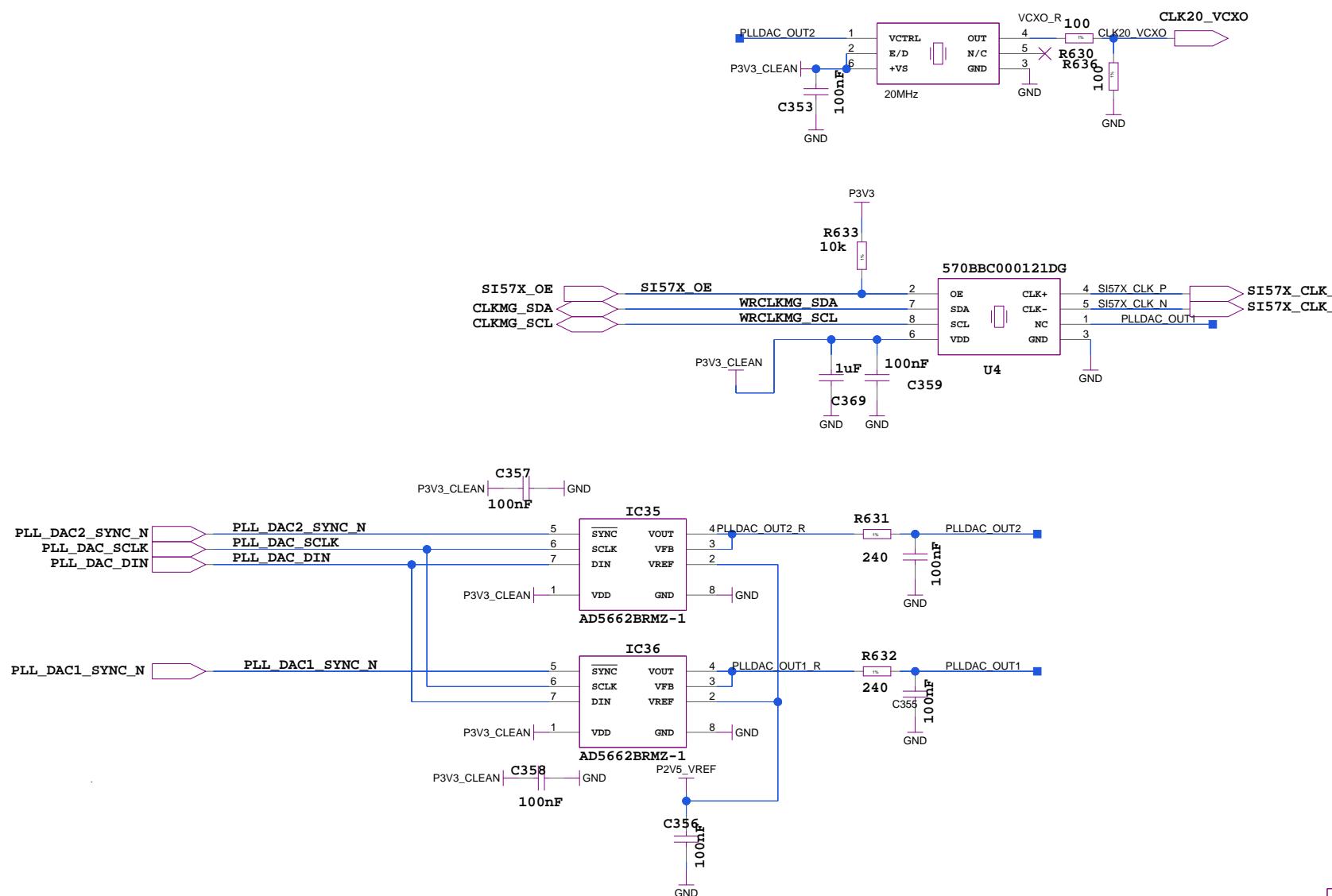
WR_clocks



AMC FMC Carrier Board

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SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	8	38

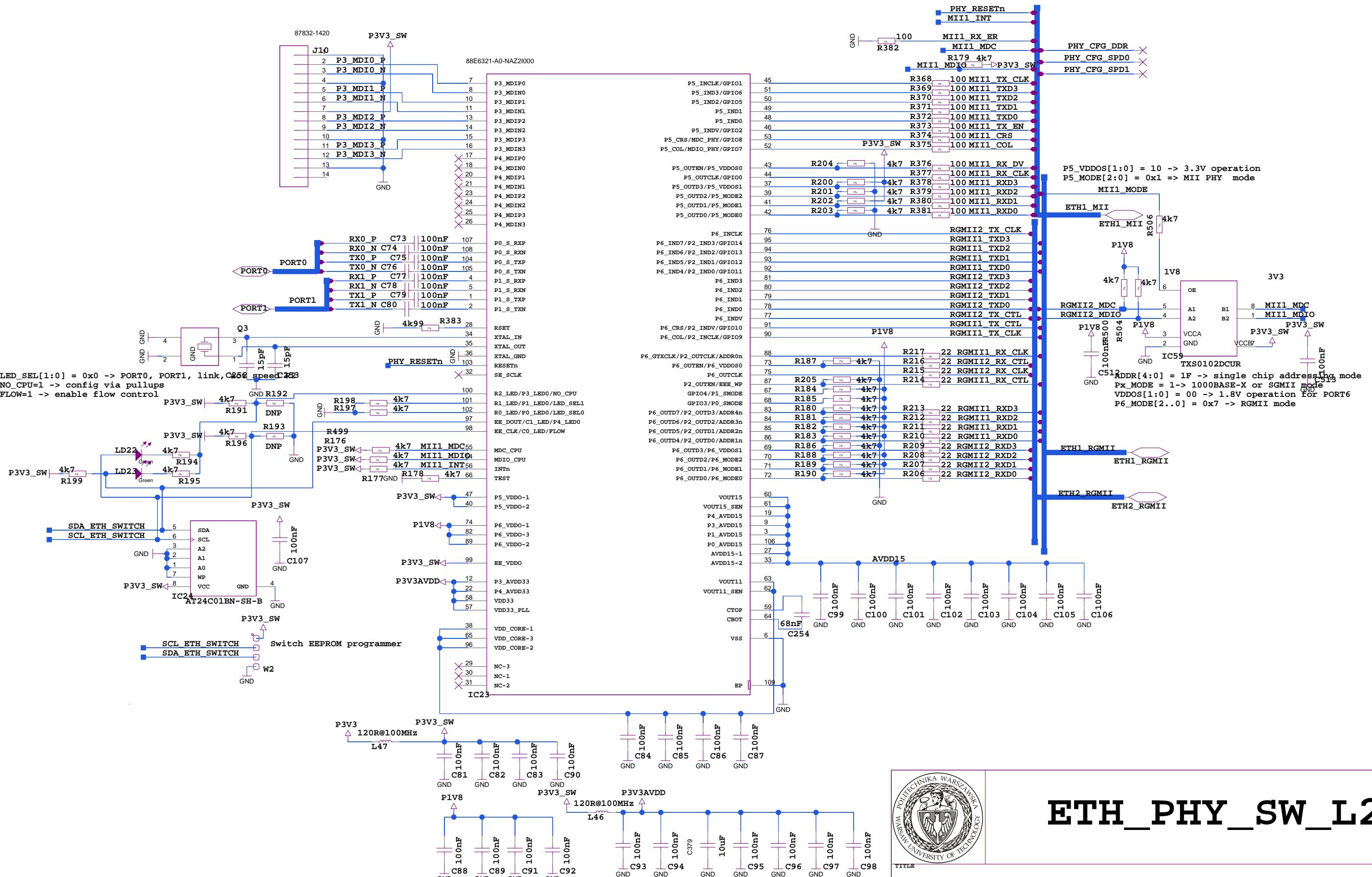


WR_clocks



AMC FMC Carrier Board

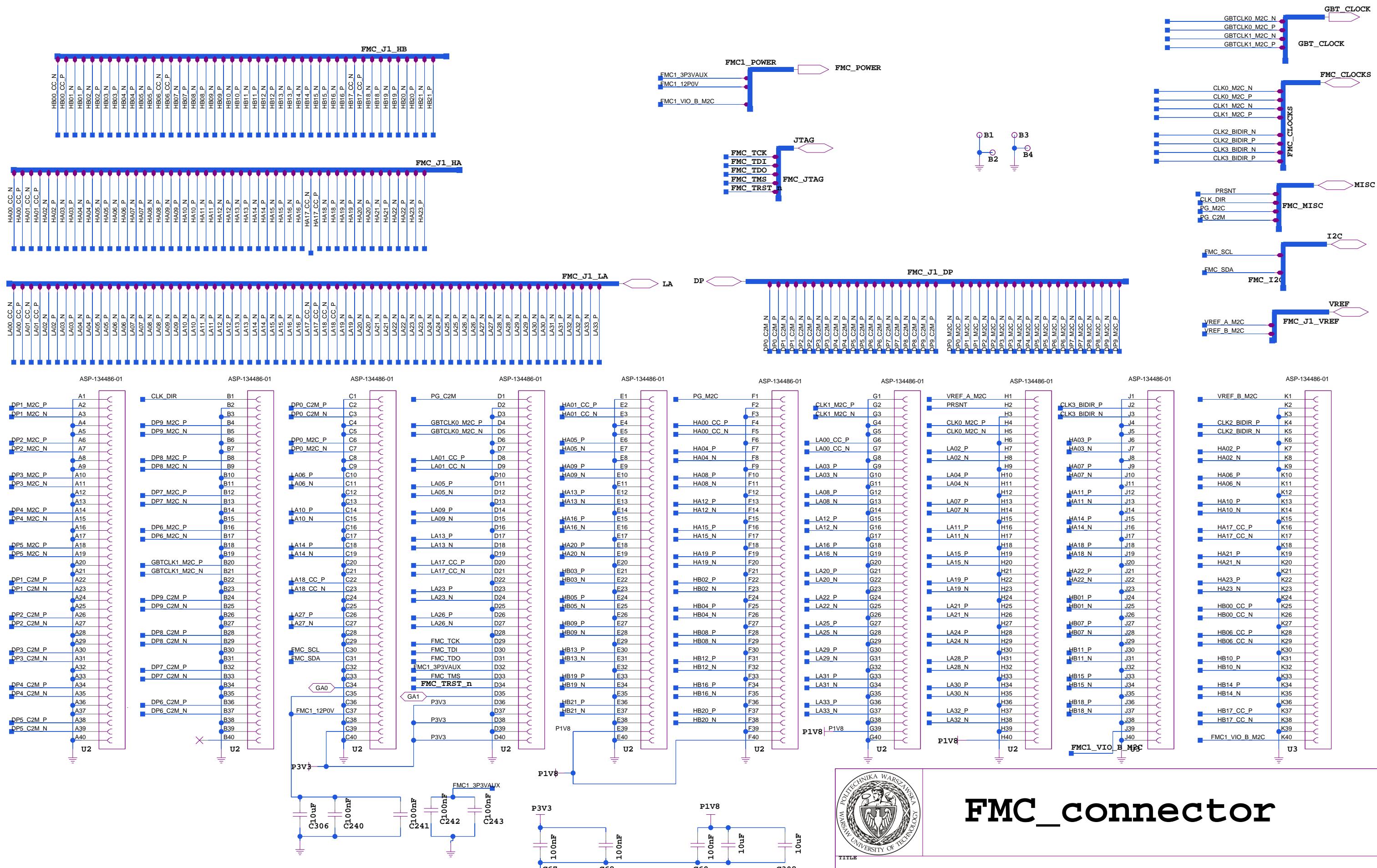
SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	9	38



ETH PHY SW L2L3

AMC FMC Carrier Board

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SIZE DWG NO

A3

DRAWN BY

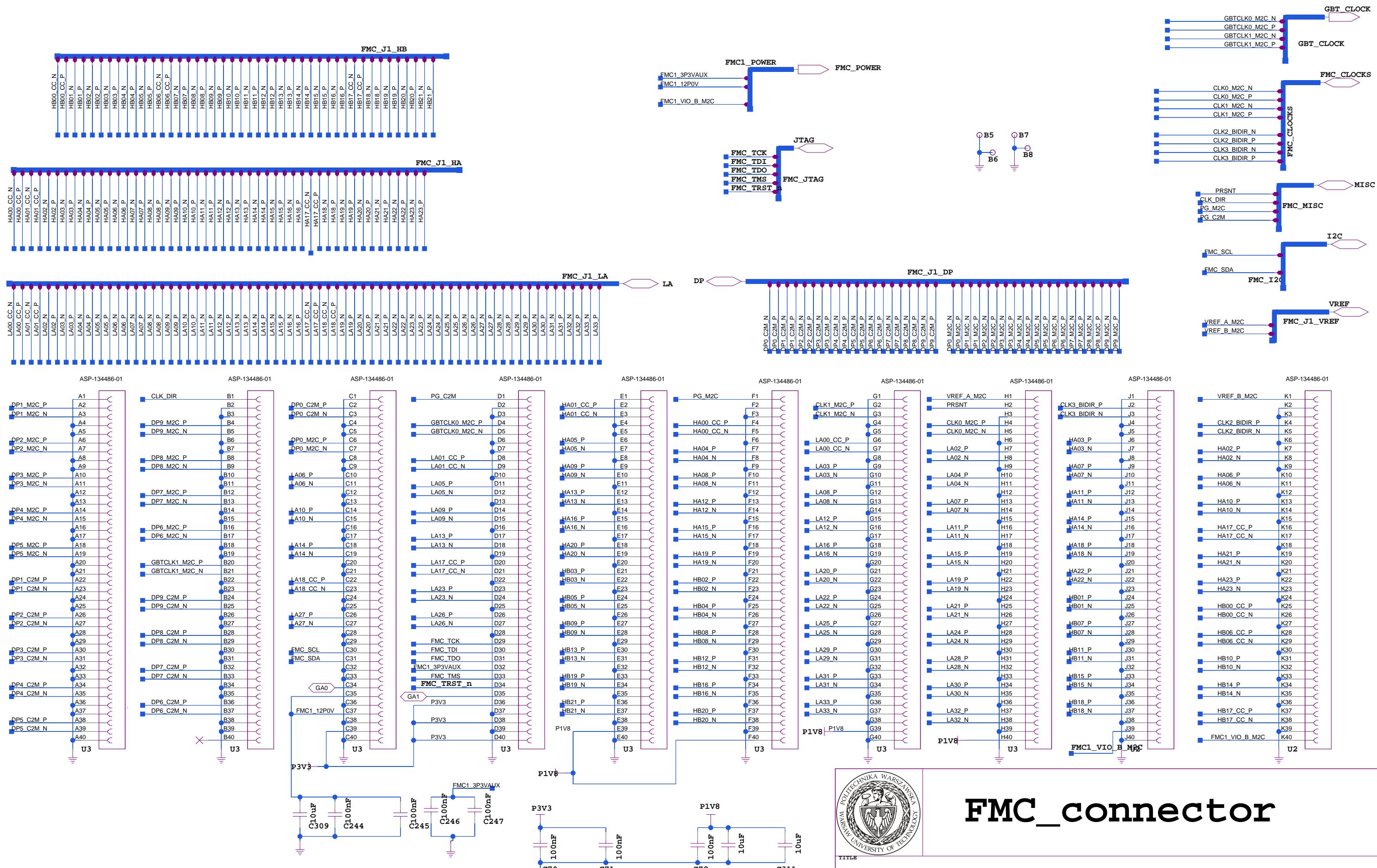
G.Kasprowicz

SHEET

of

8

REV
1.0



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TITLE

AMC FMC Carrier Board

A3

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G.Kasprowicz

12

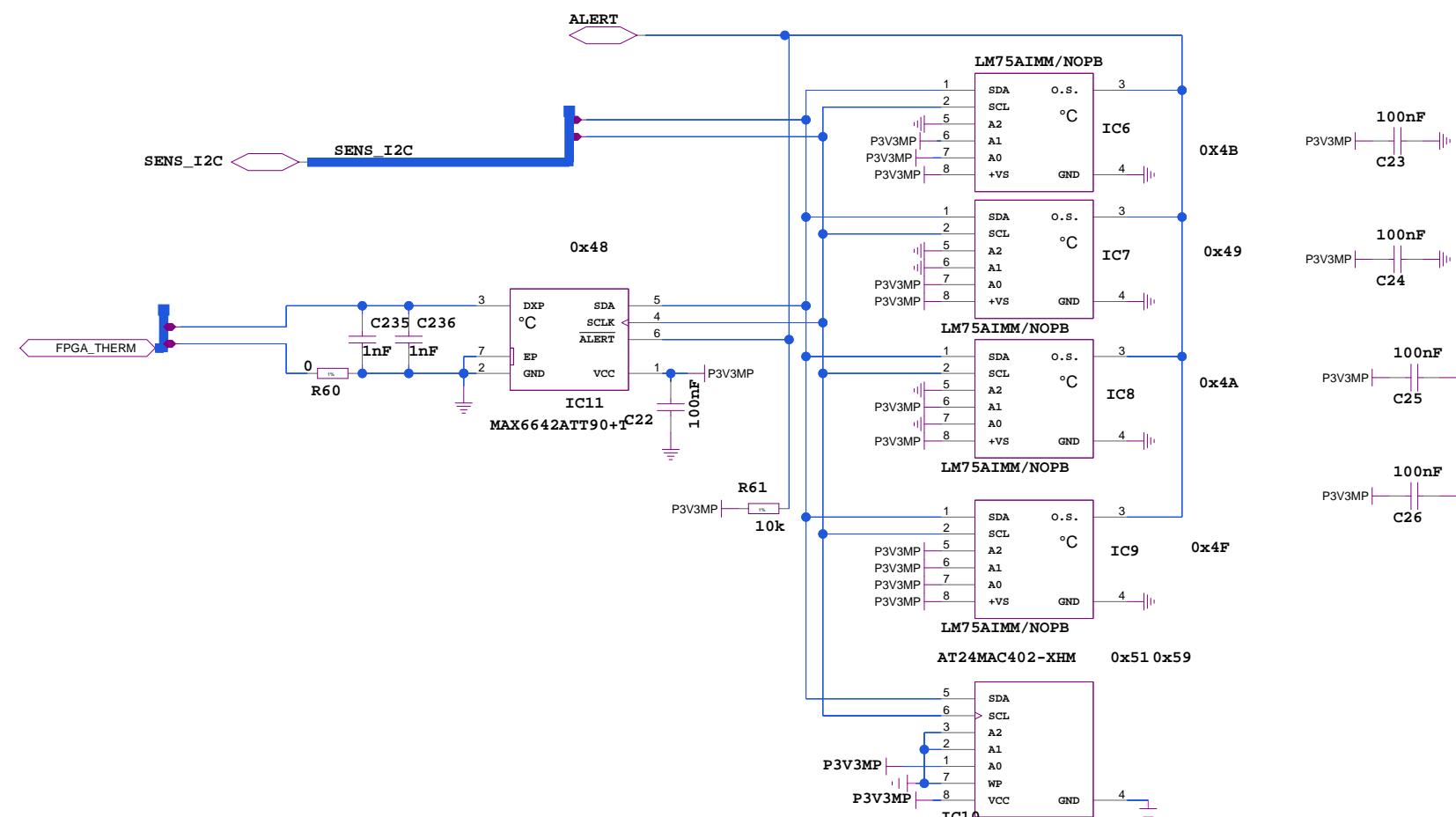
SHEET

of

8

REV

1.0



Thermometers

AMC FMC Carrier Board

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SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	13	22

I2C address map

```

mux address 1110 A2 A1 0 from FPGA side 0x7x
mux address 1110 A2 A1 1 from CPU side 0x7x

MUX0:
EEPROM 24AA02T-I/MC 0 0 0, 1010 blksel -> 0x50...0x57
MCP98011-CM2/MS 0 0 0, 1001000 -> 0x48
MUX TCA9548ARGER 1 1 0 -> 0x76
4x TP2825, SAD = 0, 1000100 -> 0x44

MUX1:
EEPROM 24AA02T-I/MC 0 0 0, 1010 blksel -> 0x50...0x57
MCP98011-CM2/MS 0 0 0, 1001000 -> 0x48
MUX TCA9548ARGER 1 1 0 -> 0x76
4x ADV7611BSWZ-P, SAD = 0 -> 0x98

MUX2:
clocking and WR-CLK1
570BBC000121DG 0x55
SI5324: 1101000 0x68
8V54816ANLG: 1011000 0x58
TCA9539RTWR1 11101 00: 0x74
SI5341 11101 1 0 : 0x76

MUX3:
WR-CLK2
570BBC000121DG 0x55

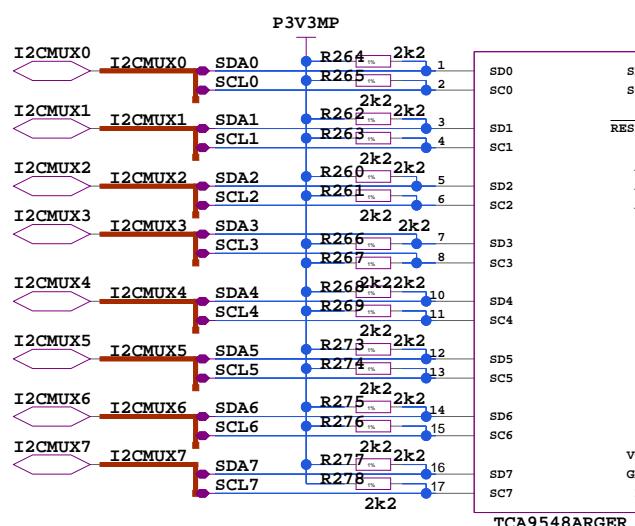
MUX4:
XR77129ELB 0x28

MUX5:
power management
INA219 00 1000000 0x40
INA219 01 1000001 0x41
XR77129ELB 0x28

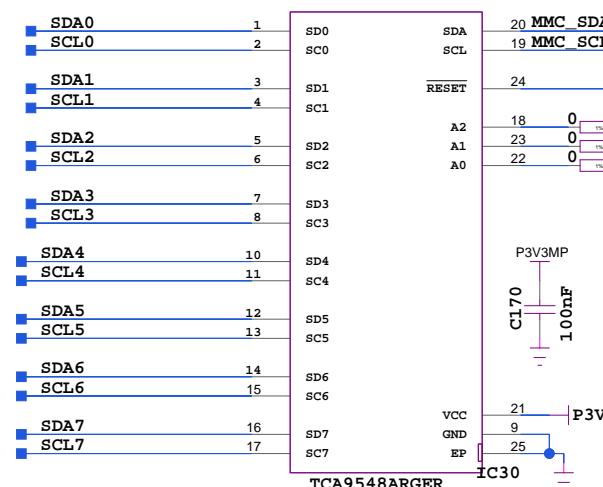
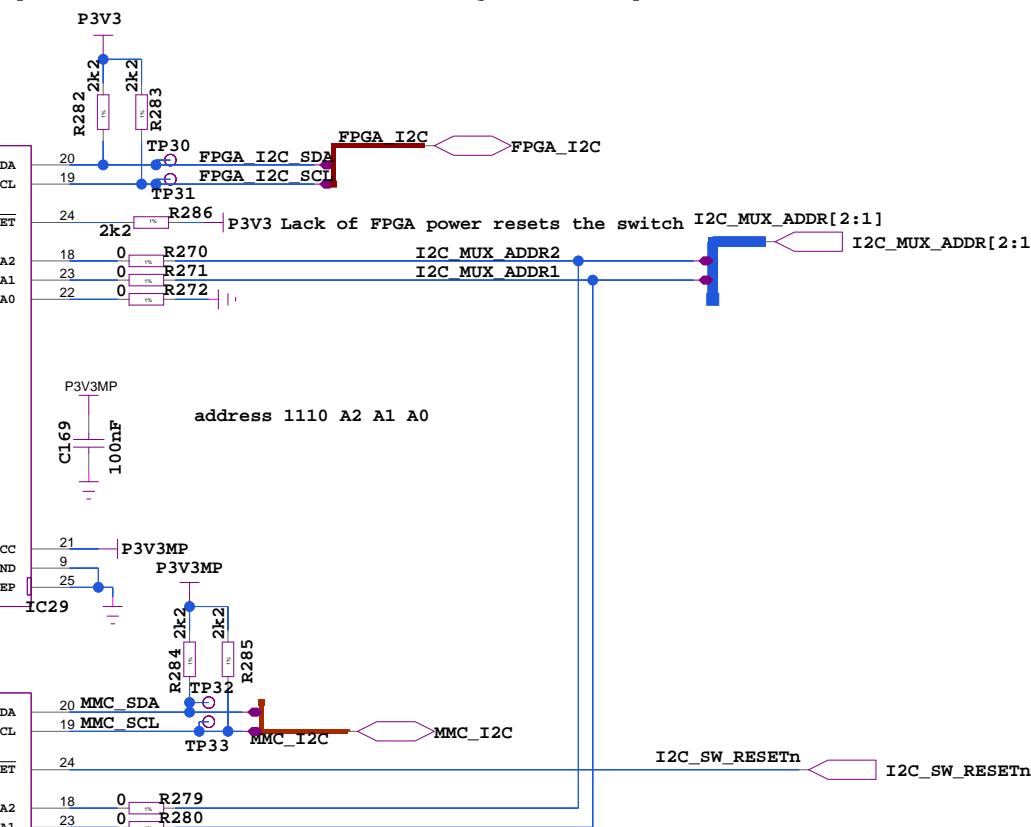
MUX6:
sensors
MAX642ATT90+T 0x48
LM75 - IC7: 0x4B
LM75 - IC7: 0x49
LM75 - IC8: 0x4A
LM75 - IC9: 0x4F
AT24MAC402-XHM: 0x51 & 0x59

MUX7:
RTM area
MAX642 0x4C
LM75: 0x4B
LM75: 0x4A
PCF8574A: 0x3E
EEPROM: 0x51
EUI-ID: 0x59
TCA9548 : 0x76

```

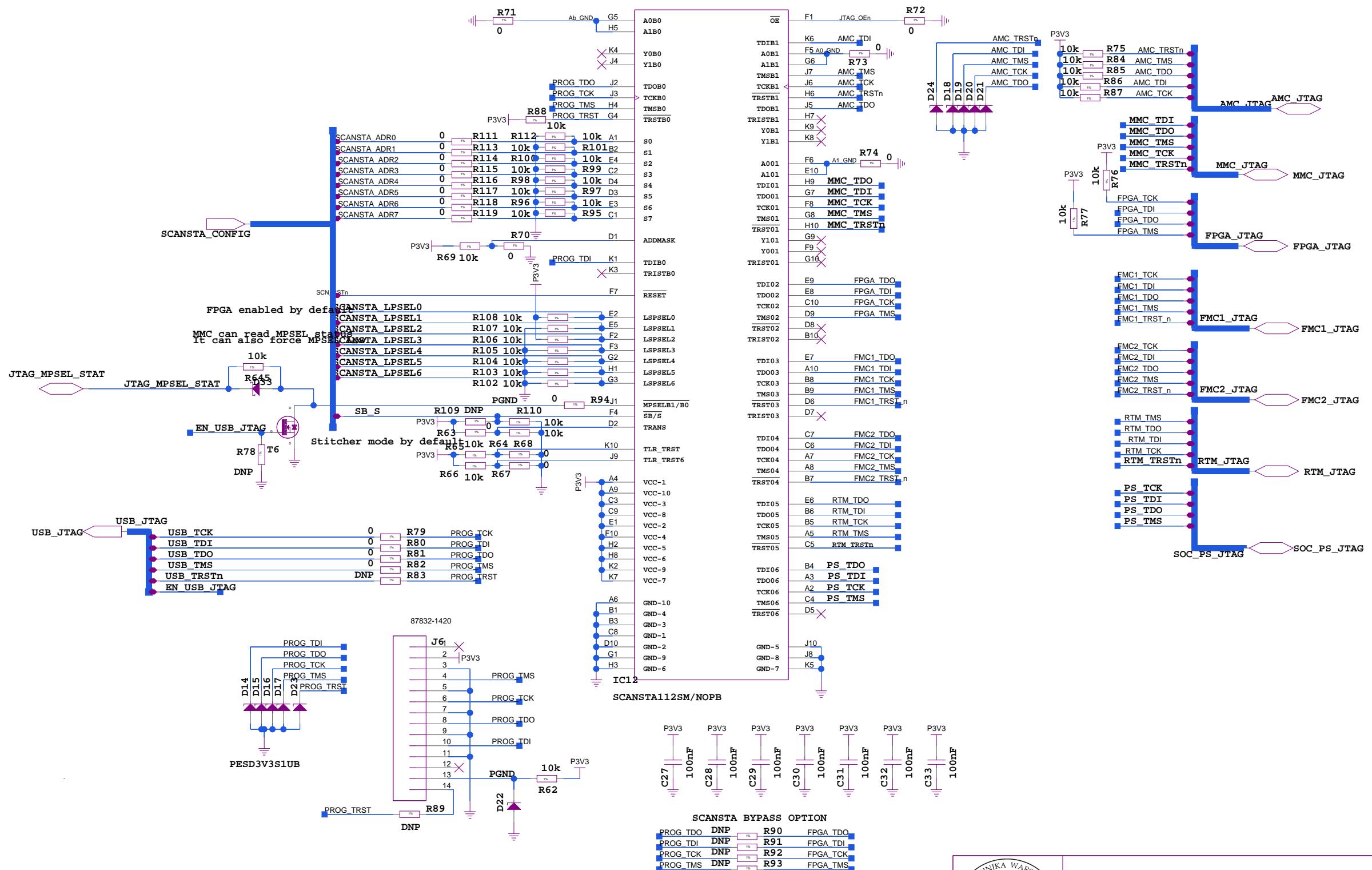


I2C switch footprint is compatible with MAX7358 which has interesting anti-lock capabilities



AMC FMC Carrier Board

SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	14	38



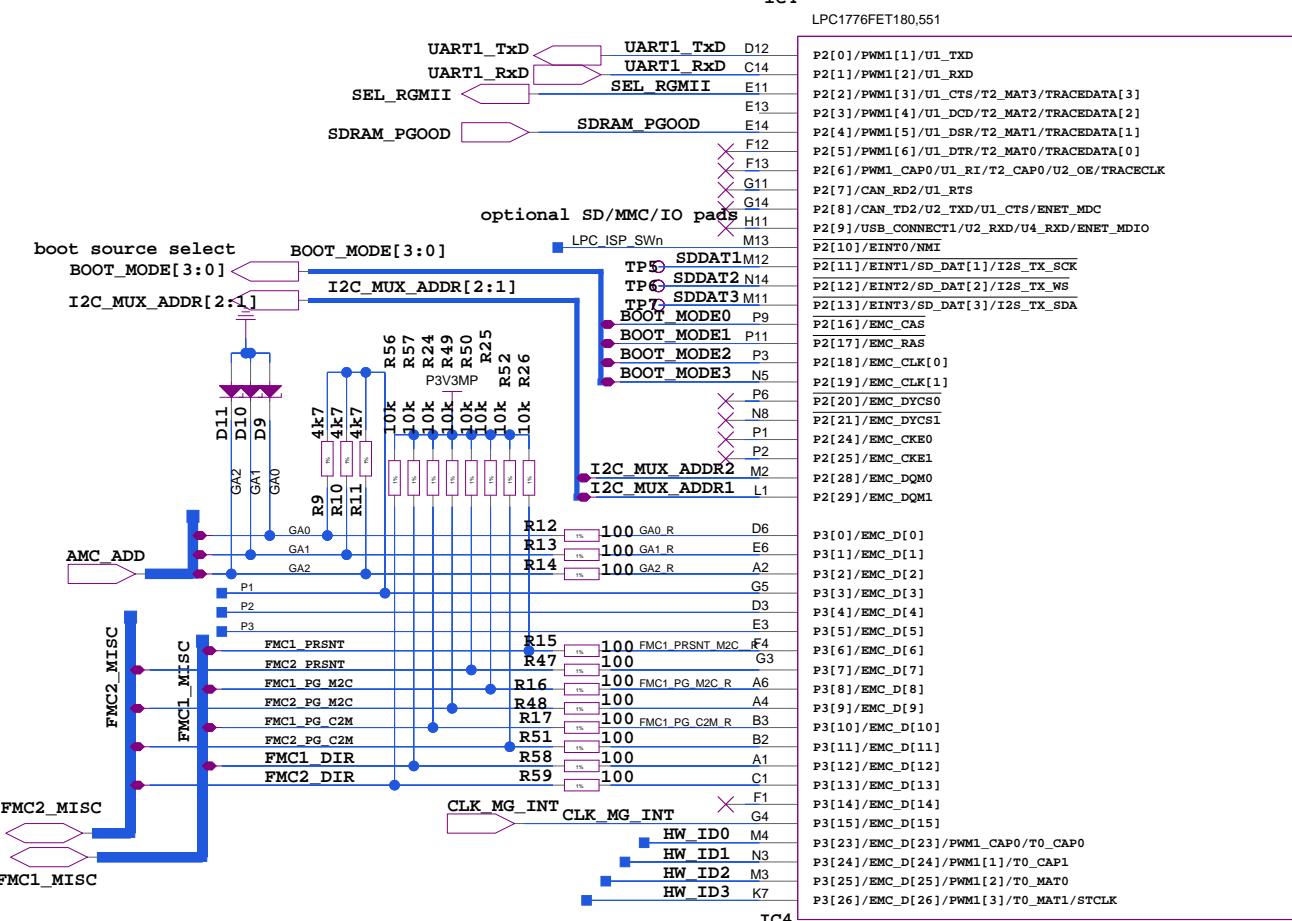
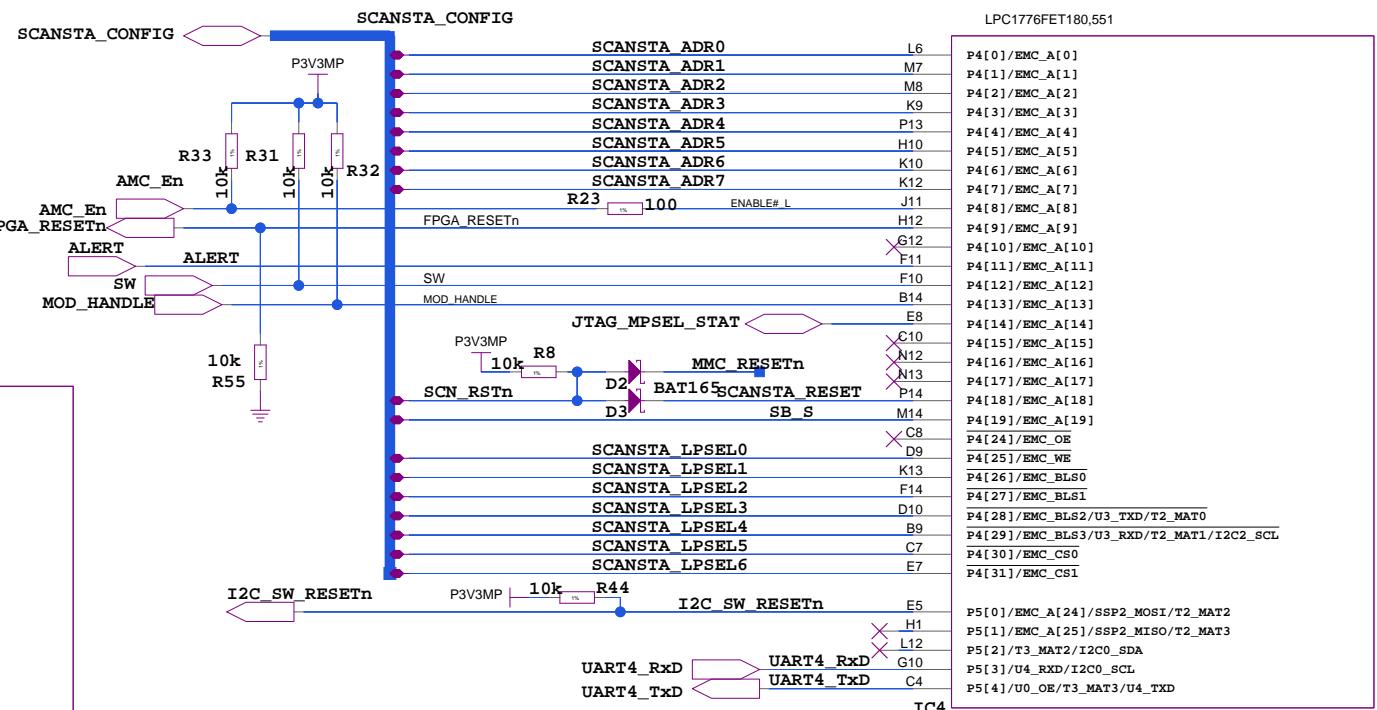
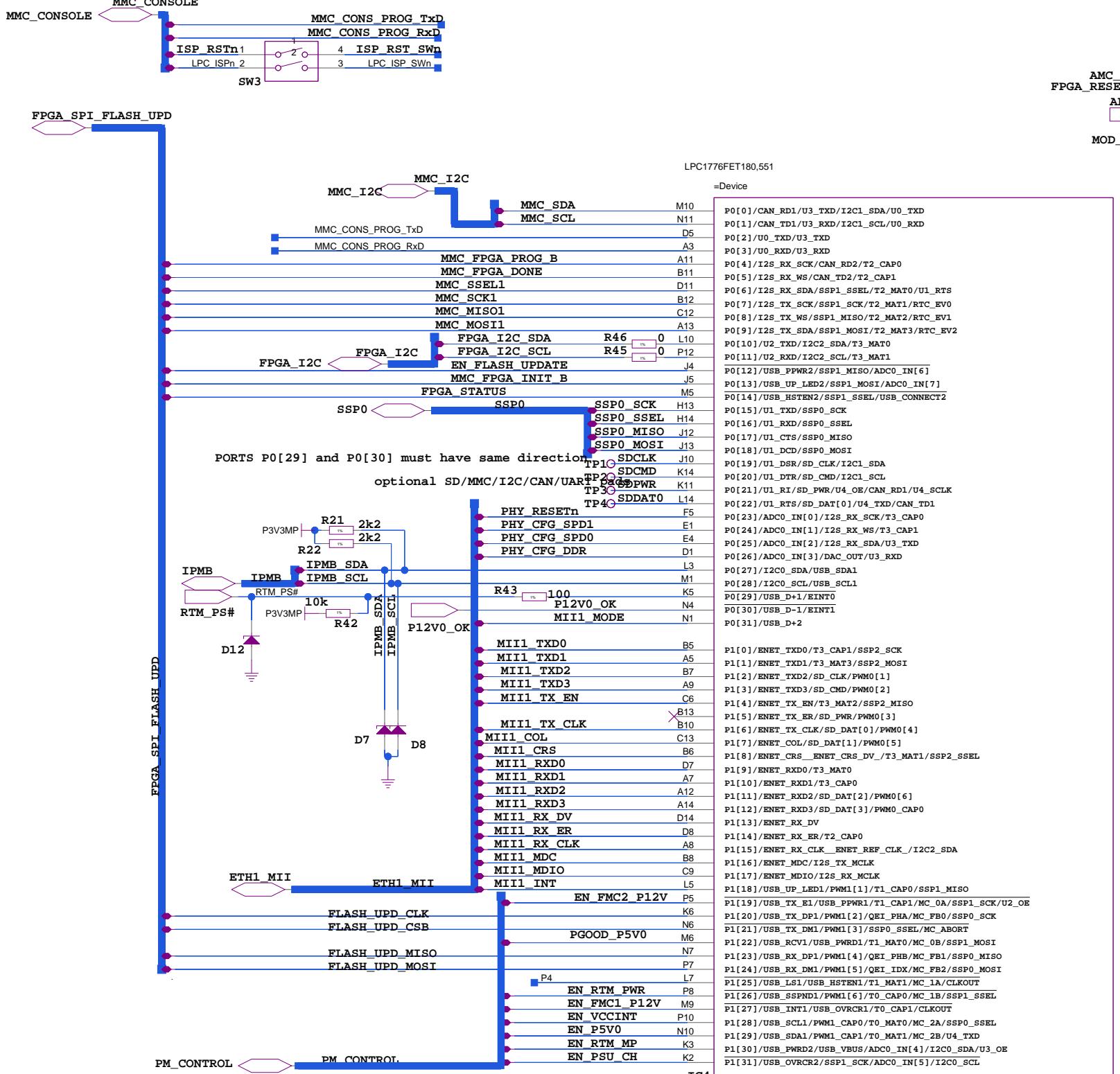
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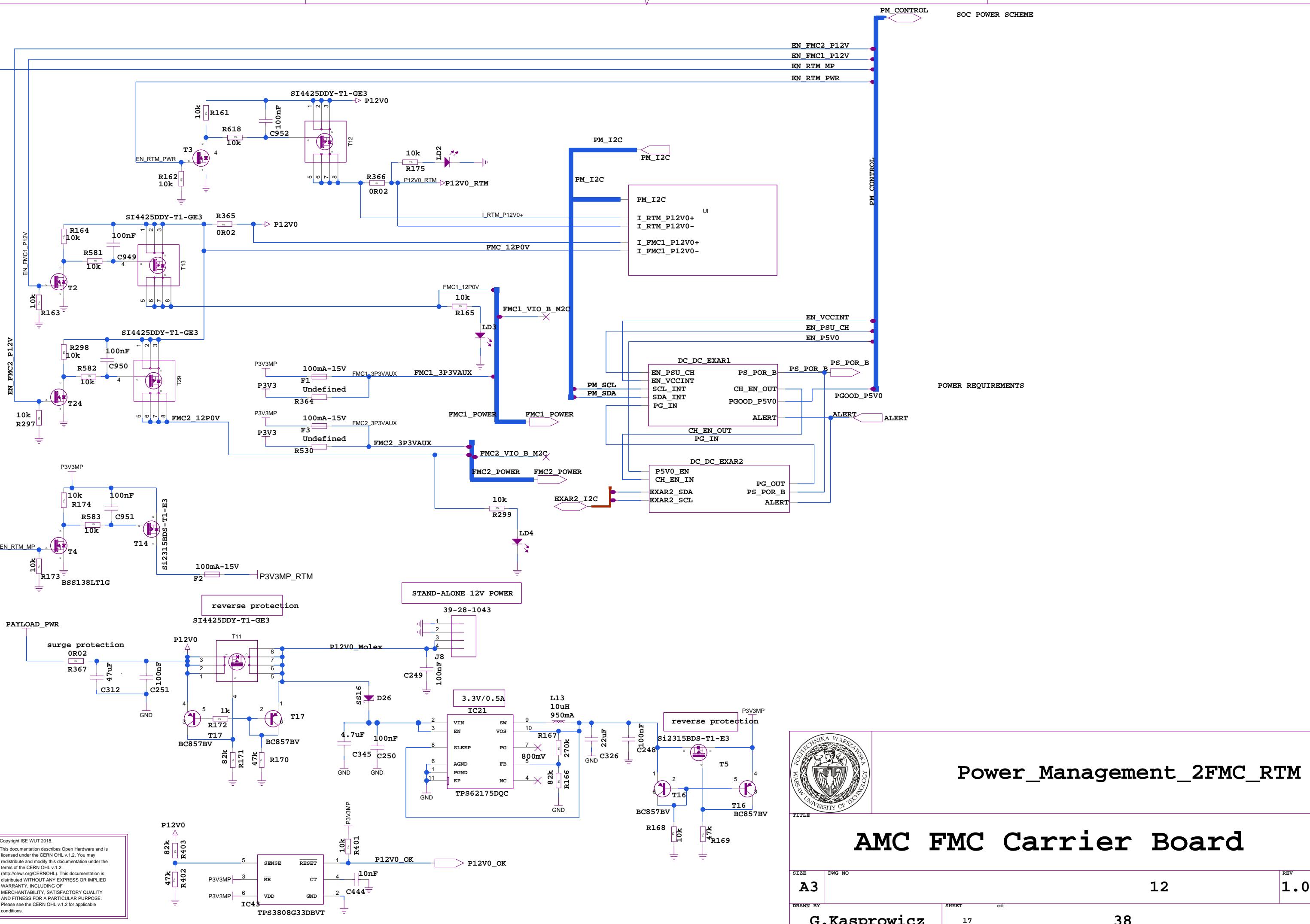
AMC FMC Carrier Board

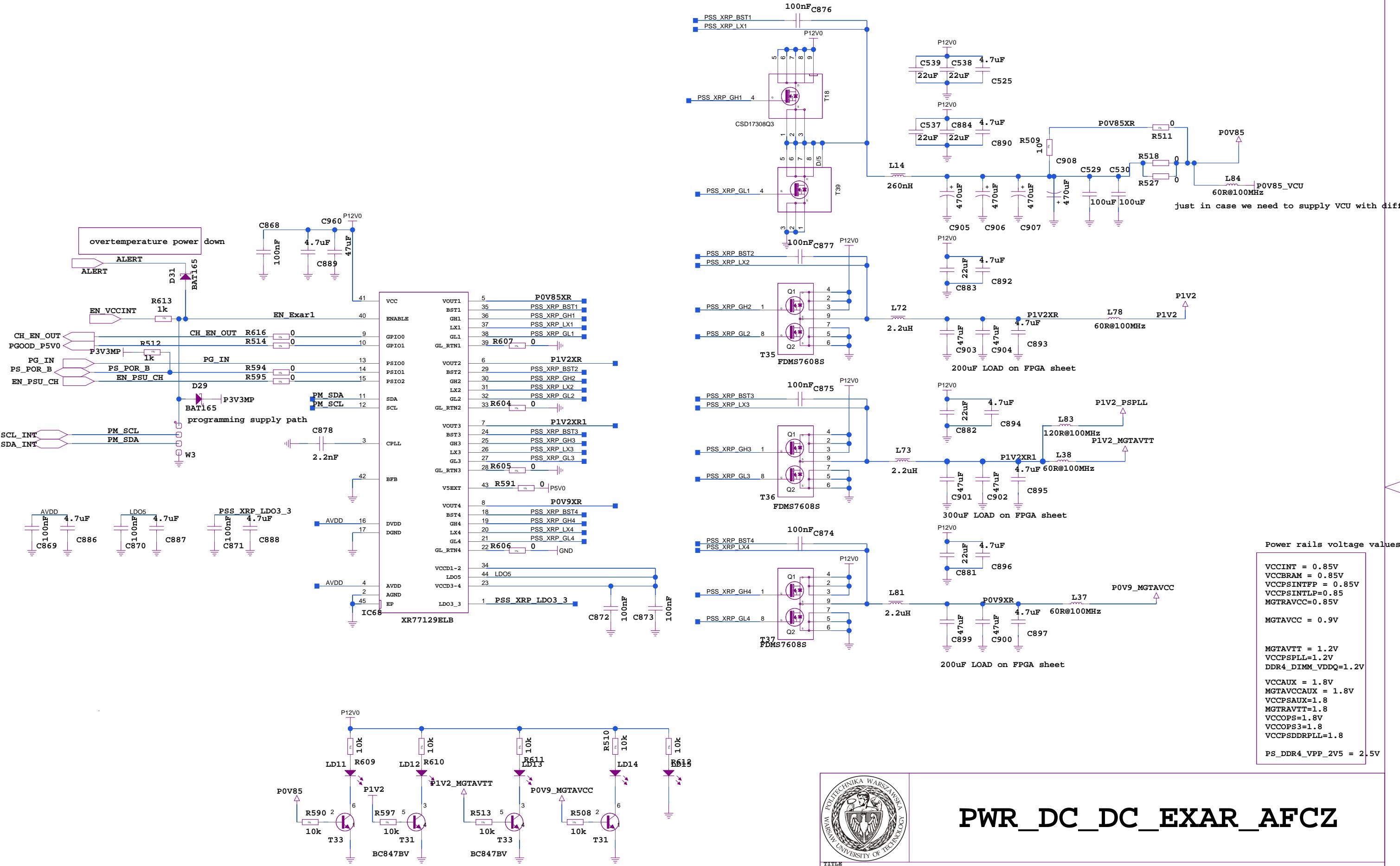


TITLE

SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	15	38







PWR_DC_DC_EXAR_AFCZ

AMC FMC Carrier Board



TITLE

SIZE DWG NO

A3

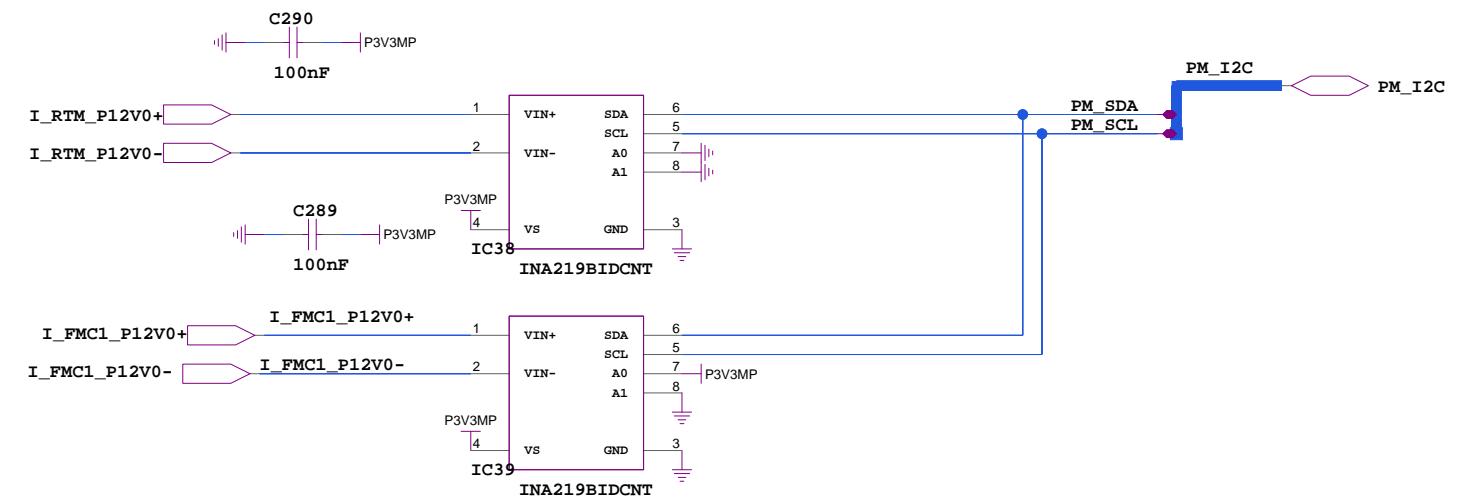
REV
1.0

DRAWN BY SHEET OF

G.Kasprowicz

18

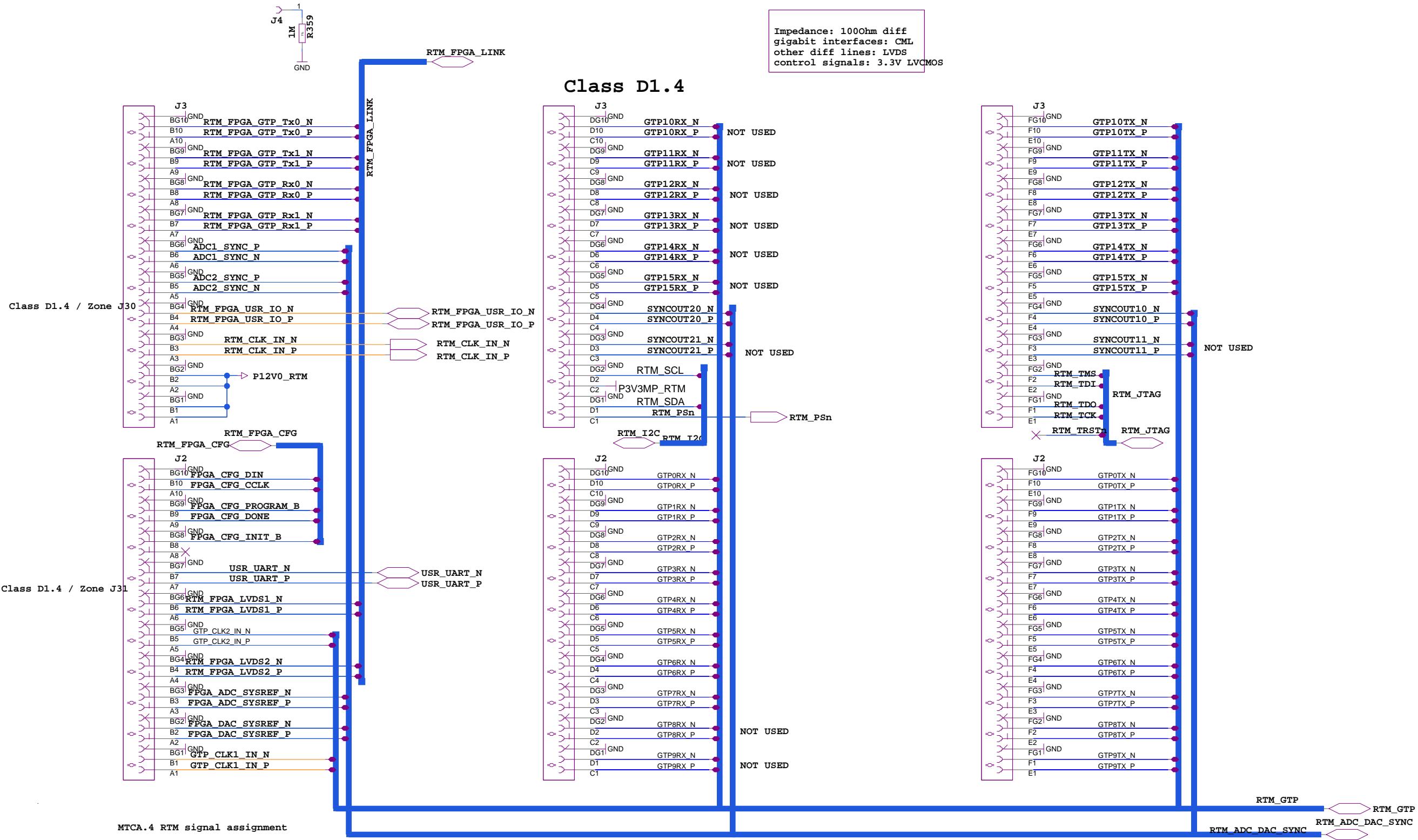
13



AMC FMC Carrier Board

UI_mon

SIZE	DWG NO	15	REV
A3			1.0
DRAWN BY	SHEET	of	
G.Kasprowicz	20		



RTM_CON

AMC FMC Carrier Board

SIZE DWG NO

A3

DRAWN BY

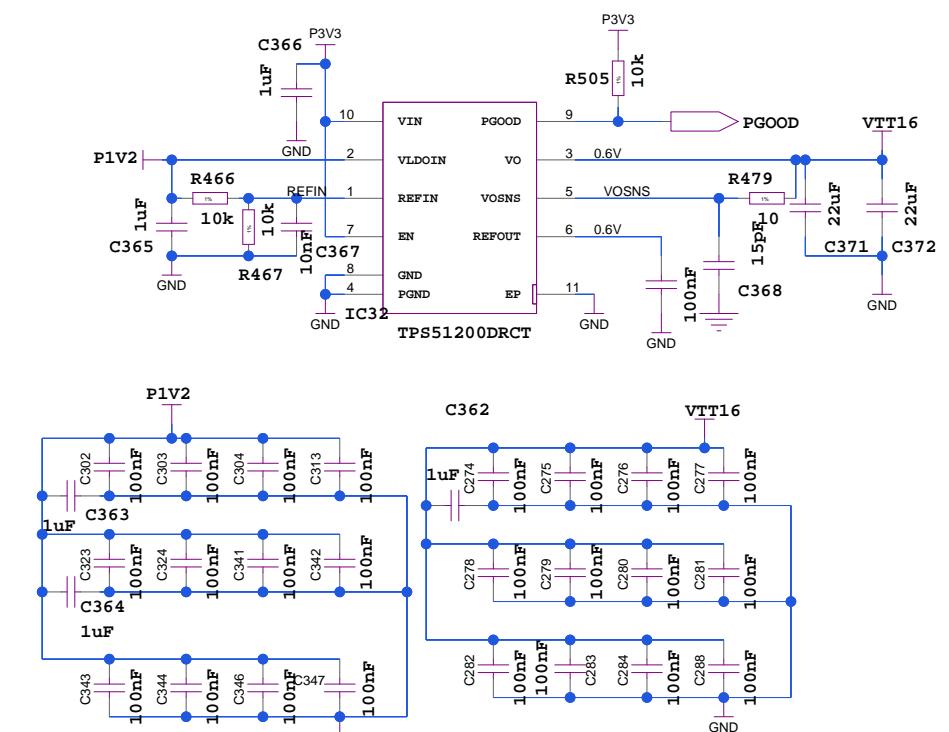
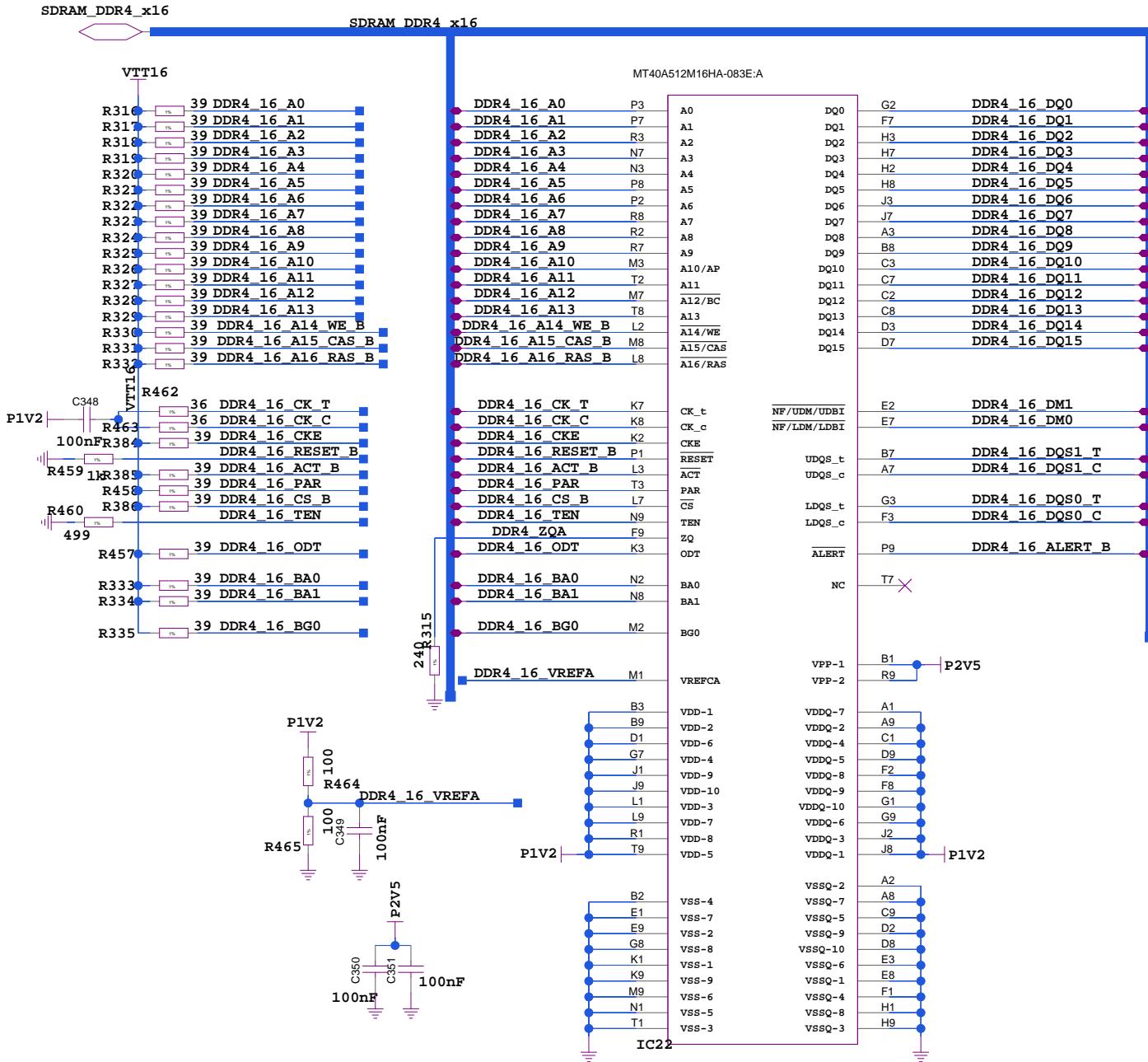
G.Kasprowicz

SHEET

of

15

1.0



SDRAM_DDR4_16bit

AMC FMC Carrier Board

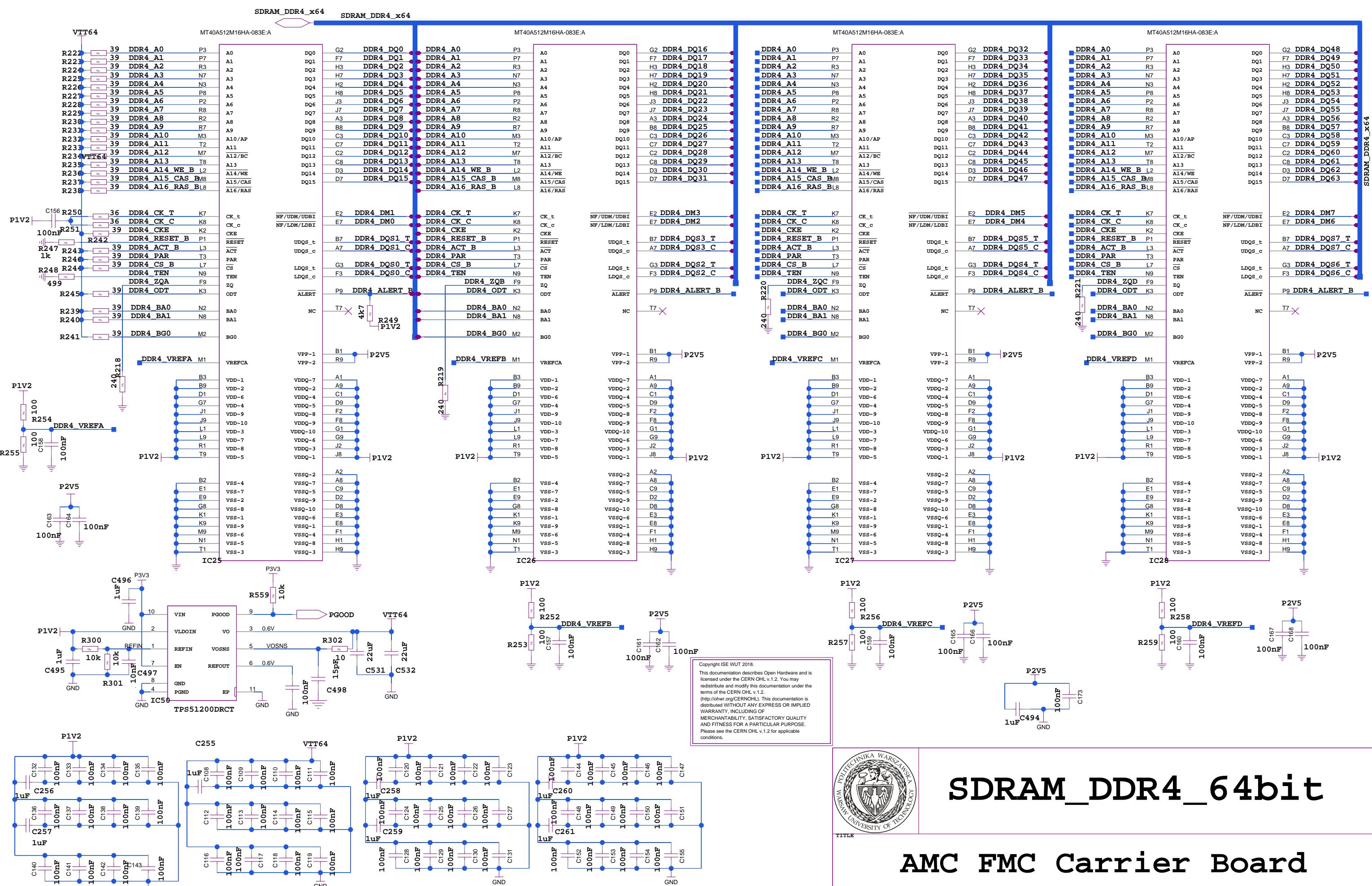
SIZE DWG N

DRAWN BY _____ SHEET _____ OF _____

17

1.0

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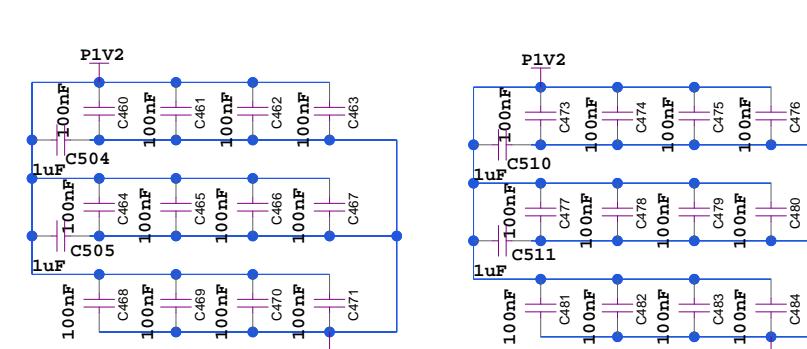
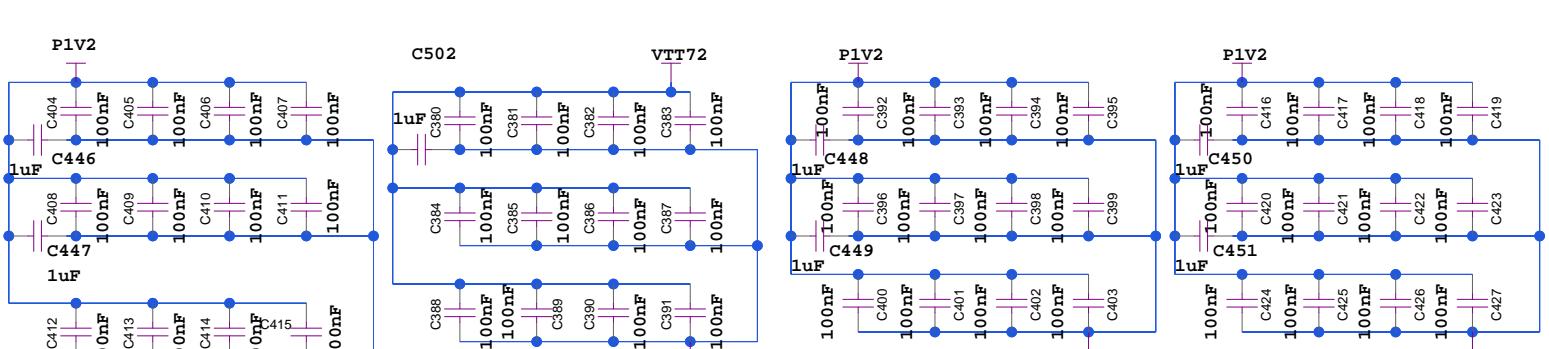
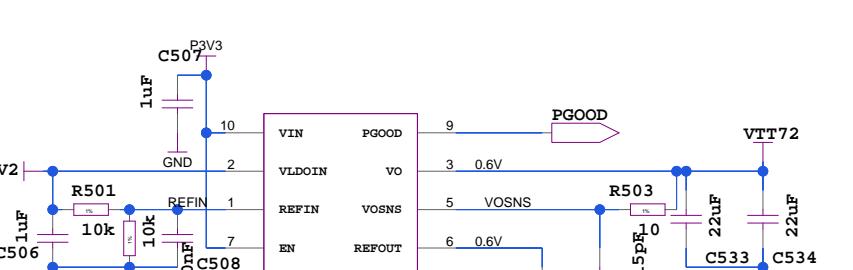
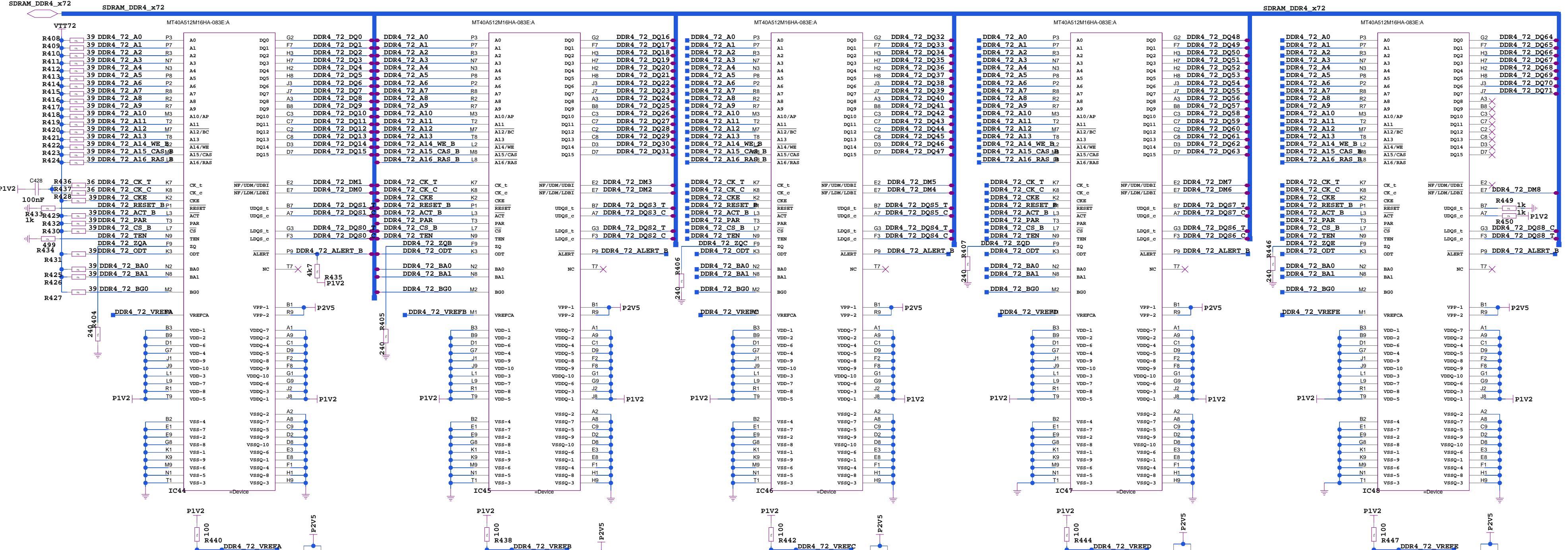
SDRAM_DDR4_64bit

AMC FMC Carrier Board

A3

DRAWN BY

G.Kasprov

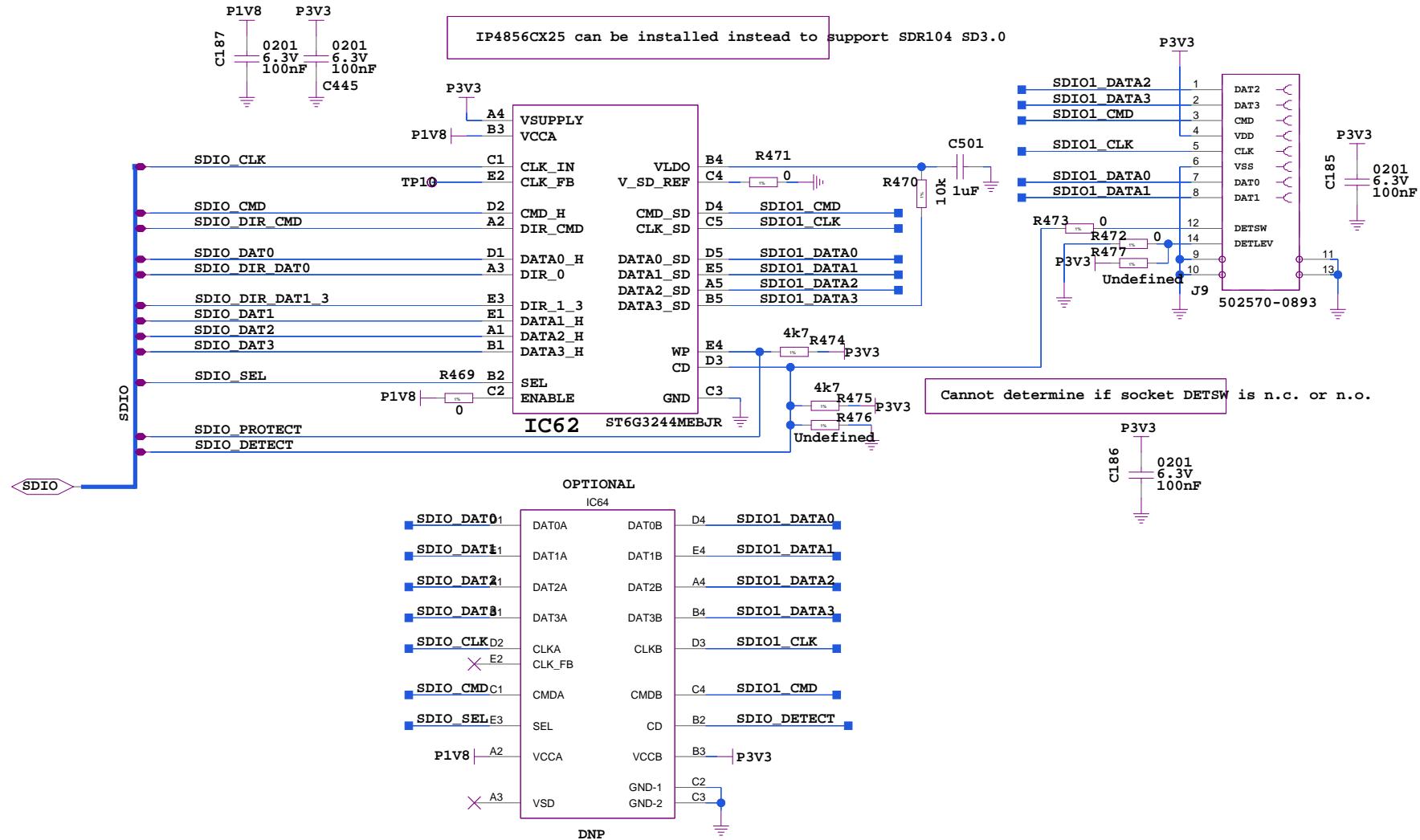


SDRAM DDR4 72bit

AMC FMC Carrier Board

SHEET 24 OF 39 09/02/2024

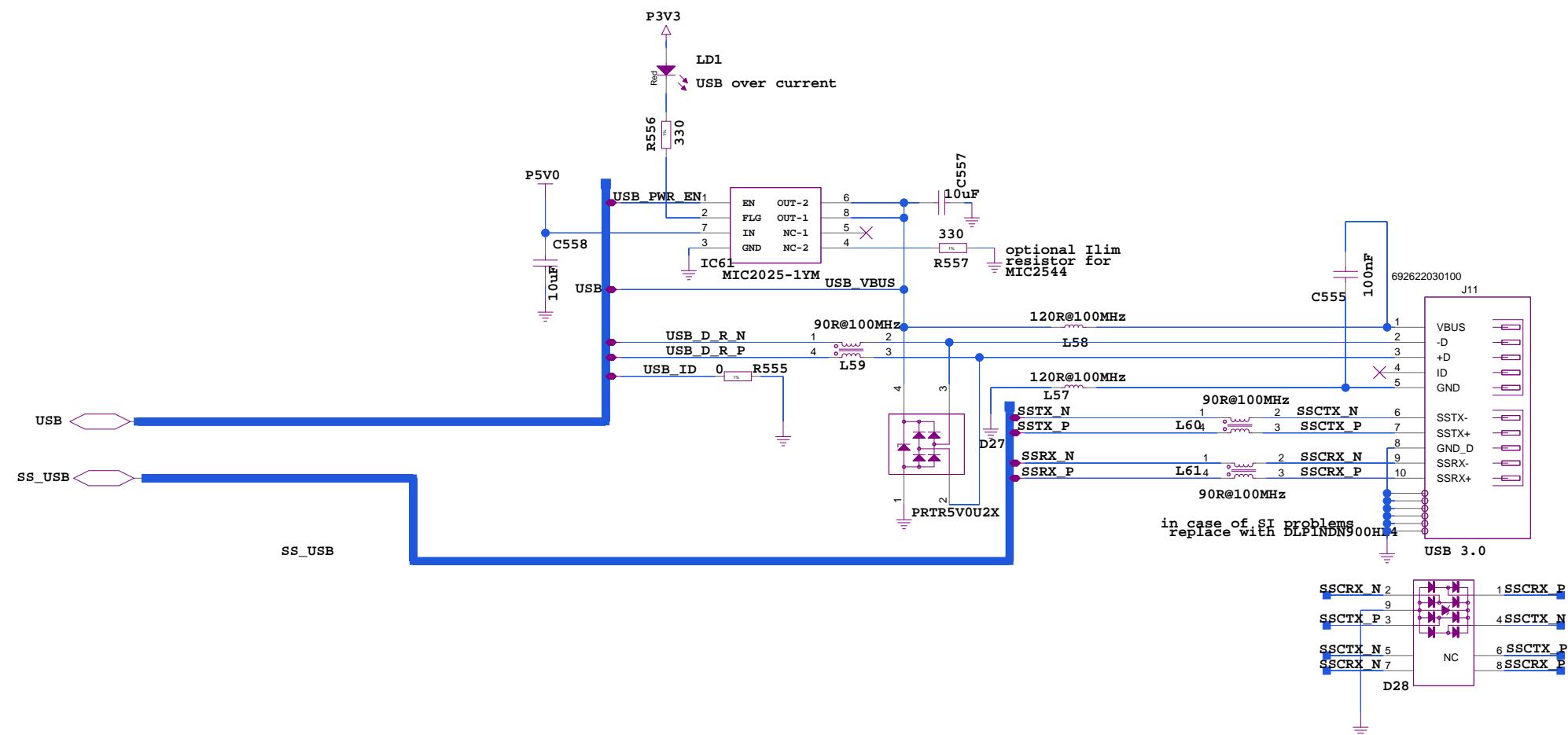
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SD_CARD

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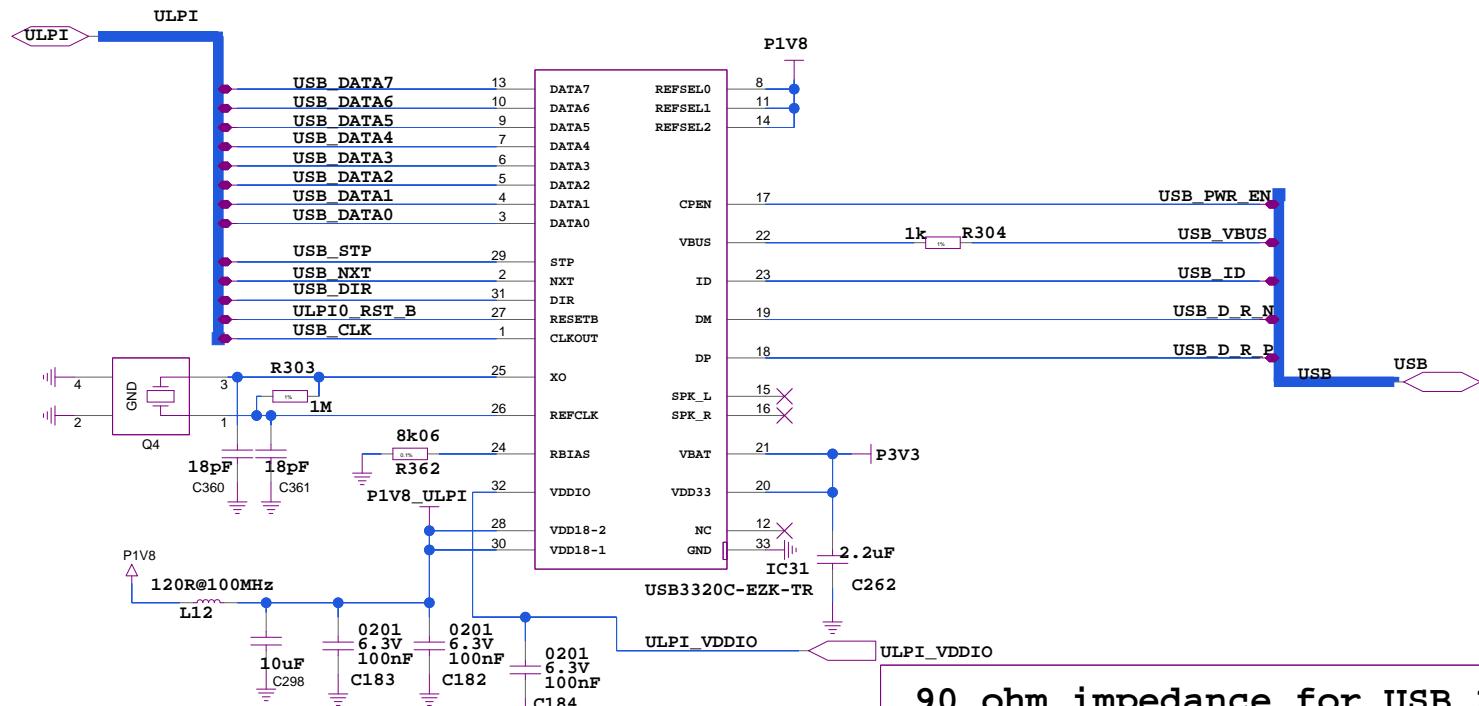


USB3_CON

AMC FMC Carrier Board

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SIZE	DWG NO	REV
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DRAWN BY	SHEET of	
G.Kasprowicz	26	23

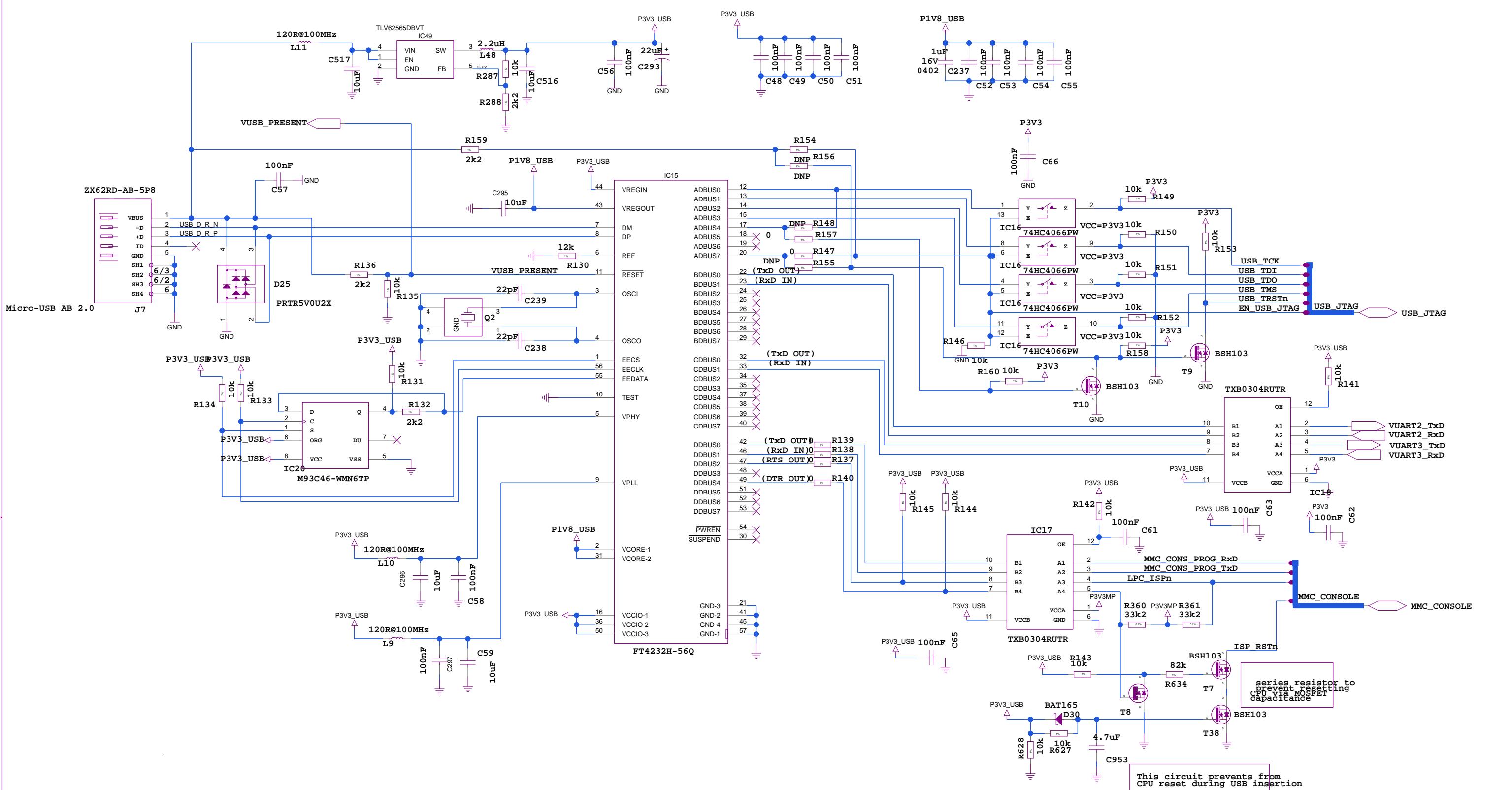


USB_PHY

AMC FMC Carrier Board

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SIZE DWG NO
A3 24 1.0
REV
DRAWN BY SHEET of
G.Kasprowicz 27



USB_SERIAL_QUAD

AMC FMC Carrier Board



TITLE

SIZE DWG NO

A3

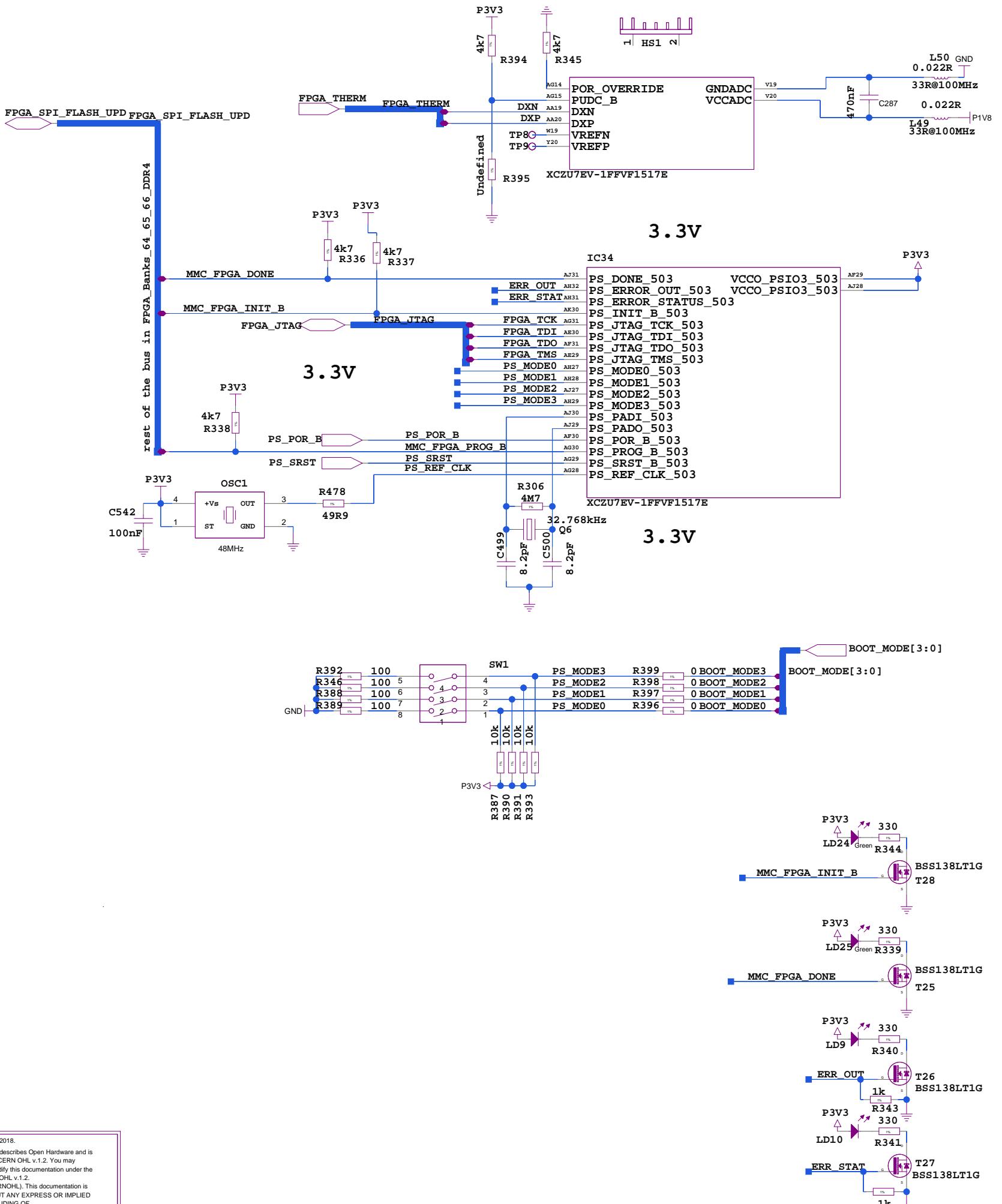
DRAWN BY

G.Kasprowicz

SHEET OF

25

1.0



ZYNQ_US_SOC_PL

AMC FMC Carrier Board

TITLE
A3 CONFIG

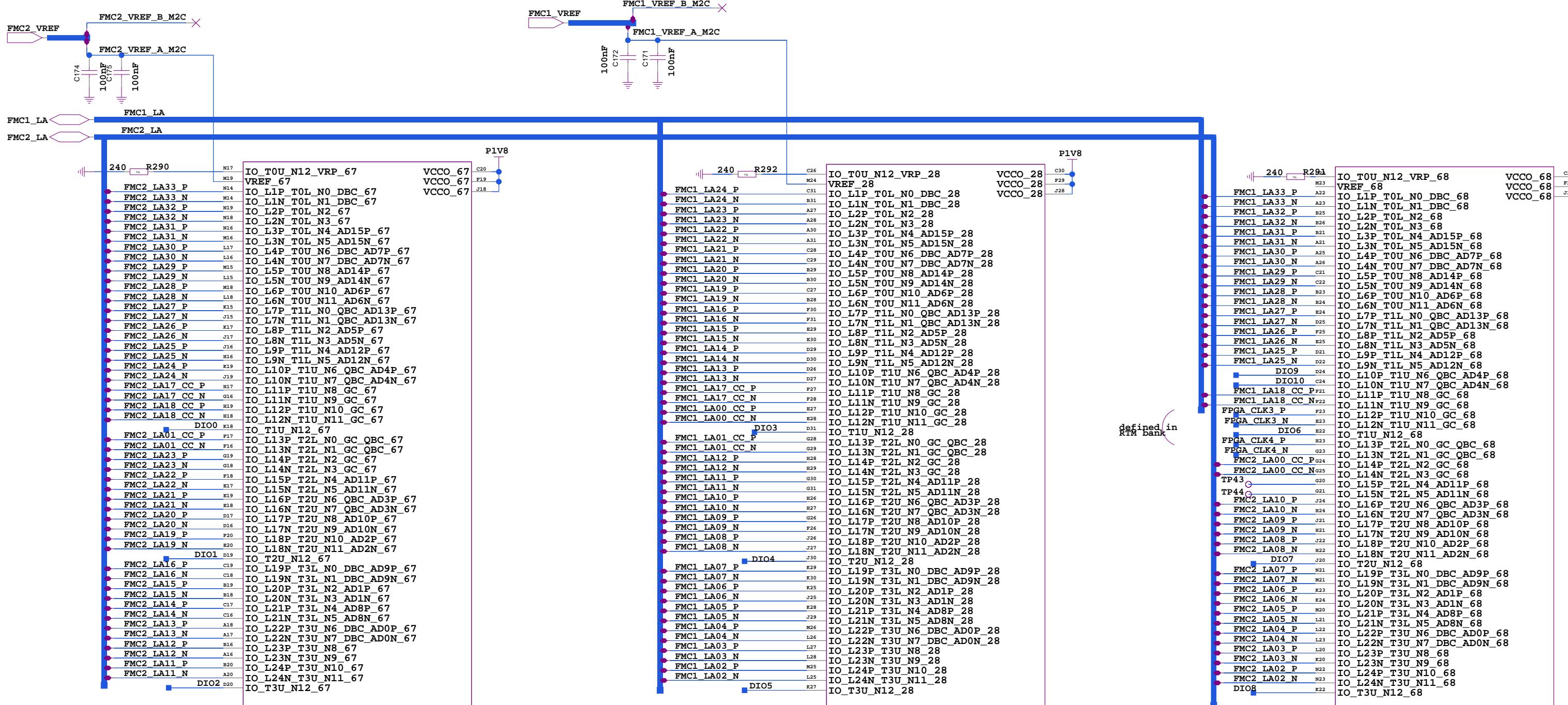
DRAWN BY G.Kasprowicz

SHEET 29 of

27

REV 1.0

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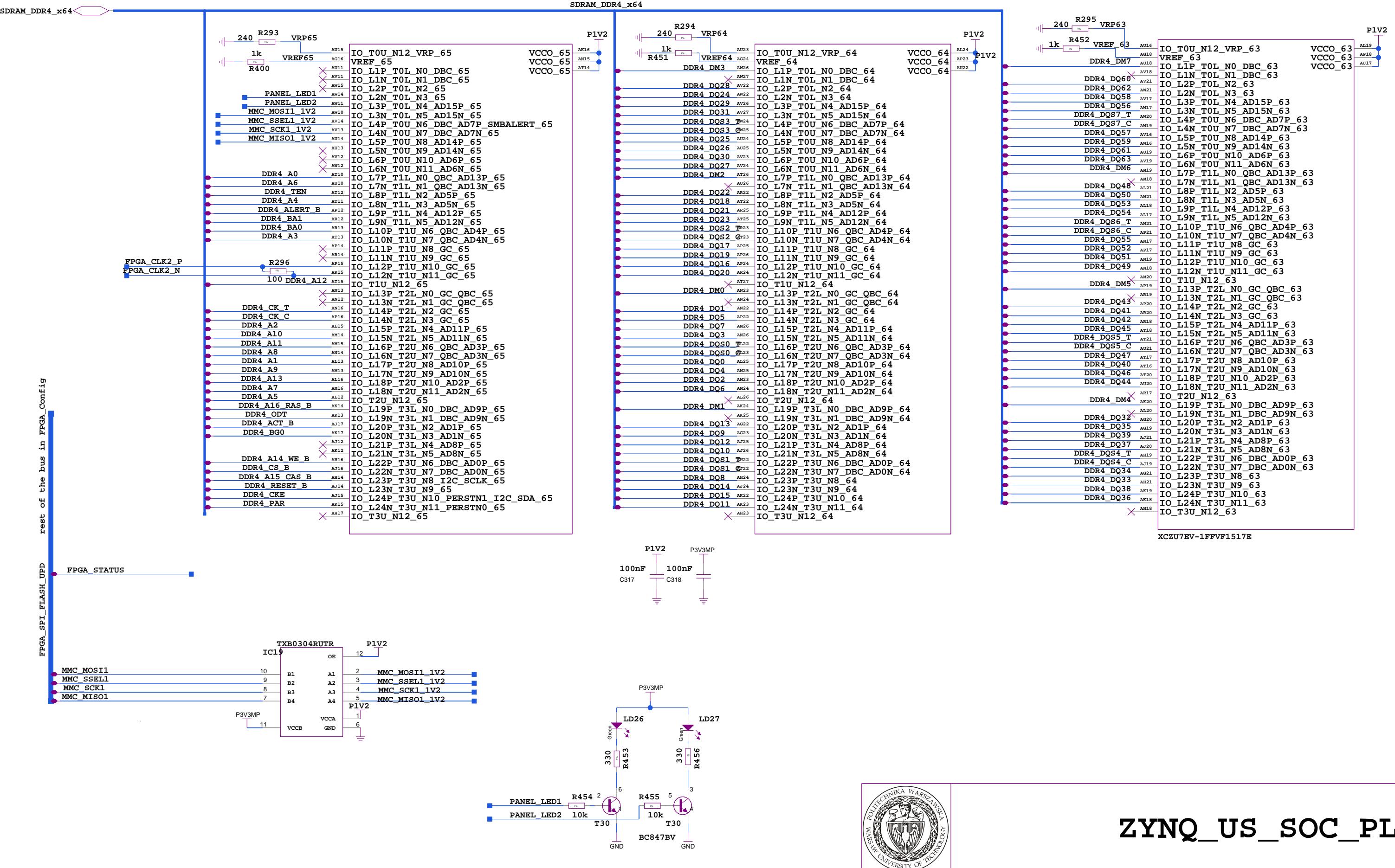
ZYNQ_US_SOC_PL 66 67 68

Test points

- DIOB25
- B22
- P1V8
- DIOB11
- DIOB12
- DIOB13
- DIOB14
- DIOB15
- DIOB16
- DIOB17
- DIOB18
- DIOB19
- DIOB20
- B21

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SIZE	DWG NO		REV
A3	BANKS 66 67 68 FMC	28	1.0
DRAWN BY	G.Kasprowicz	SHEET	of
	30	39	



AMC FMC Carrier Board

SIZE	DWG NO	BANKS	63	64	65	29	1.0
A3							

DRAWN BY G.Kasprowicz

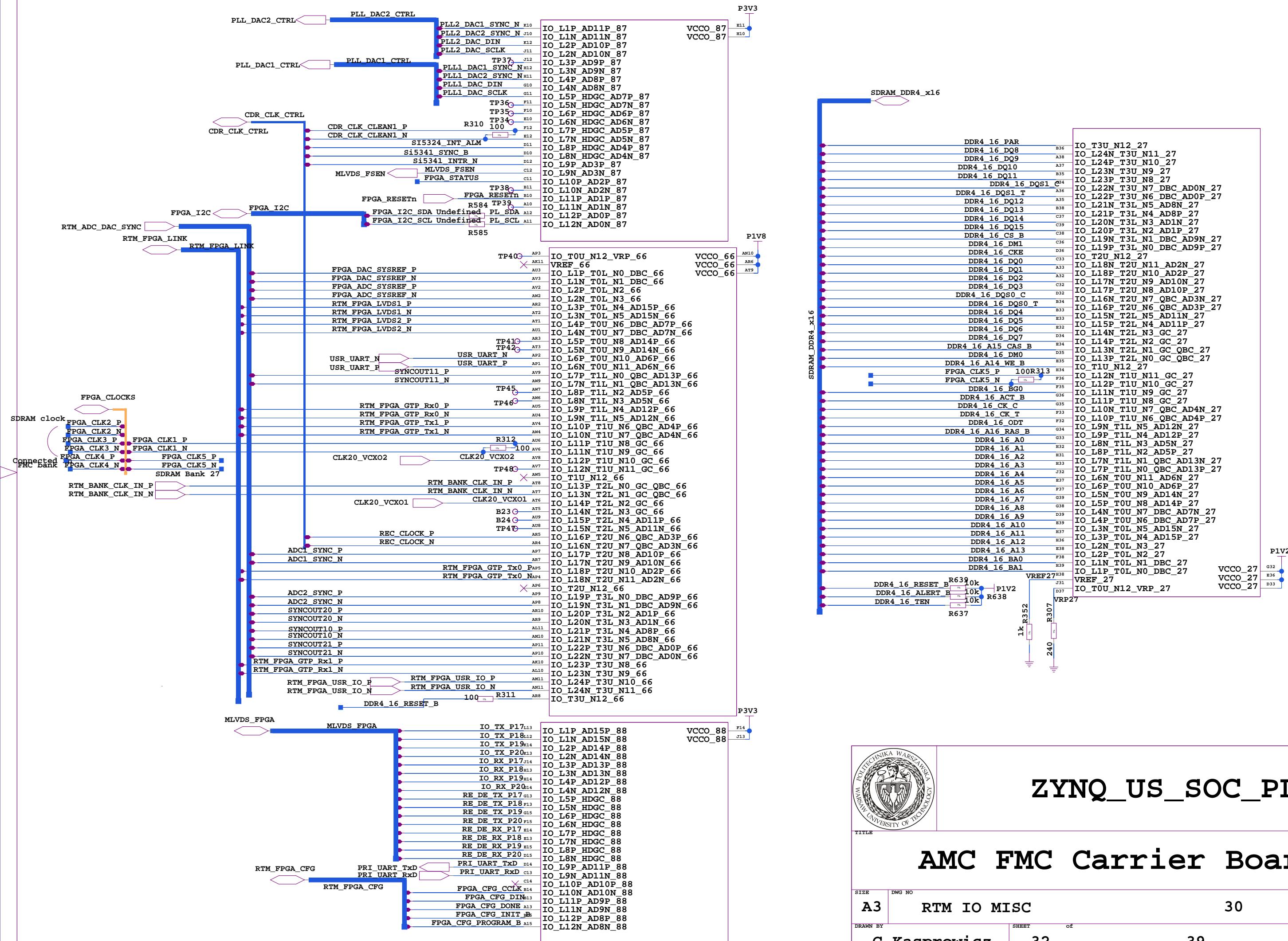
SHEET 31 OF 39

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SHEET 31 OF 39

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ZYNQ-US-SOC-PL

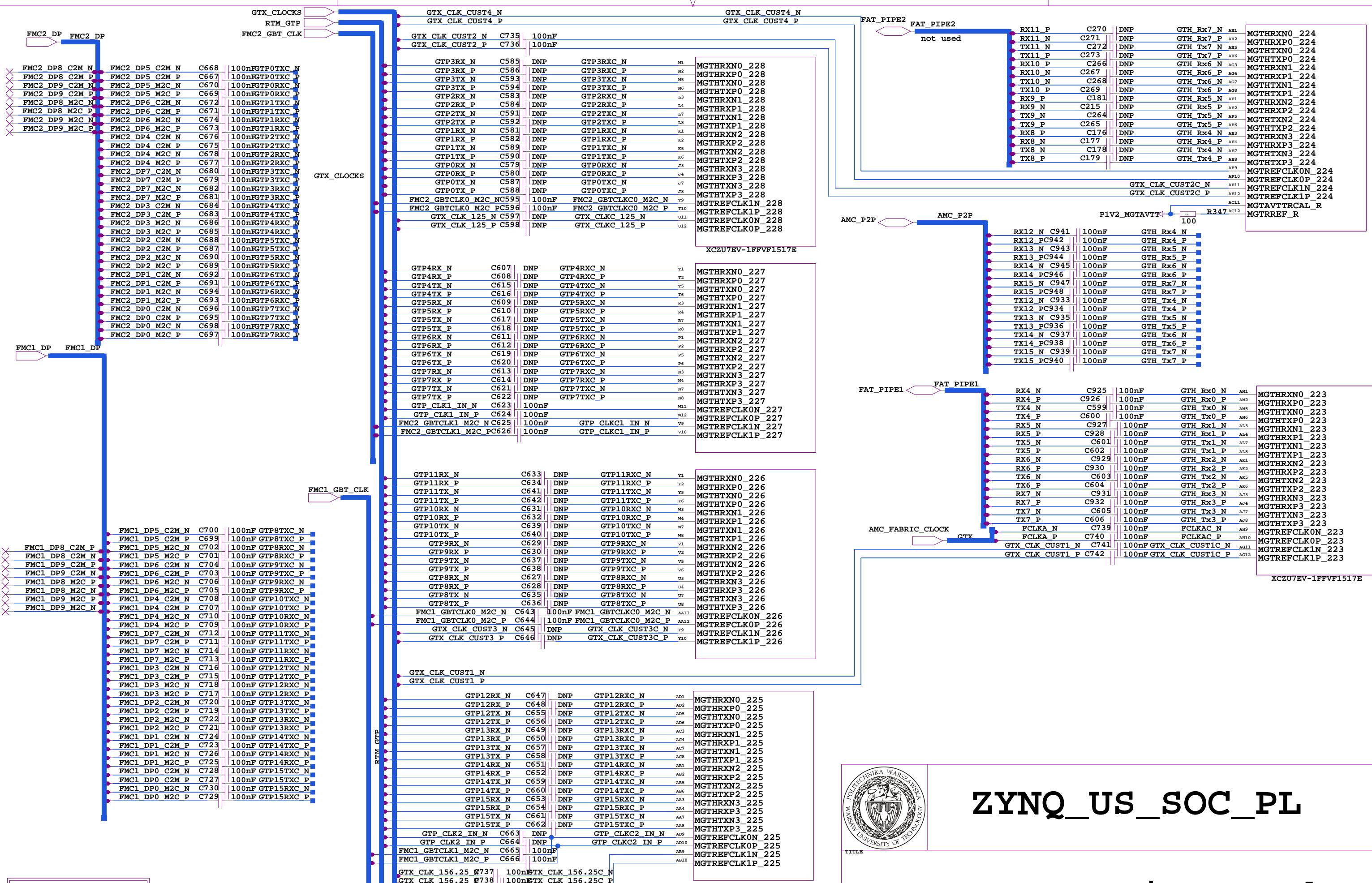
AMC FMC Carrier Board

SIZE	DWG NO
A3	RTM IO MISC
DRAFTED BY _____	
SHEET _____ OF _____	

G.Kasprowicz 32

30

1.0



ZYNQ_US_SOC_PL

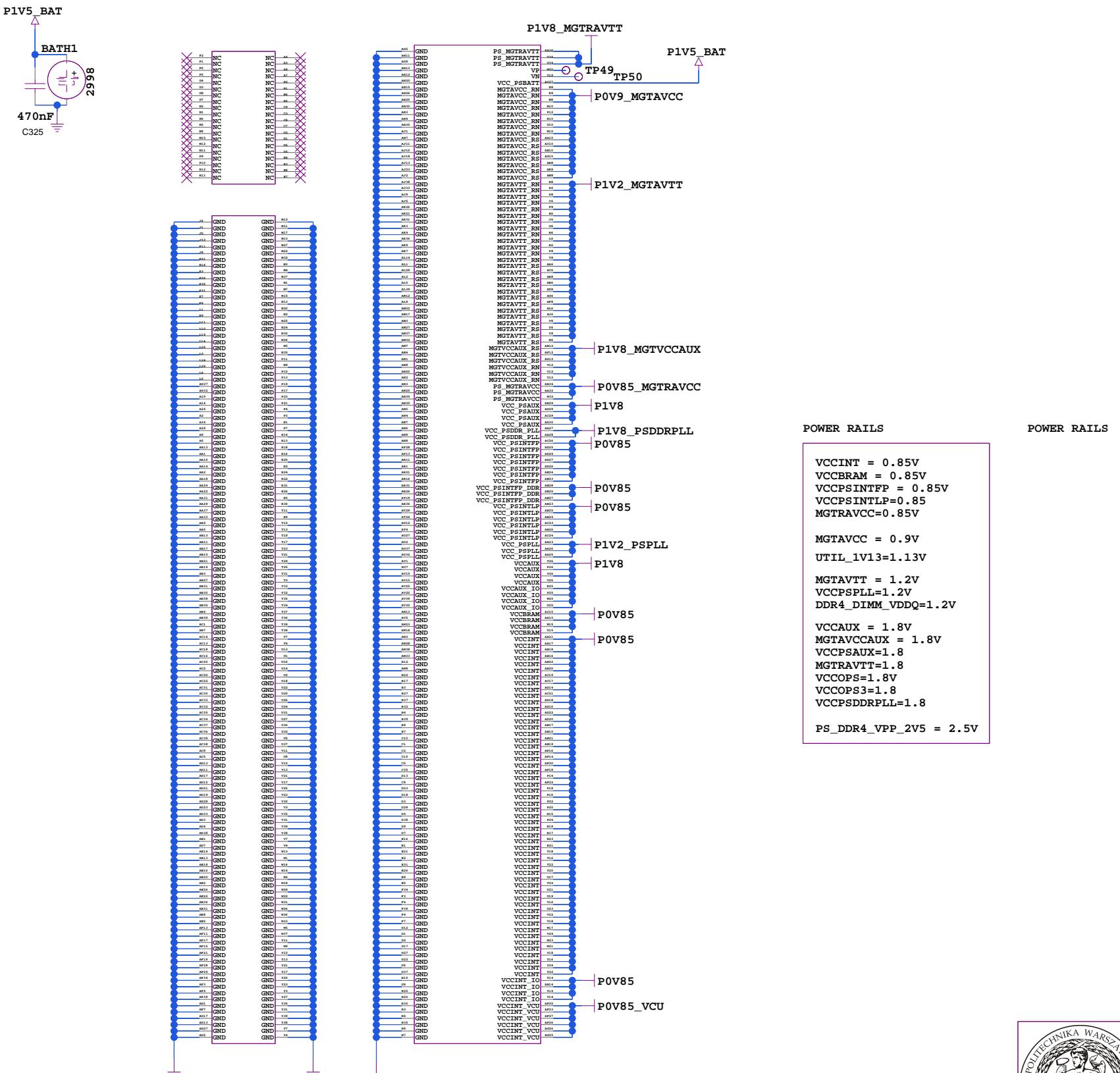
AMC FMC Carrier Board

A3

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31

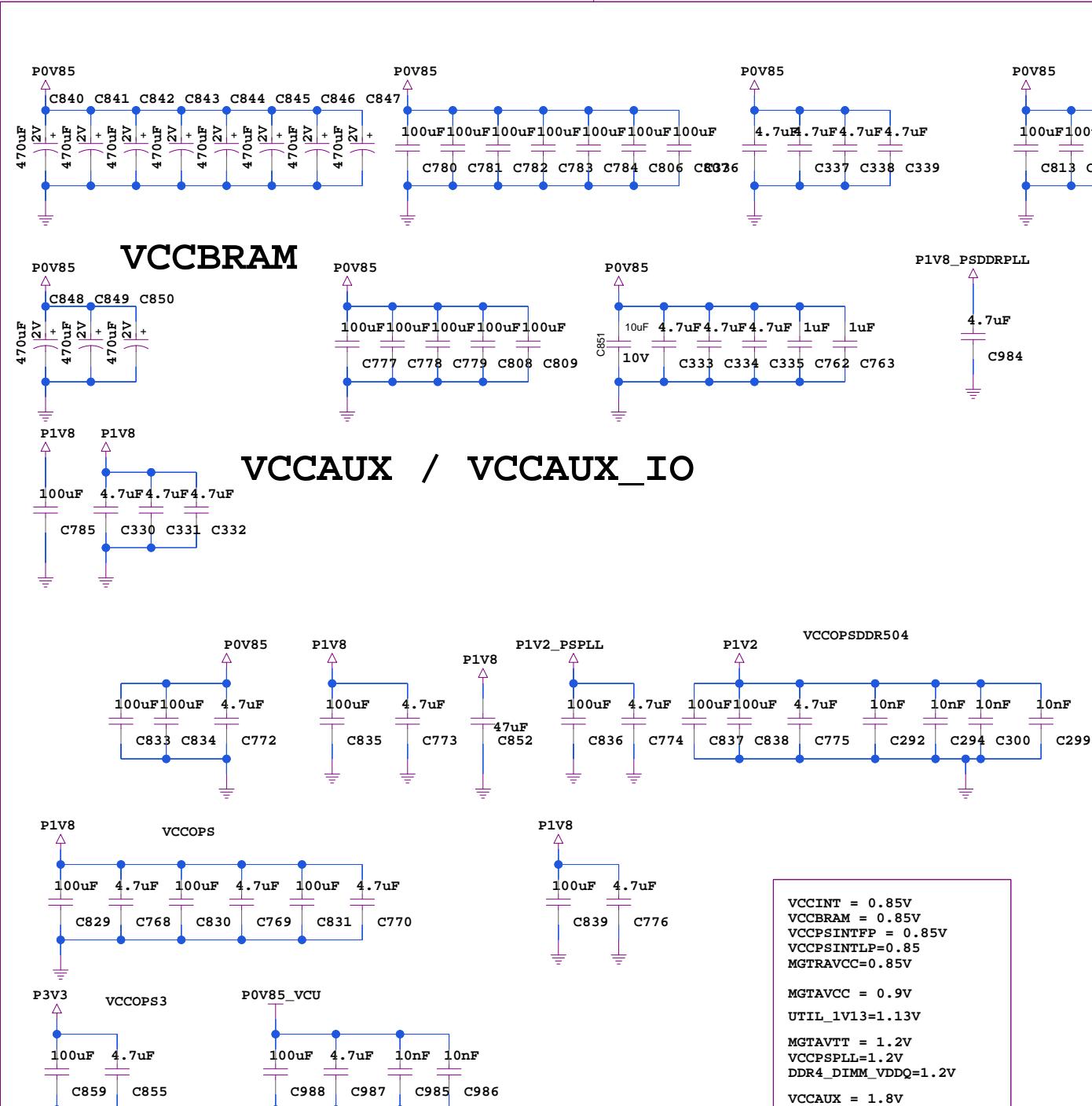
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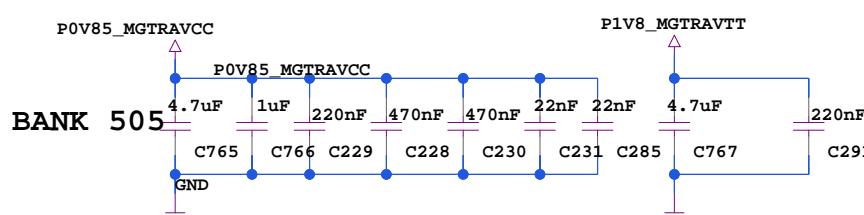
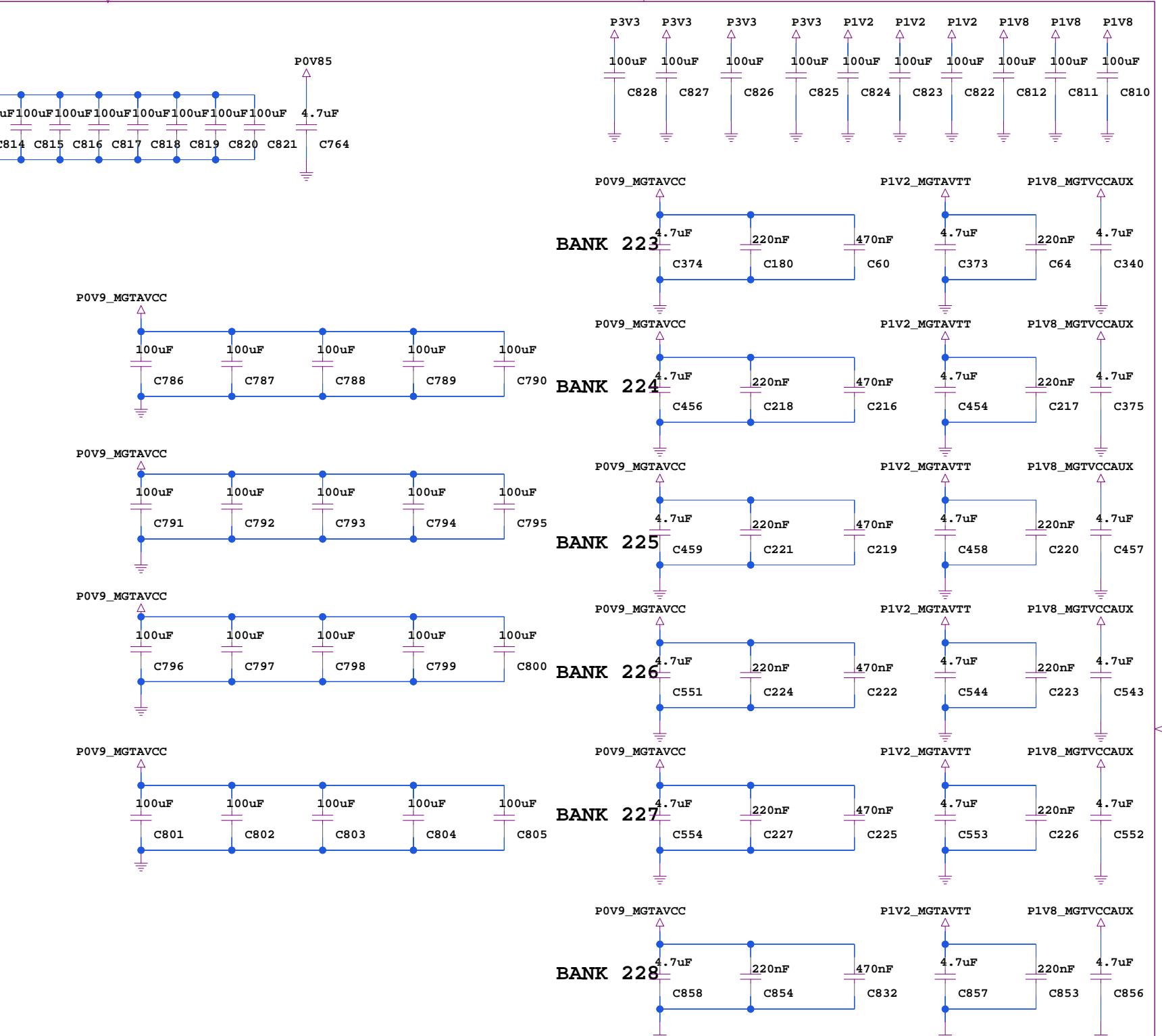
ZYNQ-US-SOC-PL

AMC FMC Carrier Board

SIZE	DWG NO		REV
A3	SUPPY	34	1.0
DRAWN BY	SHEET	of	
G. Kasprowicz	35	39	09/02/2018:23:



```
VCCINT = 0.85V  
VCCBRAM = 0.85V  
VCCPSINTFP = 0.85V  
VCCPSINTLP=0.85  
MGTRAVCC=0.85V  
  
MGTAVCC = 0.9V  
UTIL_1V13=1.13V  
  
MGTAVTT = 1.2V  
VCCPSPLL=1.2V  
DDR4_DIMM_VDDQ=1.2V  
  
VCCAUX = 1.8V  
MGTAVCCAUX = 1.8V  
VCCPSAUX=1.8  
MGTRAVTT=1.8  
VCCOPS=1.8V  
VCCOPS3=1.8  
VCCPSDDRPLL=1.8  
  
PS_DDR4_VPD_3V5 = 3.5V
```



ZYNQ-US-SOC-PL

AMC FMC Carrier Board

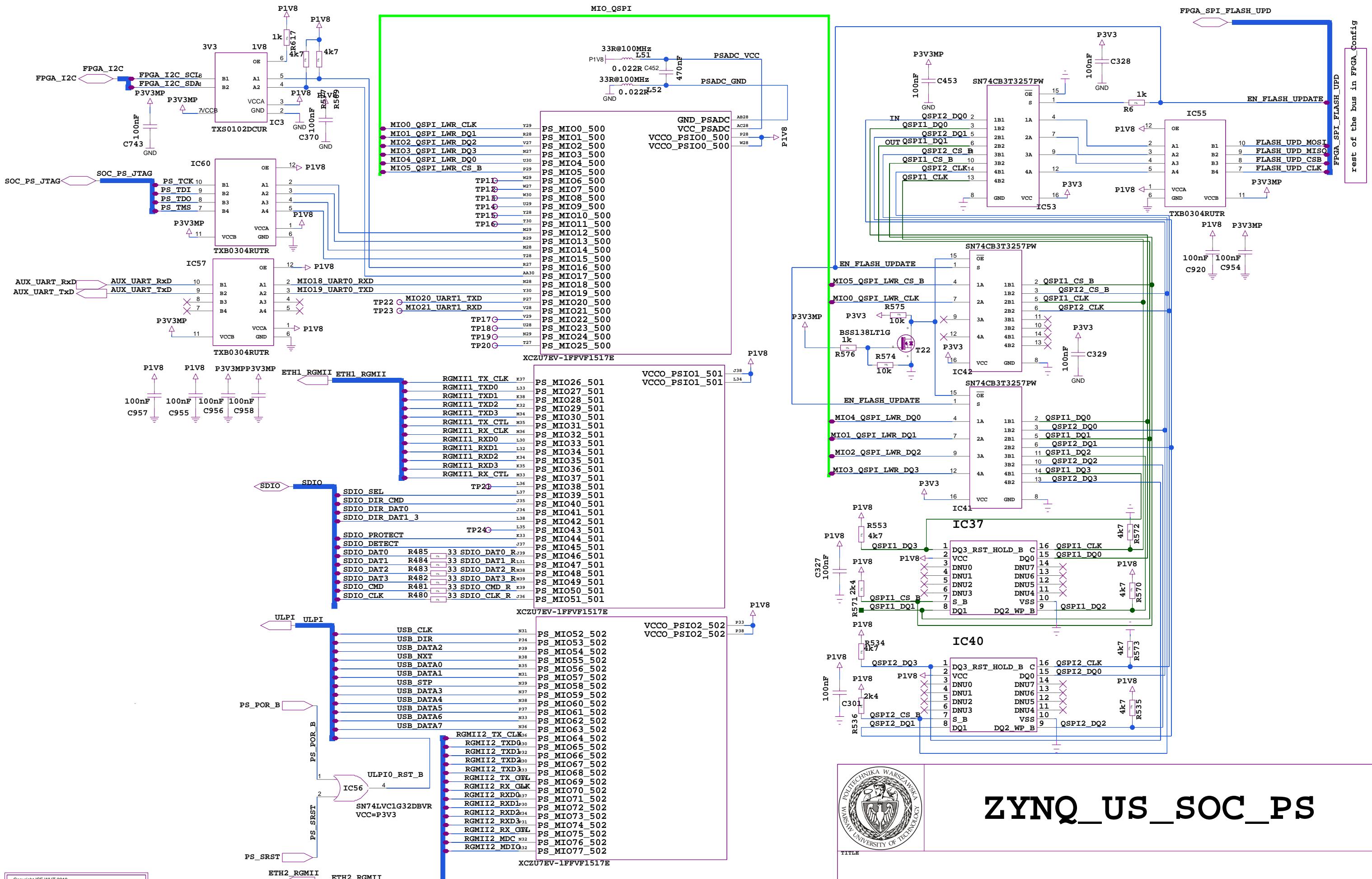
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A3 DECOUPLING

35

REV.
1.0

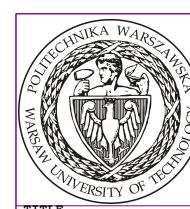
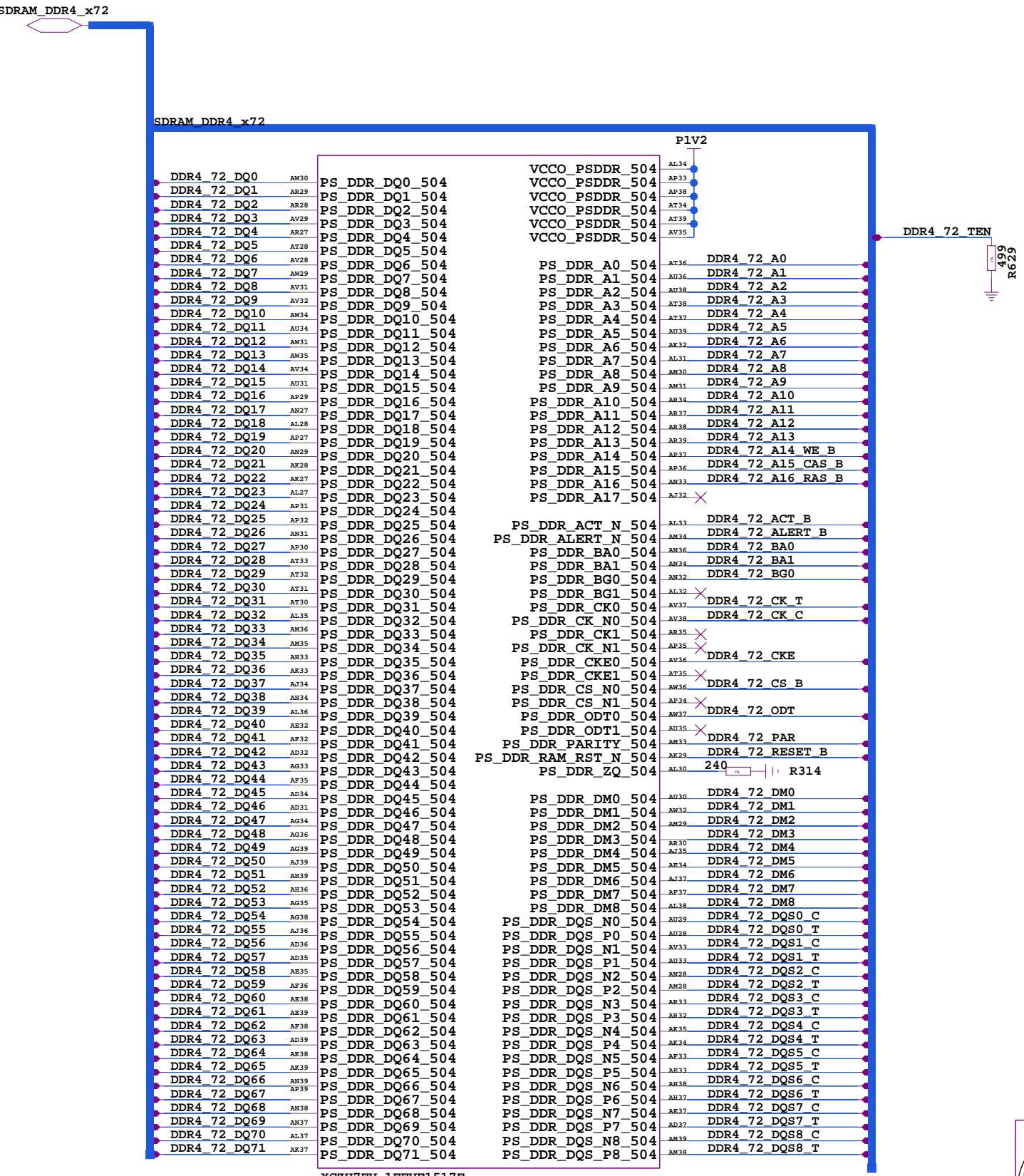
09/02/2018:23:2



ZYNQ_US_SOC_PS

AMC FMC Carrier Board

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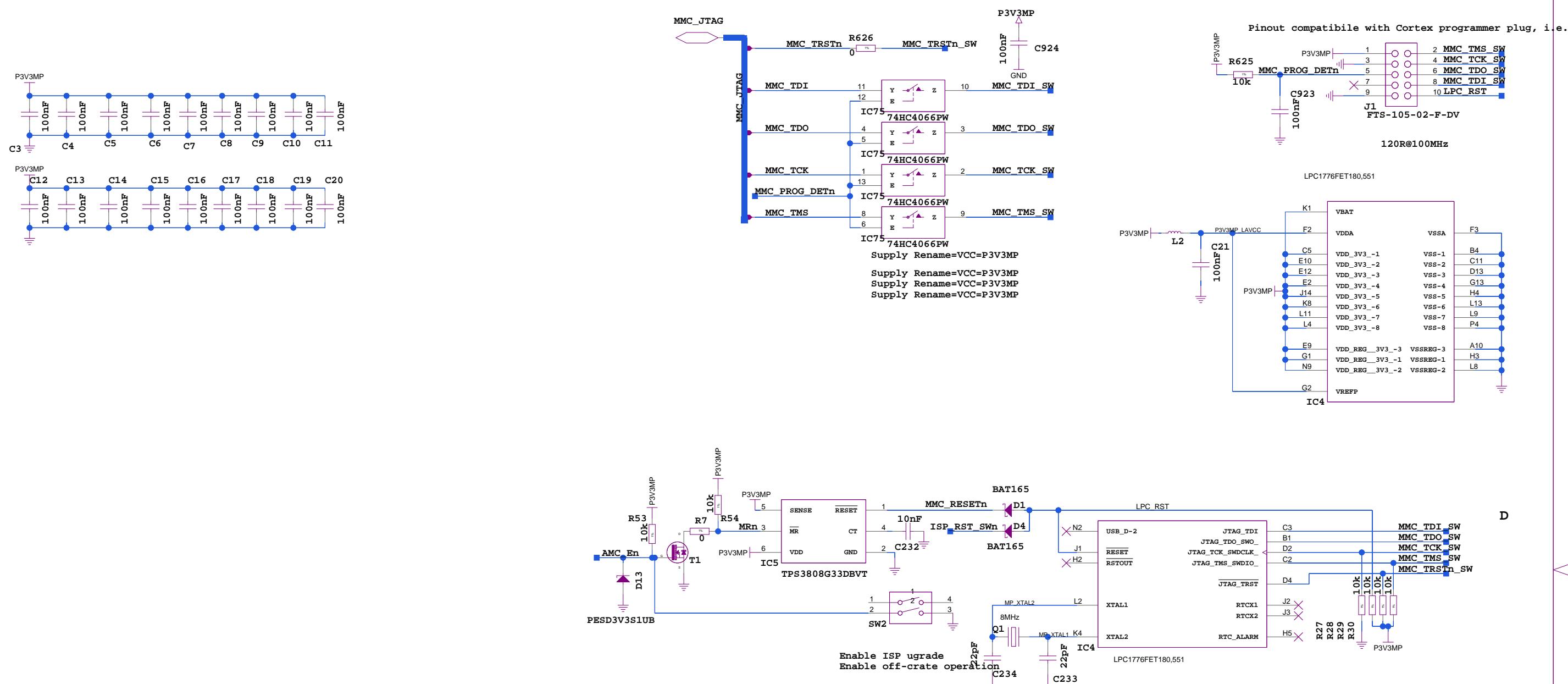


TITLE

ZYNQ_US_SOC_PS

AMC FMC Carrier Board

SIZE	DWG NO		REV
A3	DDR	39	1.0
DRAWN BY	G.Kasprowicz	SHEET	of
	39		

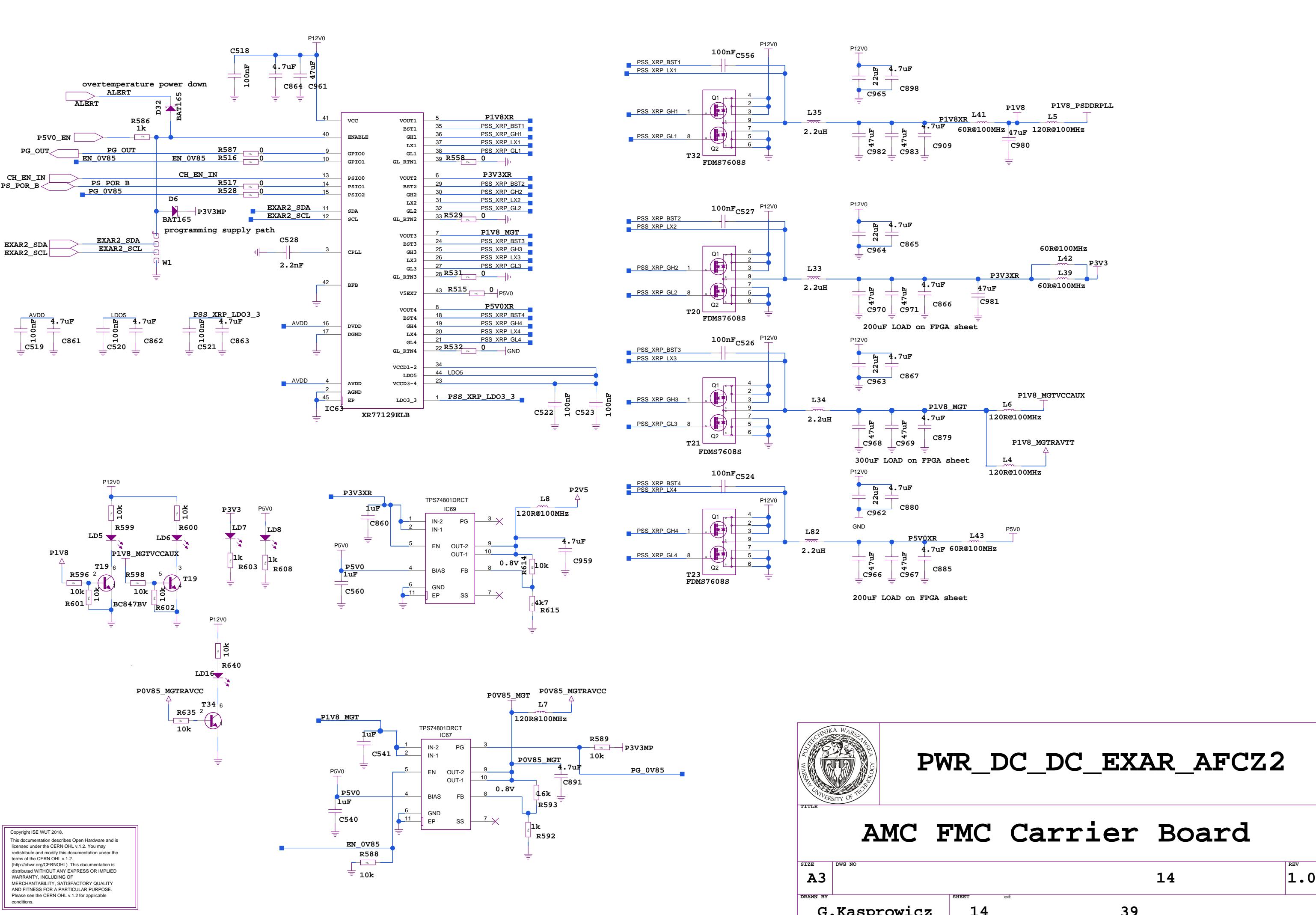


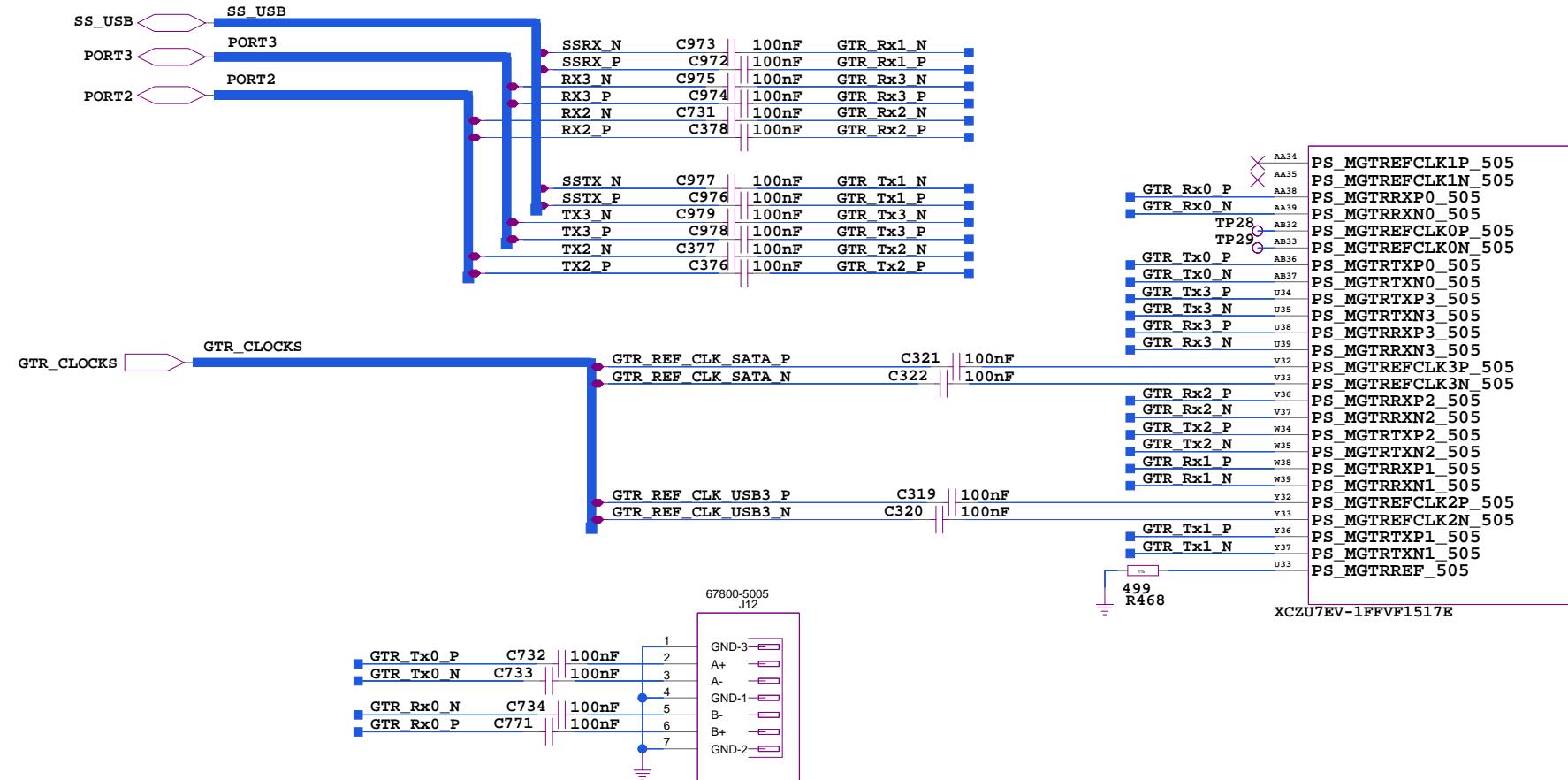
CPU LPC1776



AMC FMC Carrier Board

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ZYNQ_US_SOC_PL

AMC FMC Carrier Board

SIZE	DWG NO	REV
A3	GTR	1.0
DRAWN BY	SHEET of	
G.Kasprowicz	33	39