

AMC_Connector



TITLE

AMC_FMC Carrier Board

SIZE

DWG NO

A3

REV

1.0

3

DRAWN BY

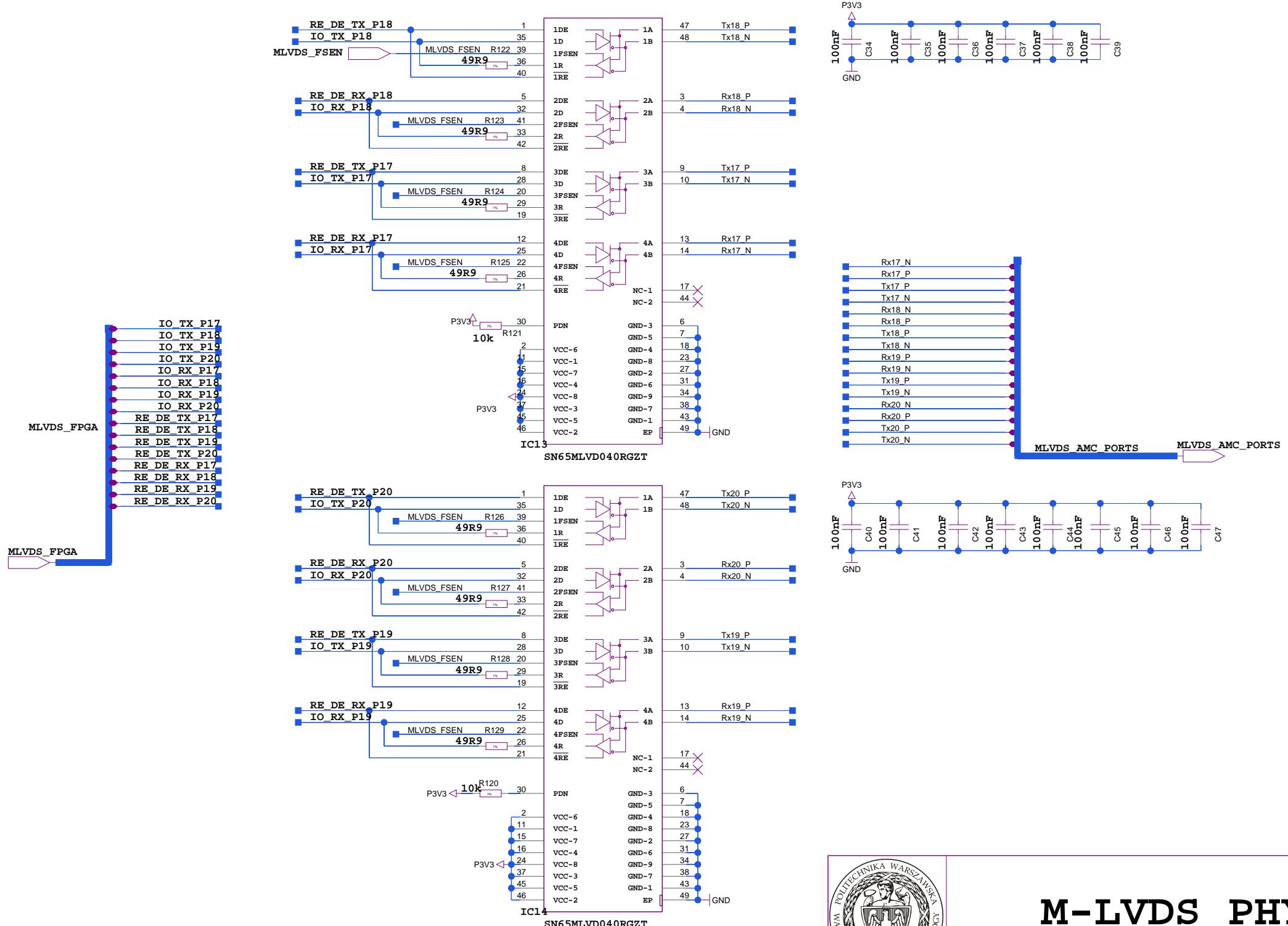
G.Kasprowicz

SHEET

of

38

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TITLE

M-LVDS_PHY

AMC FMC Carrier Board

SIZE DWG NO

A3

11

REV

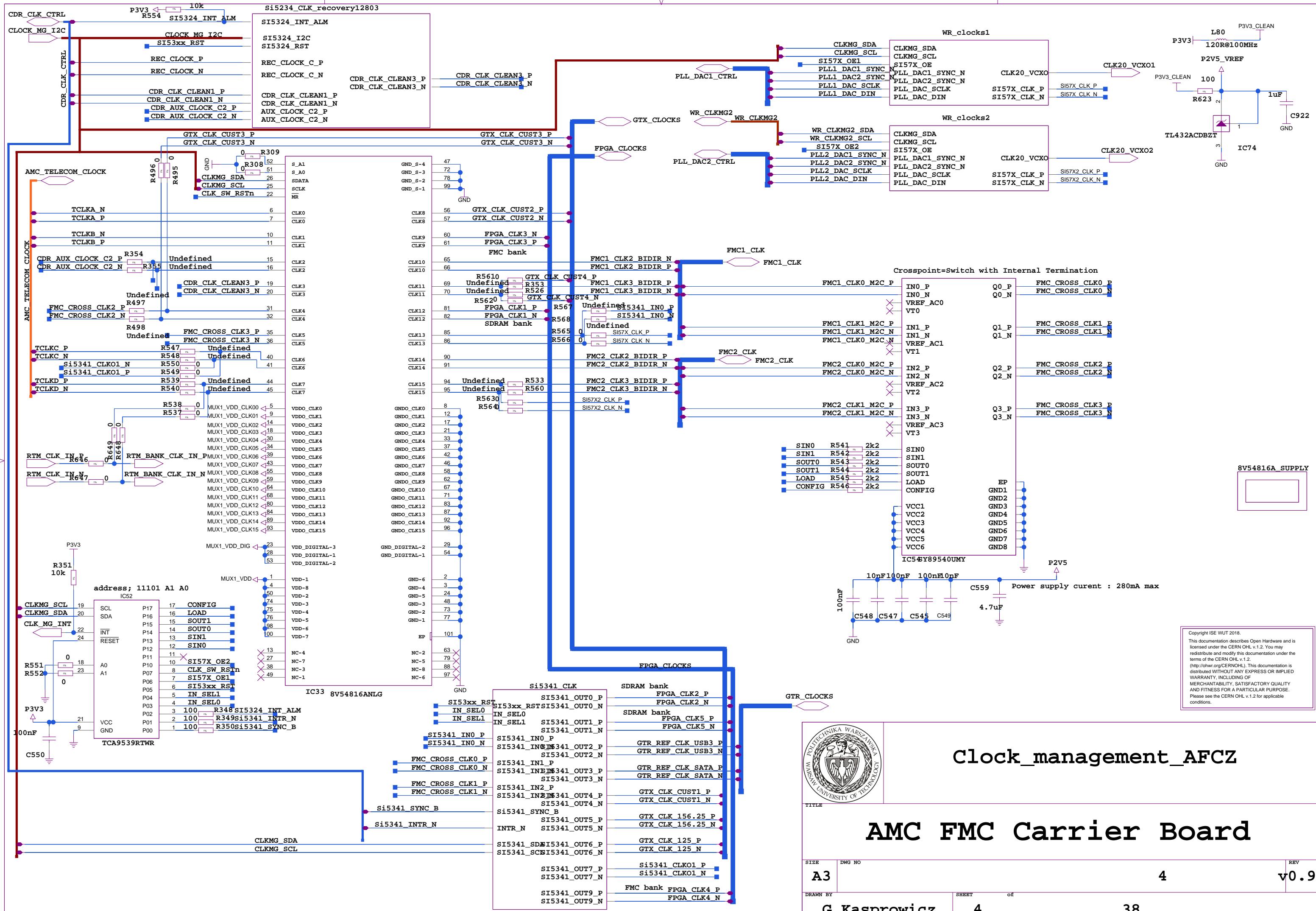
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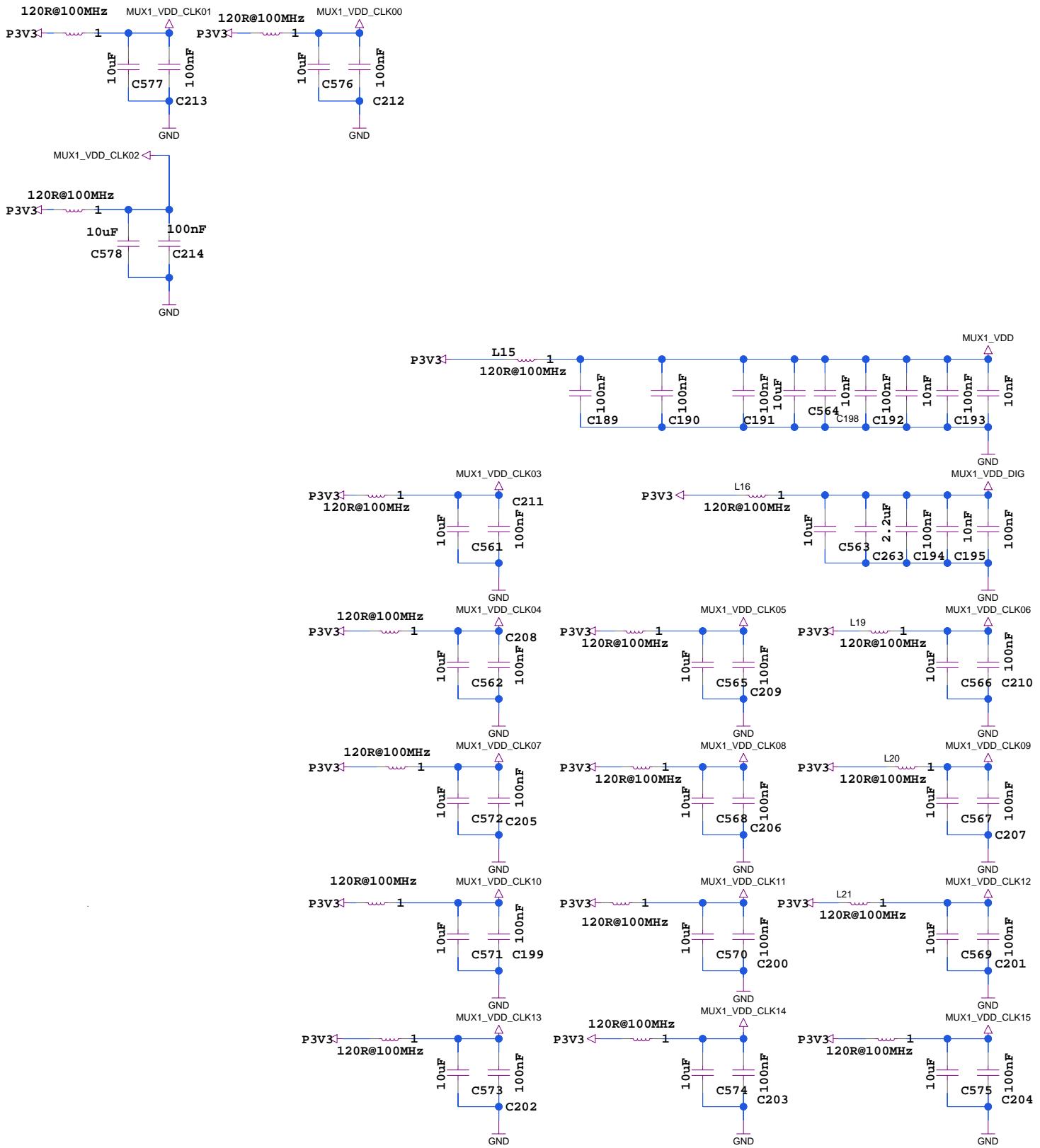
DRAWN BY

G.Kasprowicz

3

38

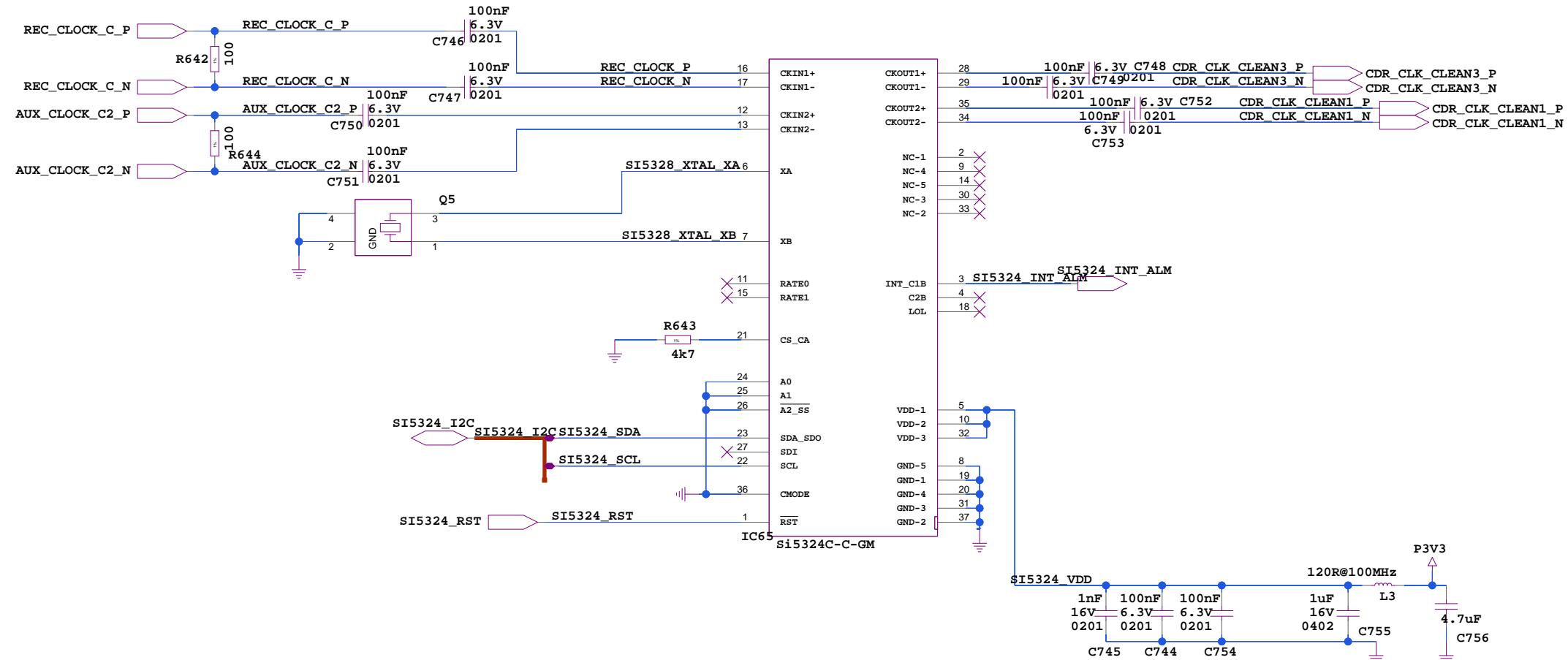




8V54816A_SUPPLY

AMC FMC Carrier Board

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

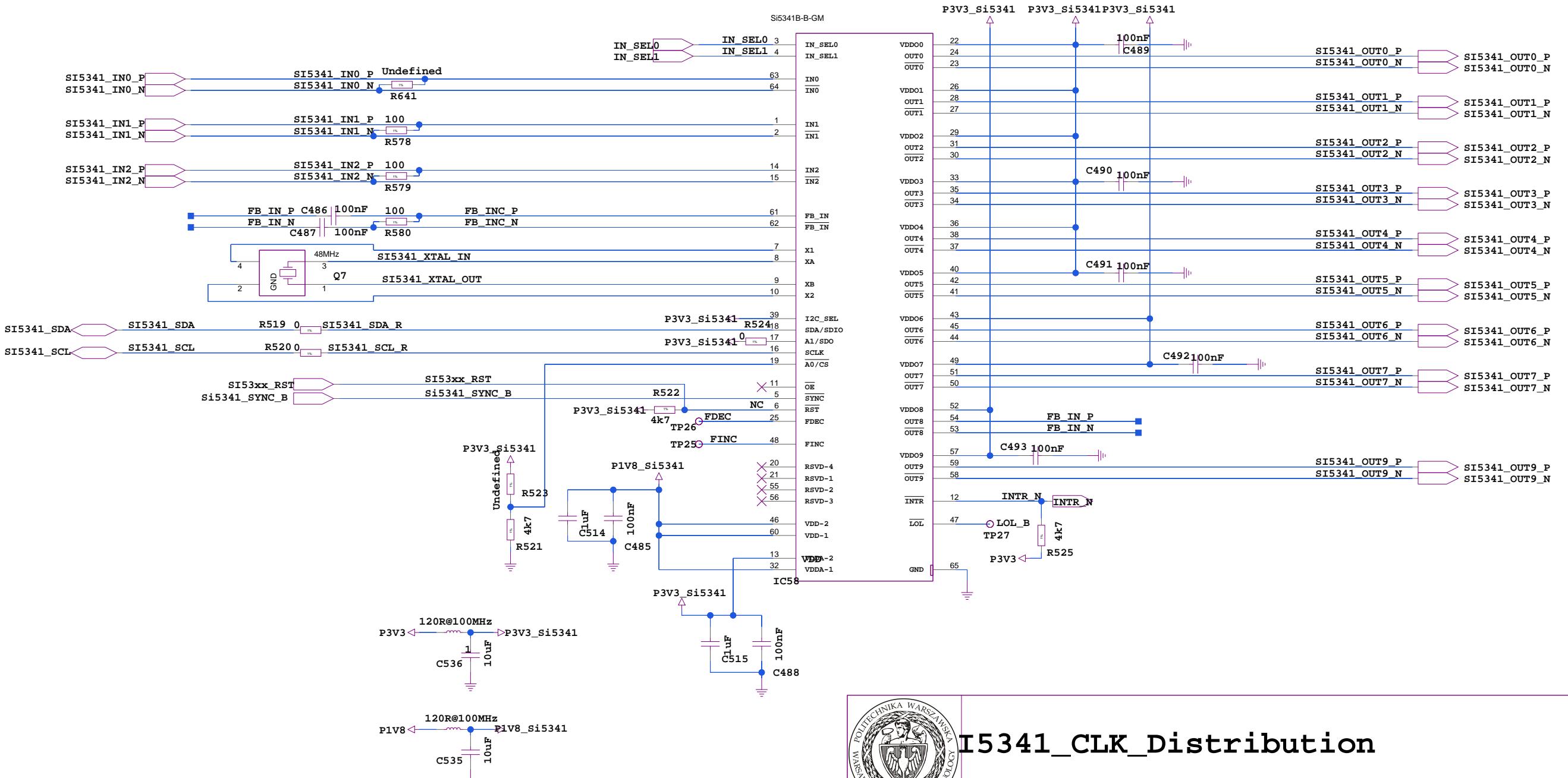


SI5324_CLK_RECOVERY

AMC FMC Carrier Board

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DRAWN BY	SHEET of	20

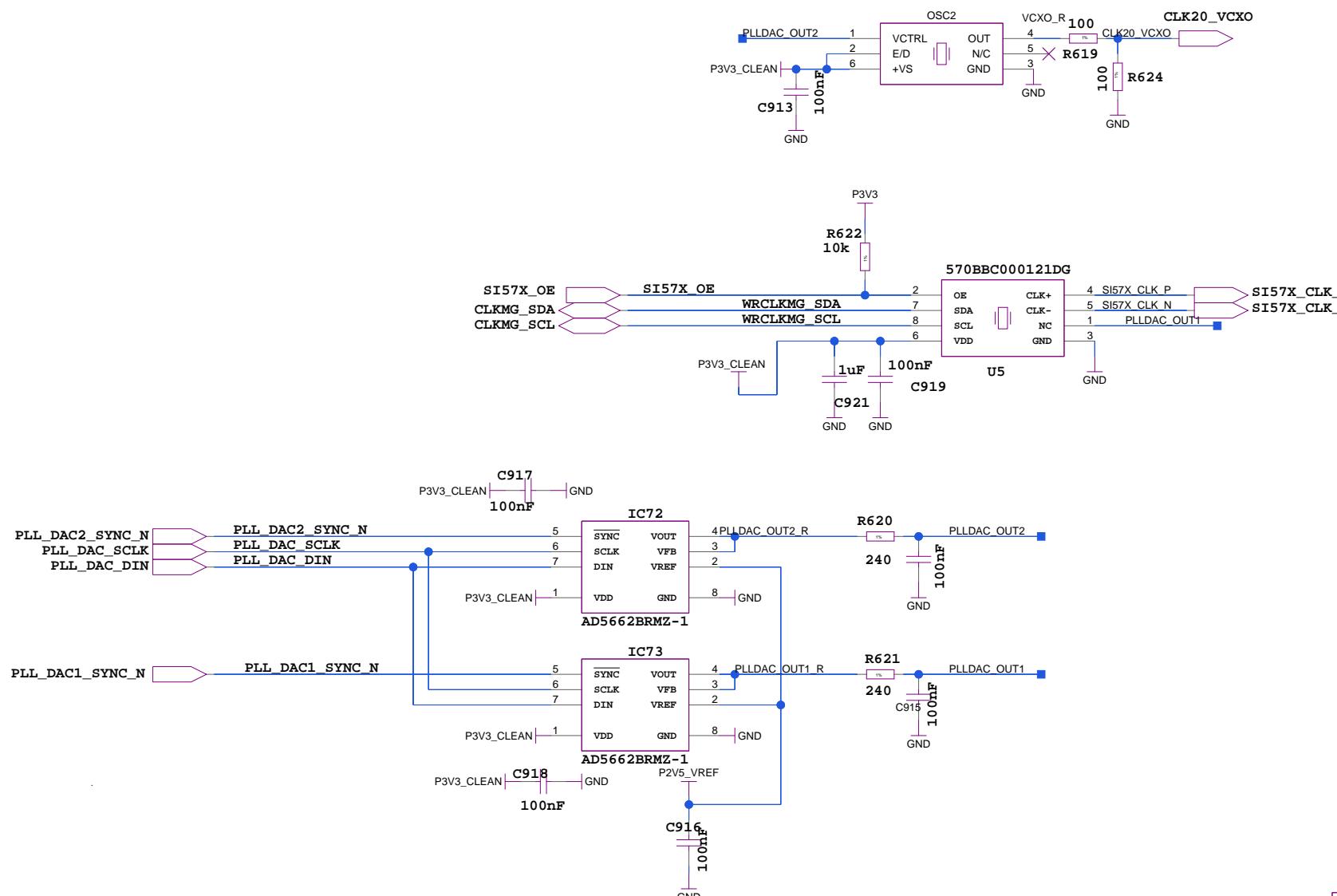
G.Kasprowicz 6 39



I5341_CLK_Distribution

AMC FMC Carrier Board

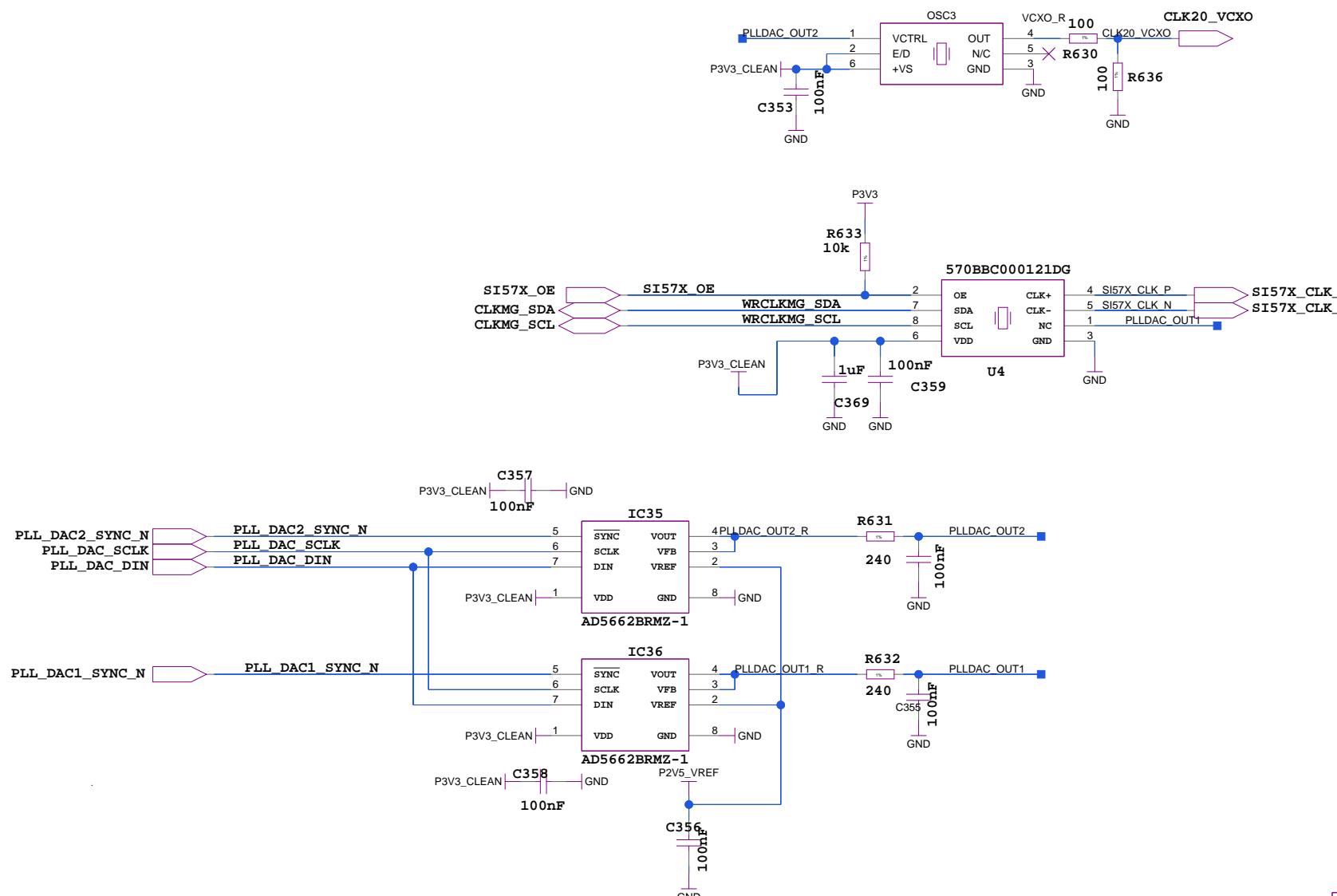
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WR_clocks

AMC FMC Carrier Board

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

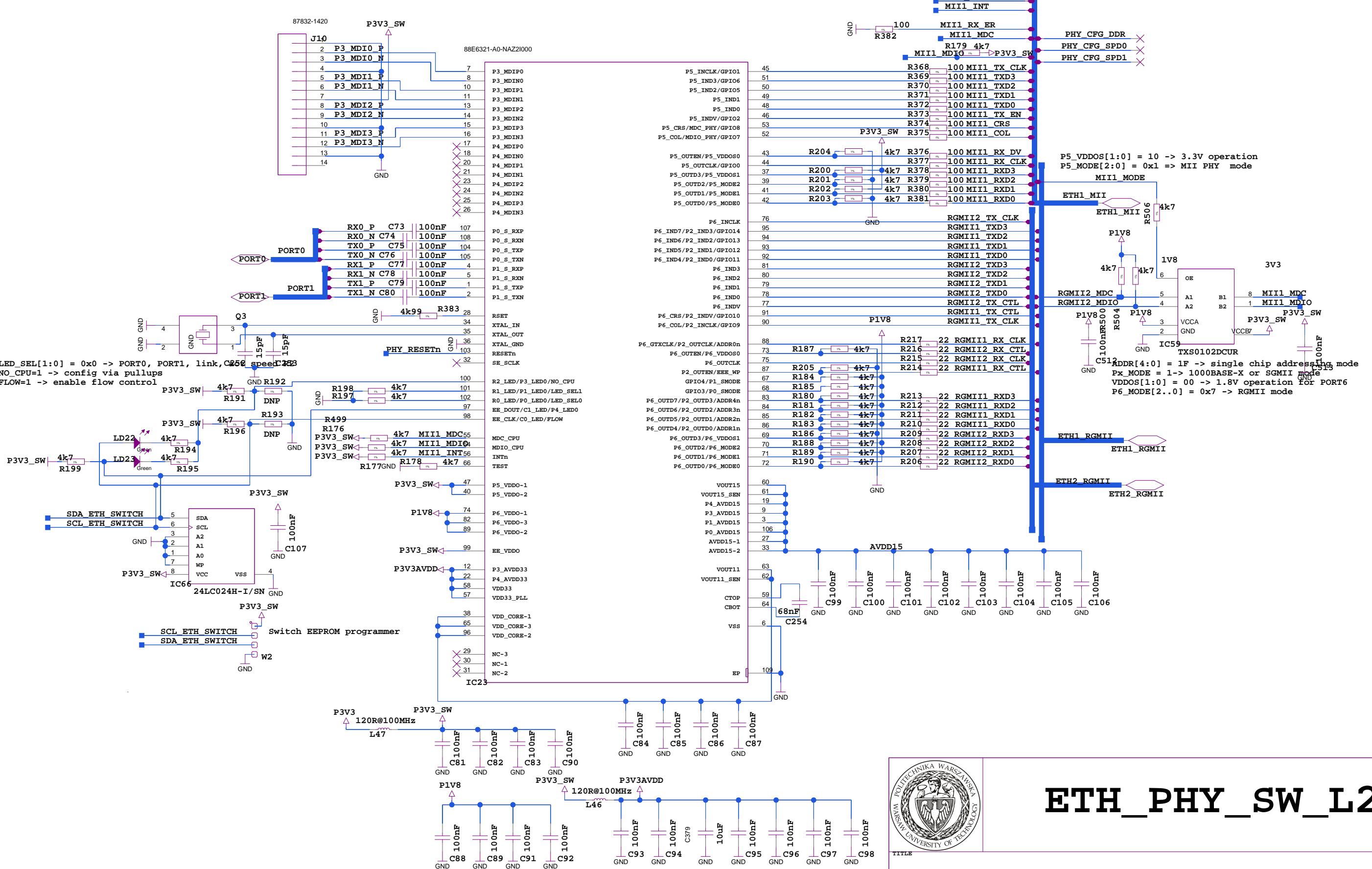


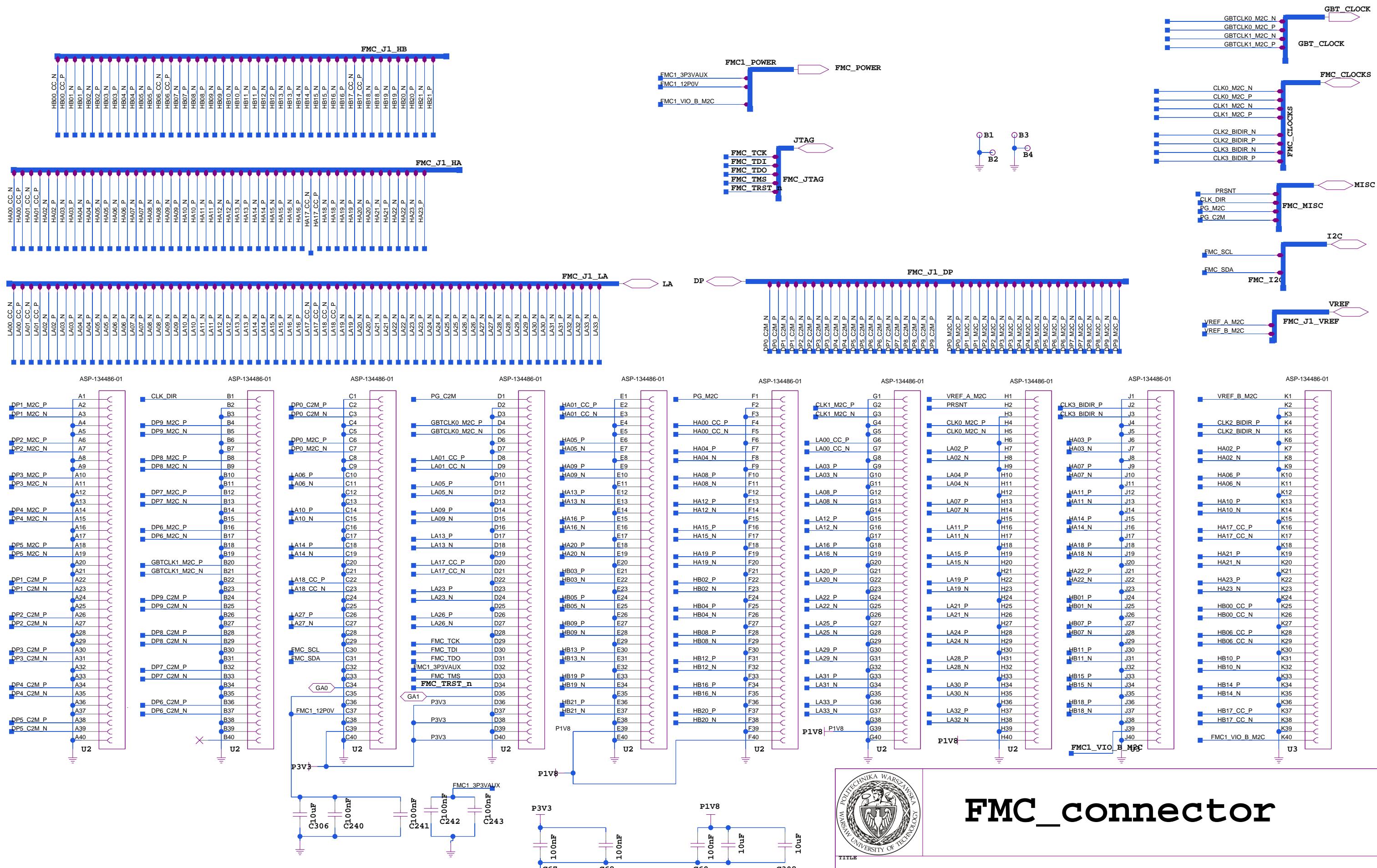
WR_clocks

AMC FMC Carrier Board

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





AMC FMC Carrier Board

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SIZE DWG NO

A3

DRAWN BY

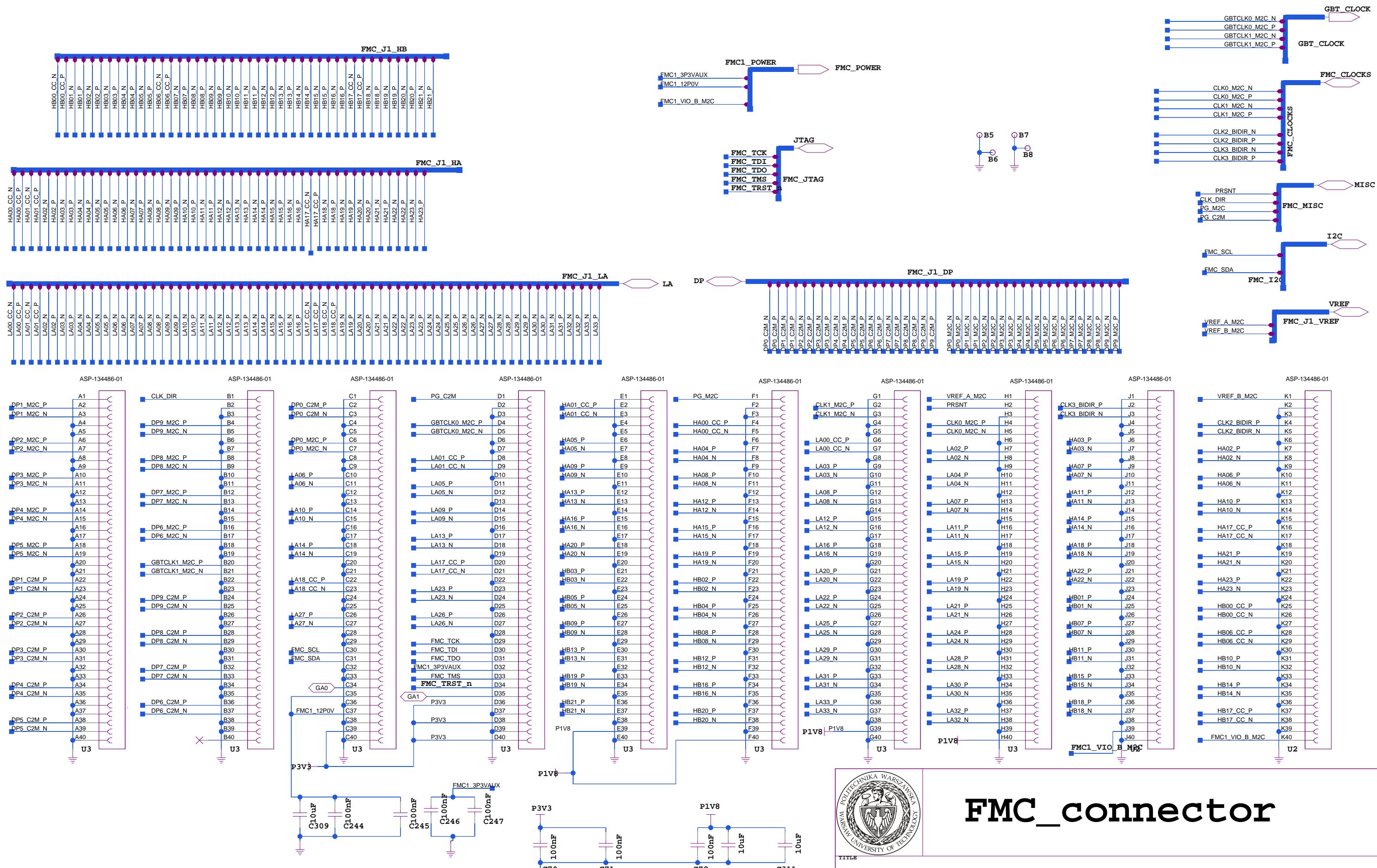
G.Kasprowicz

SHEET

of

8

REV
1.0



FMC_connector

AMC FMC Carrier Board

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SIZE DWG NO

A3

DRAWN BY

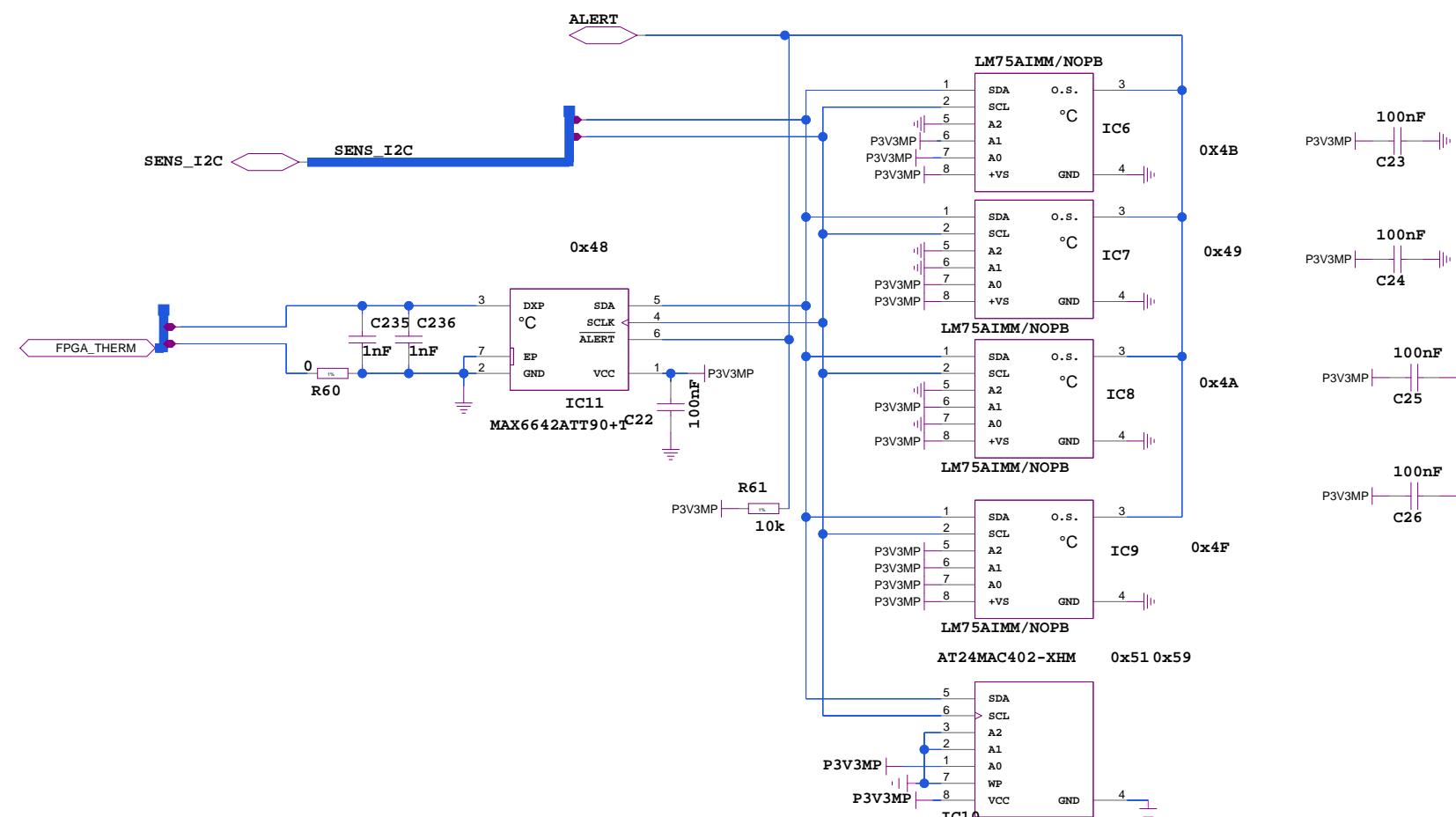
G.Kasprowicz

SHEET

of

8

REV
1.0



TITLE

Thermometers

AMC FMC Carrier Board

SIZE DWG NO

A3

REV

1.0

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

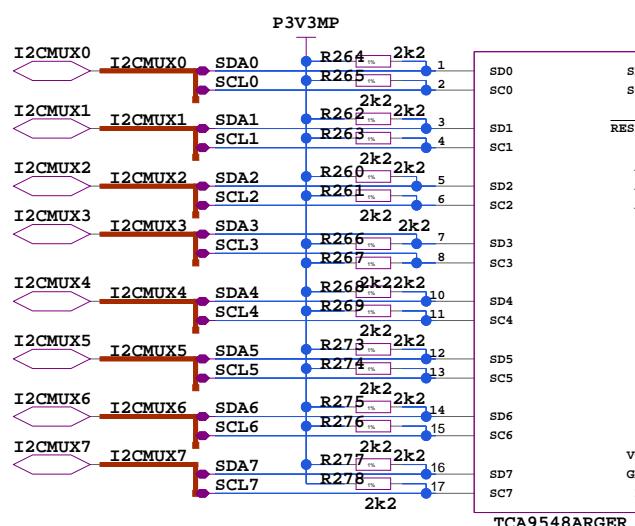
MUX4:
XR77129ELB 0x28

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

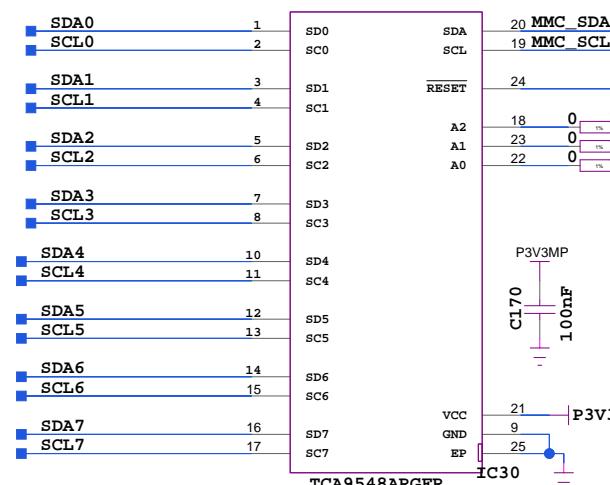
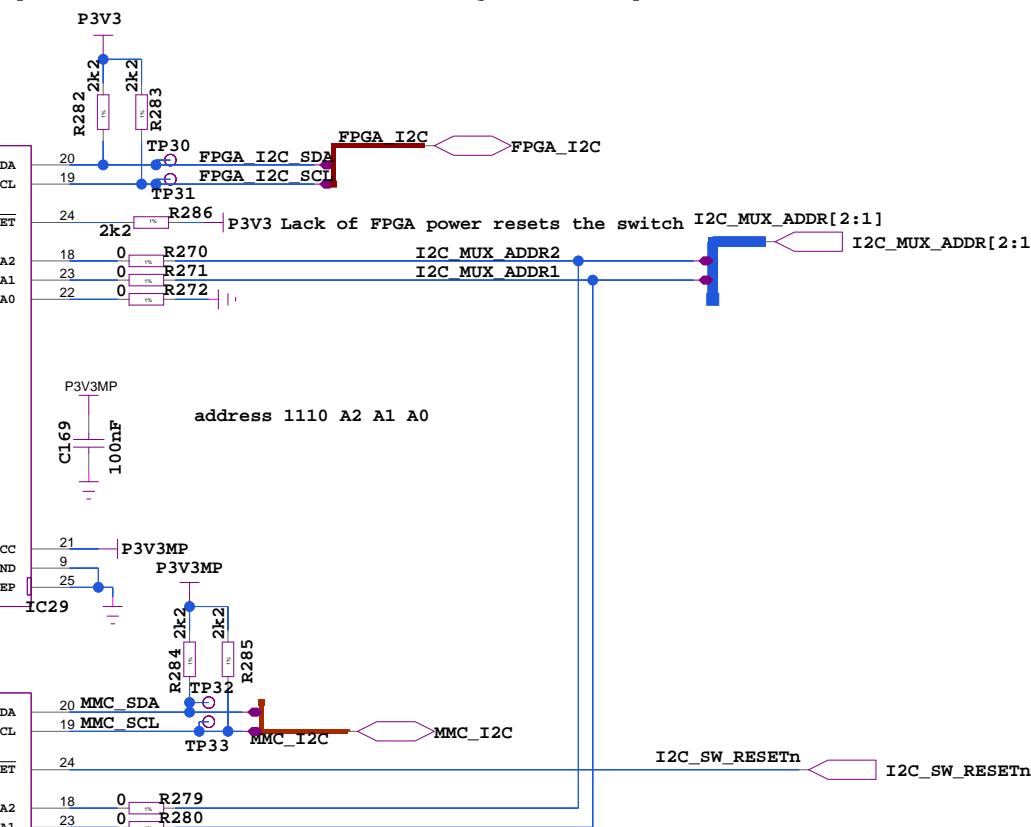
MUX6:
sensors
MAX642ATT90+T 0x48
LM75 - IC7: 0x4B
LM75 - IC7: 0x49
LM75 - IC8: 0x4A
LM75 - IC9: 0x4F
AT24MAC402-XHM: 0x51 & 0x59

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

```

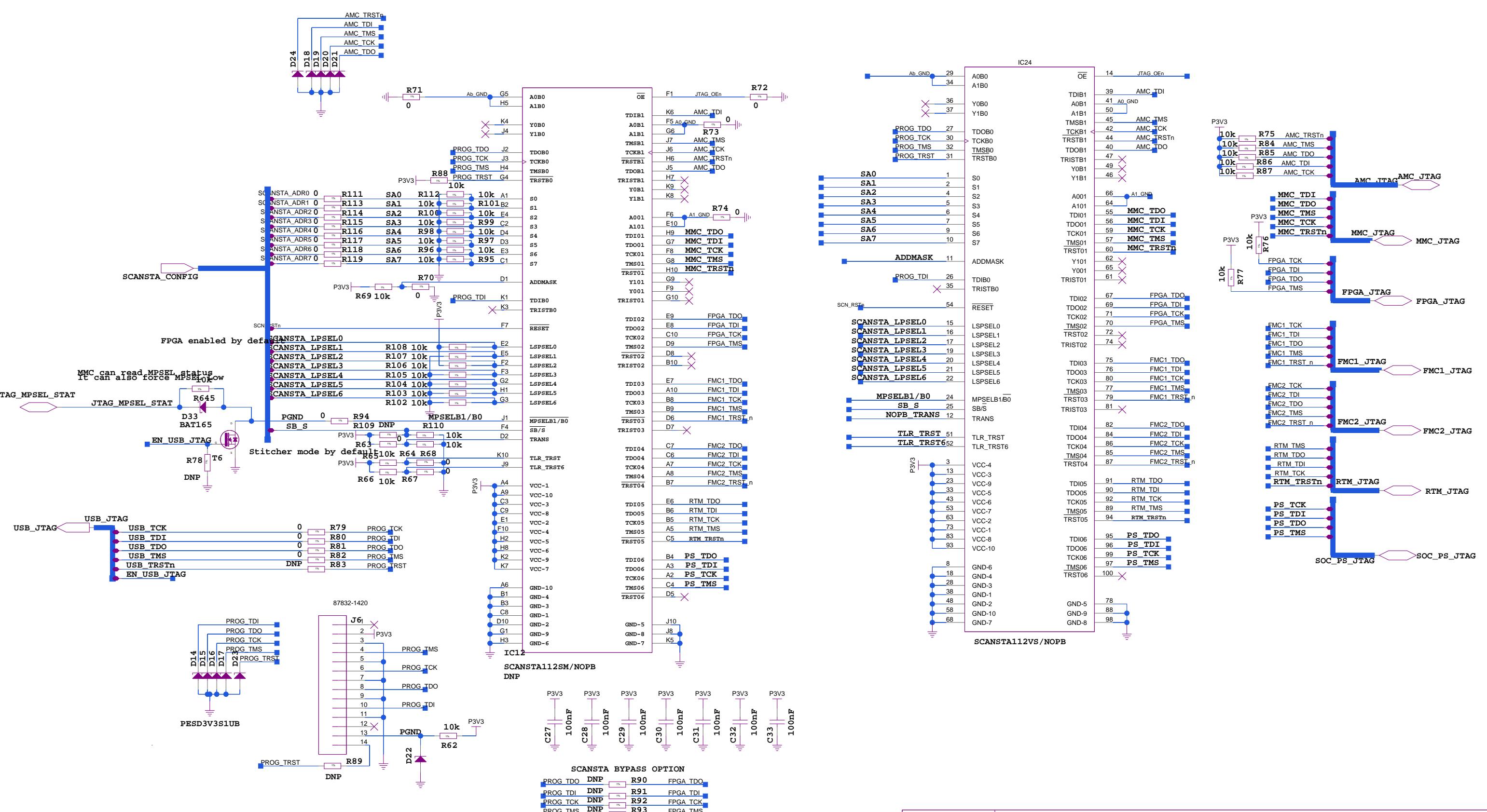


I2C switch footprint is compatible with MAX7358 which has interesting anti-lock capabilities



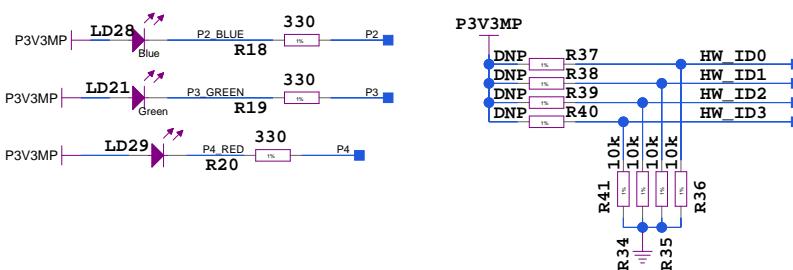
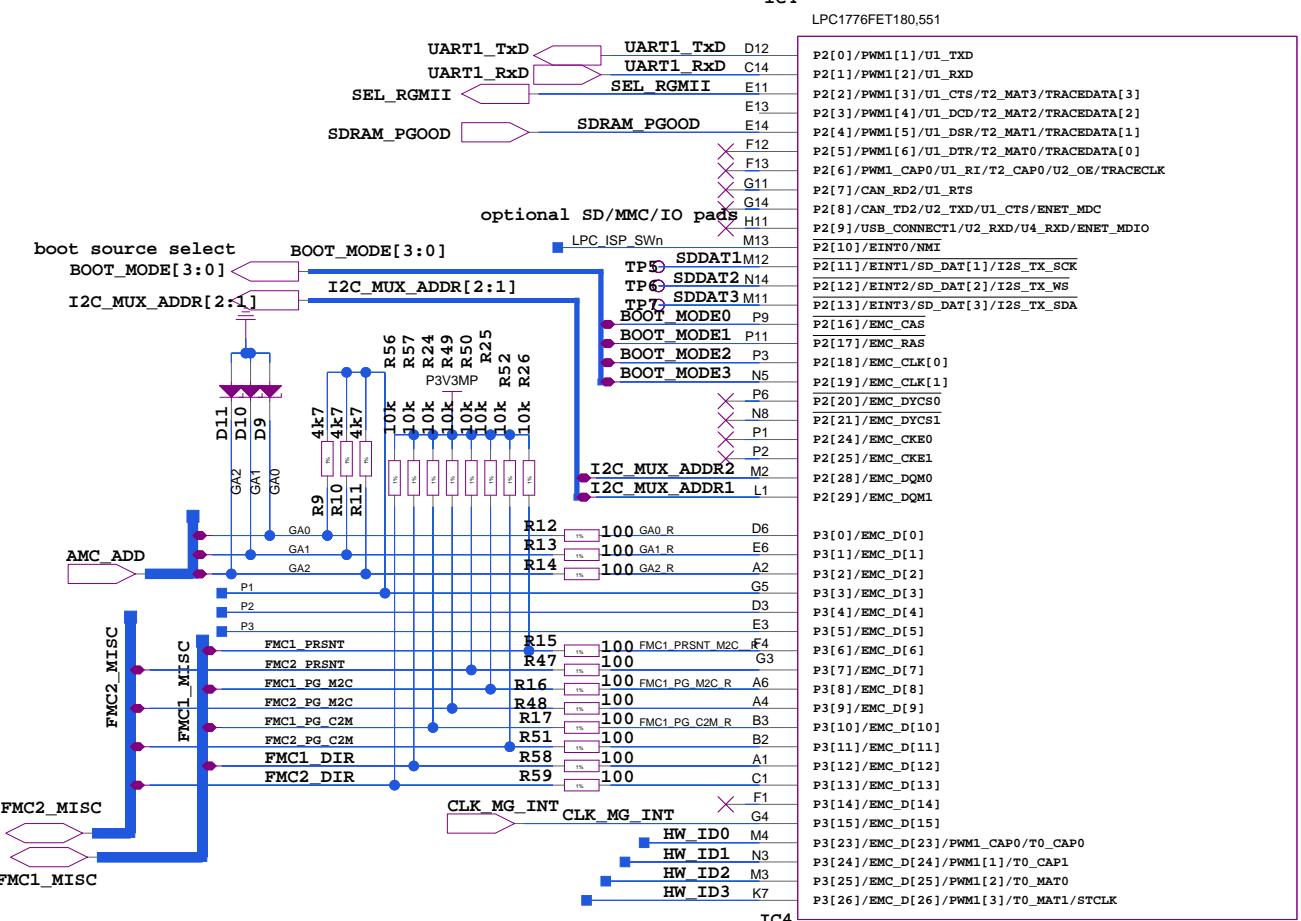
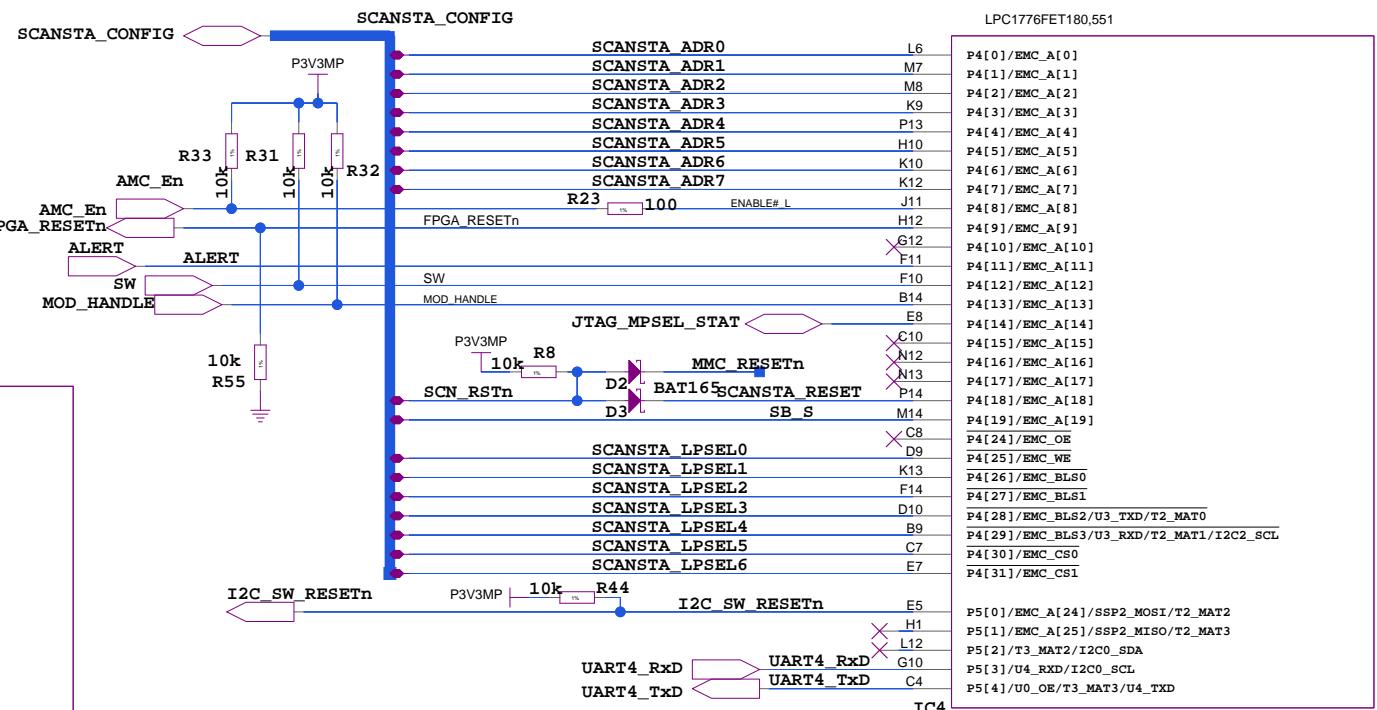
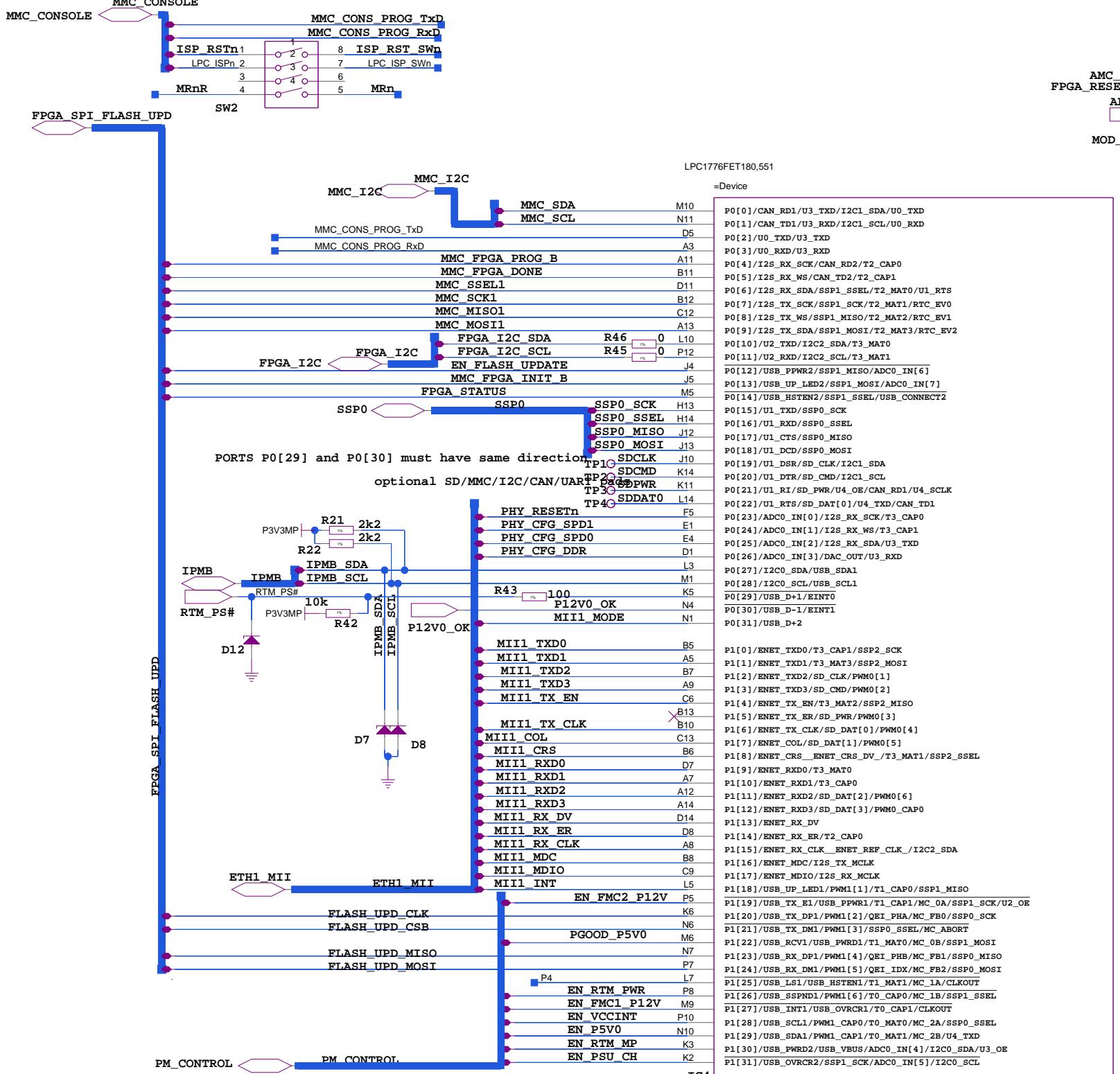
AMC FMC Carrier Board

SIZE	DWG NO	REV
A3		1.0
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G.Kasprowicz	14	38



JTAG Configuration

AMC FMC Carrier Board



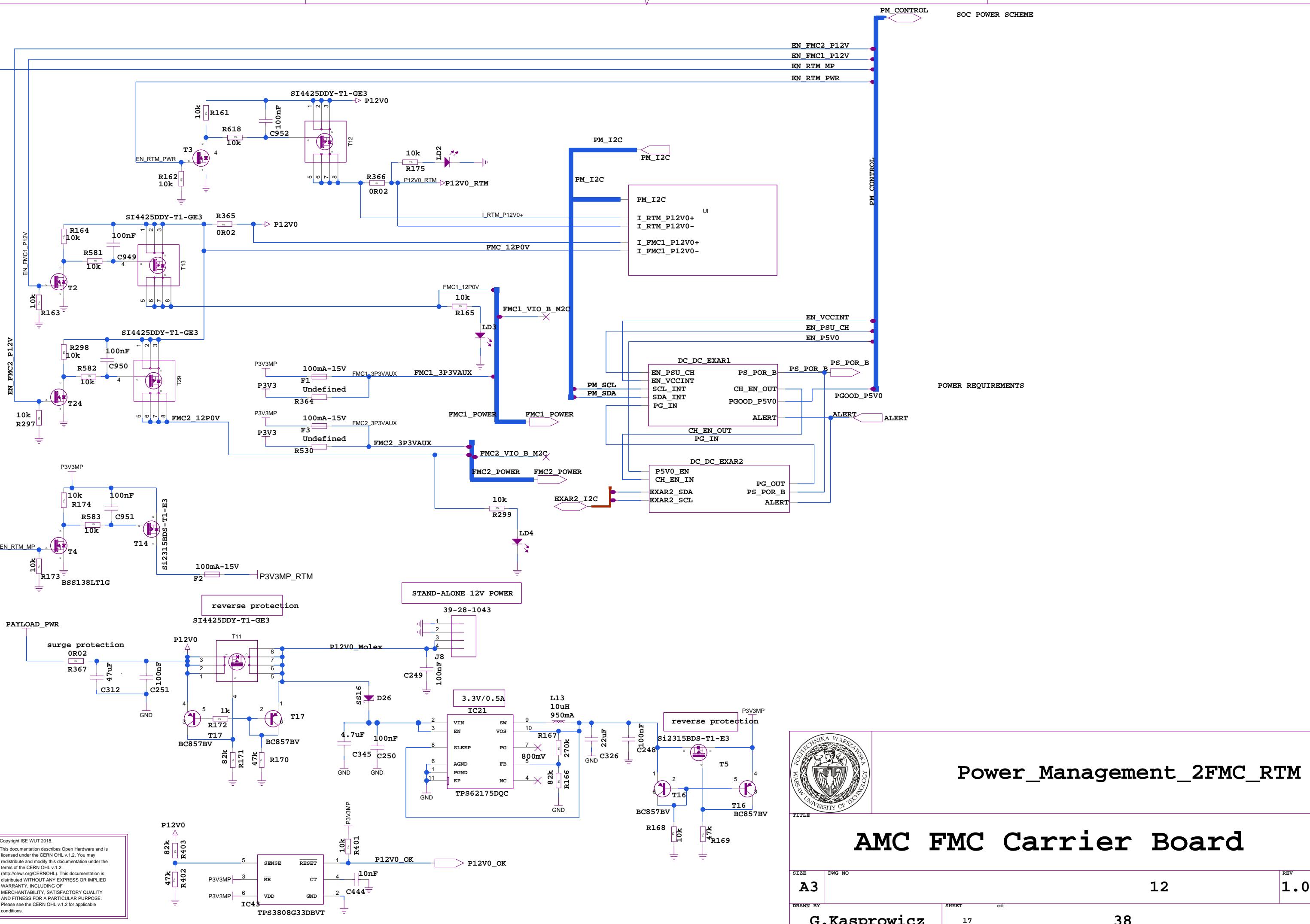
CPU_LPC1776

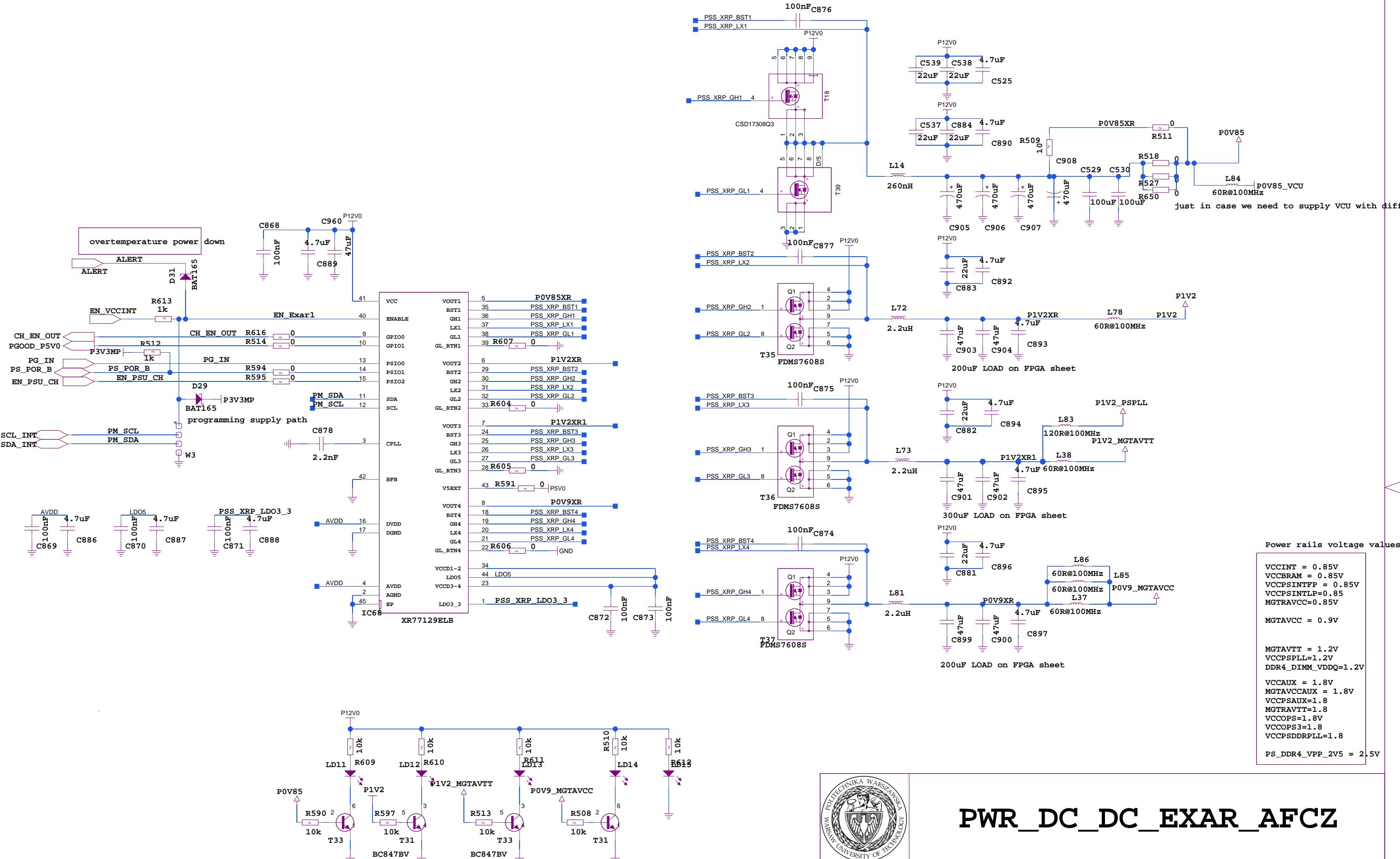
AMC FMC Carrier Board

G.Kasprowicz

16

38





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TITLE

AMC FMC Carrier Board

SIZE A3

DWG NO

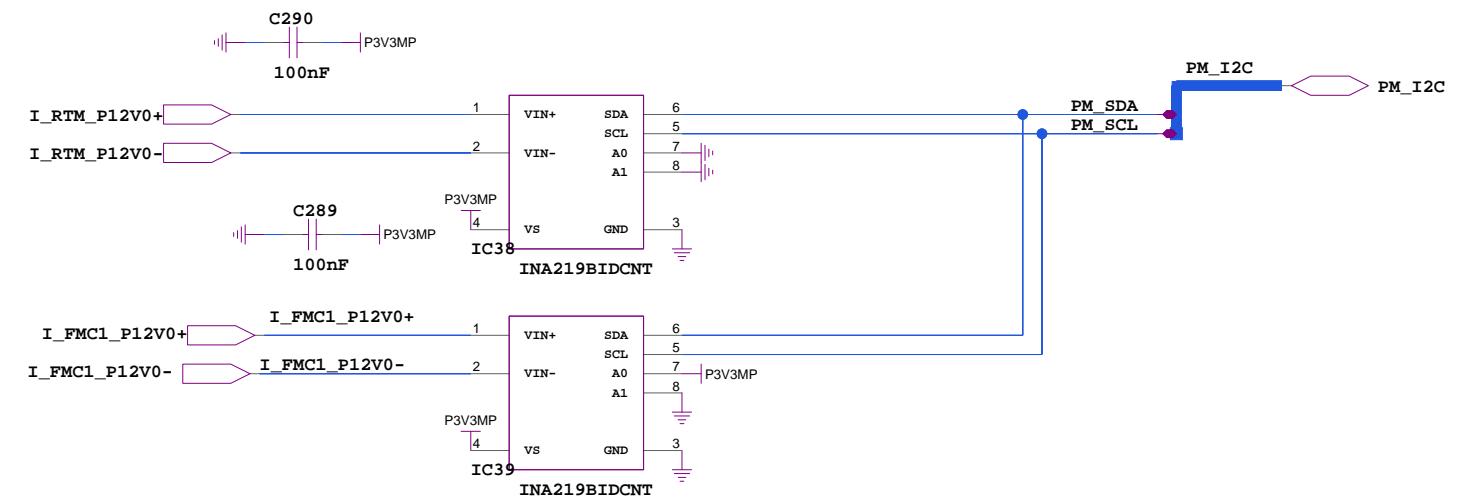
13

REV 1.0

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SHEET 18

of 38



TITLE

UI_mon**AMC FMC Carrier Board**

SIZE DWG NO

A3

REV

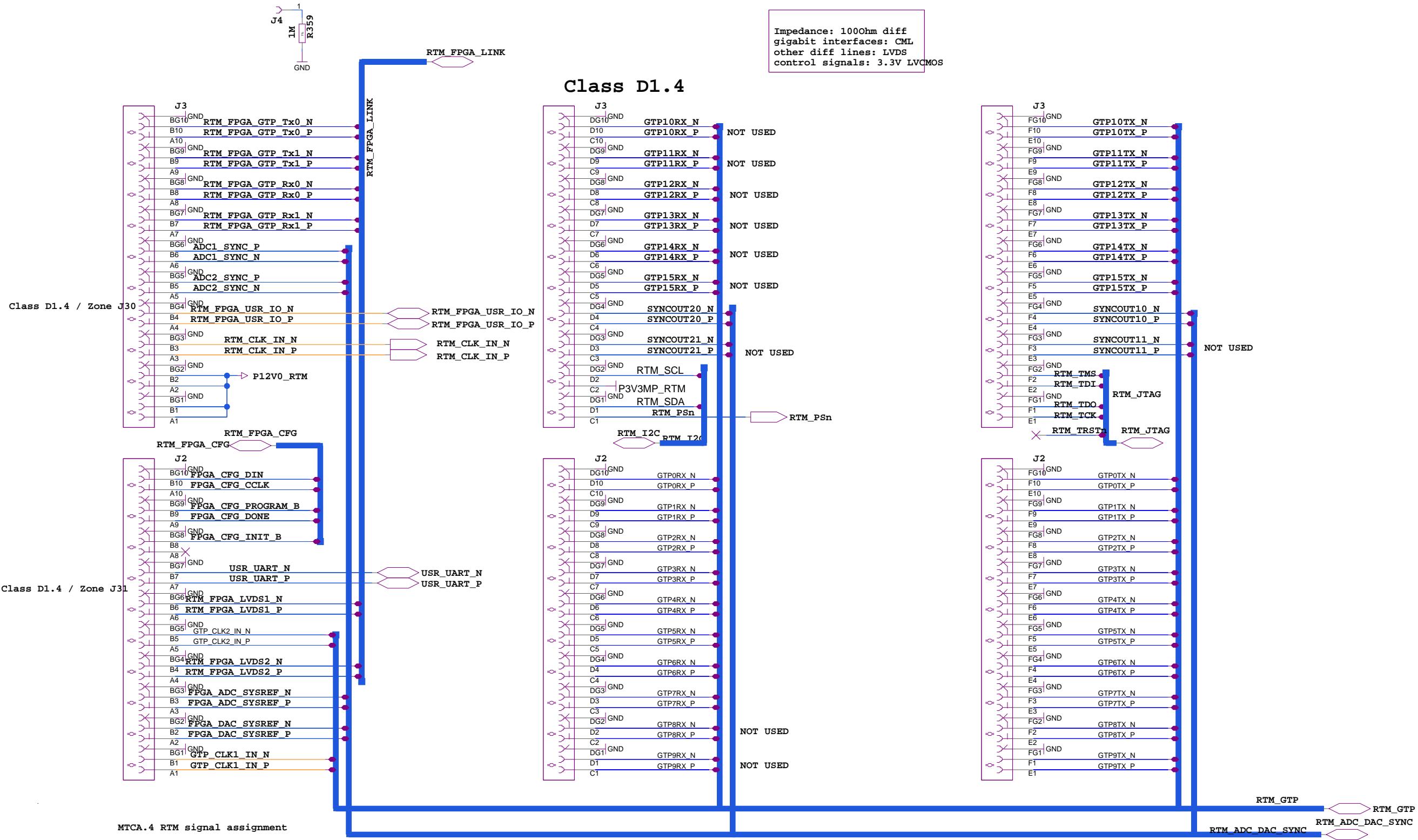
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15

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38



RTM_CON

AMC FMC Carrier Board

SIZE DWG NO

A3

DRAWN BY

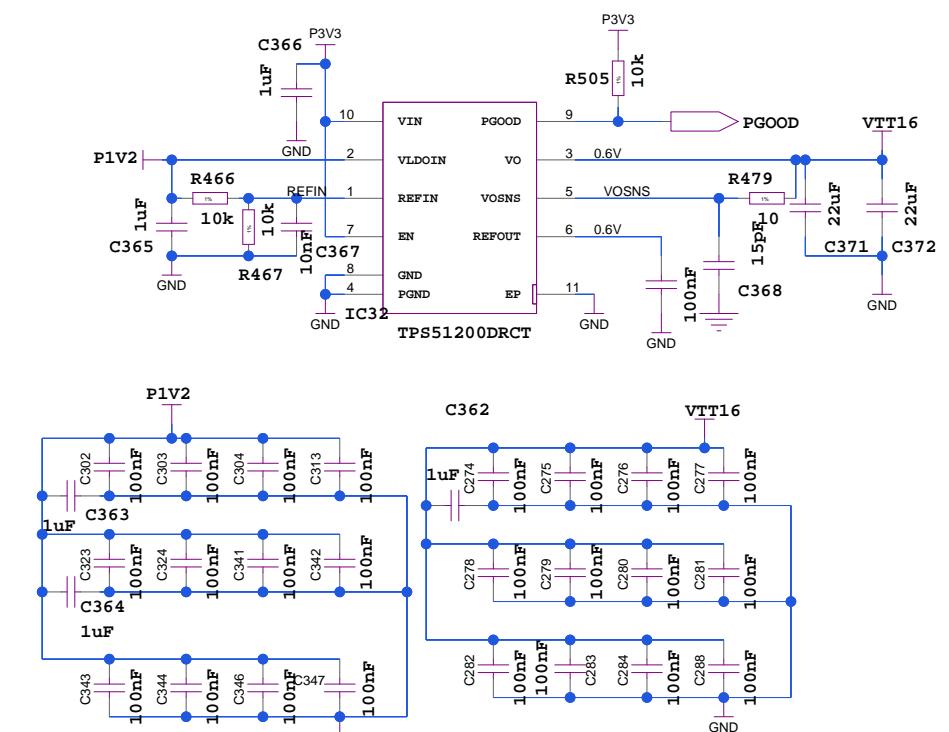
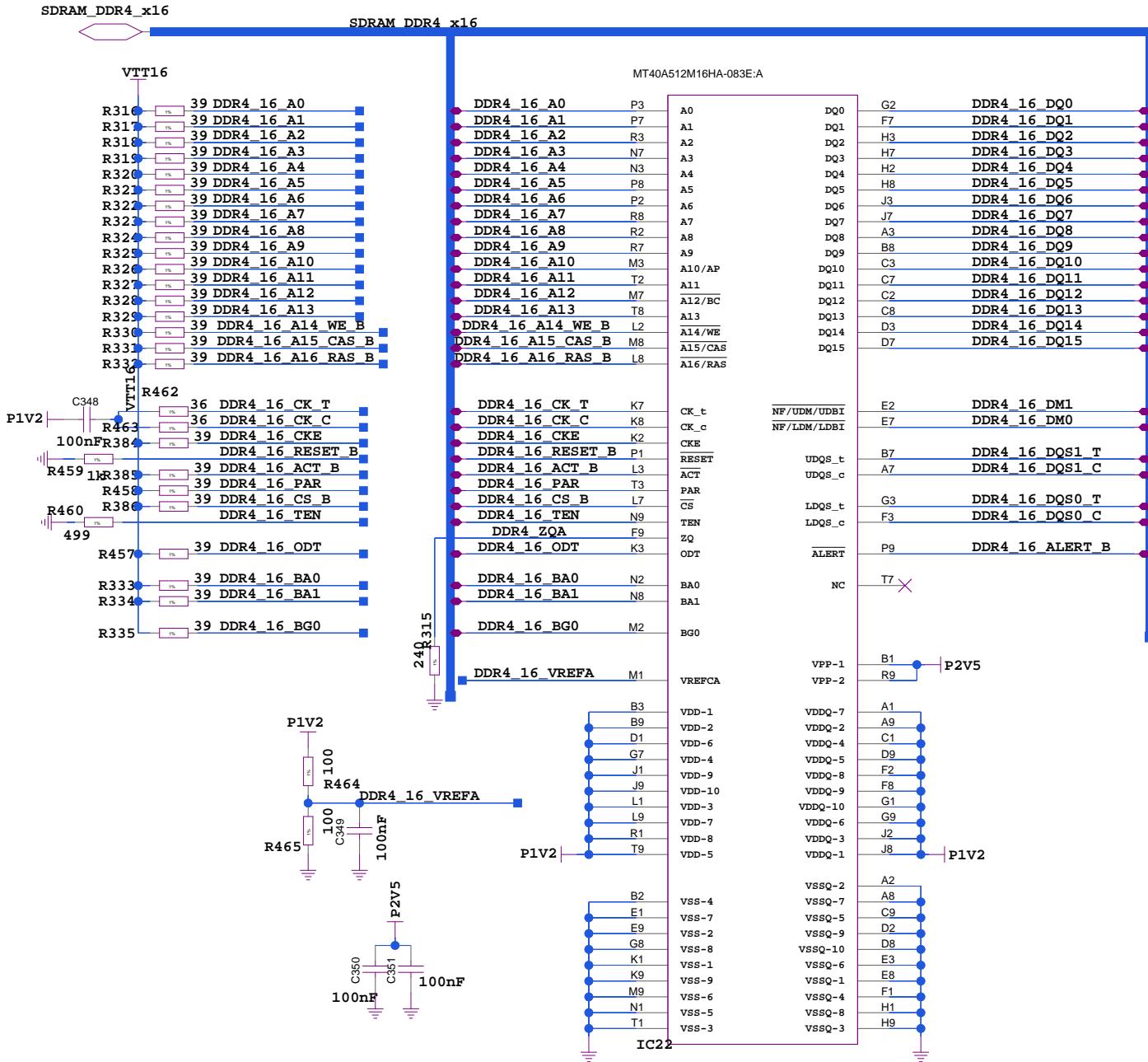
G.Kasprowicz

SHEET OF

15

REV

1.0



SDRAM_DDR4_16bit

AMC FMC Carrier Board

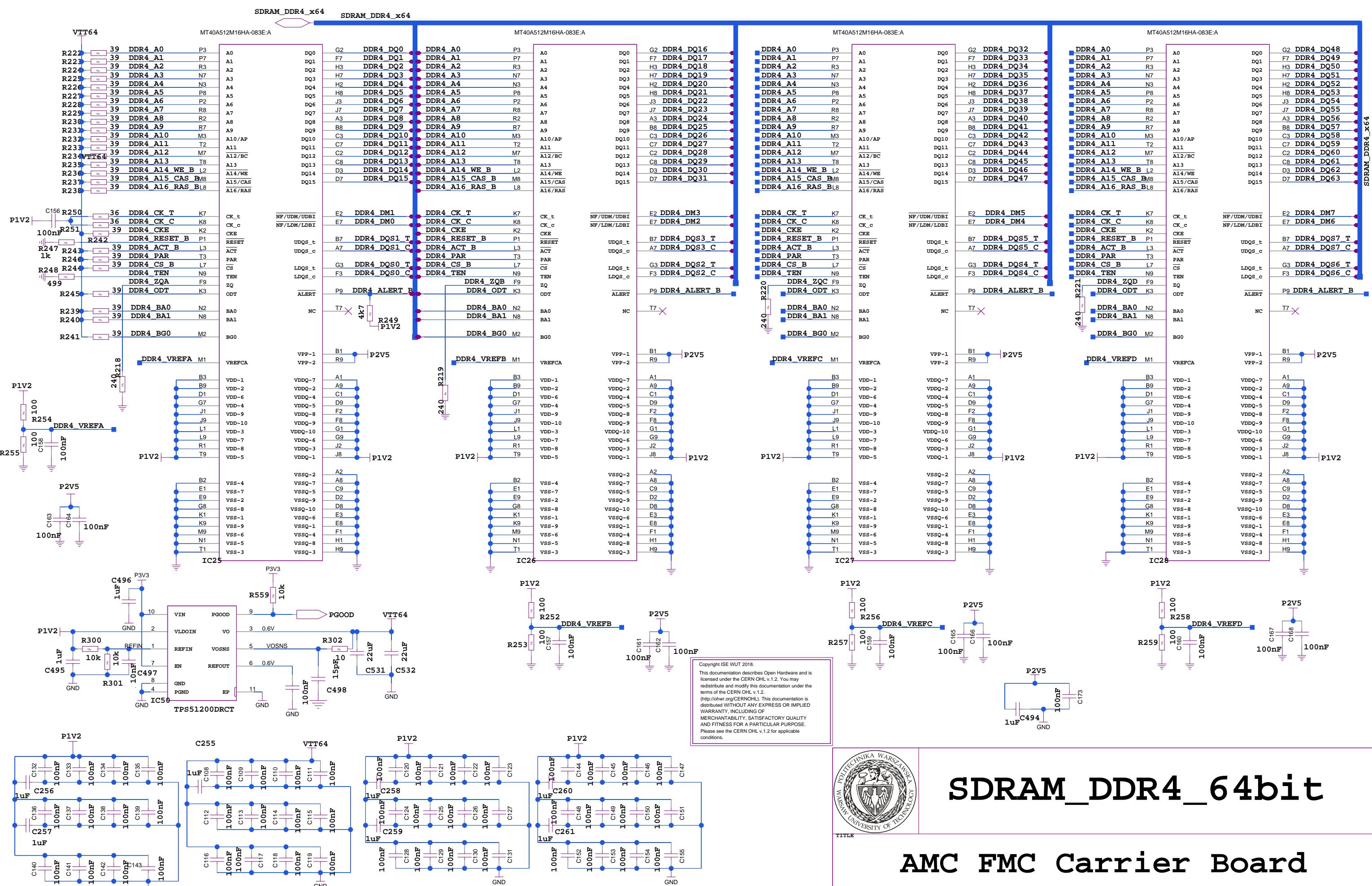
SIZE	DWG N
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17

1.0

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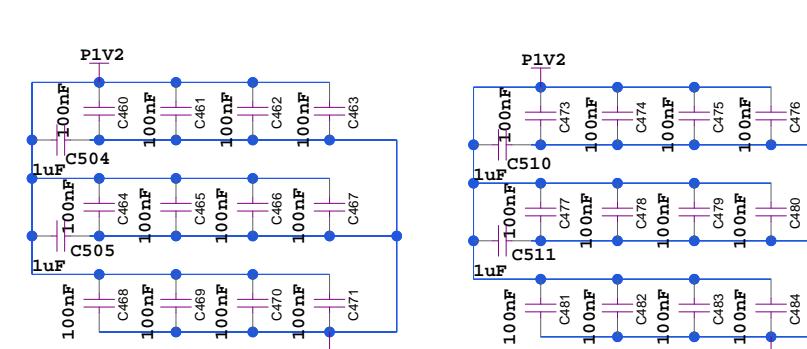
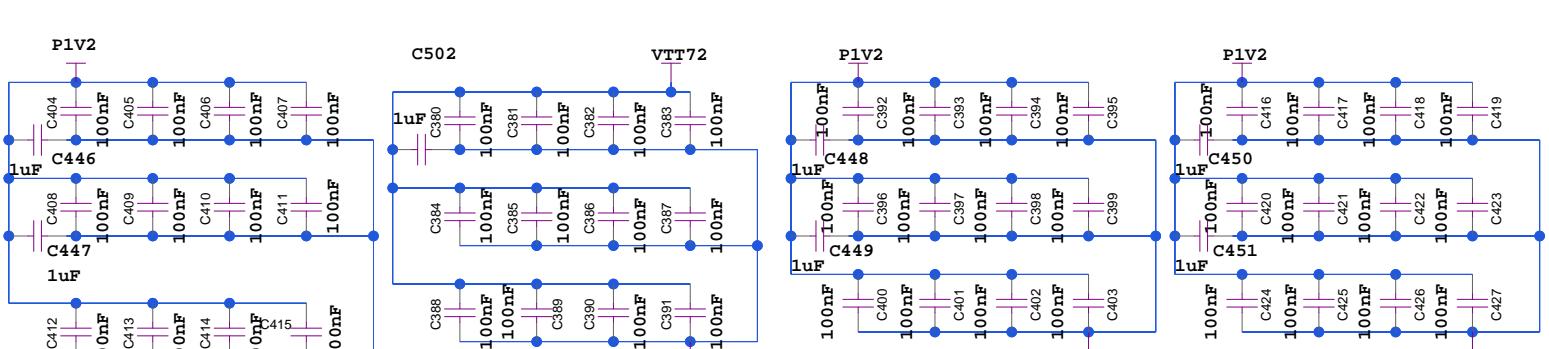
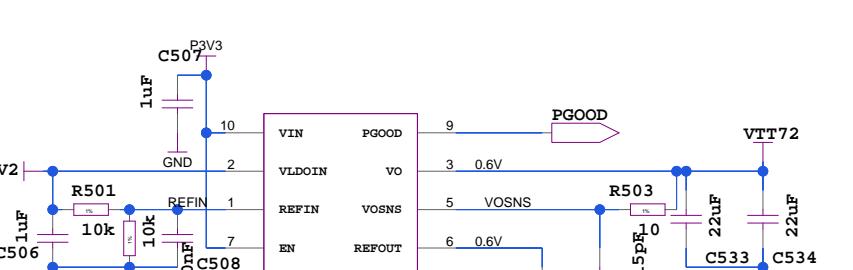
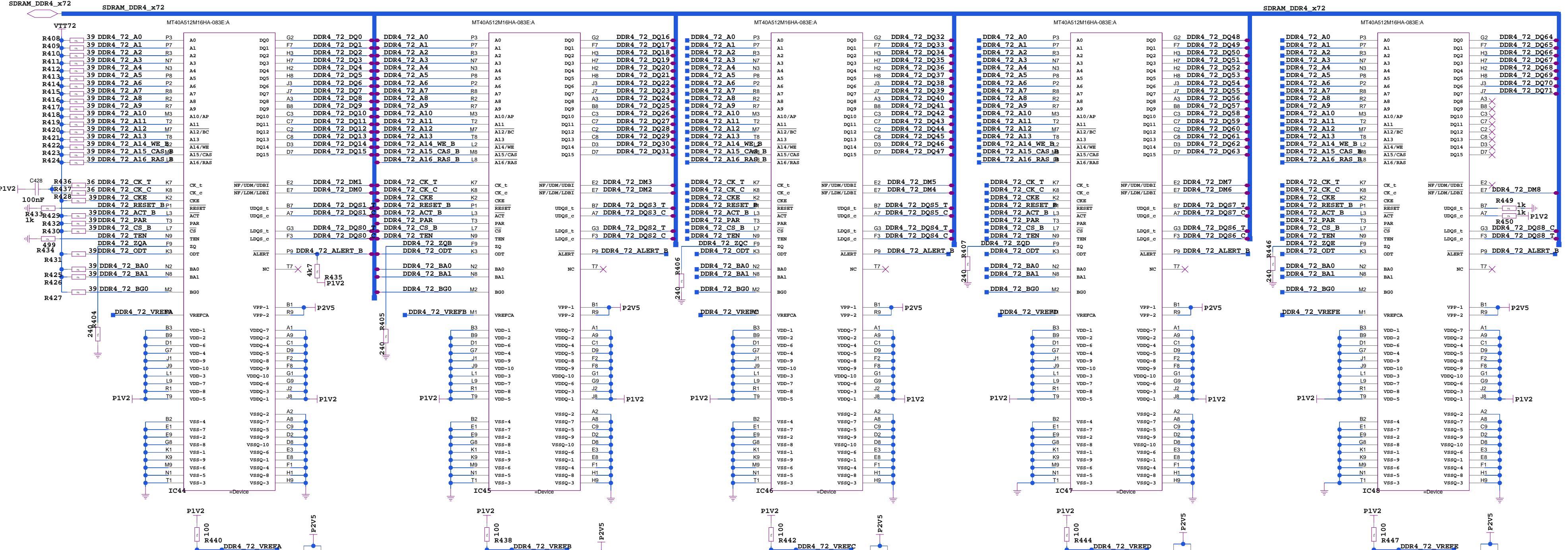
SDRAM_DDR4_64bit

AMC FMC Carrier Board

A3

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G.Kasprov

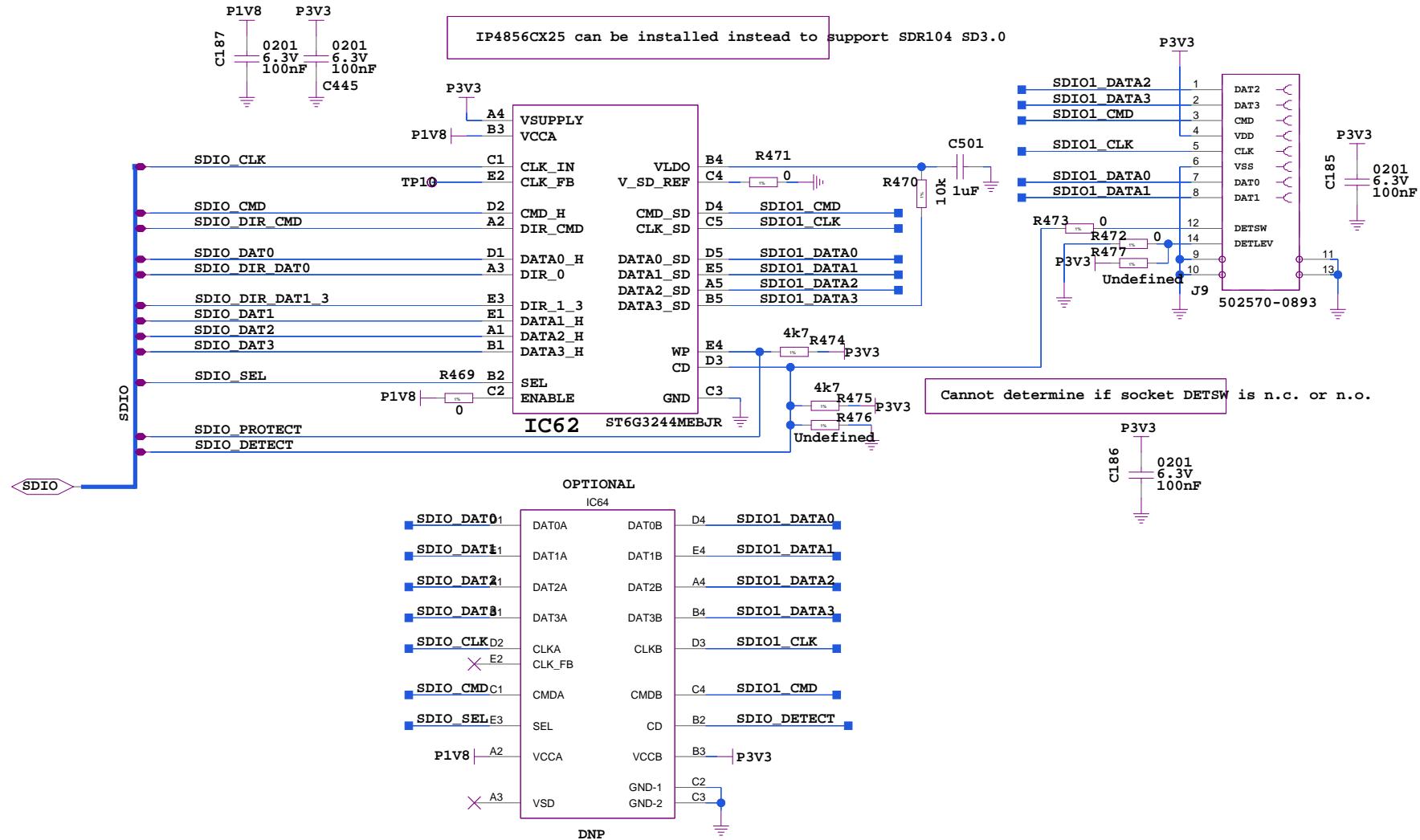


SDRAM DDR4 72bit

AMC FMC Carrier Board

SHEET 24 OF 39 09/02/2024

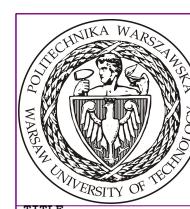
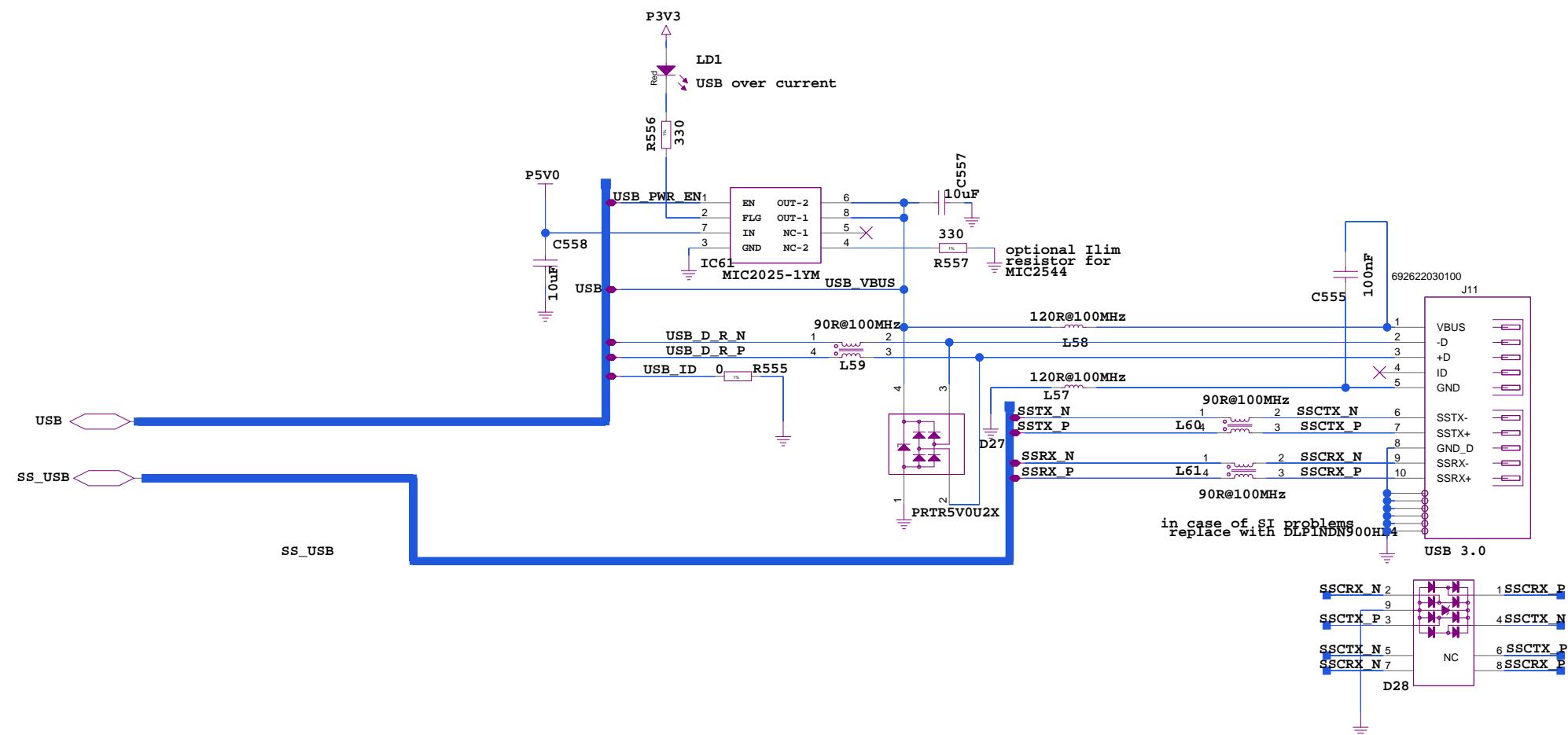
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SD_CARD

AMC FMC Carrier Board

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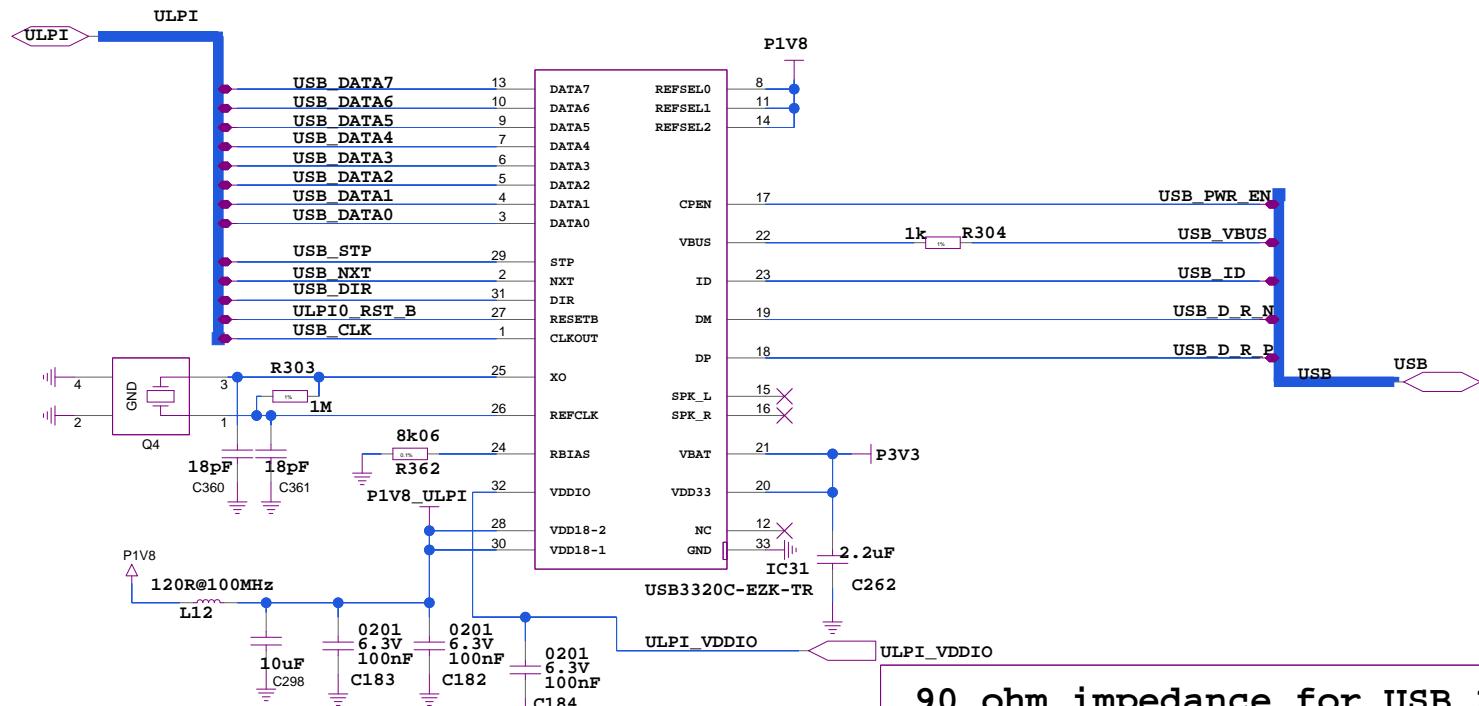


USB3_CON

AMC FMC Carrier Board

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SIZE	DWG NO	REV
A3		1.0
DRAWN BY	SHEET of	
G.Kasprowicz	26	23

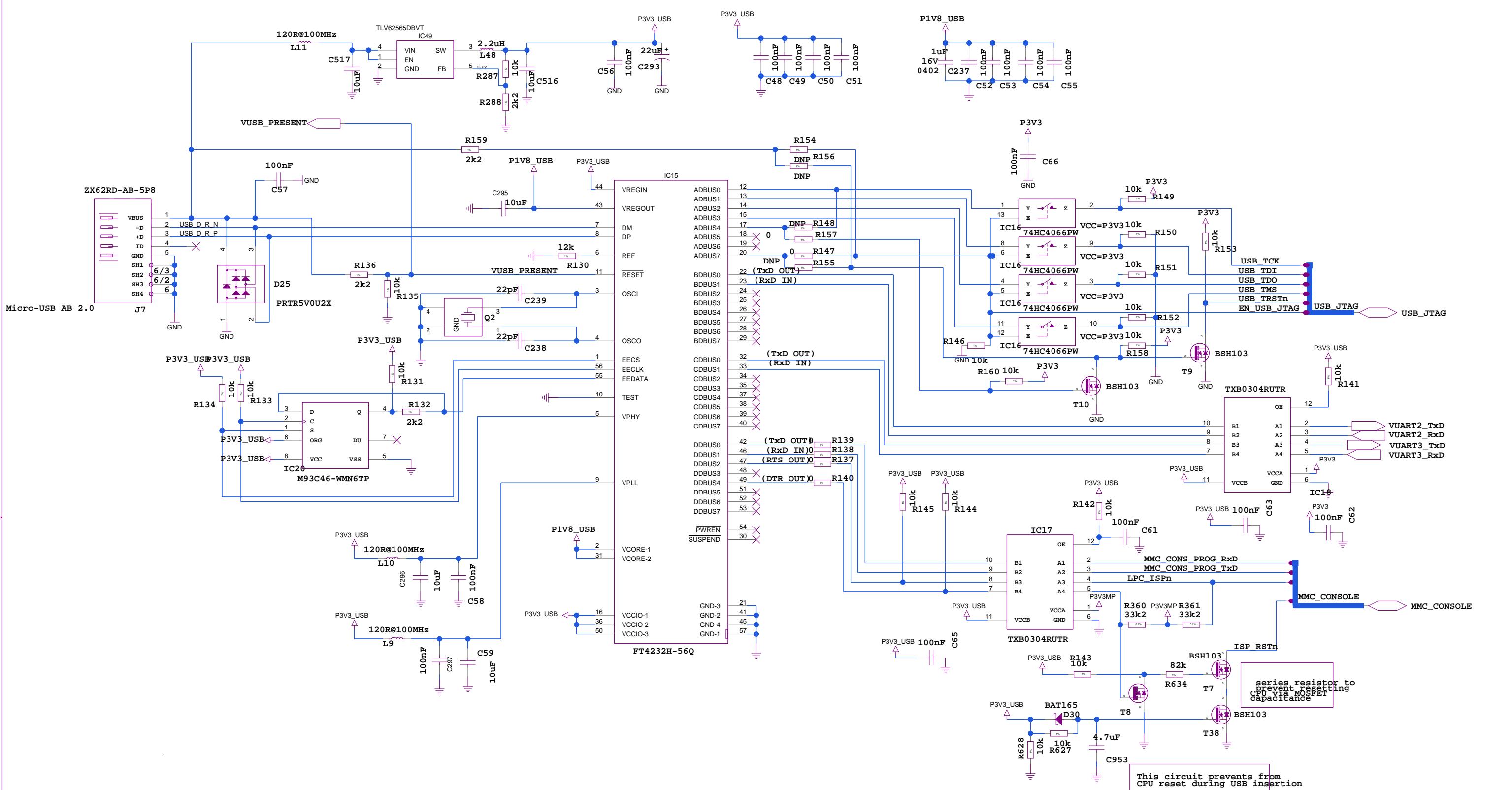


USB_PHY

AMC FMC Carrier Board

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



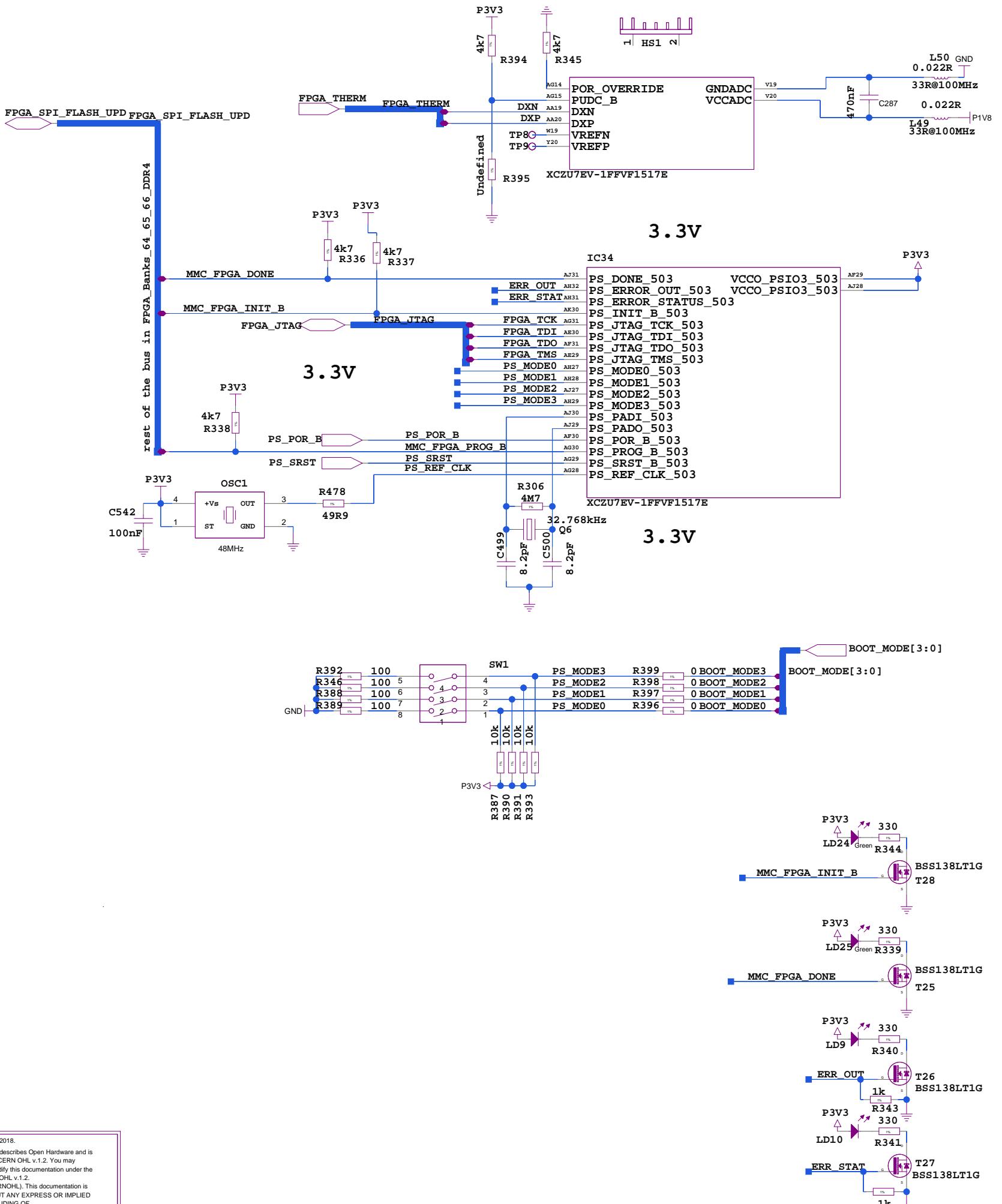
USB_SERIAL_QUAD

AMC FMC Carrier Board



TITLE

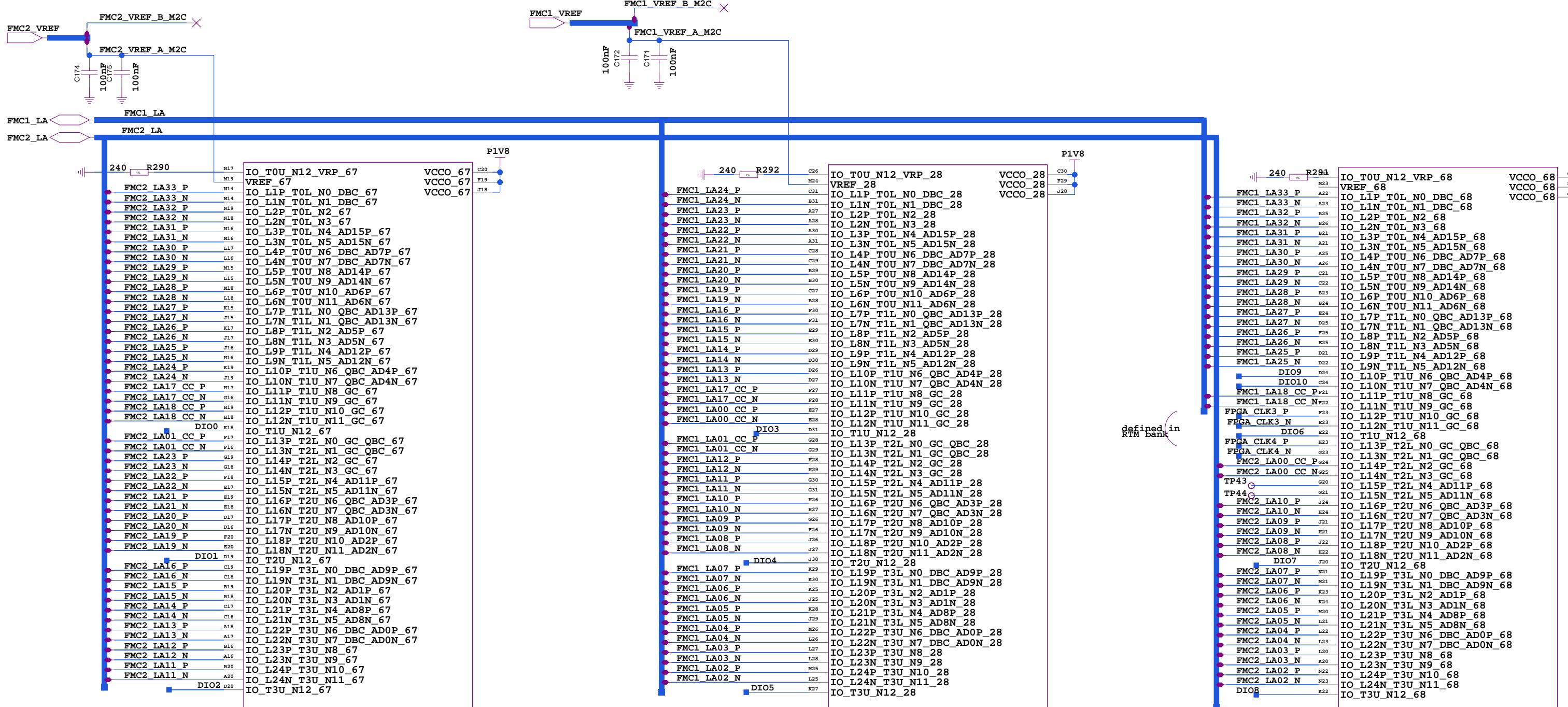
SIZE	DWG NO	REV
A3		1.0
DRAWN BY	G.Kasprowicz	28
SHEET	28	of



ZYNQ_US_SOC_PL

AMC FMC Carrier Board

SIZE	DWG NO	REV
A3	CONFIG	1.0
DRAWN BY	SHEET of	27

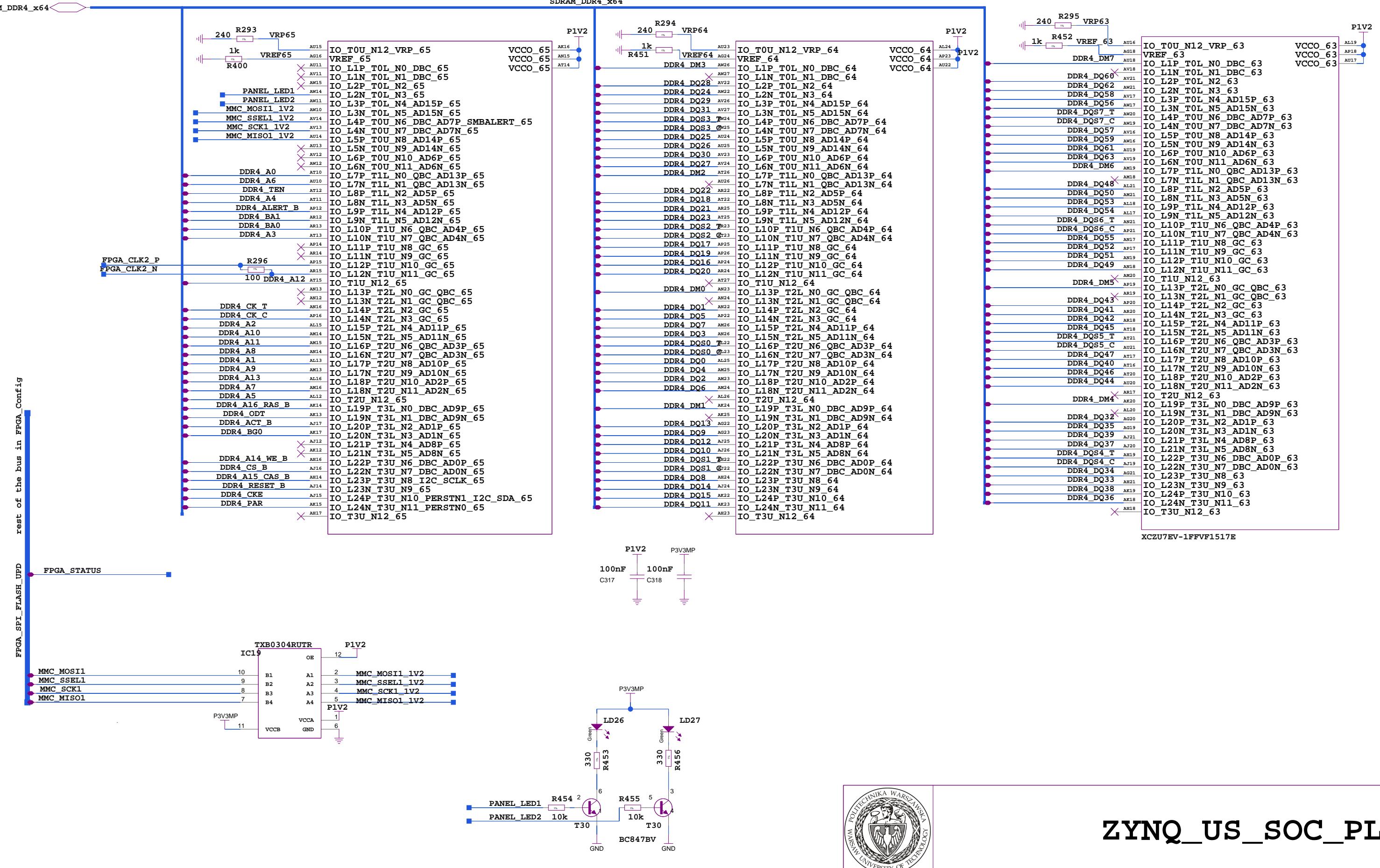


ZYNQ_US_SOC_PL 66 67 68

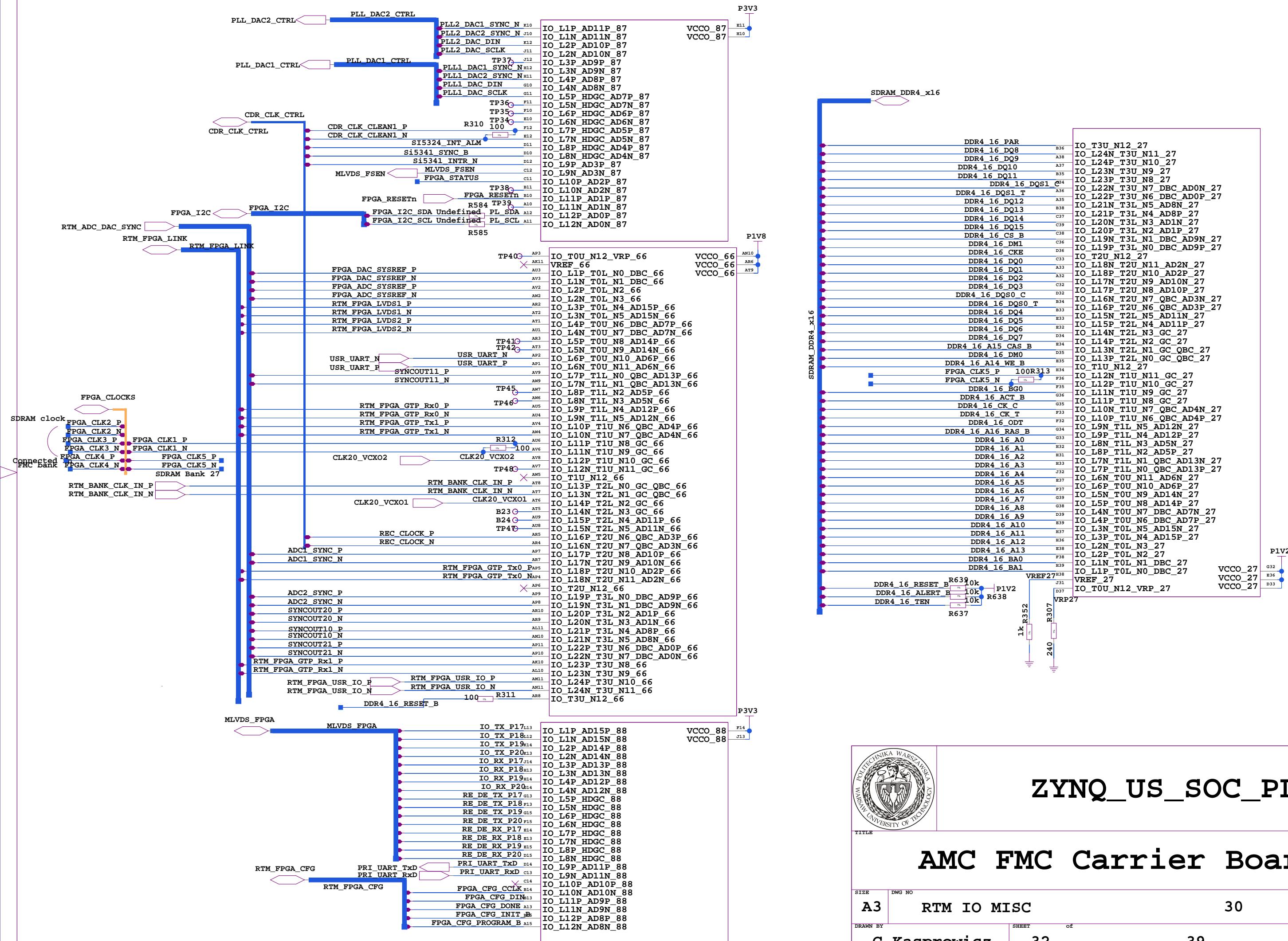
AMC FMC Carrier Board

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

- Test points
- DIO0
- B22
- P1V8
- DIO01
- DIO02
- DIO03
- DIO04
- DIO05
- DIO06
- DIO07
- DIO08
- DIO09
- DIO10
- DIO11
- DIO12
- DIO13
- DIO14
- DIO15
- DIO16
- DIO17
- DIO18
- DIO19
- DIO20
- B21



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ZYNQ-US-SOC-PL

AMC FMC Carrier Board

SIZE DWG NO

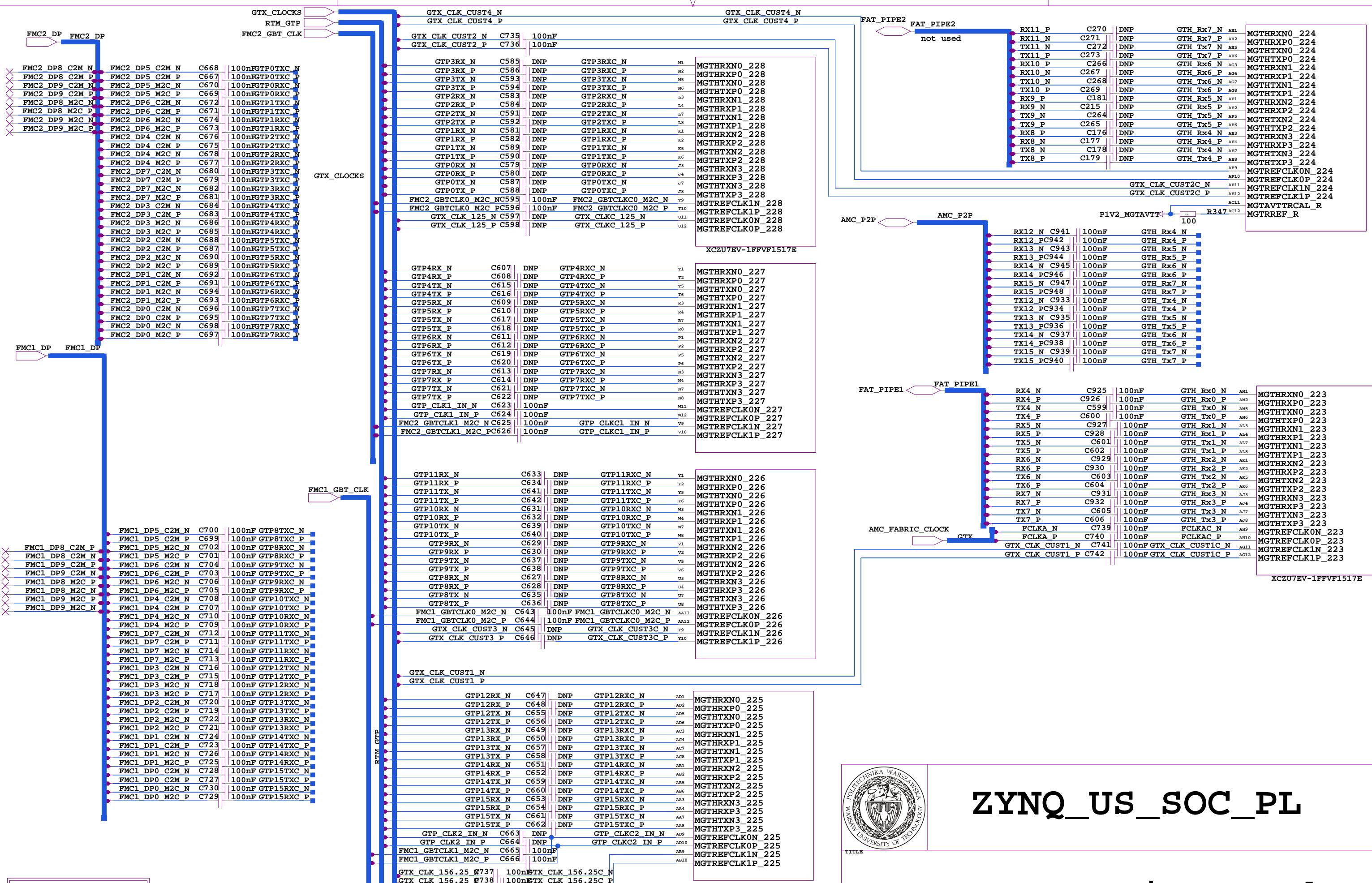
30

REV.
1.0

DRAWN BY G. Kasprowski SHEET 3

38

30



ZYNQ_US_SOC_PL

AMC FMC Carrier Board

A3

GTH

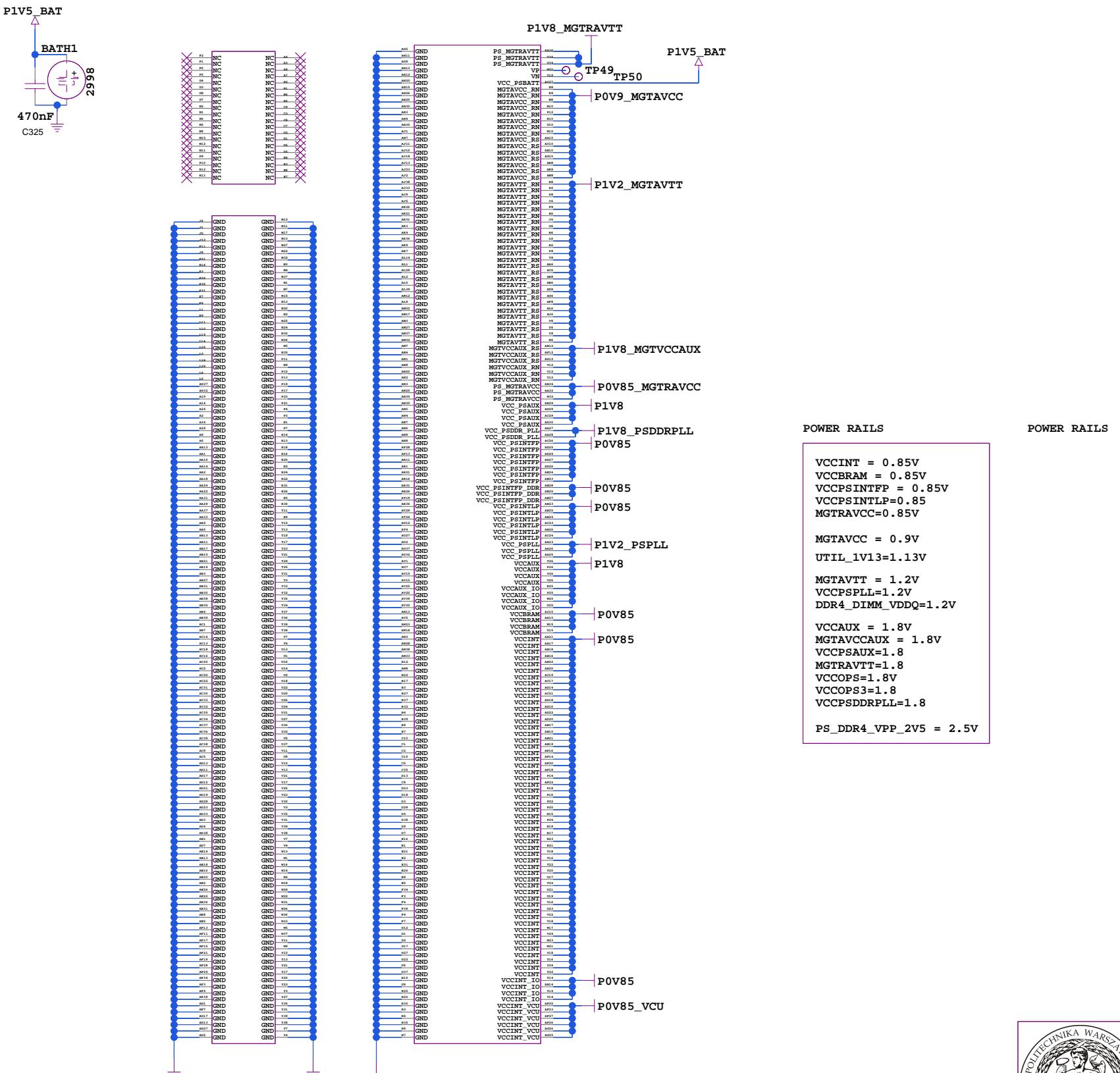
31

1.0

DRAWN BY G.Kasprowicz

SHEET 33 OF

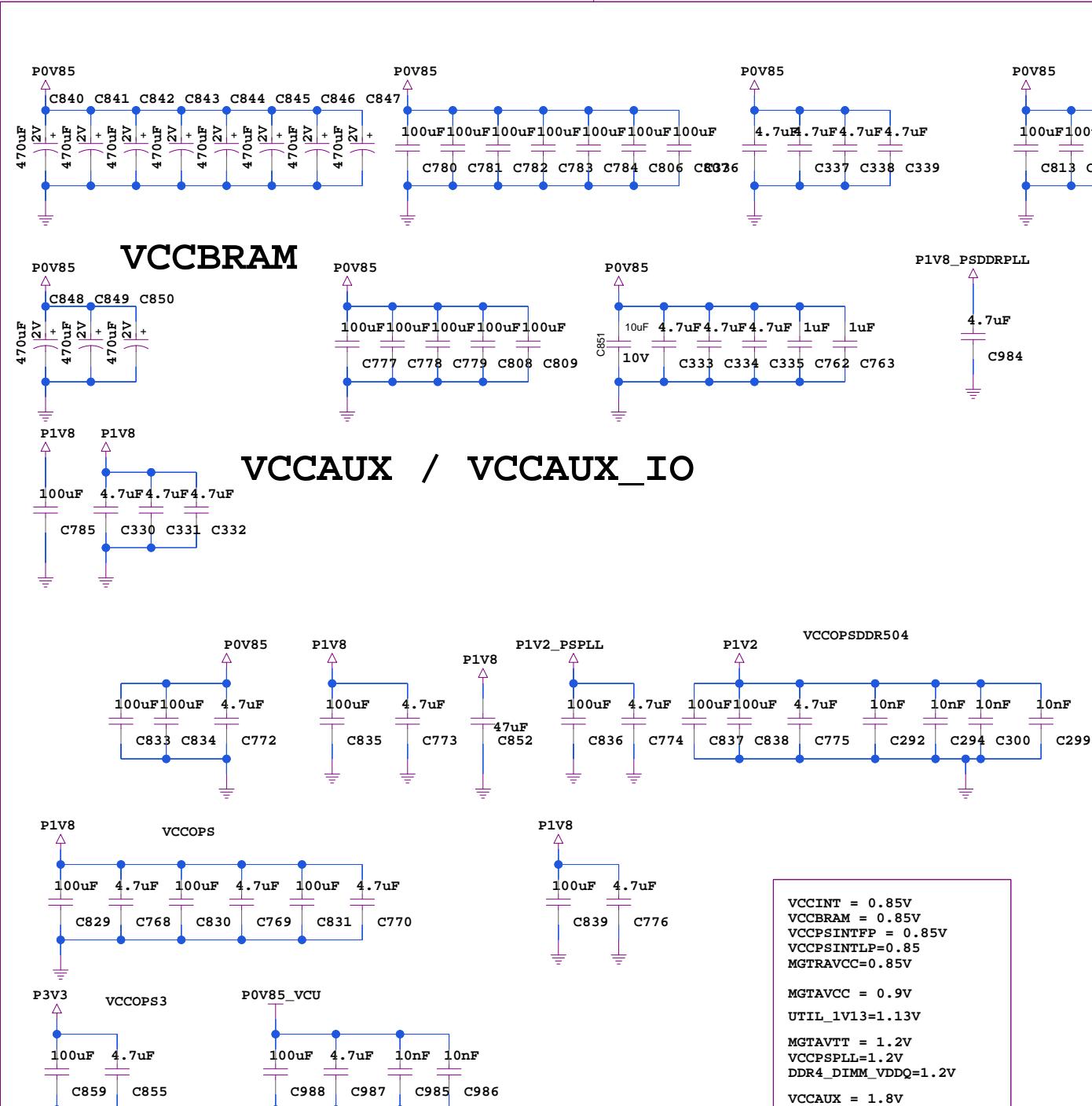
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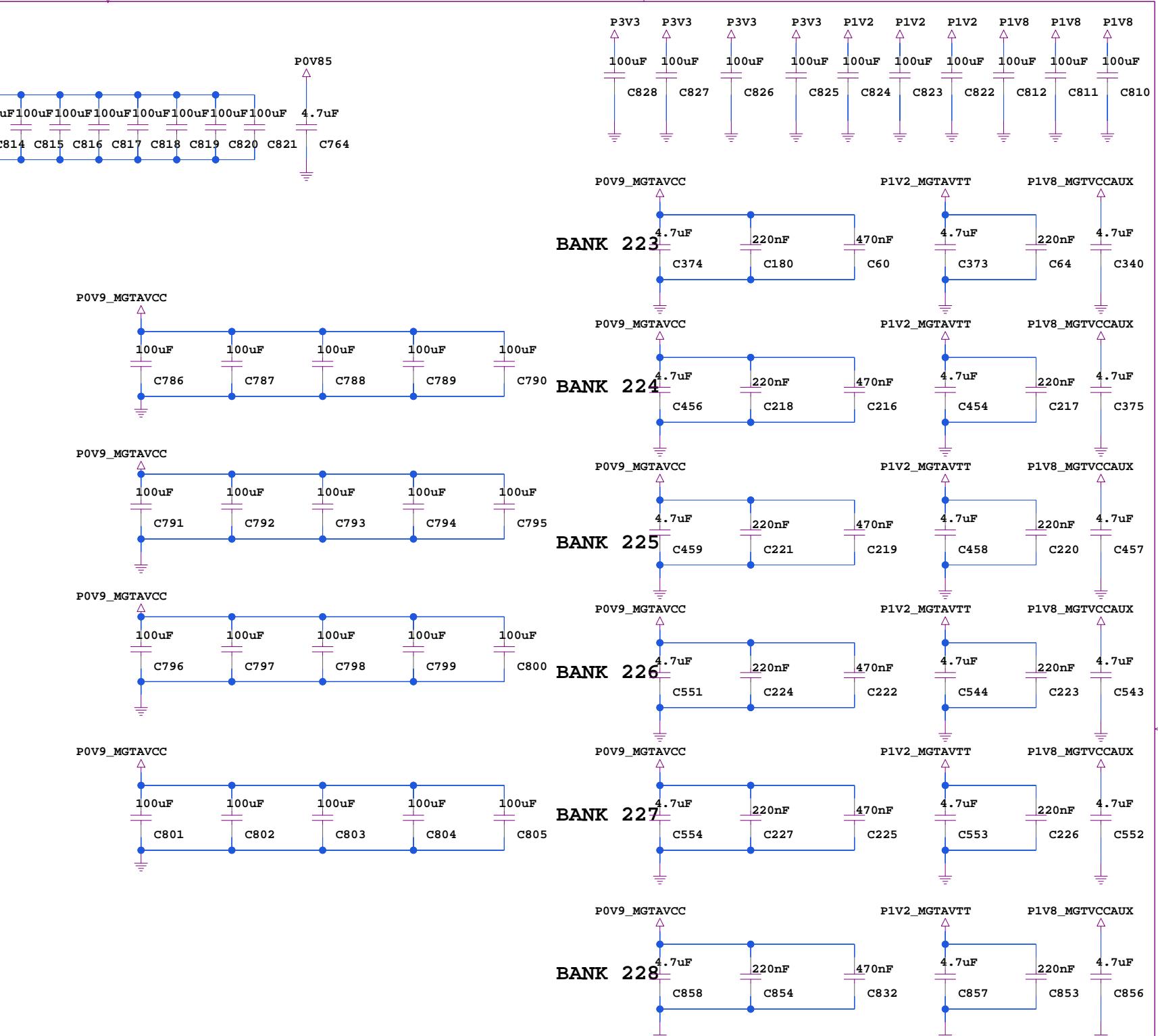
ZYNQ-US-SOC-PL

AMC FMC Carrier Board

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



```
VCCINT = 0.85V  
VCCBRAM = 0.85V  
VCCPSINTFP = 0.85V  
VCCPSINTLPP=0.85  
MGTRAVVCC=0.85V  
  
MGTA VCC = 0.9V  
UTIL_1V13=1.13V  
  
MGTA VTT = 1.2V  
VCCPSPLL=1.2V  
DDR4_DIMM_VDDQ=1.2V  
  
VCCAUX = 1.8V  
MGTA VCCAUX = 1.8V  
VCCPSAU=1.8  
MGTRAVVTT=1.8  
VCCOPS=1.8V  
VCCOPS3=1.8  
VCCPSDDRPLL=1.8  
  
PS DDR4 VPP 2V5 = 2.5V
```



ZYNQ-US-SOC-PL

AMC FMC Carrier Board

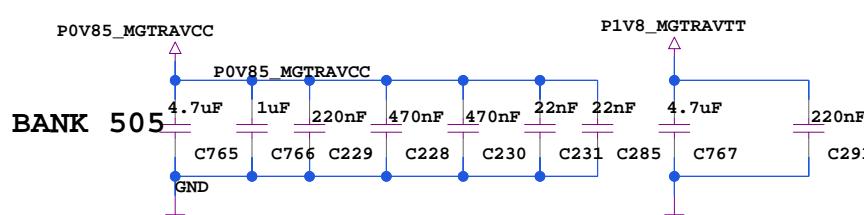
SIZE	DWG NO
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A3 DECOUPLING

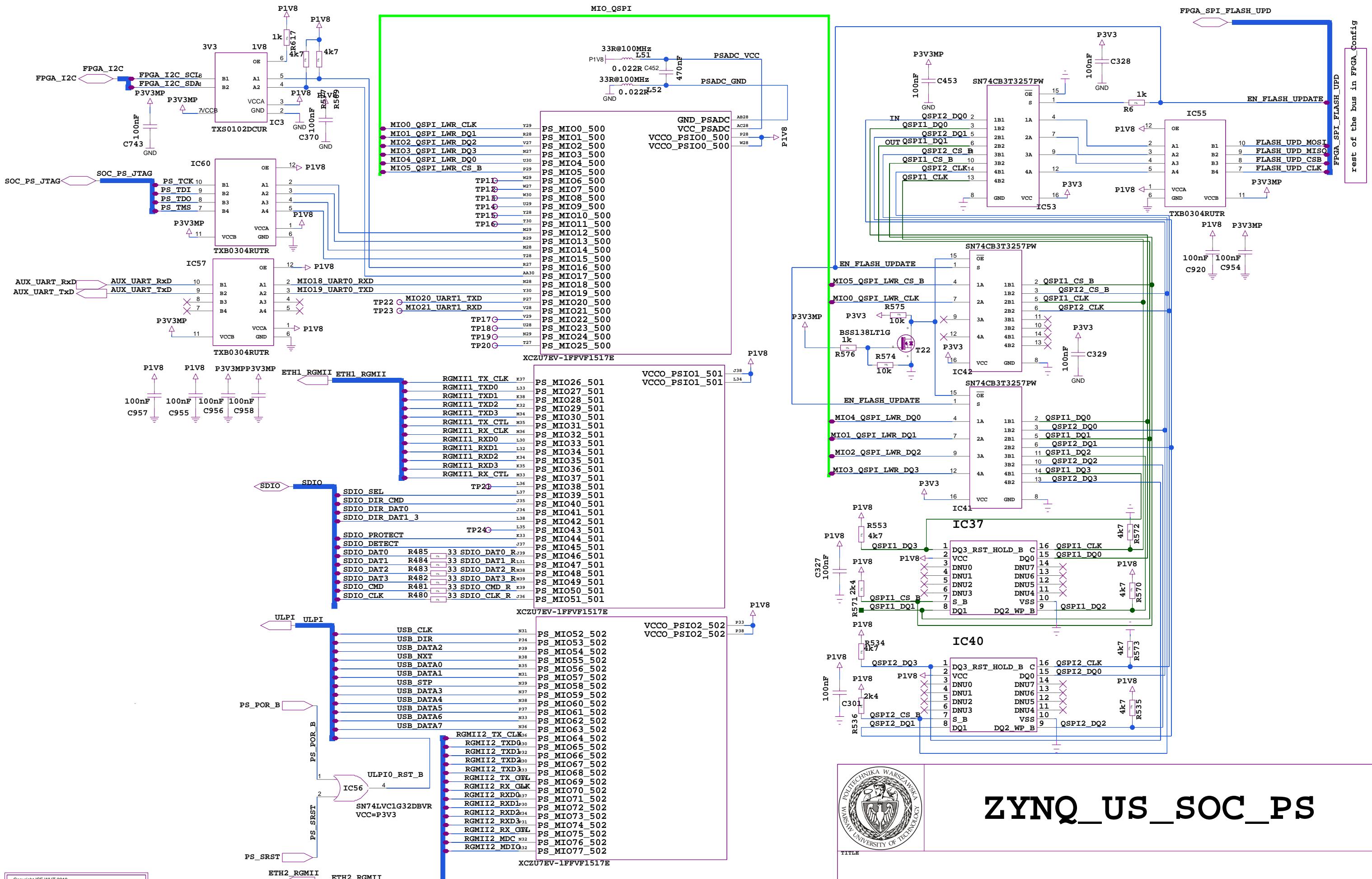
35

REV
1.0

09/02/2018:23:2



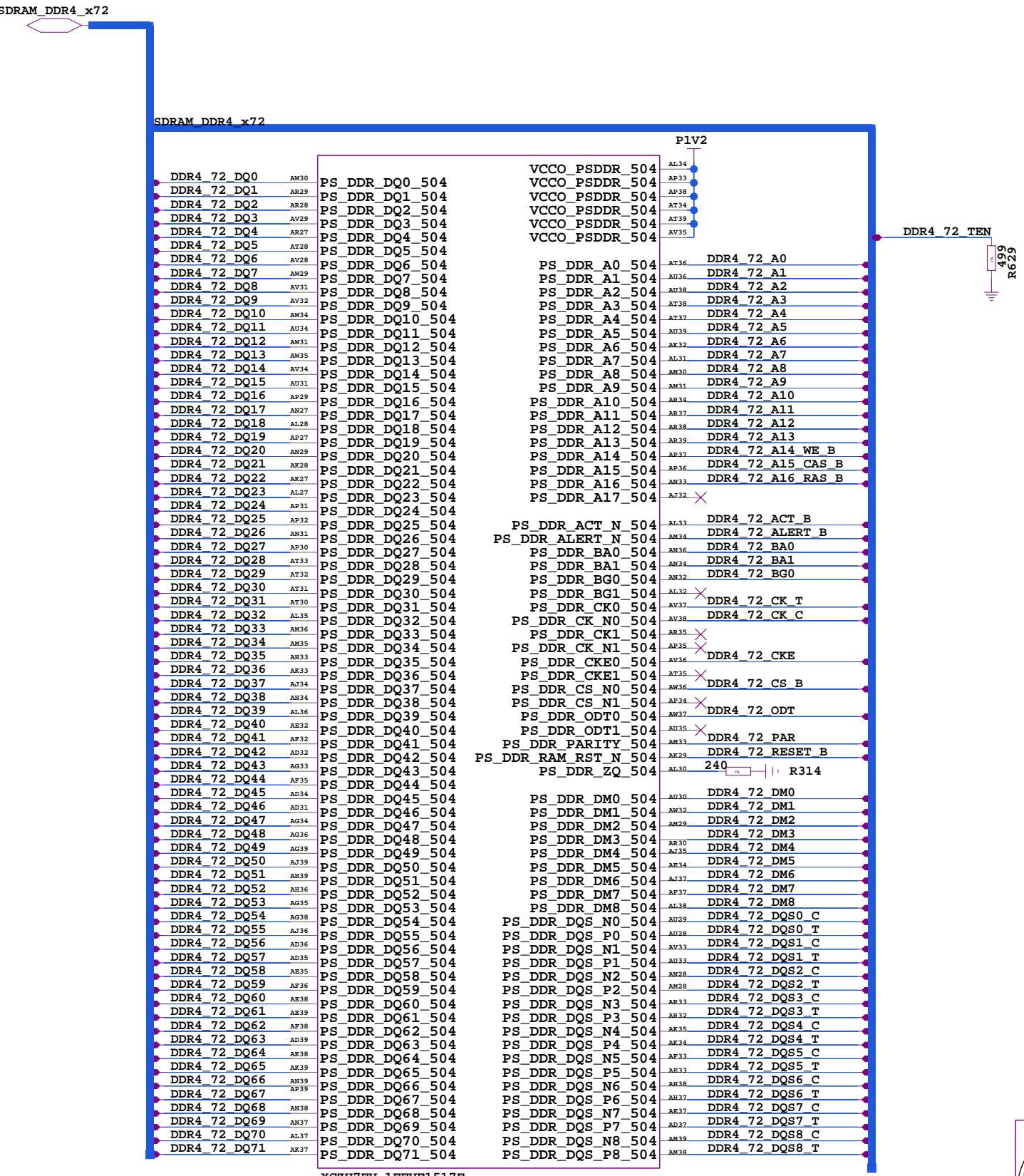
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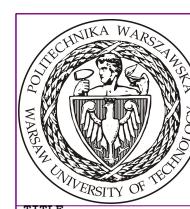
ZYNQ_US_SOC_PS

AMC FMC Carrier Board

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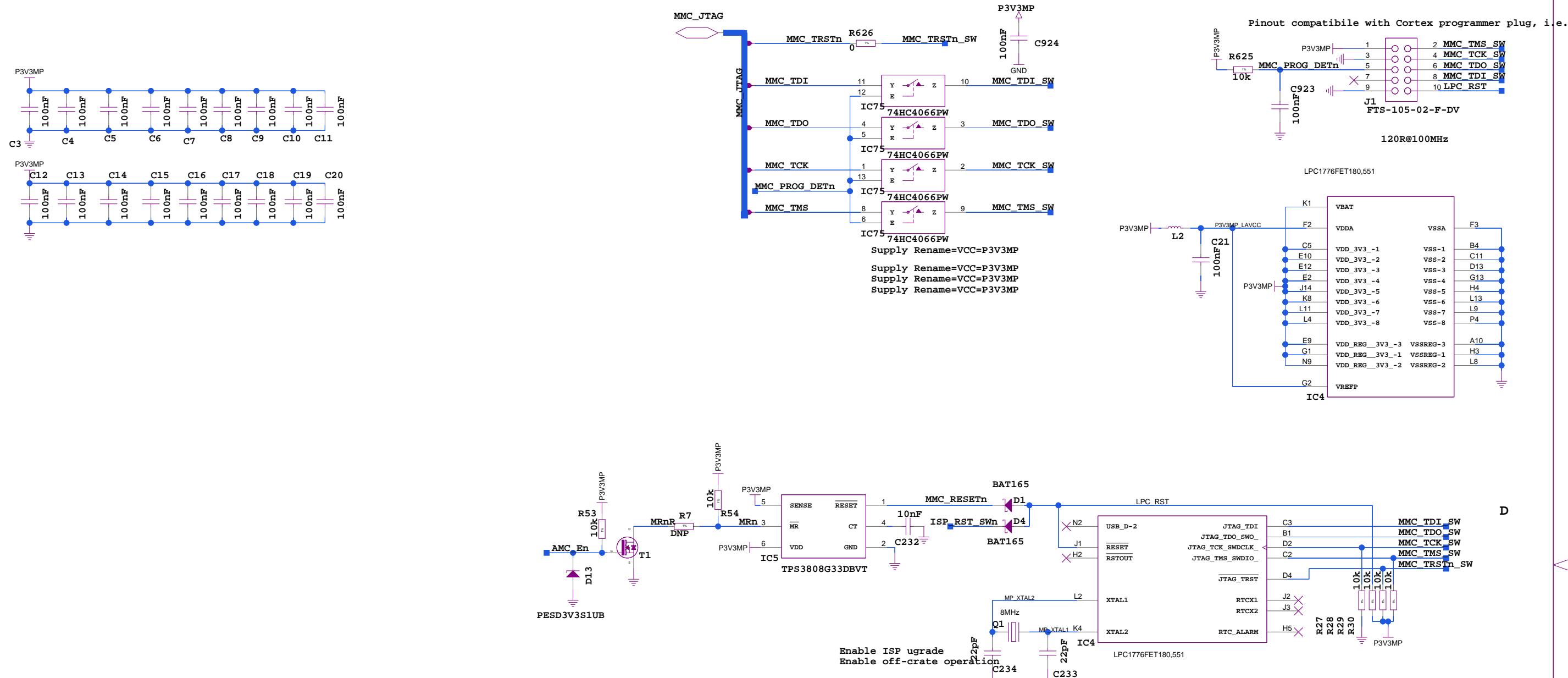


TITLE

ZYNQ_US_SOC_PS

AMC FMC Carrier Board

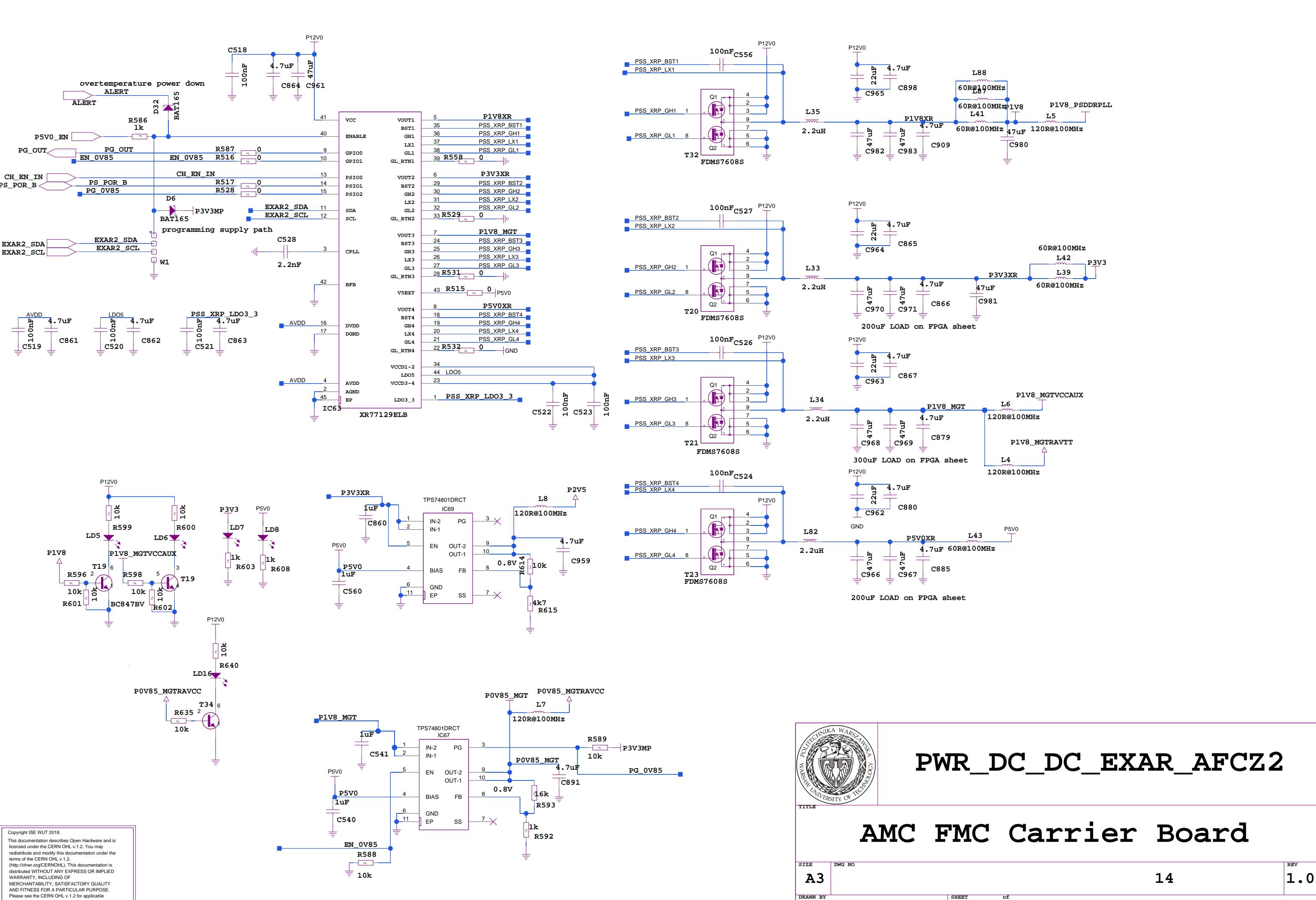
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DRAWN BY	39	
G.Kasprowicz	39	
SHEET	of	
09/02/2018:23:51		

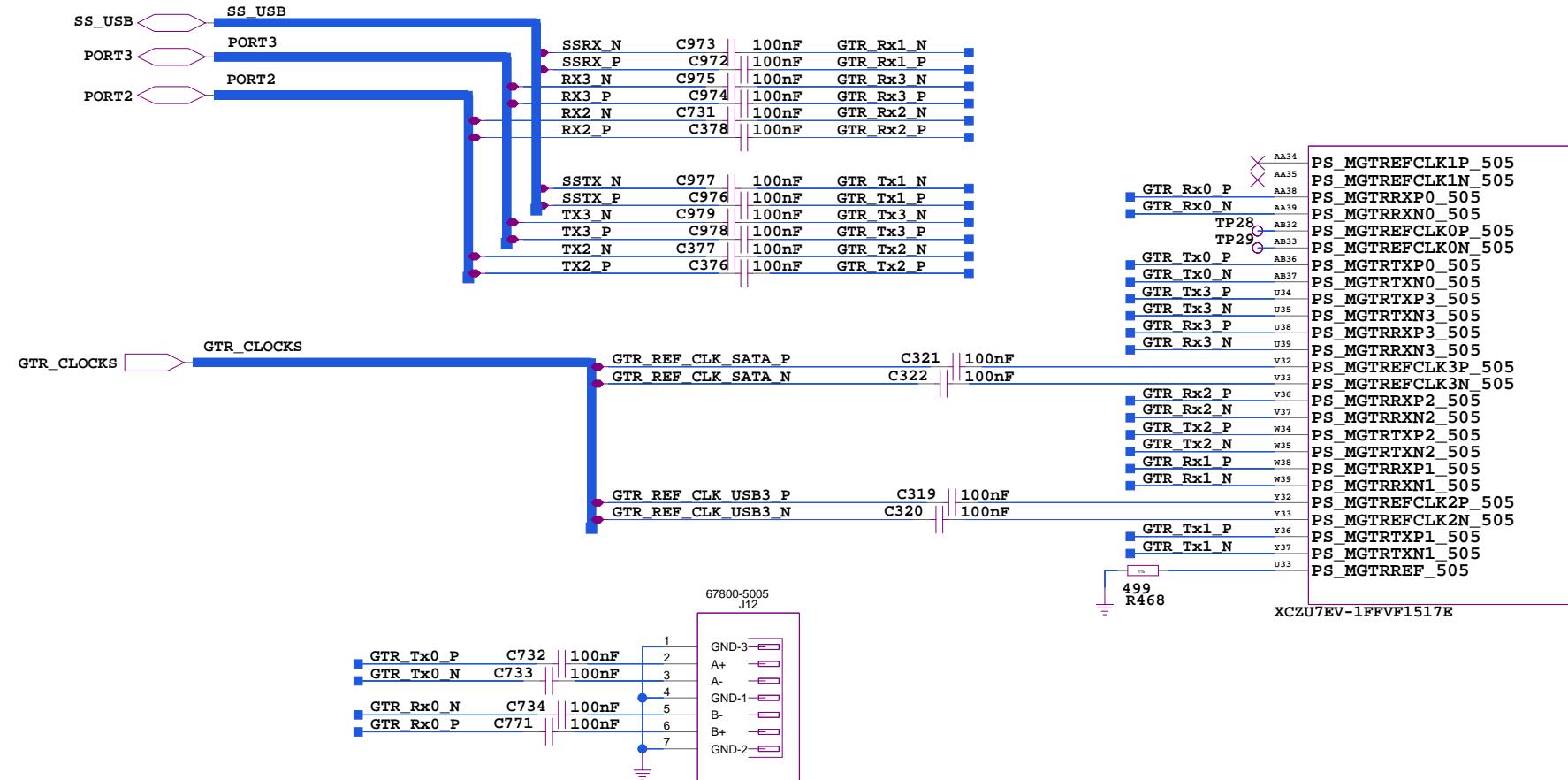


AMC FMC Carrier Board

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





ZYNQ_US_SOC_PL

AMC FMC Carrier Board

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