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7	BCM56850 Test Clocks, Strapping	Page17
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19	P/S 3.3V switching supply 60A	Page38-Page39
20	P/S 5V & 3.3v forBMC	Page40
21	FAN connector, Mounting holes	Page41

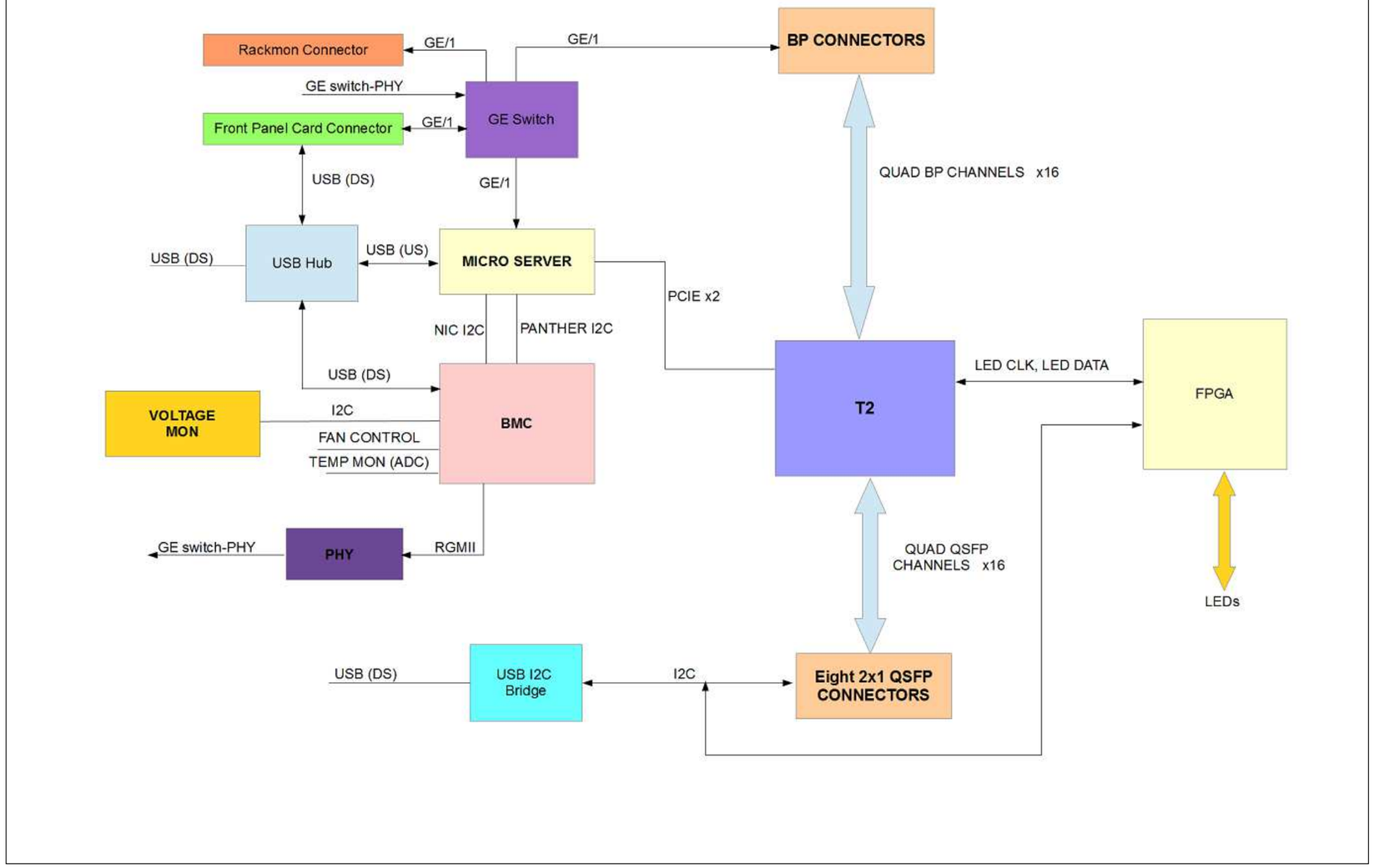
SL.No	TITLE	PAGE NO
22	P/S Sequencer logic	Page42
23	Back Plane Connectors	Page43-Page50
24	Mico Server Connector	Page51
25	Board Management Controller (BMC)	Page52-Page55
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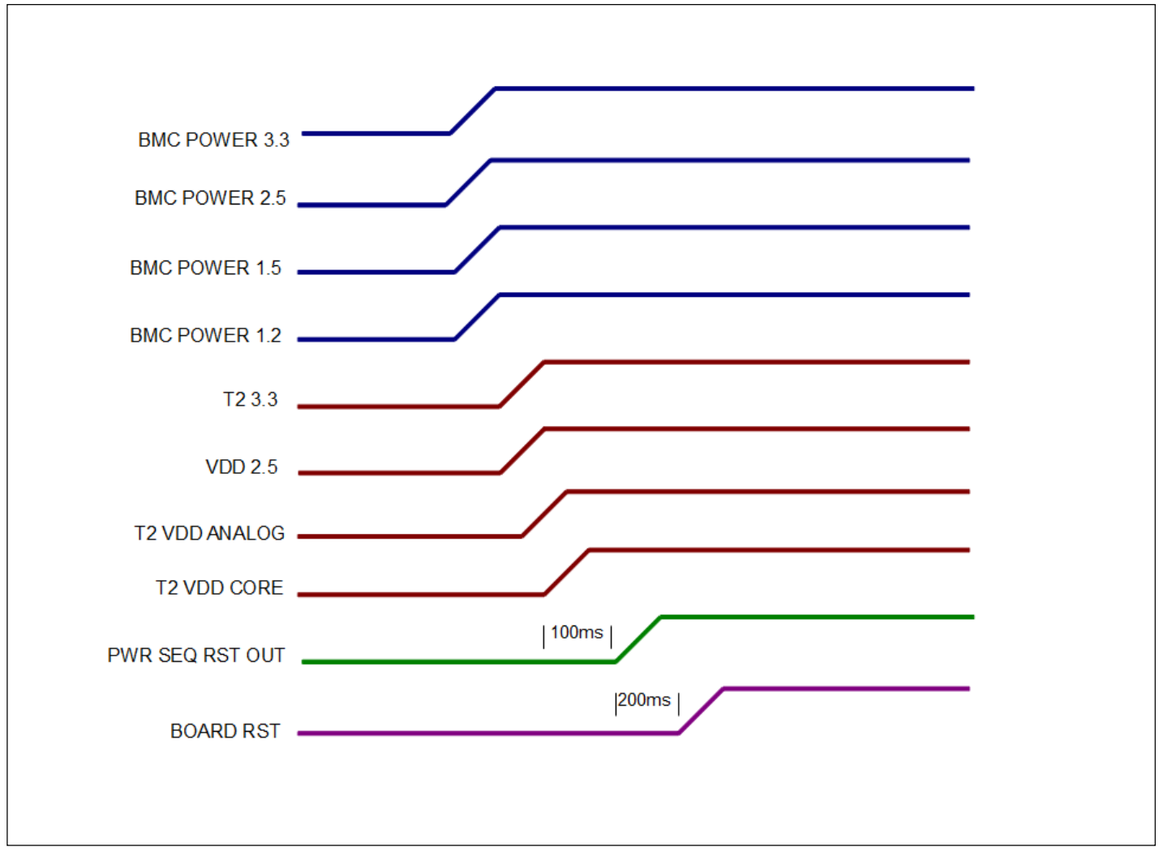
SYSTEM BLOCK DIAGRAM

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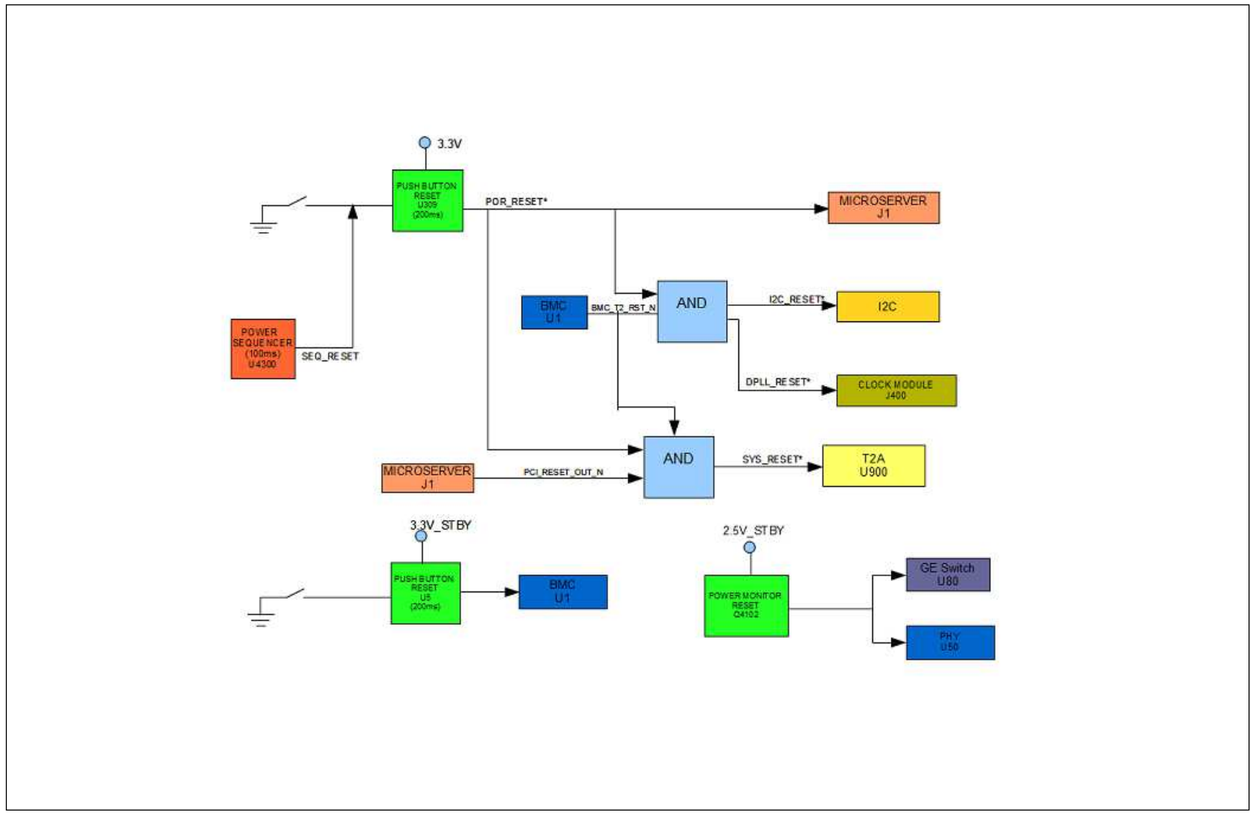
POWER UP SEQUENCE

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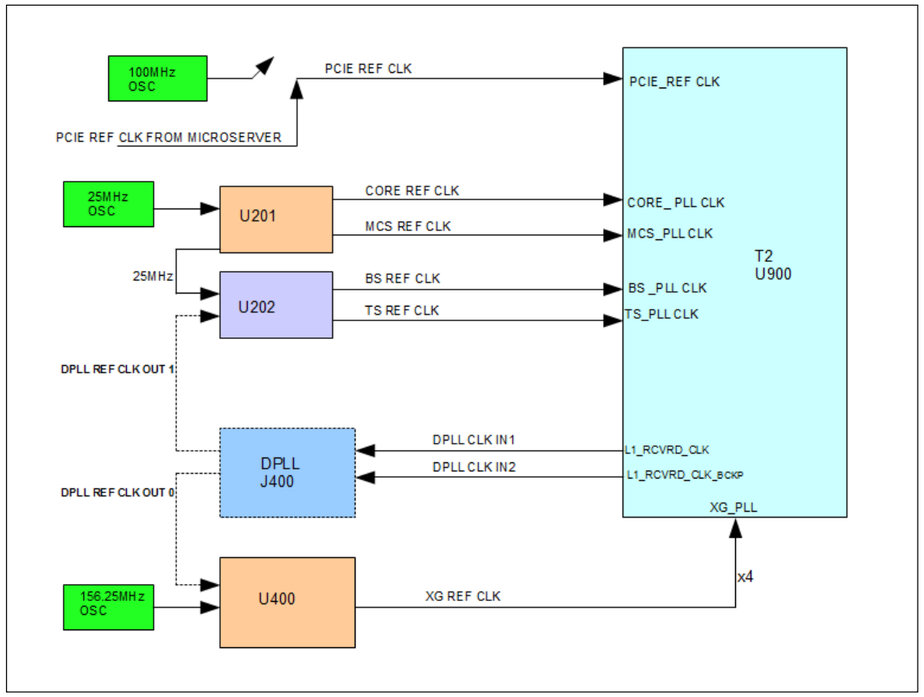
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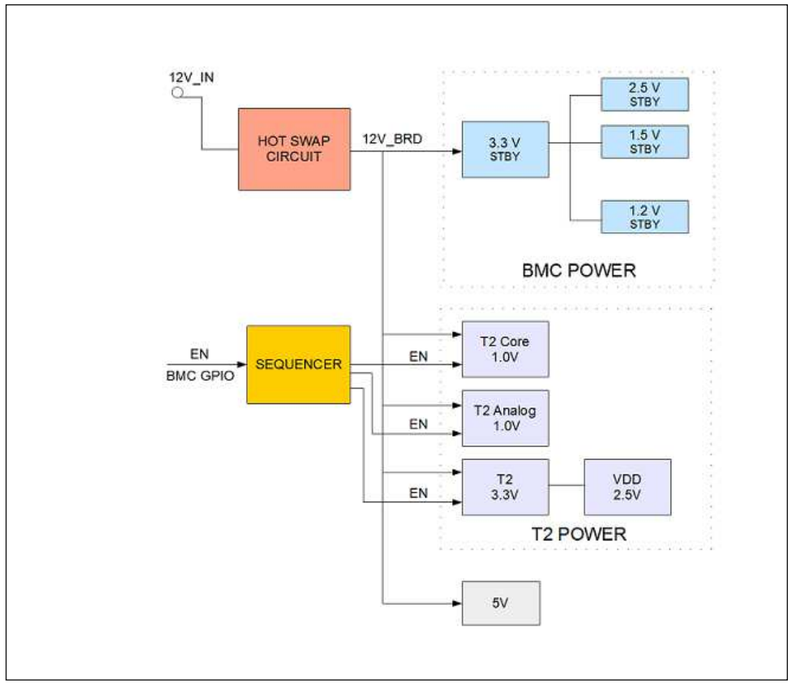
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RESET BLOCKDIAGRAM

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CLOCK BLOCK DIAGRAM

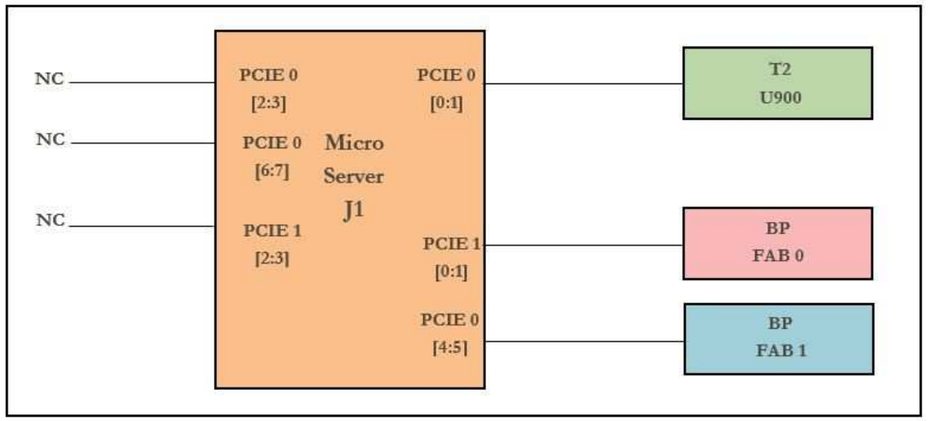
POWER DELIVERY

FACEBOOK

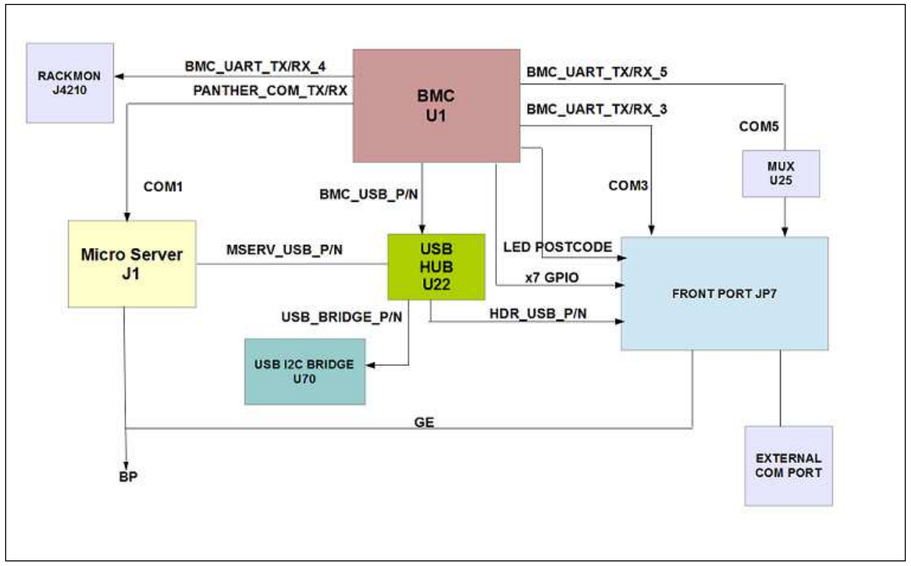
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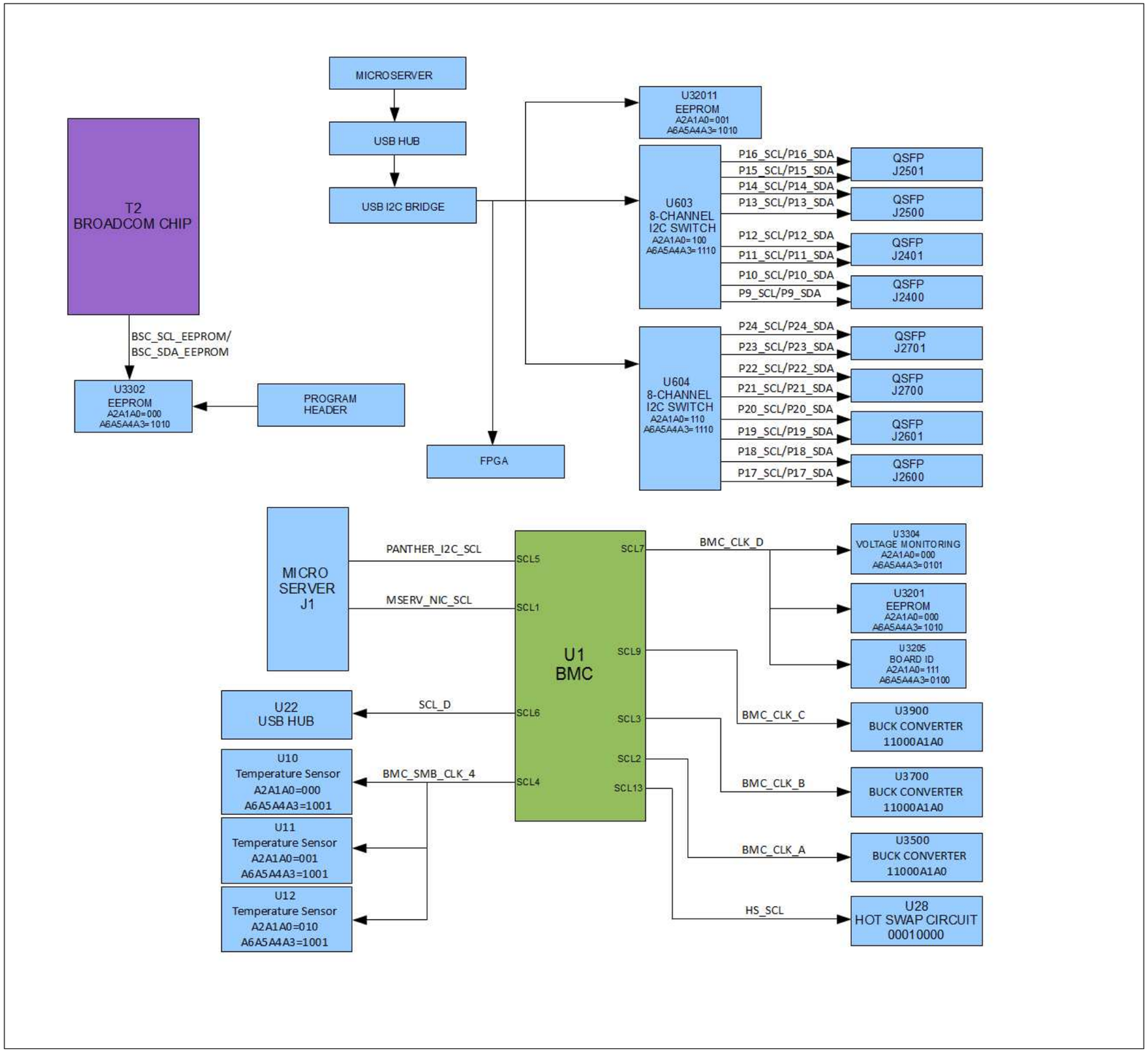


PCIE BLOCK DIAGRAM



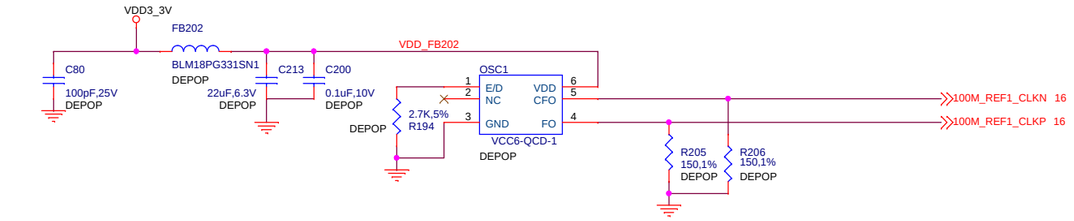
COMMs BLOCK DIAGRAM

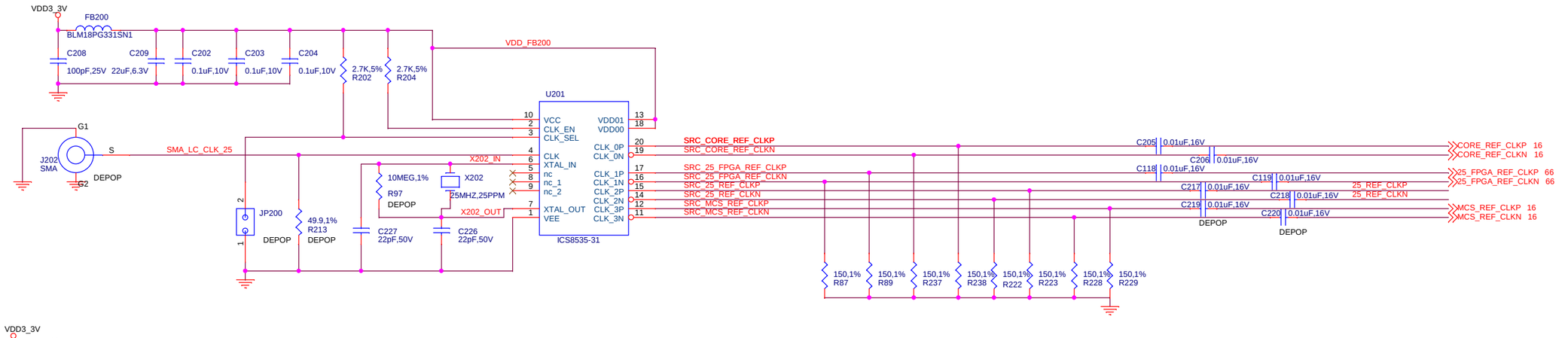
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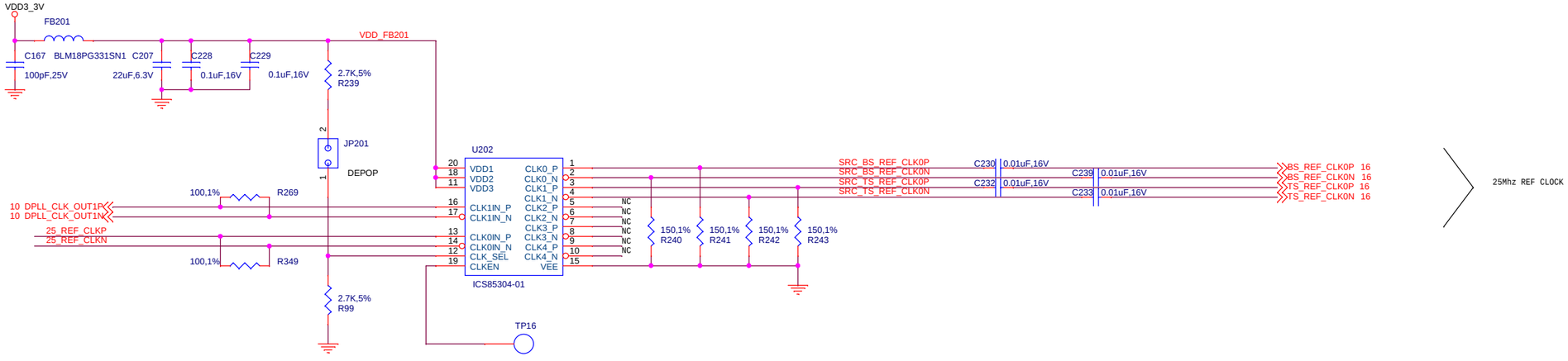


I2C BLOCK DIAGRAM

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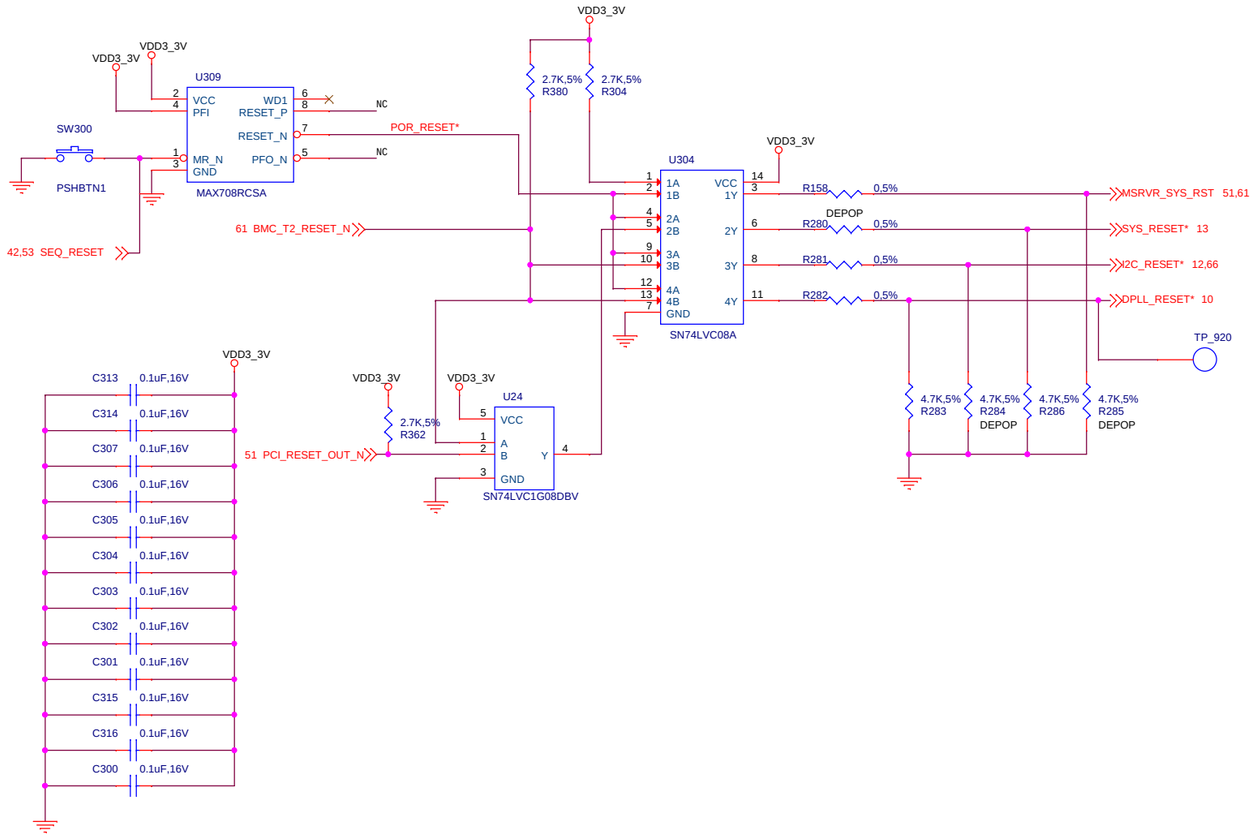






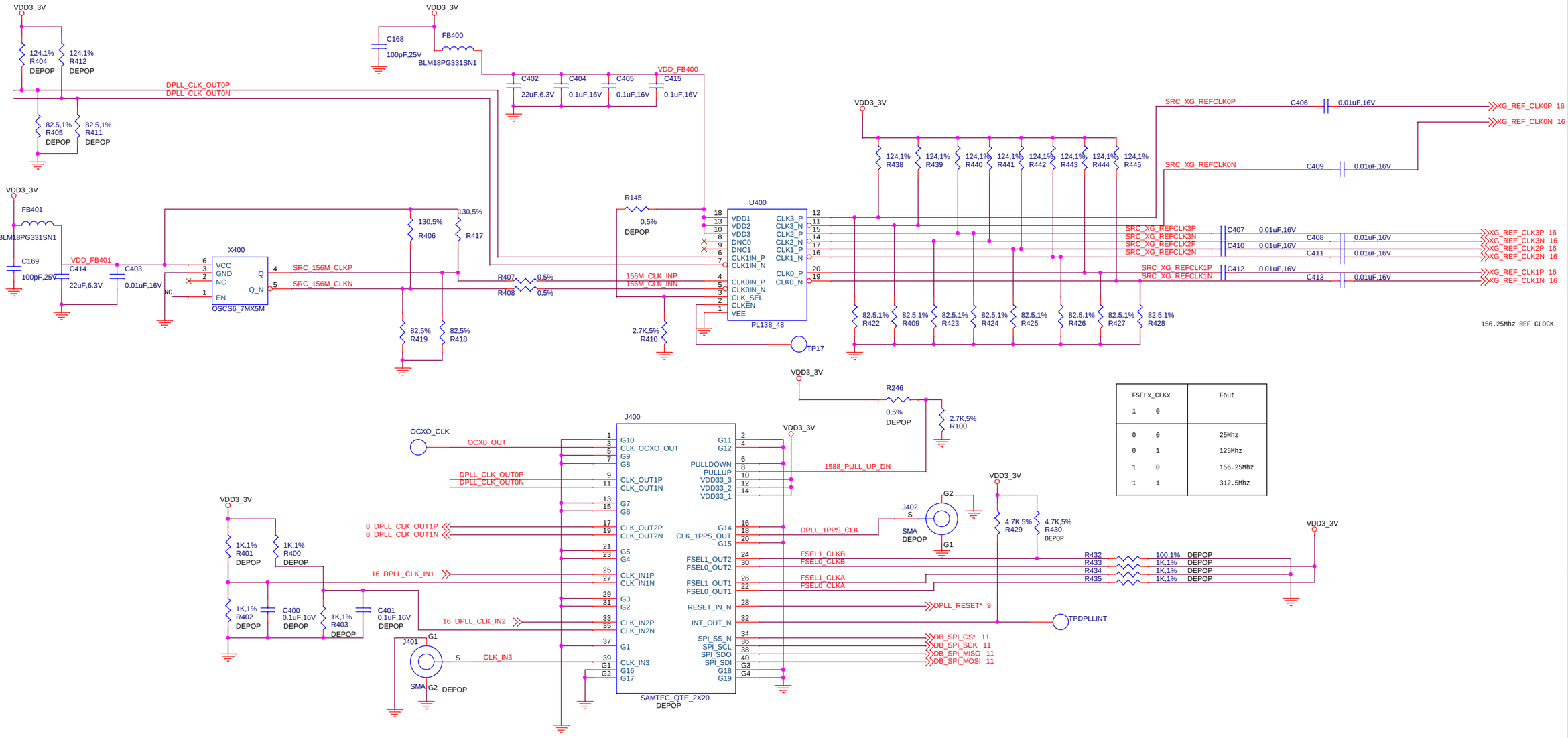
T2-CLOCKS

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T2-RESET

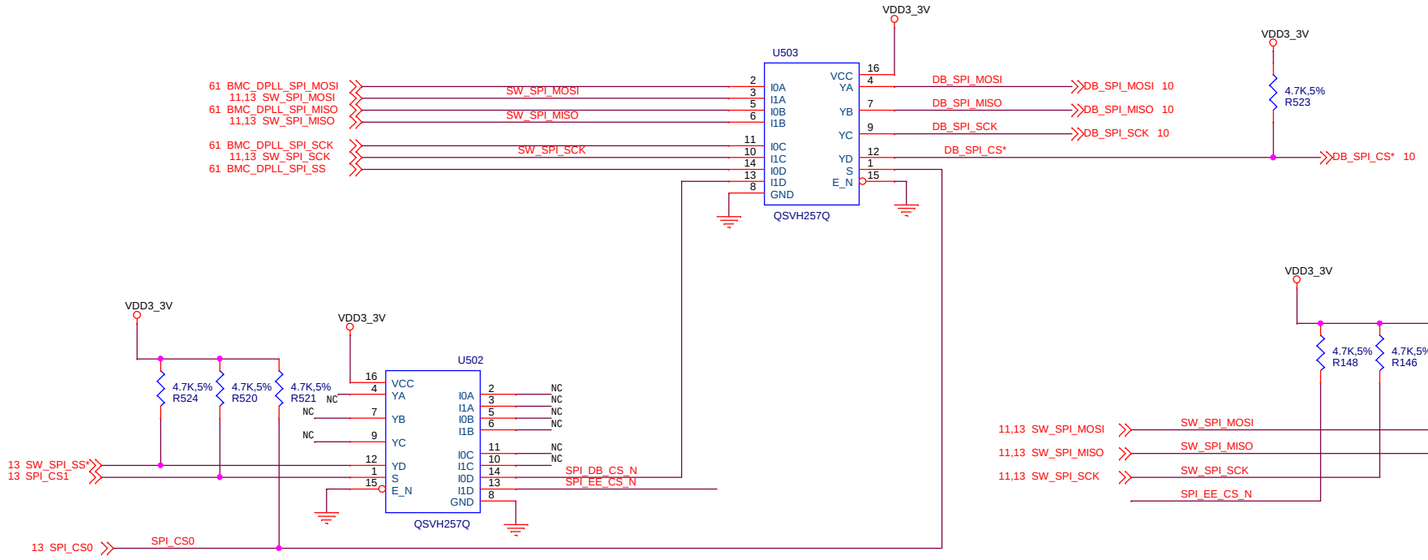
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FSELx_CLKx		Fout
1	0	
0	0	25Mhz
0	1	125Mhz
1	0	156.25Mhz
1	1	312.5Mhz

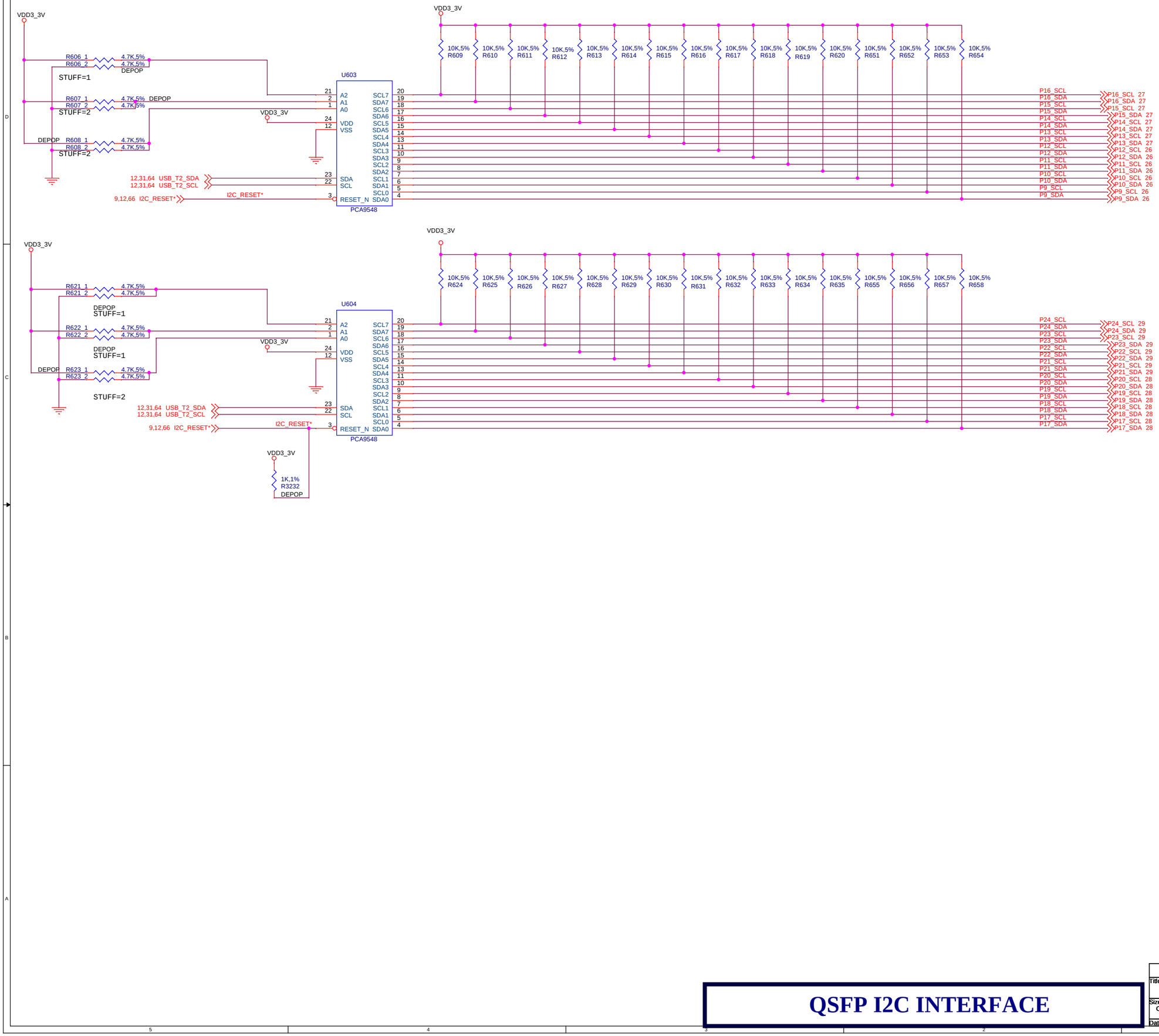
T2-CLOCKS

Title	FACEBOOK SENTINEL	
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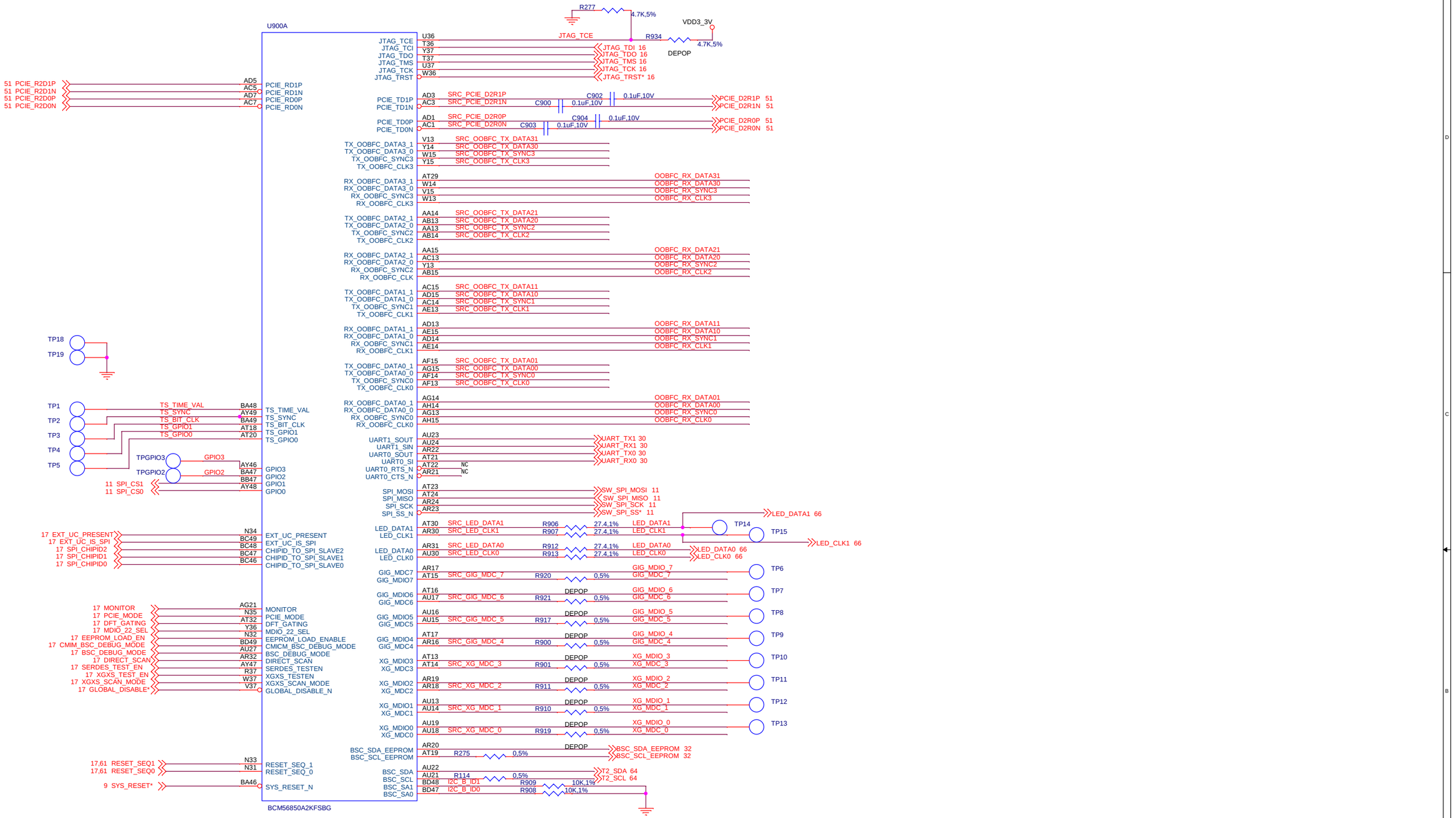
CLOCKMODULE SPI INTERFACE

FACEBOOK		
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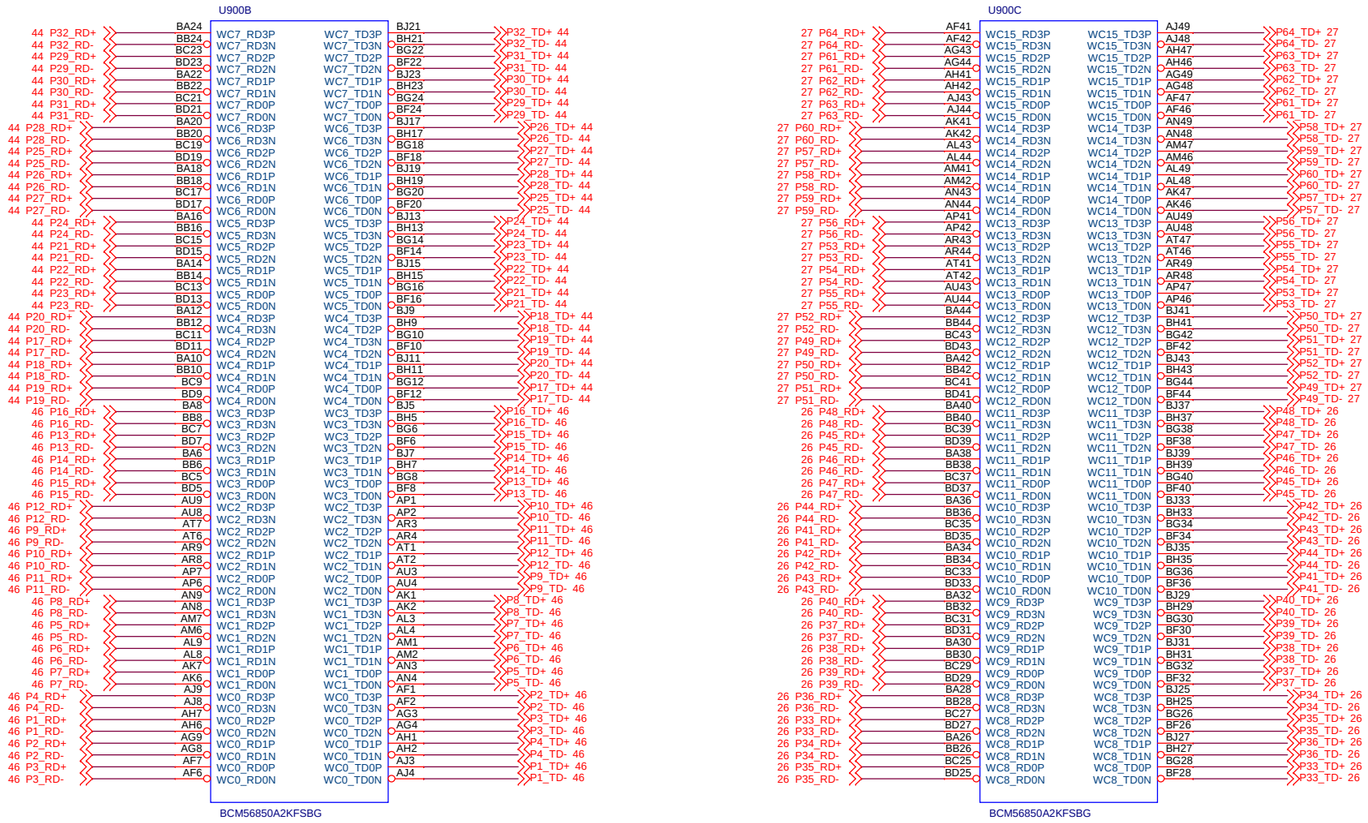
QSFP I2C INTERFACE

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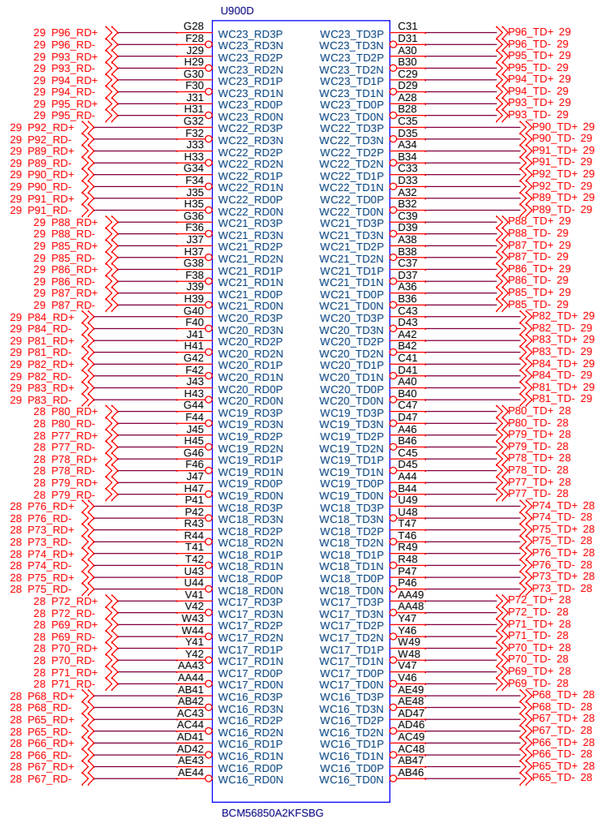
T2-CONTROL INTERFACE

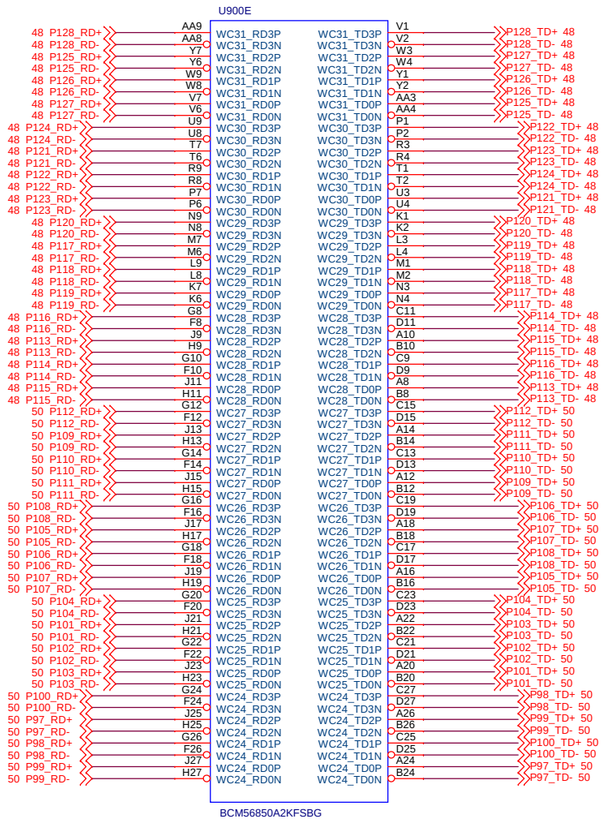
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T2-PORTS

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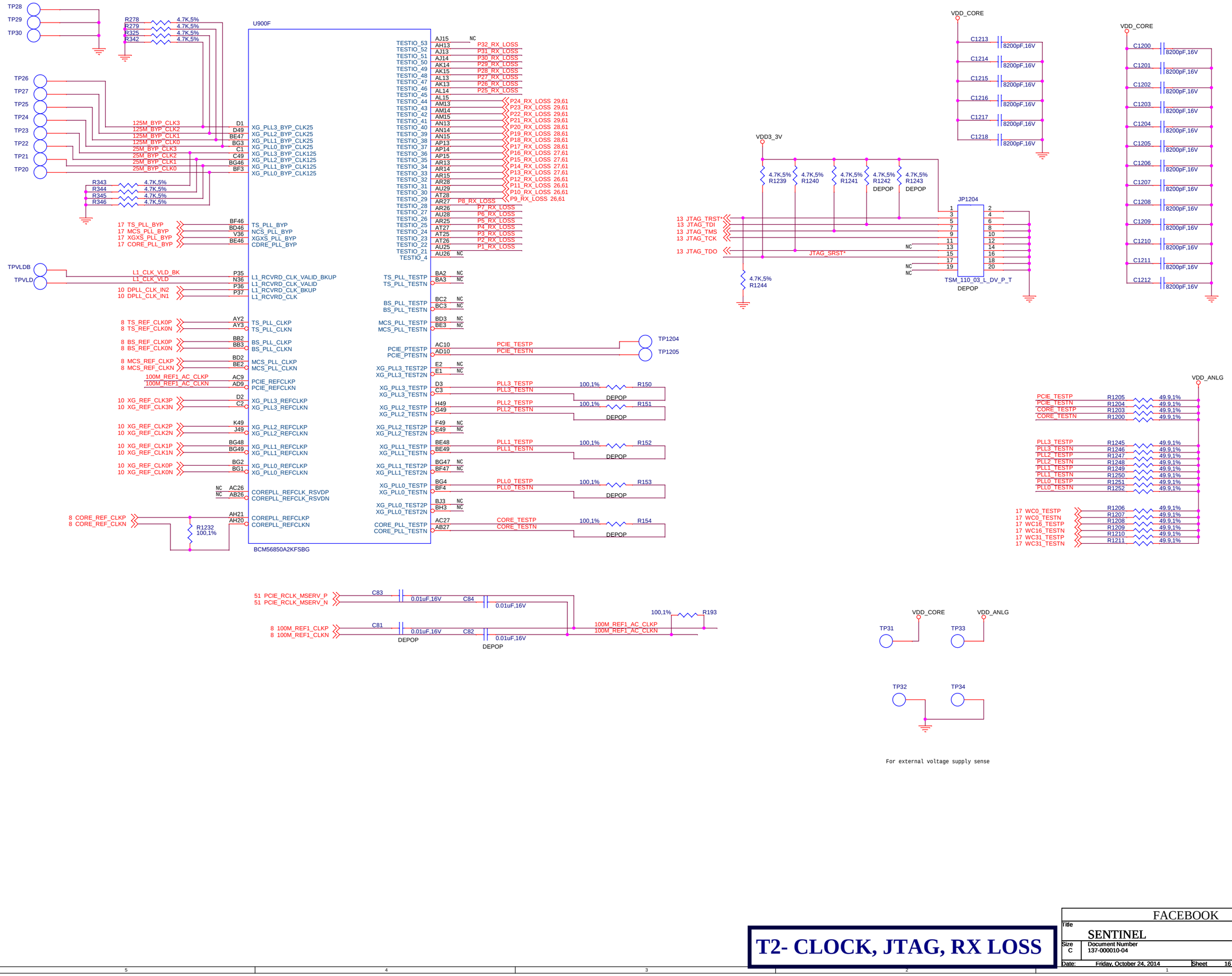
FACEBOOK

Title: SENTINEL

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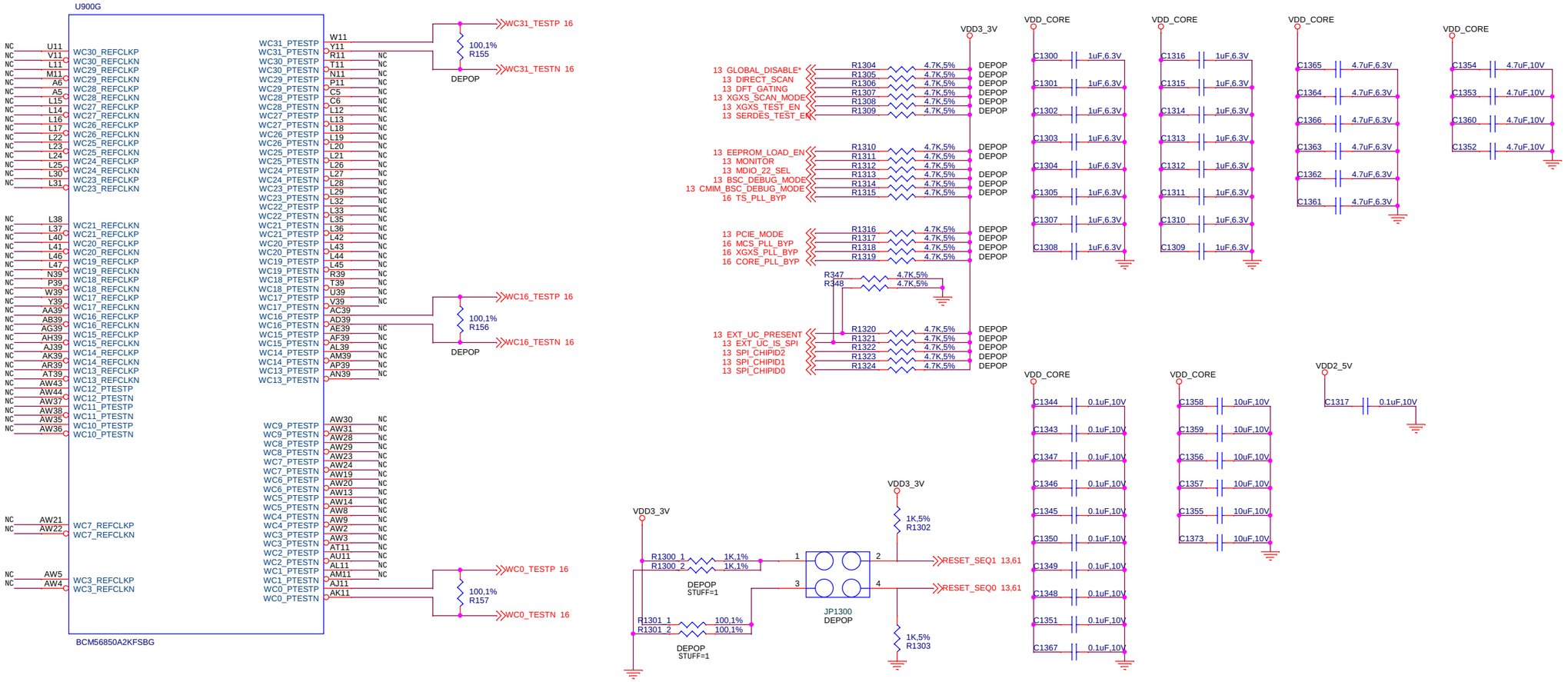
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T2-PORTS



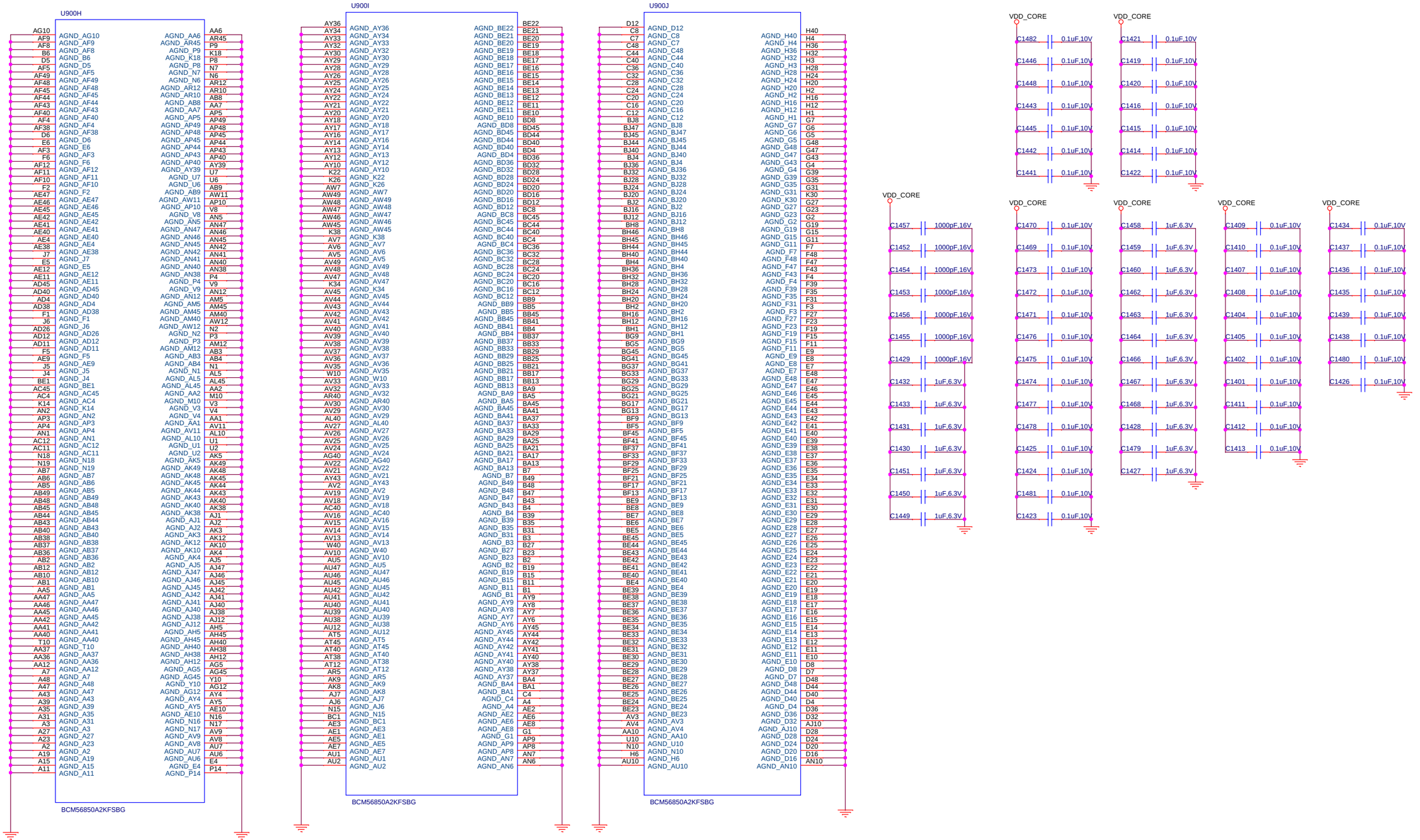
T2- CLOCK, JTAG, RX LOSS

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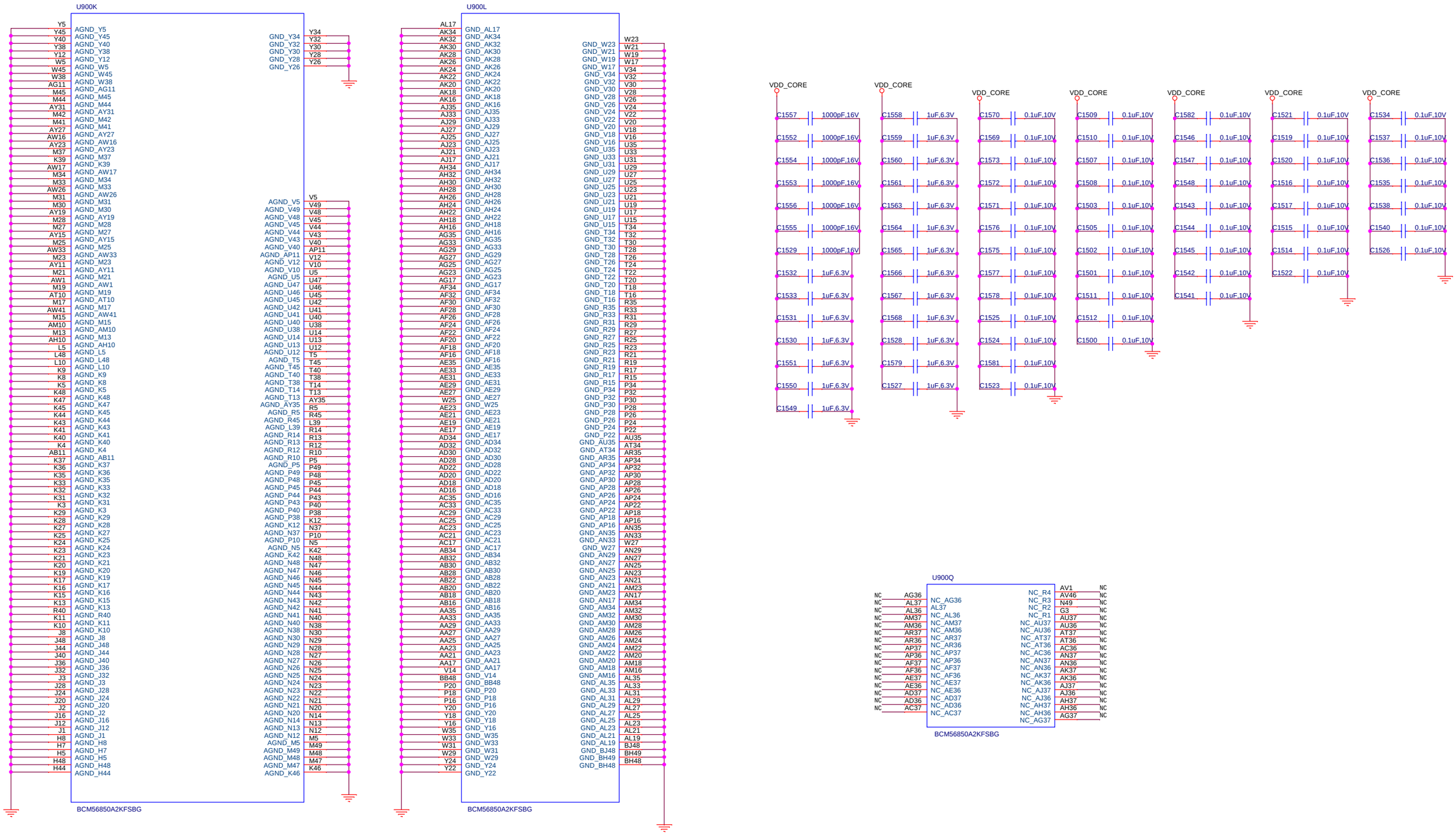
T2- CLOCKS & STRAPPING

	FACEBOOK	
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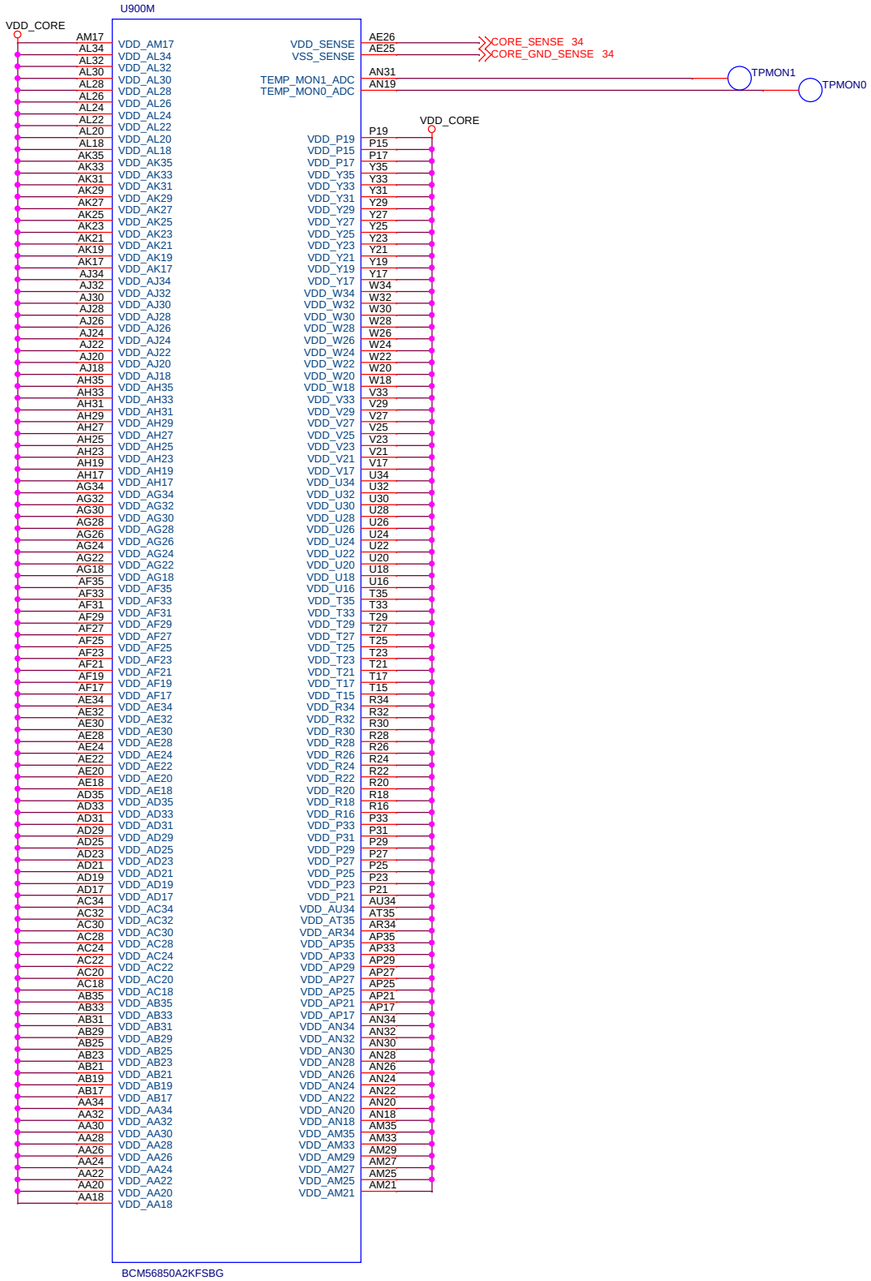
T2- GND & DECAPs

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T2- GND & DECAPs

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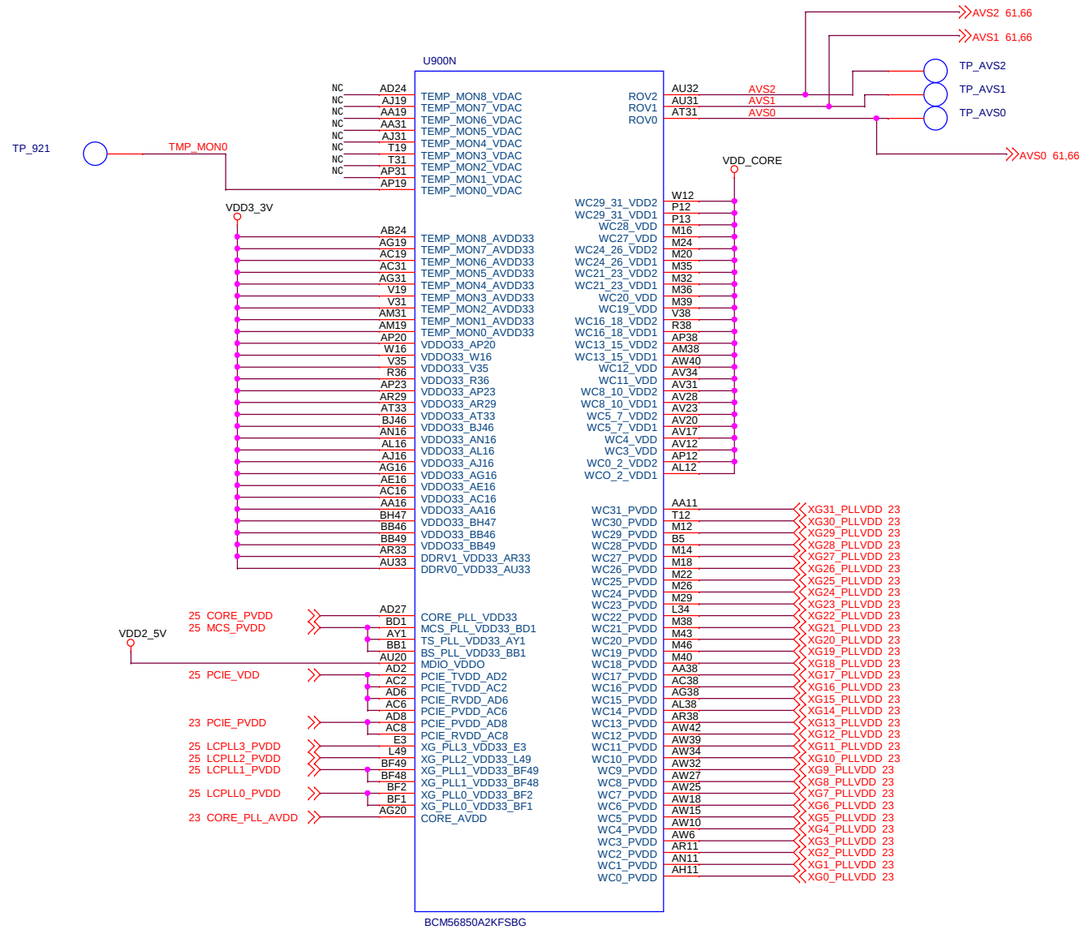
T2 CORE POWER

FACEBOOK

Title: SENTINEL

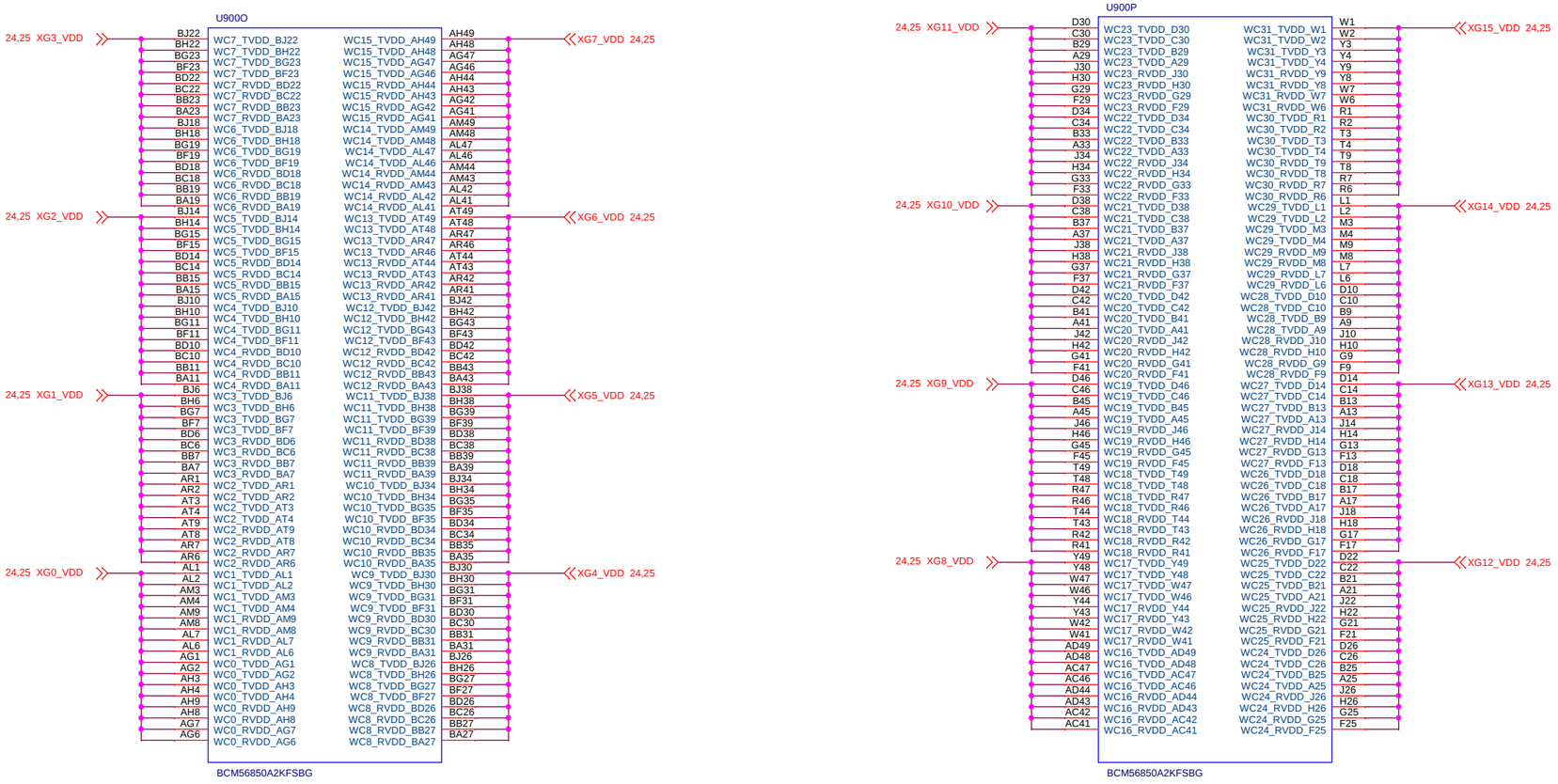
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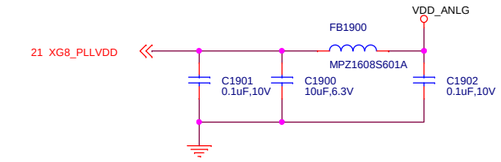
T2 PLL POWER

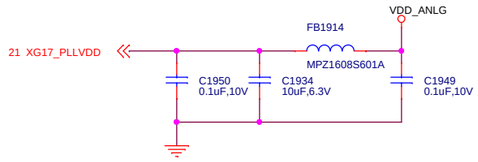
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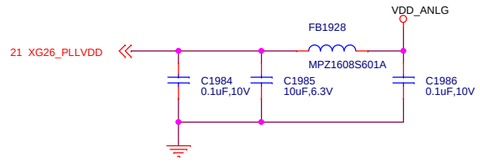


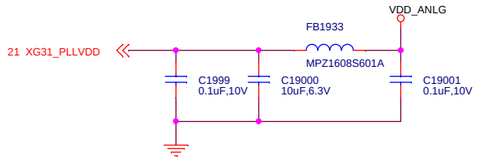
T2 TX AND RX POWER

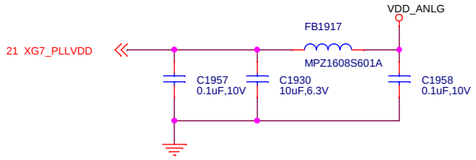
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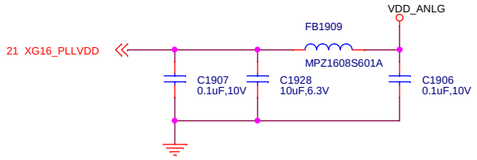


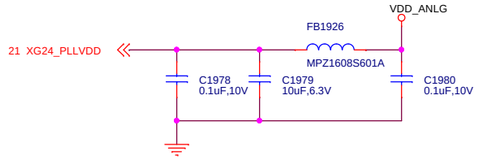


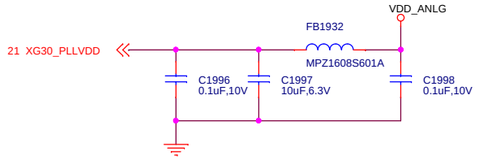


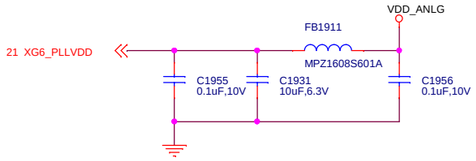


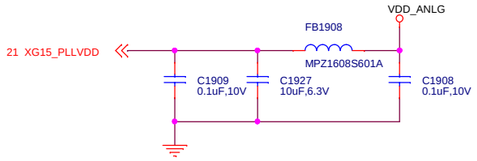


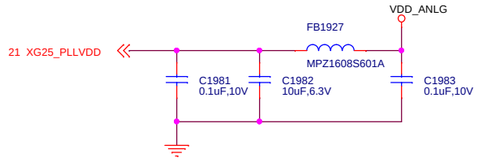


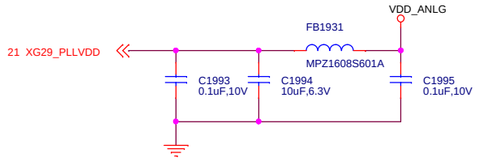


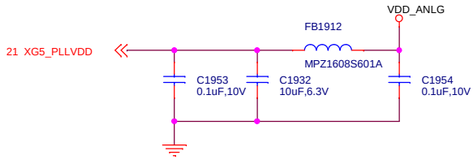


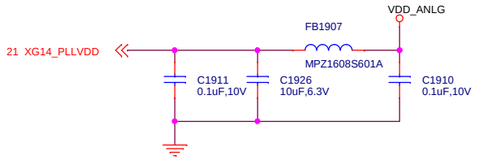


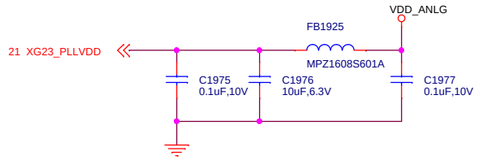


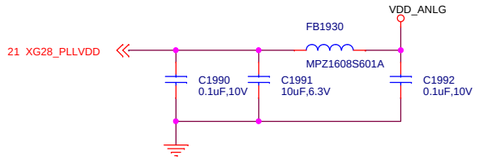


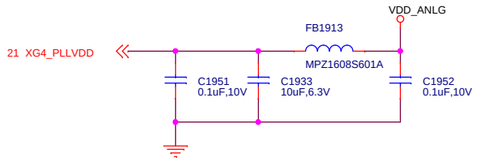


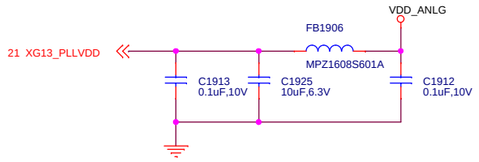


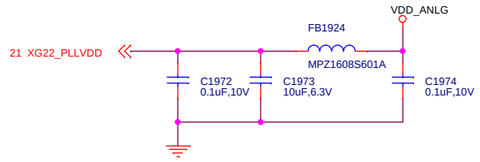


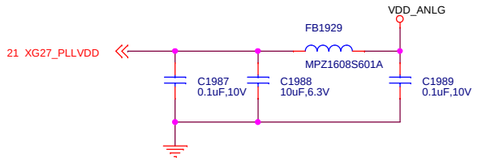


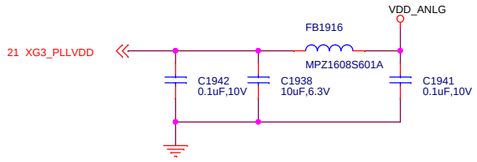


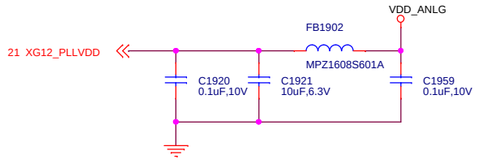


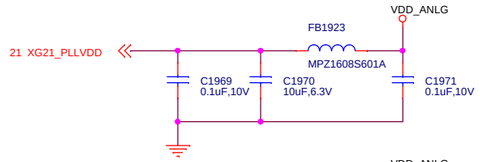


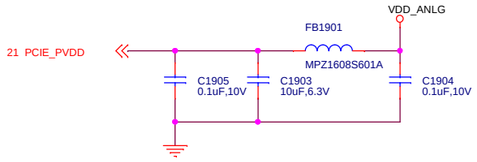


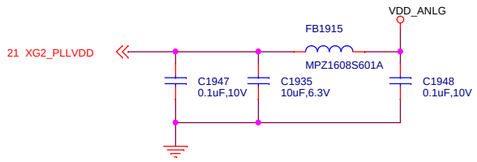


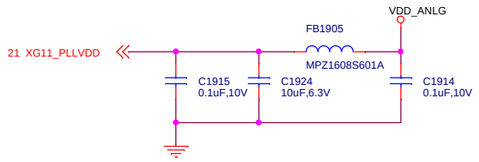


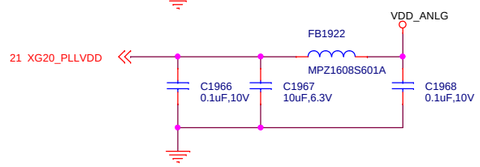


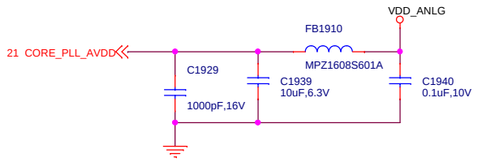


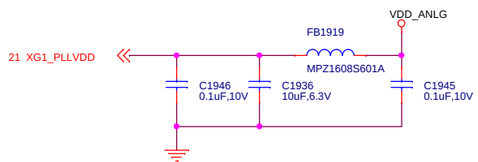


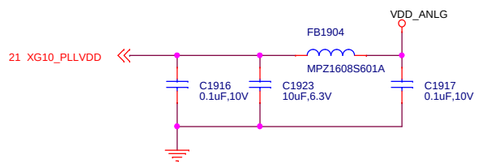


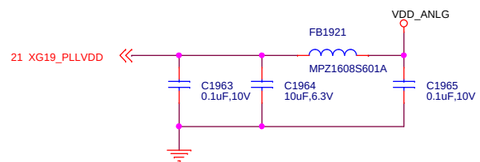


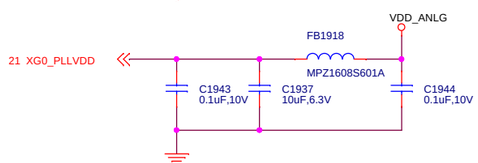


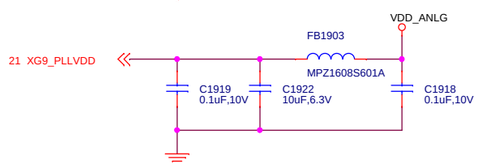


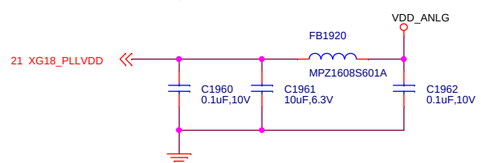












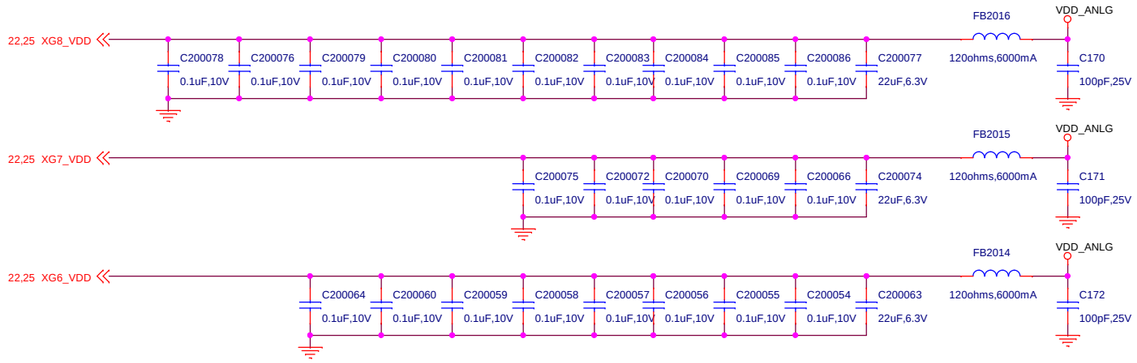
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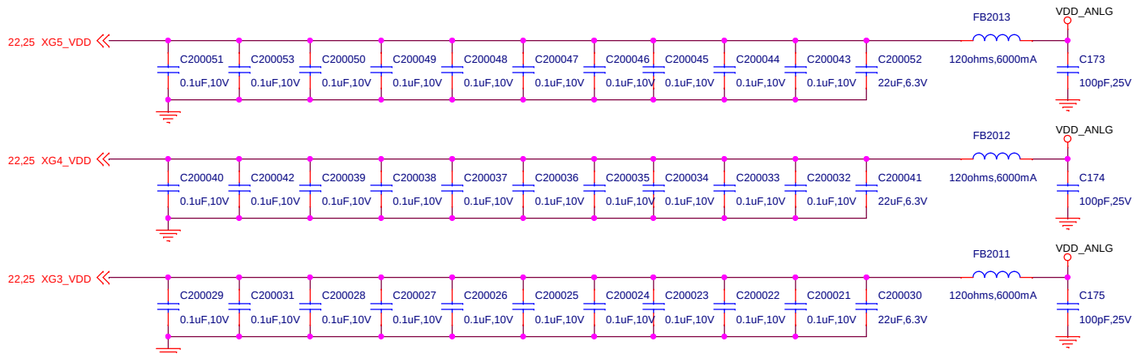
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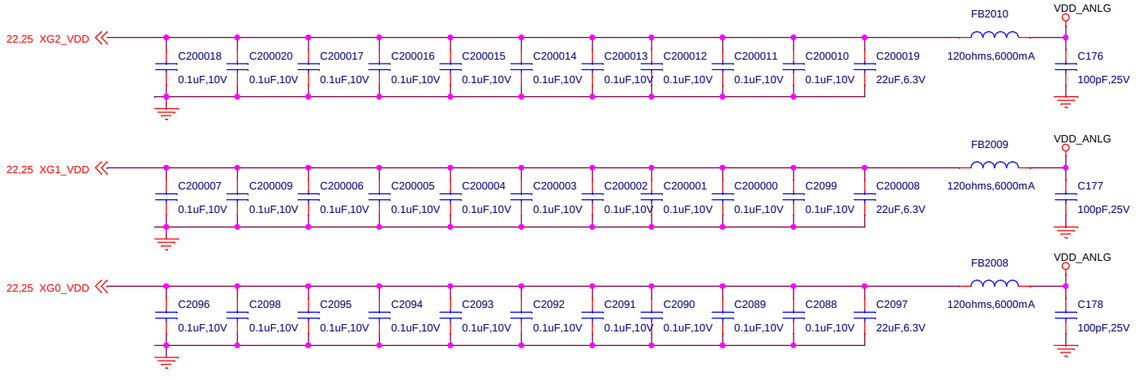
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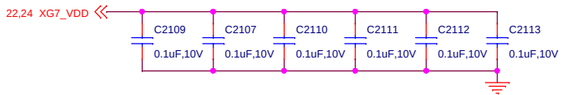


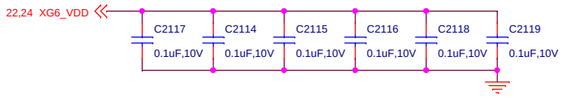


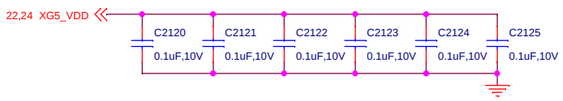


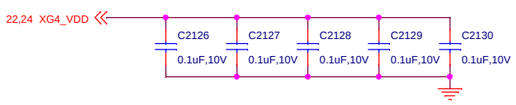
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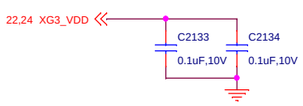
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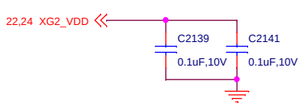


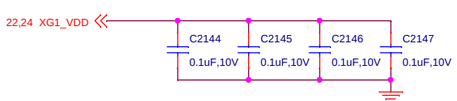


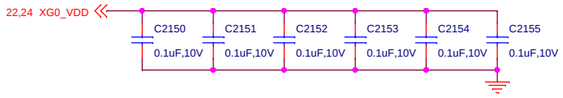


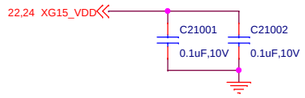


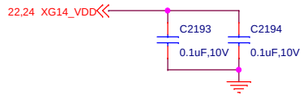


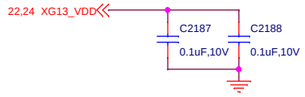


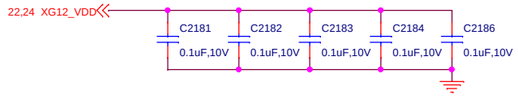


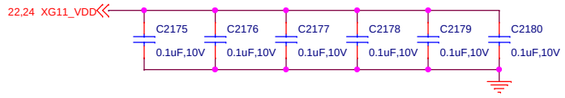


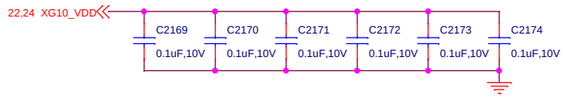


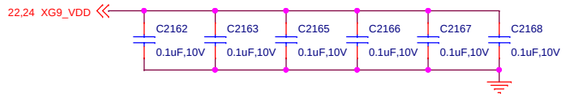


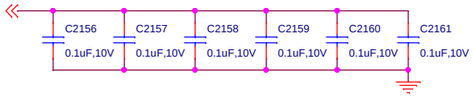


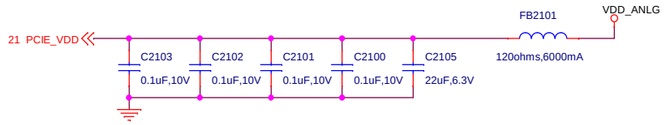


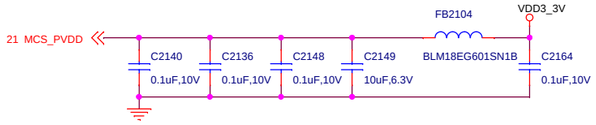


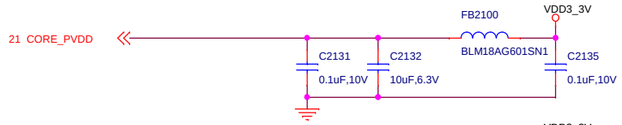


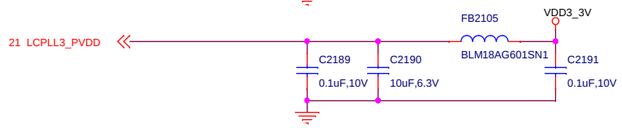


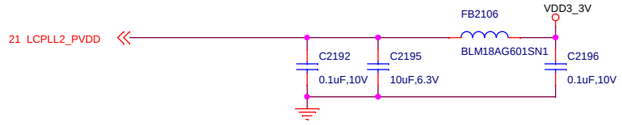


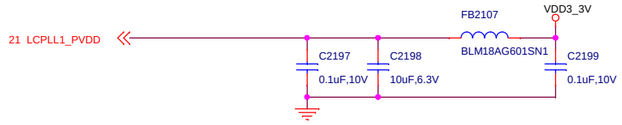


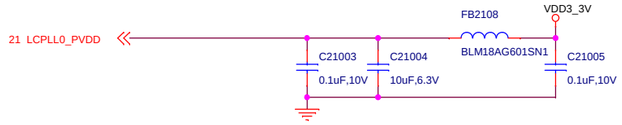






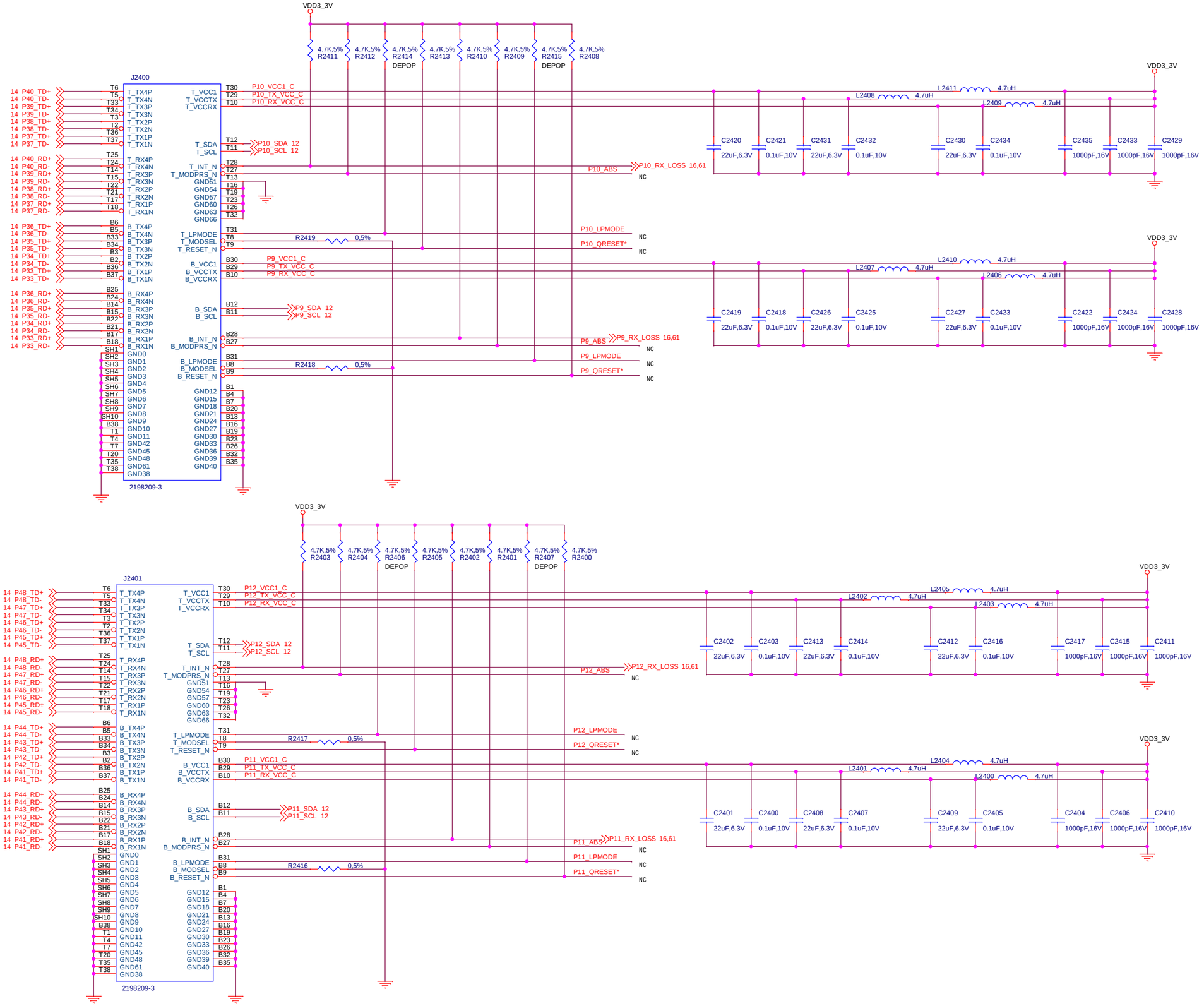






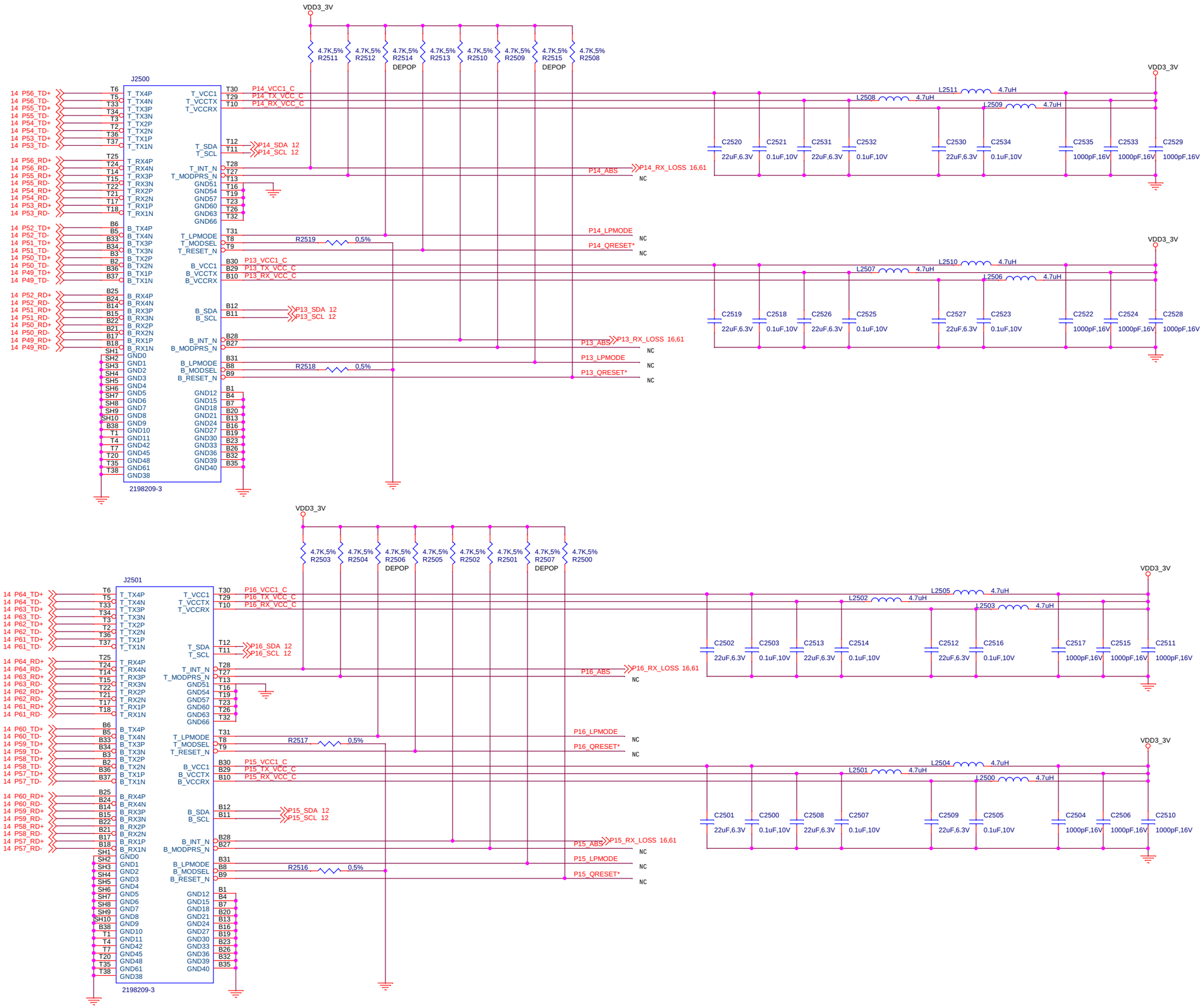
T2 PWR FILTERS

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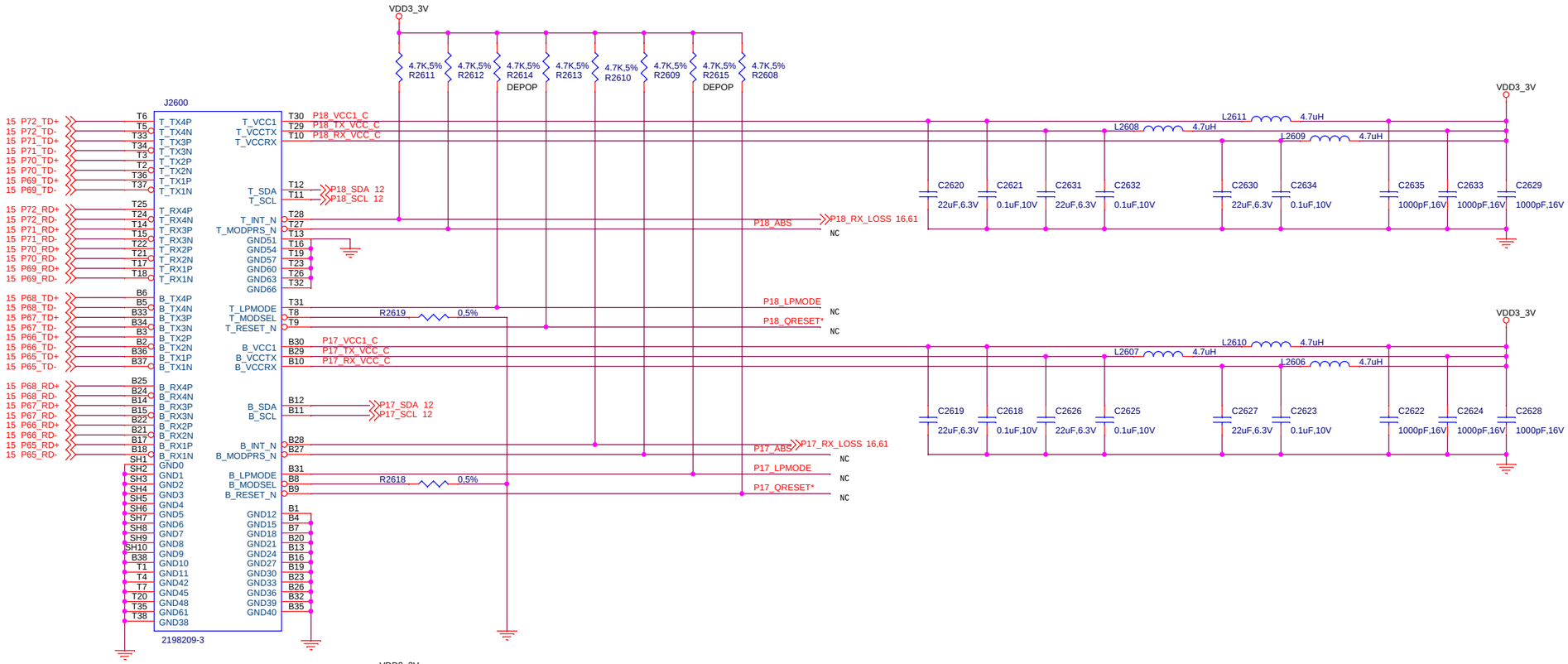
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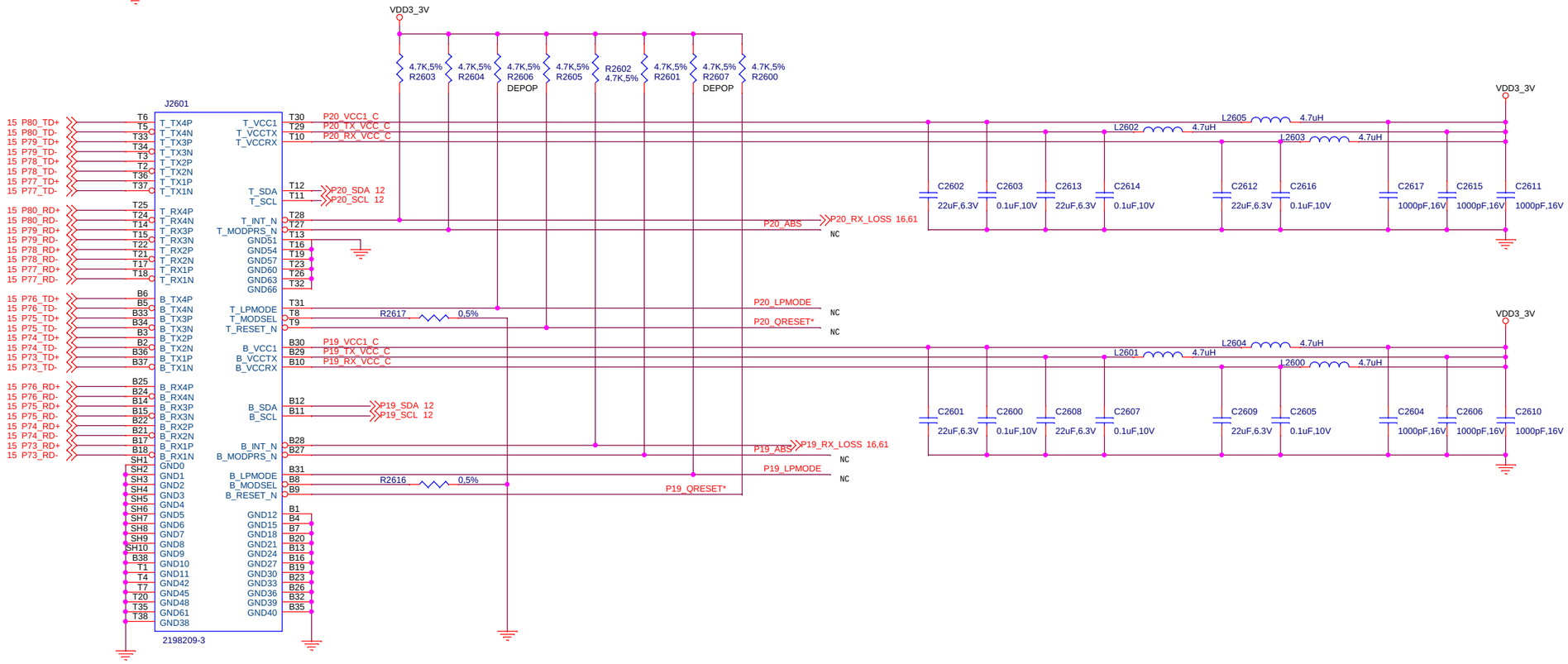
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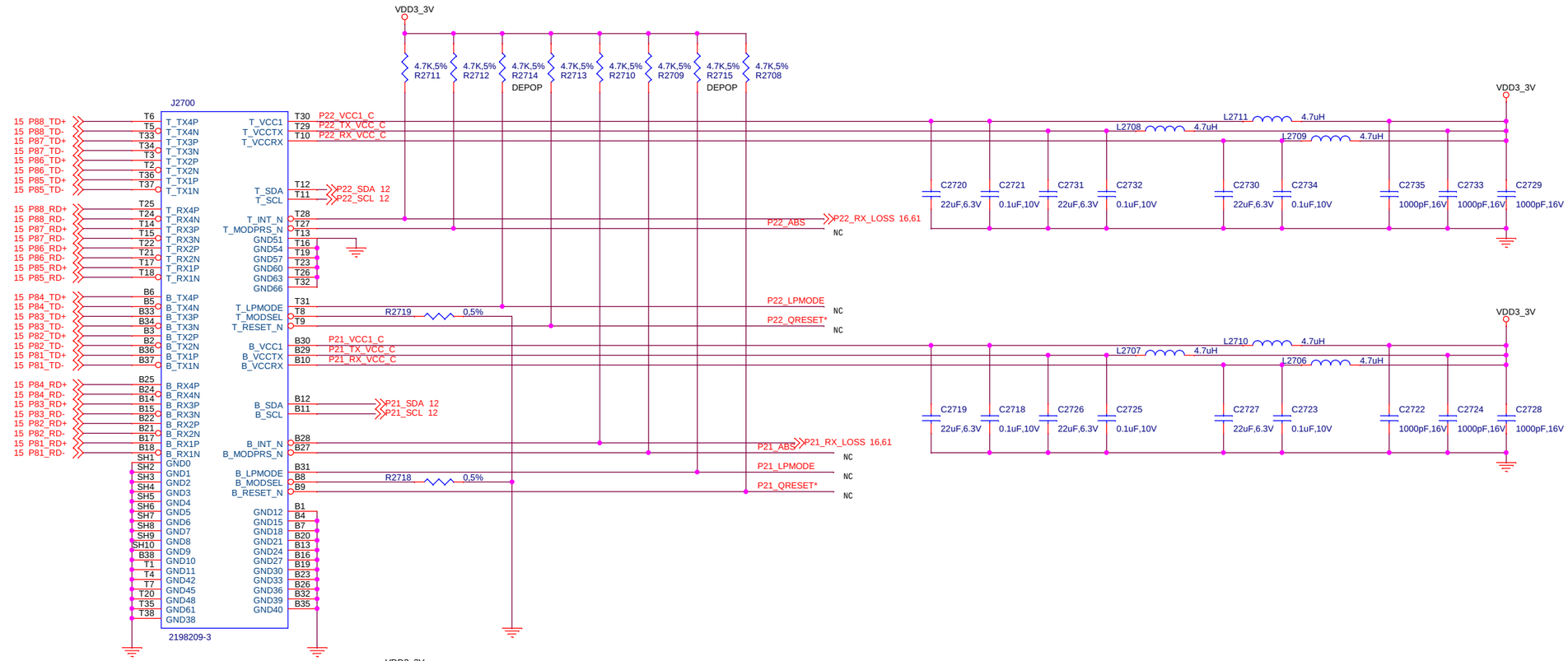
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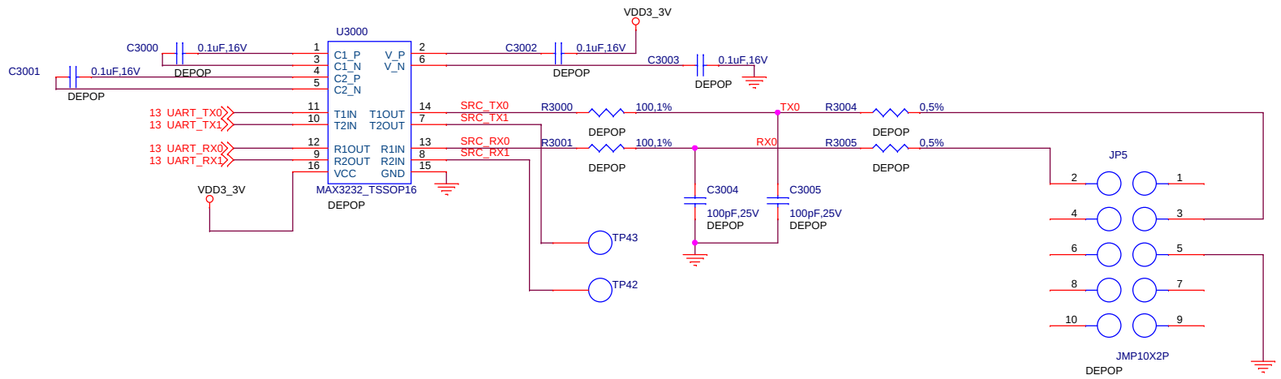
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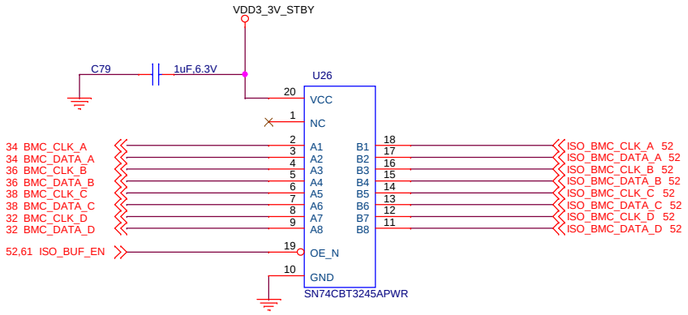
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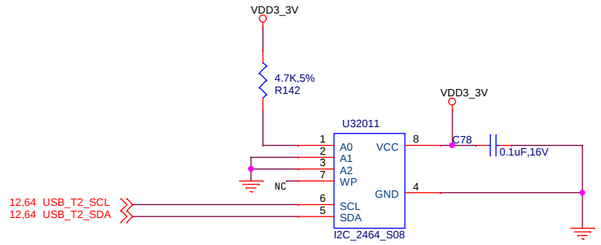


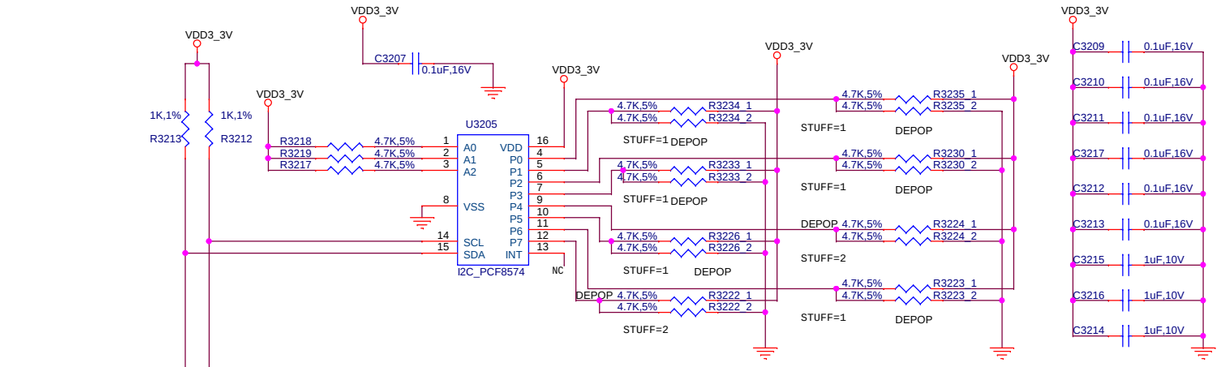
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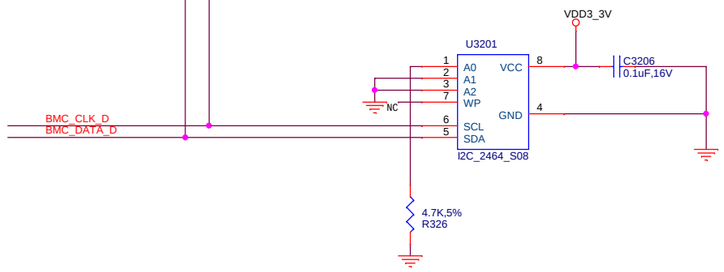
I2C Basebord ID = 0x6F







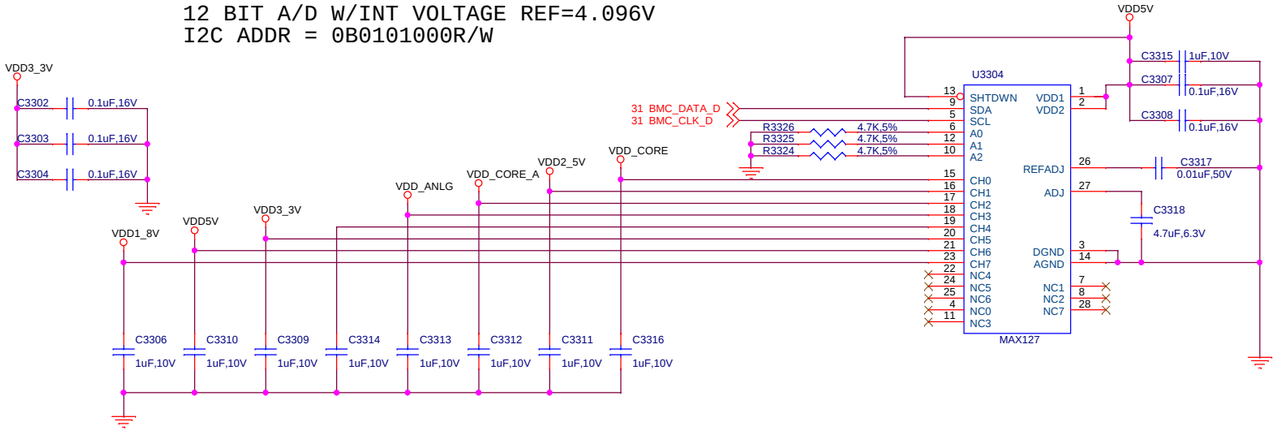
Make R3235_1 DEPOP and R3235_2 populate for sixpack



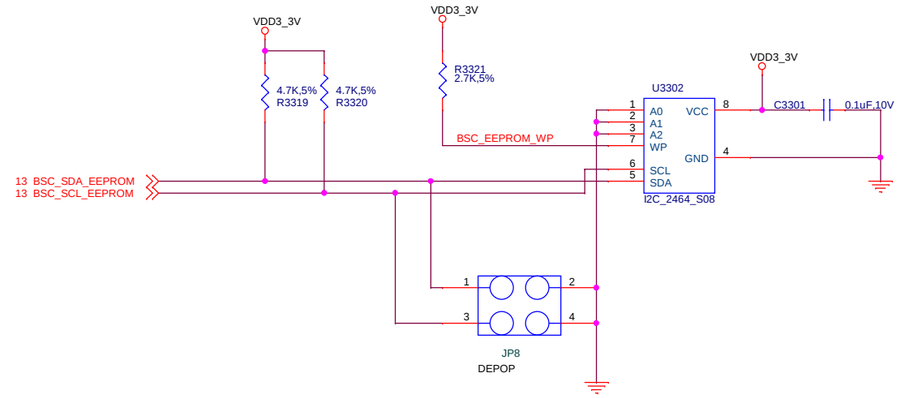
I2C CONTROL

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12 BIT A/D W/INT VOLTAGE REF=4.096V
I2C ADDR = 0B0101000R/W



Measure Voltages at destination.
to account for plane drop.

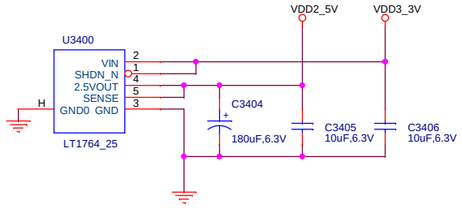


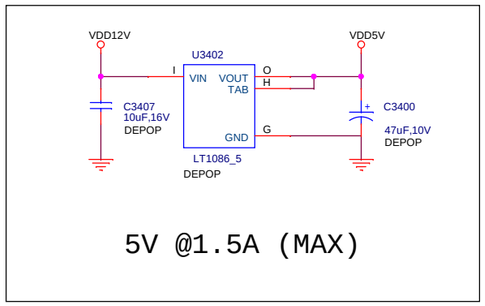
PCIE EEPROM

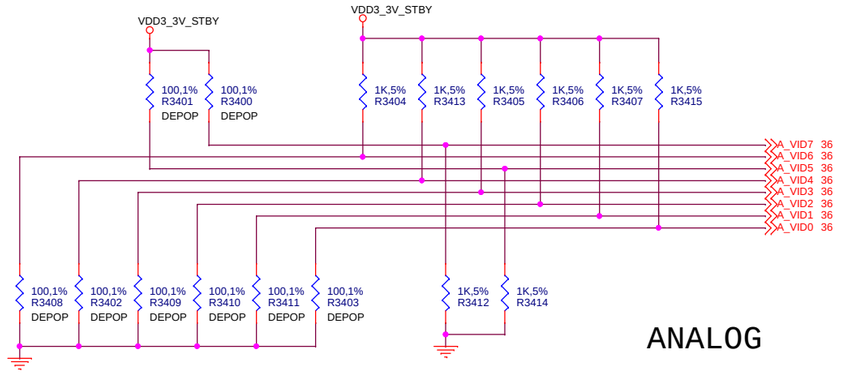
VOLTAGE MONITORING AND EEPROM

FACEBOOK

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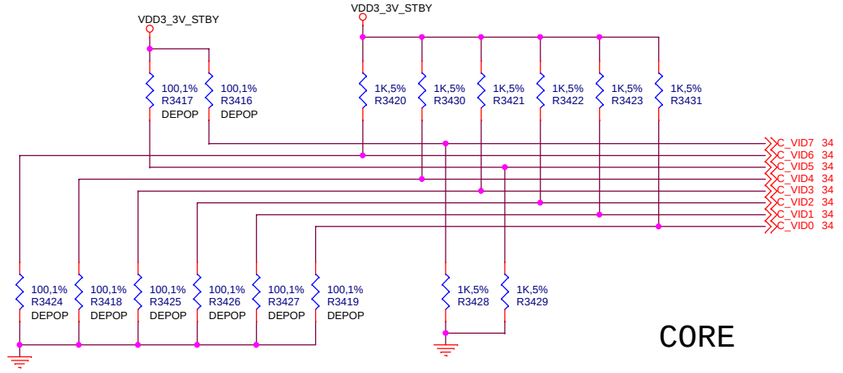


ANALOG

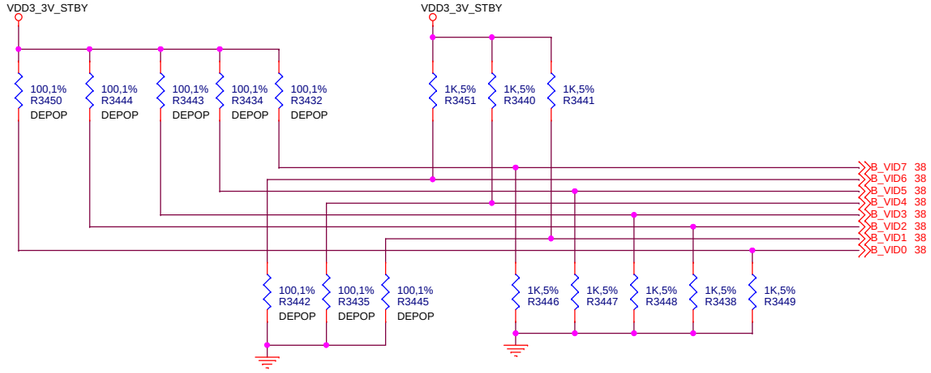
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1.00V = 01011111
0.95V = 01110111

High Margin: 9 -> 10

Low Margin: 5 -> 6



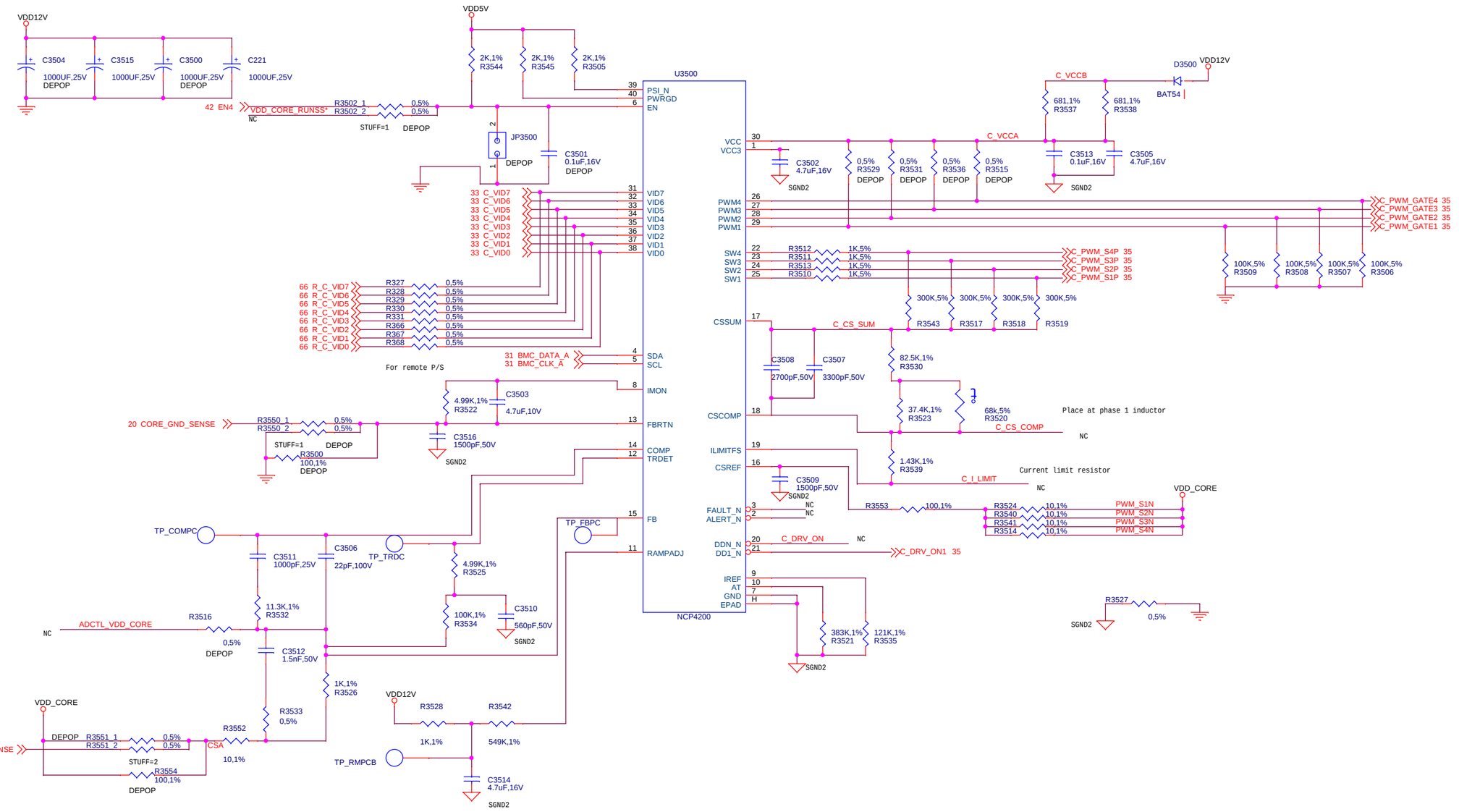
CORE



3.48V = 00000010
3.30V = 01010010
3.22V = 10100010

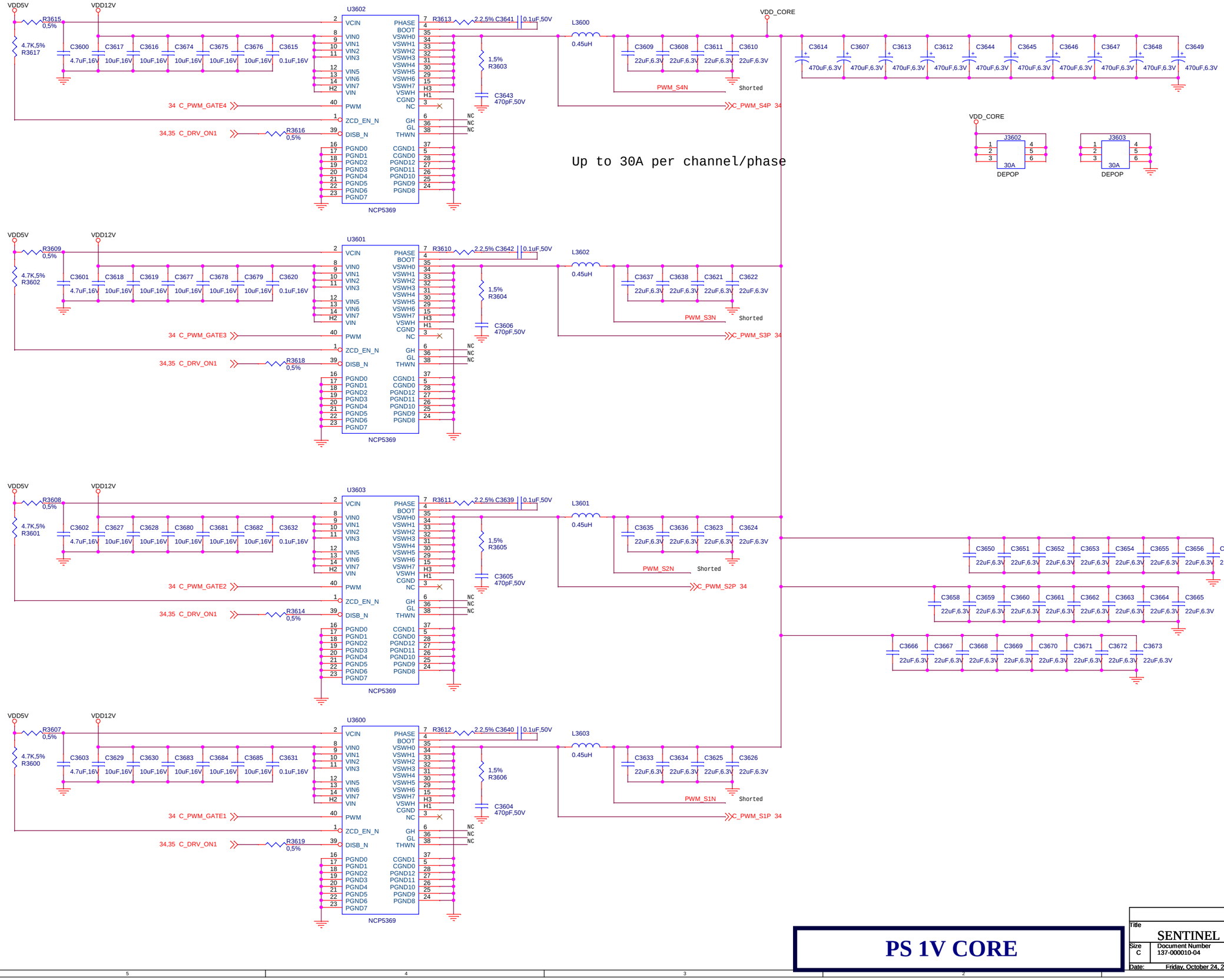
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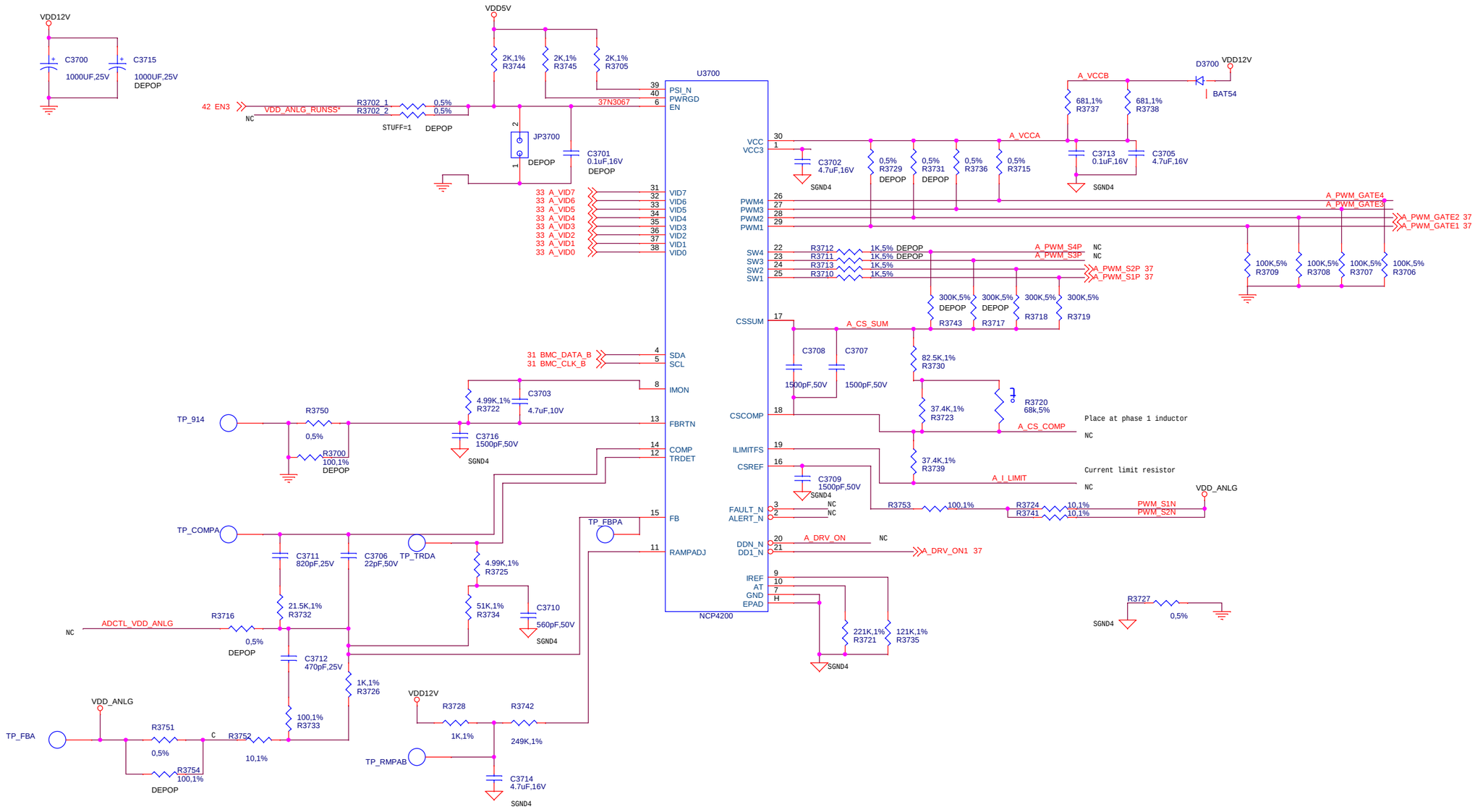
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PS 1V CORE

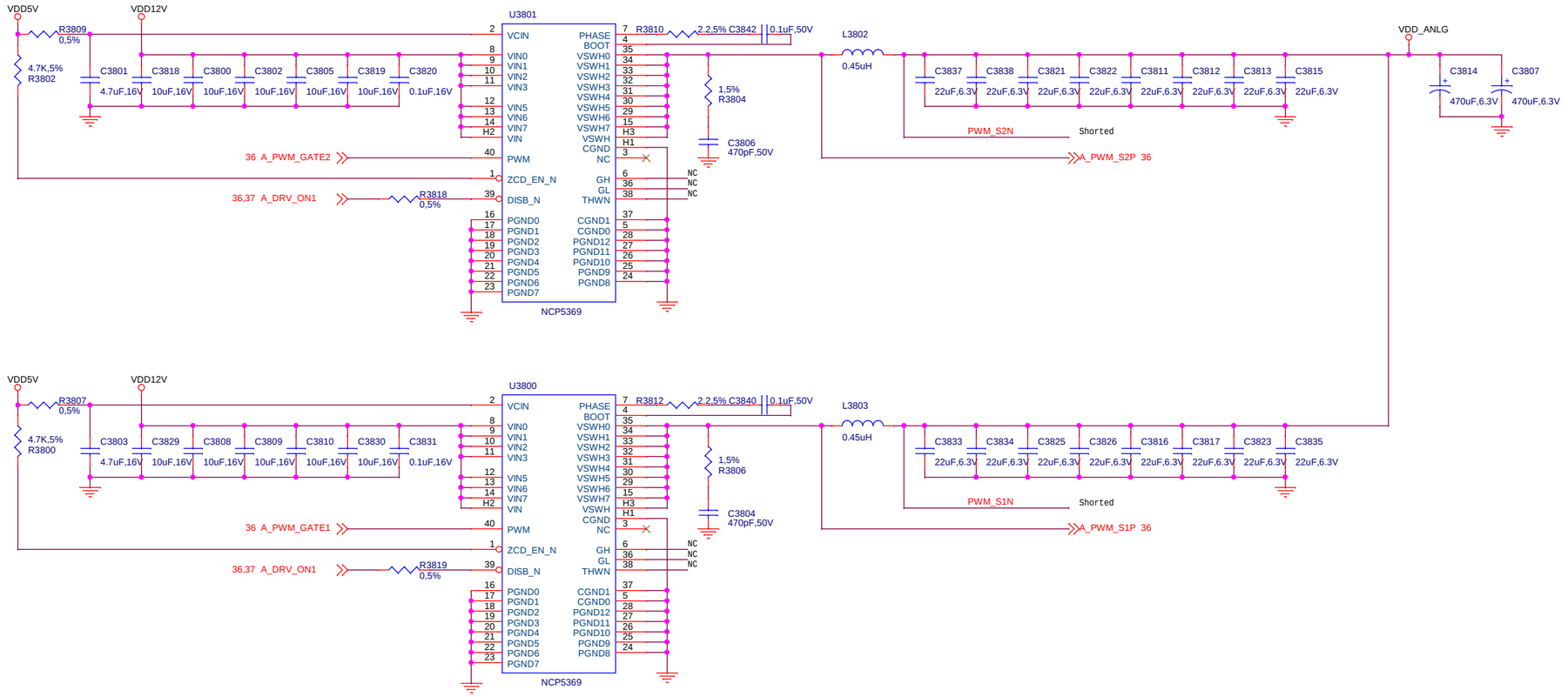
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U3602
U3601
U3603
U3600
NCP5369
VDD5V
VDD12V
R3615 0,5%
4.7K,5% R3617
C3600 4.7uF,16V
C3617 10uF,16V
C3616 10uF,16V
C3674 10uF,16V
C3675 10uF,16V
C3676 10uF,16V
C3615 0.1uF,16V
34 C_PWM_GATE4
34,35 C_DRV_ON1
R3616 0,5%
R3613 2.2,5%
C3641 0.1uF,50V
1,5% R3603
C3643 470pF,50V
L3600 0.45uH
C3609 22uF,6.3V
C3608 22uF,6.3V
C3611 22uF,6.3V
C3610 22uF,6.3V
PWM_S4N
Shorted
C_PWM_S4P 34
VDD_CORE
C3614 470uF,6.3V
C3607 470uF,6.3V
C3613 470uF,6.3V
C3612 470uF,6.3V
C3644 470uF,6.3V
C3645 470uF,6.3V
C3646 470uF,6.3V
C3647 470uF,6.3V
C3648 470uF,6.3V
C3649 470uF,6.3V
J3602
J3603
30A
DEPOP
Up to 30A per channel/phase
R3609 0,5%
4.7K,5% R3602
C3601 4.7uF,16V
C3618 10uF,16V
C3619 10uF,16V
C3677 10uF,16V
C3678 10uF,16V
C3679 10uF,16V
C3620 0.1uF,16V
34 C_PWM_GATE3
34,35 C_DRV_ON1
R3618 0,5%
R3610 2.2,5%
C3642 0.1uF,50V
1,5% R3604
C3606 470pF,50V
L3602 0.45uH
C3637 22uF,6.3V
C3638 22uF,6.3V
C3621 22uF,6.3V
C3622 22uF,6.3V
PWM_S3N
Shorted
C_PWM_S3P 34
R3608 0,5%
4.7K,5% R3601
C3602 4.7uF,16V
C3627 10uF,16V
C3628 10uF,16V
C3680 10uF,16V
C3681 10uF,16V
C3682 10uF,16V
C3632 0.1uF,16V
34 C_PWM_GATE2
34,35 C_DRV_ON1
R3614 0,5%
R3611 2.2,5%
C3639 0.1uF,50V
1,5% R3605
C3605 470pF,50V
L3601 0.45uH
C3635 22uF,6.3V
C3636 22uF,6.3V
C3623 22uF,6.3V
C3624 22uF,6.3V
PWM_S2N
Shorted
C_PWM_S2P 34
C3650 22uF,6.3V
C3651 22uF,6.3V
C3652 22uF,6.3V
C3653 22uF,6.3V
C3654 22uF,6.3V
C3655 22uF,6.3V
C3656 22uF,6.3V
C3657 22uF,6.3V
C3658 22uF,6.3V
C3659 22uF,6.3V
C3660 22uF,6.3V
C3661 22uF,6.3V
C3662 22uF,6.3V
C3663 22uF,6.3V
C3664 22uF,6.3V
C3665 22uF,6.3V
C3666 22uF,6.3V
C3667 22uF,6.3V
C3668 22uF,6.3V
C3669 22uF,6.3V
C3670 22uF,6.3V
C3671 22uF,6.3V
C3672 22uF,6.3V
C3673 22uF,6.3V
R3607 0,5%
4.7K,5% R3600
C3603 4.7uF,16V
C3629 10uF,16V
C3630 10uF,16V
C3683 10uF,16V
C3684 10uF,16V
C3685 10uF,16V
C3631 0.1uF,16V
34 C_PWM_GATE1
34,35 C_DRV_ON1
R3619 0,5%
R3612 2.2,5%
C3640 0.1uF,50V
1,5% R3606
C3604 470pF,50V
L3603 0.45uH
C3633 22uF,6.3V
C3634 22uF,6.3V
C3625 22uF,6.3V
C3626 22uF,6.3V
PWM_S1N
Shorted
C_PWM_S1P 34
PS 1V CORE
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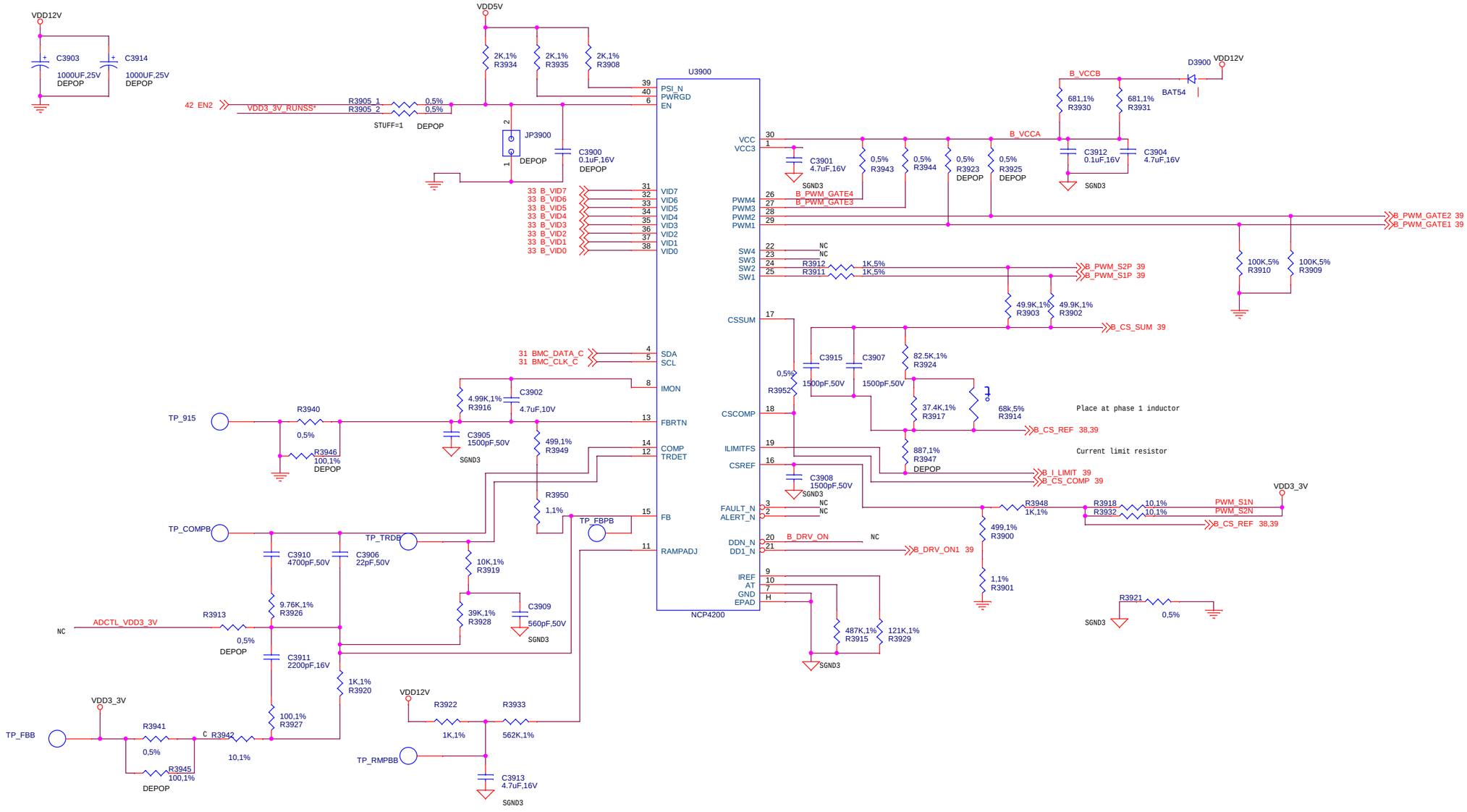
PS 1V ANALOG

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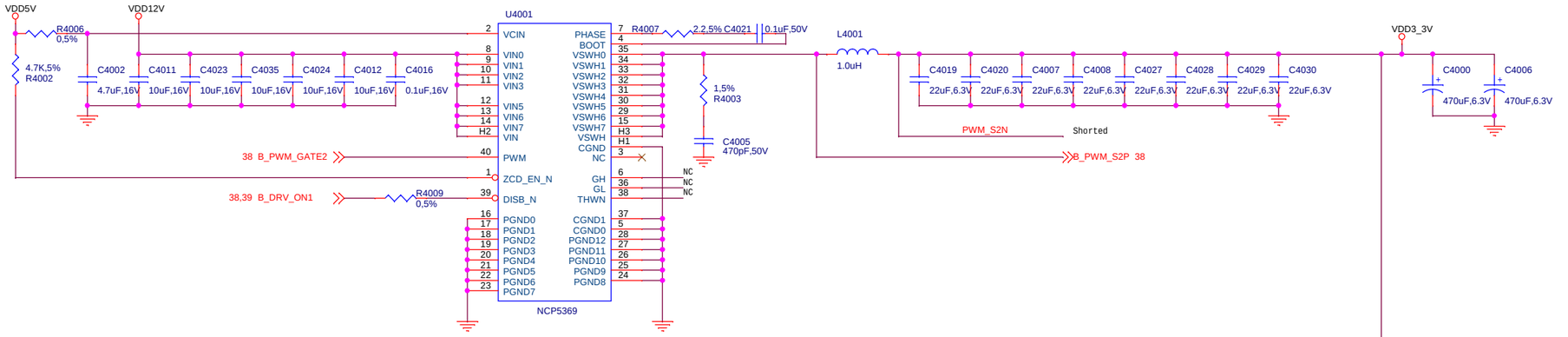
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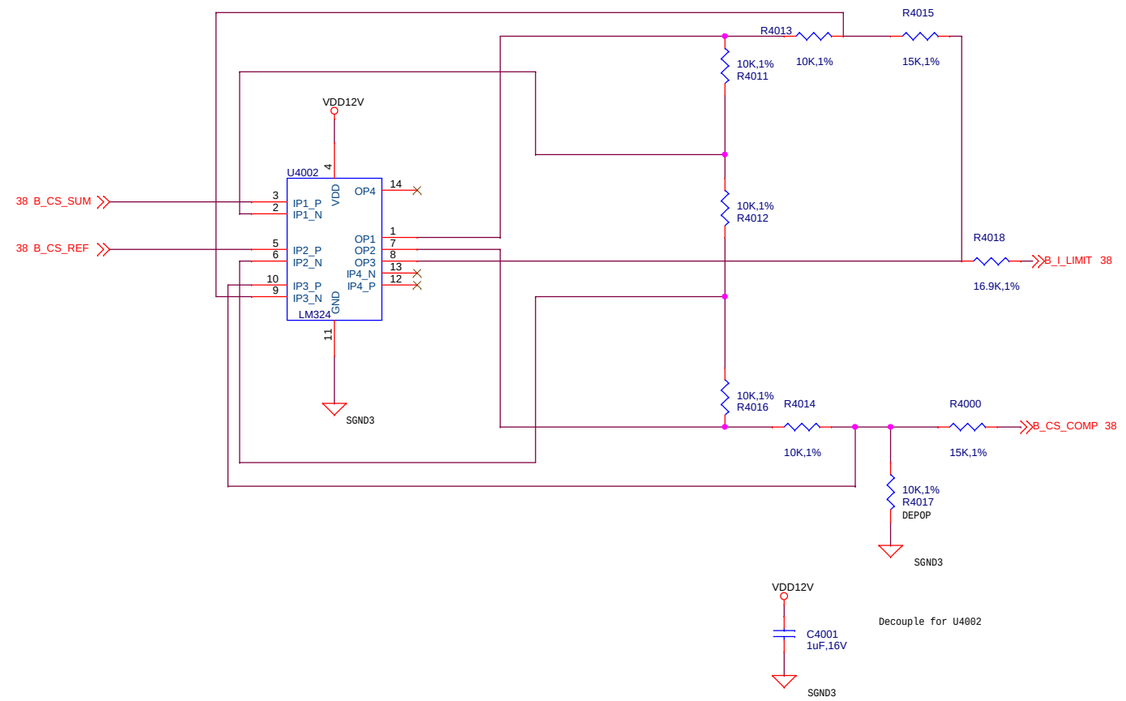
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PS 3.3V

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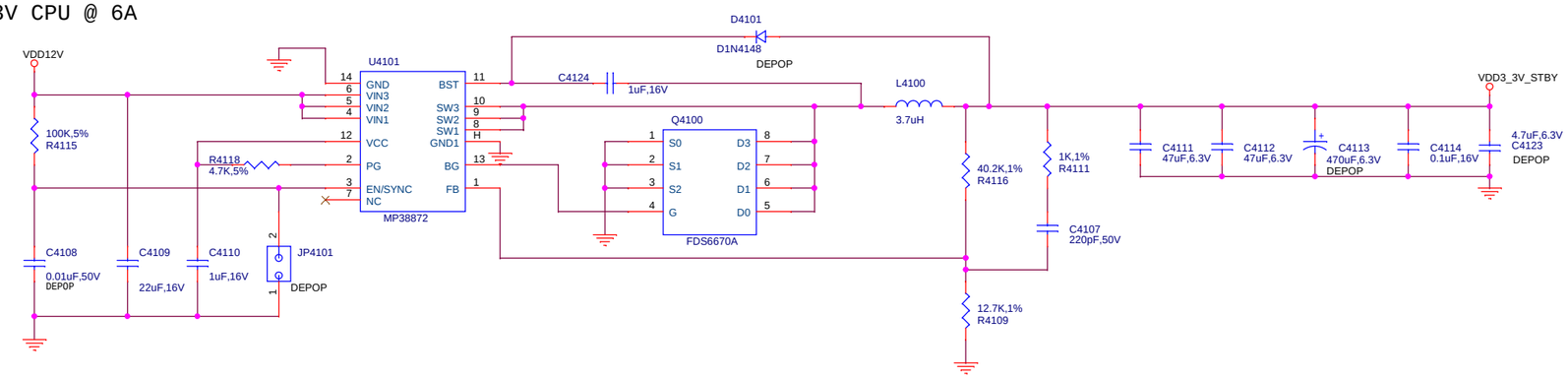




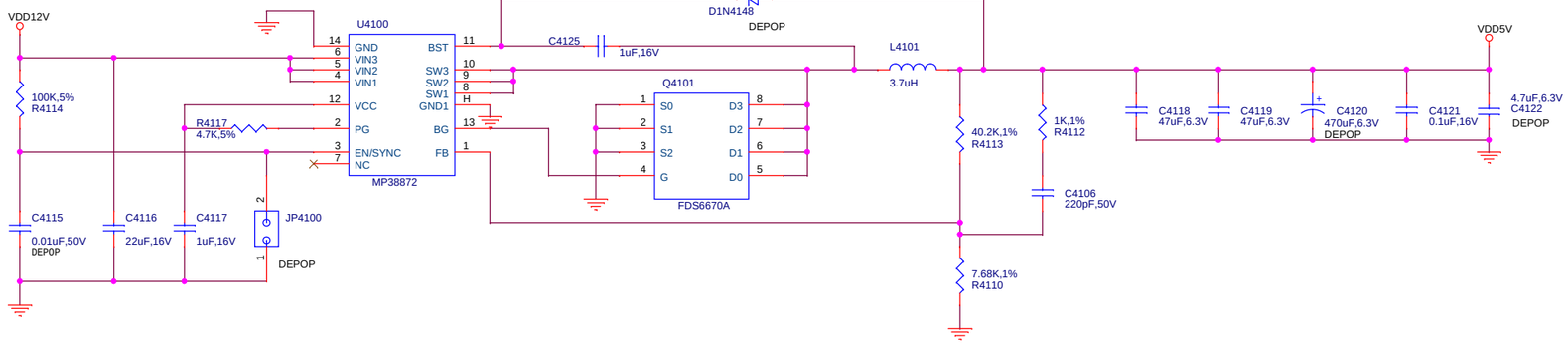
PS 3.3V

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3.3V CPU @ 6A



5V @ 6A



PS 5V & BMC 3.3V

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Fan Connectors
Right side

Fan Connectors
Left side

VDD12V
C4211 2.2uF,16V
FB4200 MPZ2012S331AT
VDD_FAN
C4206 2.2uF,16V
C4207 2.2uF,16V
C4208 2.2uF,16V
C4205 2.2uF,16V

VDD12V
C4210 2.2uF,16V
FB4201 MPZ2012S331AT
VDD_FAN2
C4209 2.2uF,16V
C4204 2.2uF,16V
C4203 2.2uF,16V
C4202 2.2uF,16V

vdd12v_BP
C4213 0.1uF,16V
C4214 0.1uF,16V
C4215 0.1uF,16V
C4216 0.1uF,16V
C4200 100uF,16V DEPOP
C4217 10uF,16V DEPOP
200,5% R4200
200,5% R4201
200,5% R4202
200,5% R4203

MT13 MT14 MT15 MT16 MT17 MT22 MT23 MT3
156 156 156 156 156 156 125 125

MT1 MT2 MT5 MT6 MT7 MT8 MT9 MT10 MT11 MT12
156 156 156 156 156 156 156 156 156 156

B_PWM_OUT1
B_FAN1_TACH
B_FAN1A_TACH
J4205
B_PWM_OUT2
B_FAN2_TACH
B_FAN2A_TACH
J4209

B_PWM_OUT3
B_FAN3_TACH
B_FAN3A_TACH
J4203
B_PWM_OUT4
B_FAN4_TACH
B_FAN4A_TACH
J4202

Note: DEPOP J4202,J4203,J4205,J4209 for Sixpack

VDD_FAN
VDD_FAN2
JP11
B_PWM_OUT1
B_FAN1_TACH
B_FAN1A_TACH
B_PWM_OUT3
B_FAN3_TACH
B_FAN3A_TACH
B_PWM_OUT2
B_FAN2_TACH
B_FAN2A_TACH
B_PWM_OUT4
B_FAN4_TACH
B_FAN4A_TACH
MEC8-110-02-X-D-RA1-SL

Note: DEPOP JP11 for Wedge

VDD3_3V_STBY
R91 4.7K,5%
54 FAN1_TACH
R22 0.5%
D18 D1N4148
B_FAN1_TACH
C151 0.1uF,16V

VDD3_3V_STBY
R110 4.7K,5%
54 FAN3_TACH
R69 0.5%
D26 D1N4148
B_FAN3_TACH
C155 0.1uF,16V

VDD3_3V_STBY
R92 4.7K,5%
54 FAN1A_TACH
R23 0.5%
D19 D1N4148
B_FAN1A_TACH
C152 0.1uF,16V

VDD3_3V_STBY
R111 4.7K,5%
54 FAN3A_TACH
R70 0.5%
D27 D1N4148
B_FAN3A_TACH
C156 0.1uF,16V

VDD3_3V_STBY
R108 4.7K,5%
54 FAN2_TACH
R24 0.5%
D24 D1N4148
B_FAN2_TACH
C153 0.1uF,16V

VDD3_3V_STBY
R112 4.7K,5%
54 FAN4_TACH
R71 0.5%
D28 D1N4148
B_FAN4_TACH
C157 0.1uF,16V

VDD3_3V_STBY
R109 4.7K,5%
54 FAN2A_TACH
R25 0.5%
D25 D1N4148
B_FAN2A_TACH
C154 0.1uF,16V

VDD3_3V_STBY
R113 4.7K,5%
54 FAN4A_TACH
R72 0.5%
D29 D1N4148
B_FAN4A_TACH
C158 0.1uF,16V

VDD3_3V_STBY
R4400 4.7K,5%
R4401 4.7K,5%
R4402 4.7K,5%
R4403 4.7K,5%
54 PWM_OUT1
54 PWM_OUT2
54 PWM_OUT3
54 PWM_OUT4
C159 0.1uF,16V
U13
VCC GND
A1 A2 A3 A4 A5 A6
Y1 Y2 Y3 Y4 Y5 Y6
SN74LVC07APWR

VDD3_3V_STBY
R93 4.7K,5%
D20 D1N4148
B_PWM_OUT1

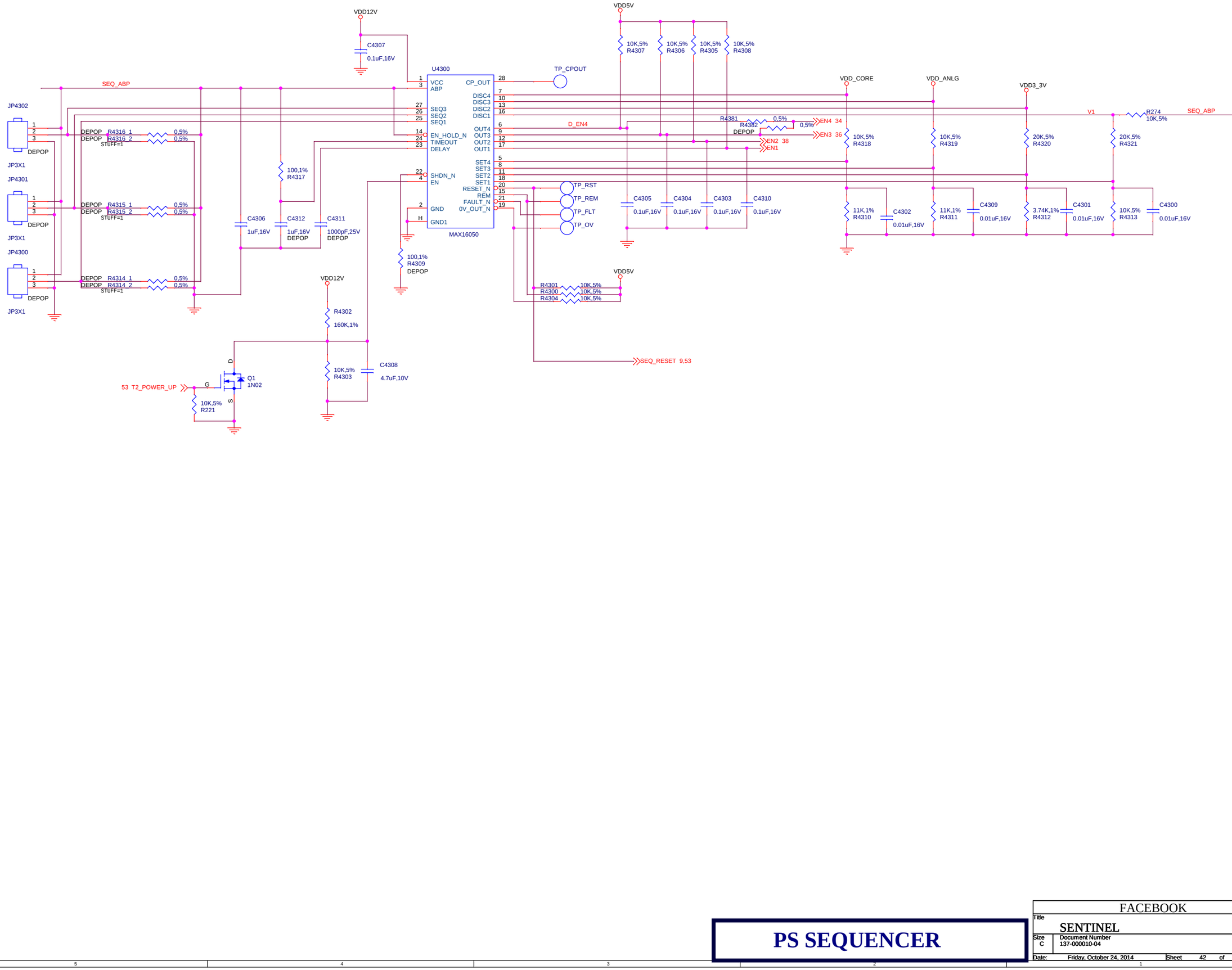
VDD3_3V_STBY
R94 4.7K,5%
D21 D1N4148
B_PWM_OUT2

VDD3_3V_STBY
R95 4.7K,5%
D22 D1N4148
B_PWM_OUT3

VDD3_3V_STBY
R96 4.7K,5%
D23 D1N4148
B_PWM_OUT4

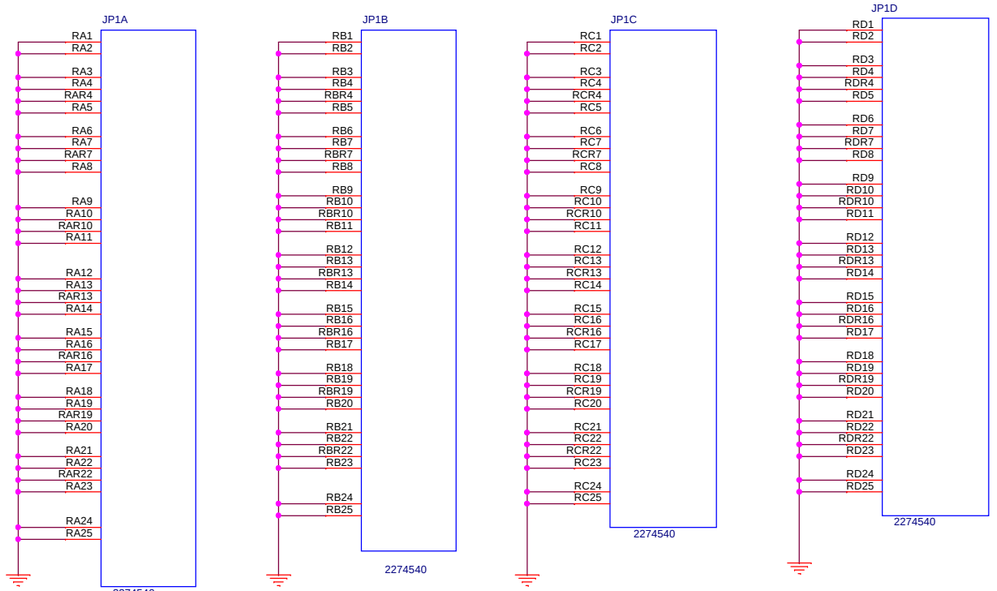
FAN CONTROL

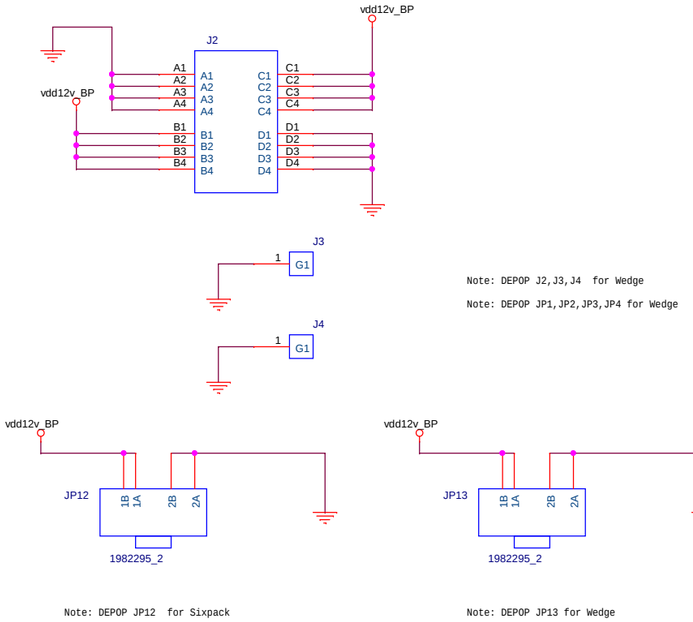
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PS SEQUENCER

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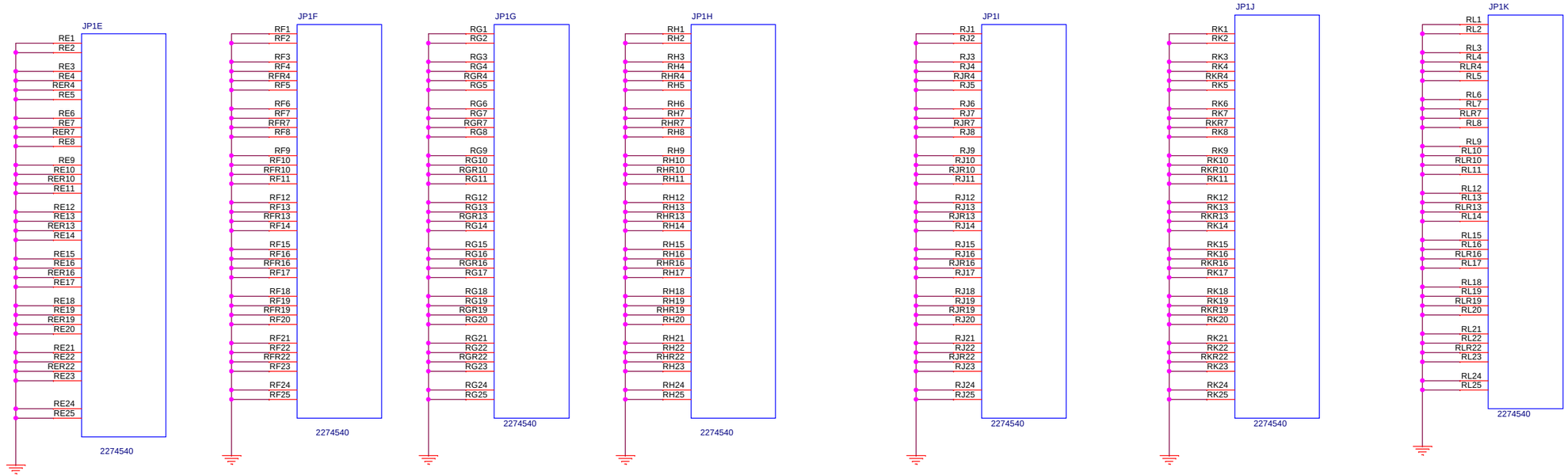


Note: DEPOP J2, J3, J4 for Wedge

Note: DEPOP JP1, JP2, JP3, JP4 for Wedge

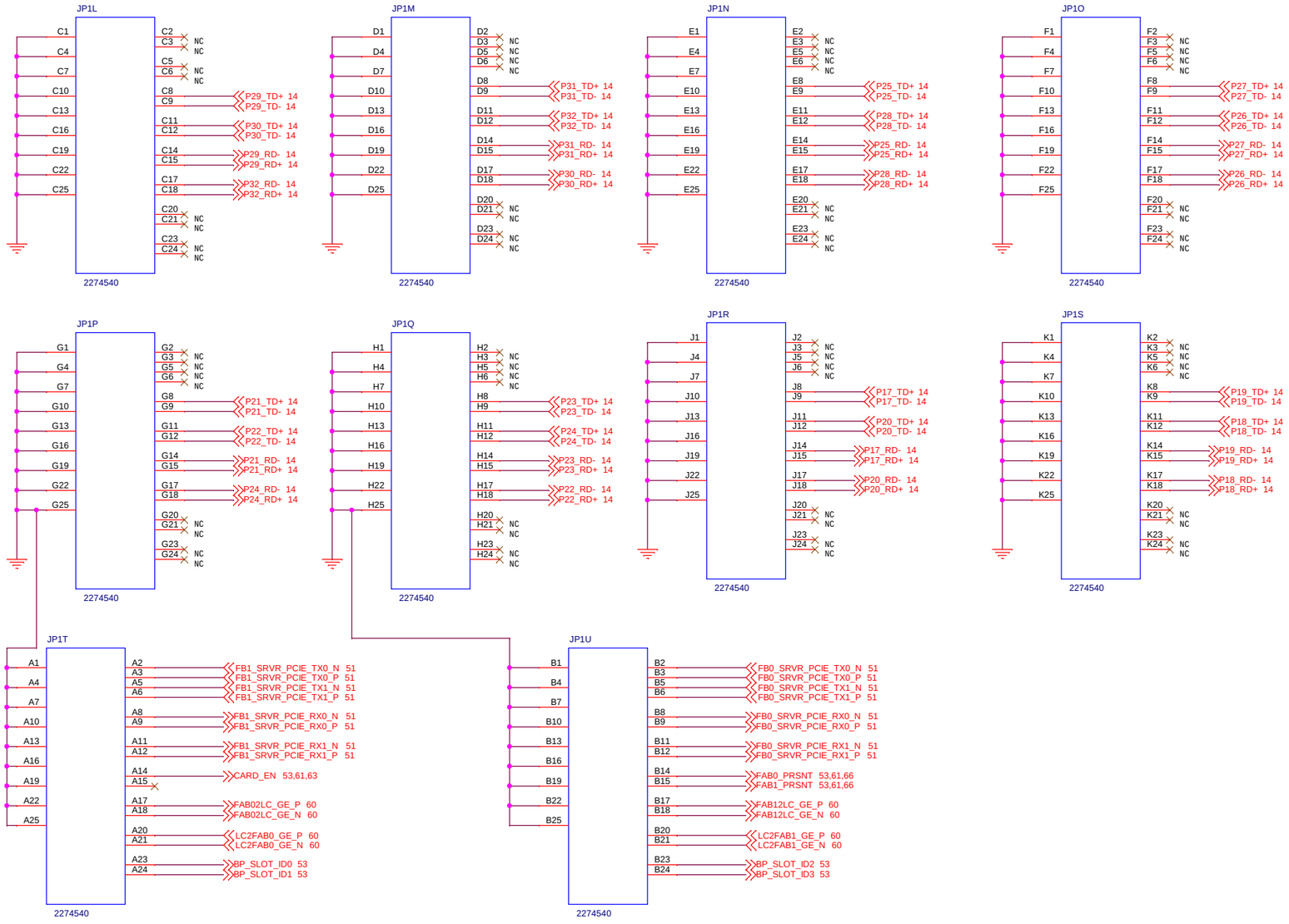
Note: DEPOP JP12 for Sixpack

Note: DEPOP JP13 for Wedge



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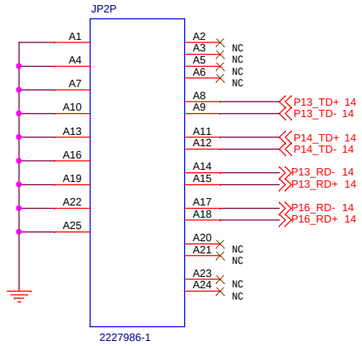
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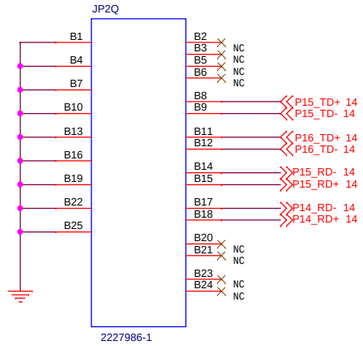
FACEBOOK

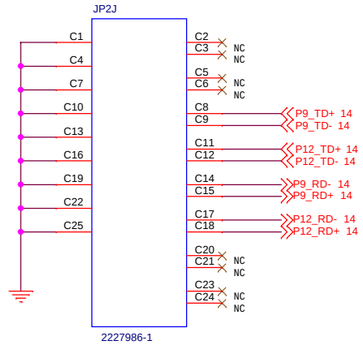
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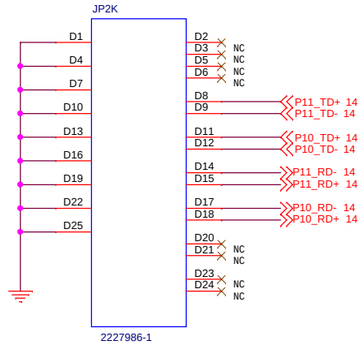
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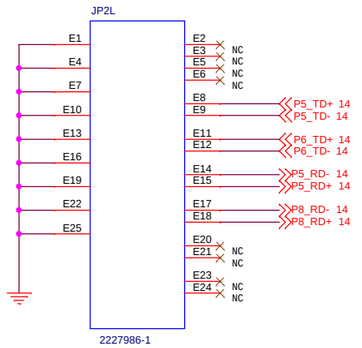
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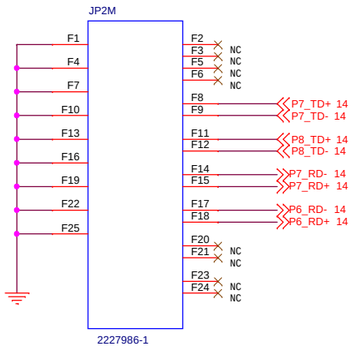


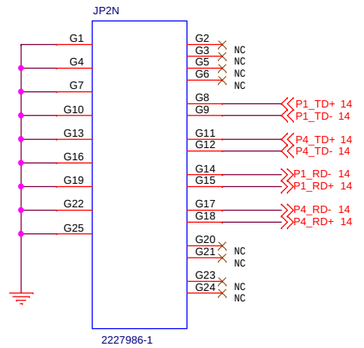


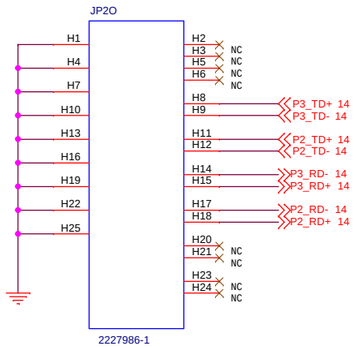






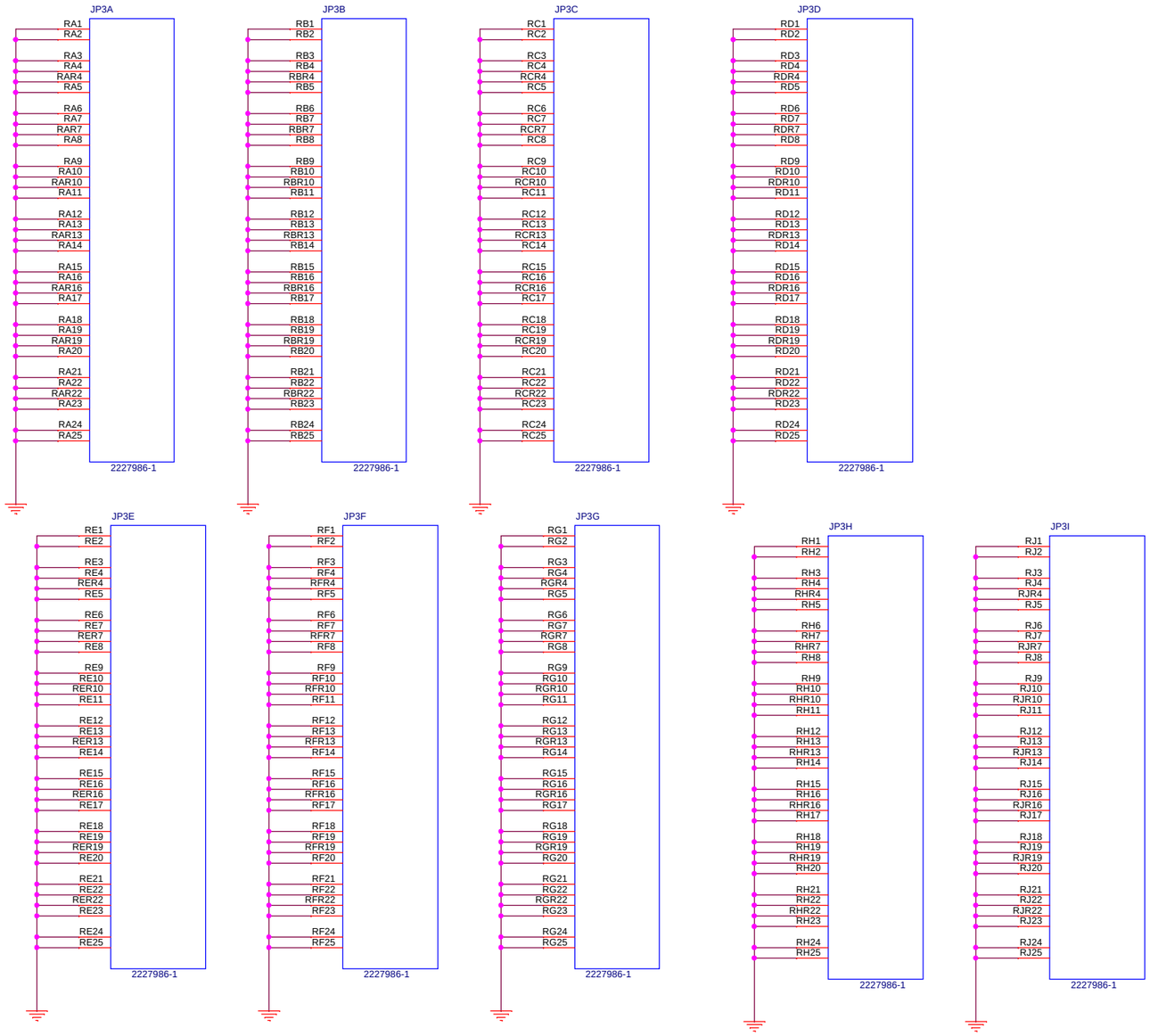






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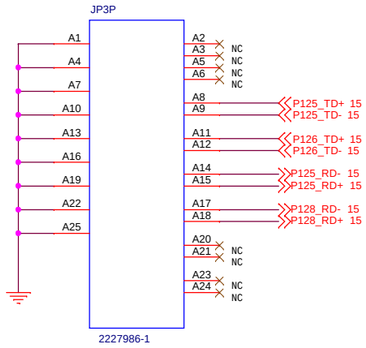
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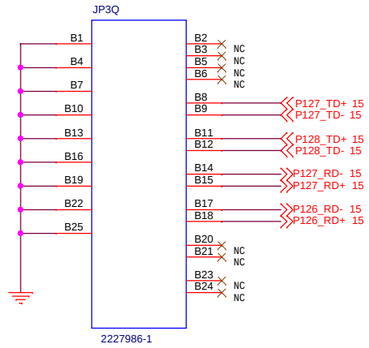
FACEBOOK

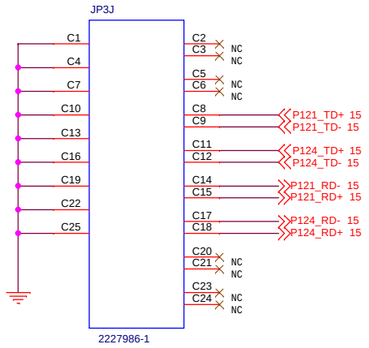
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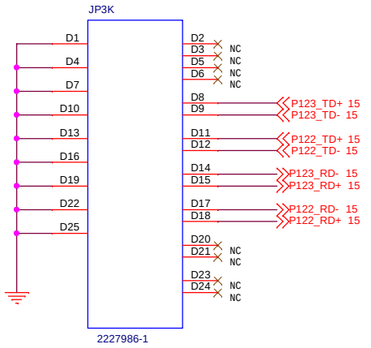
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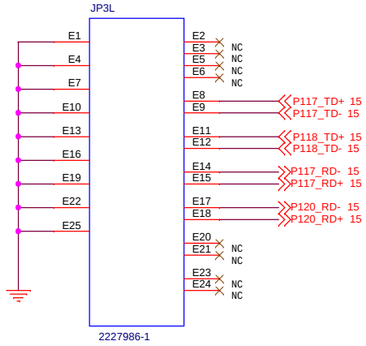
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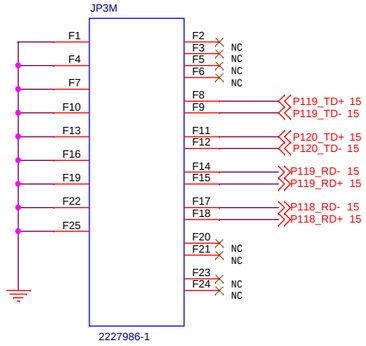


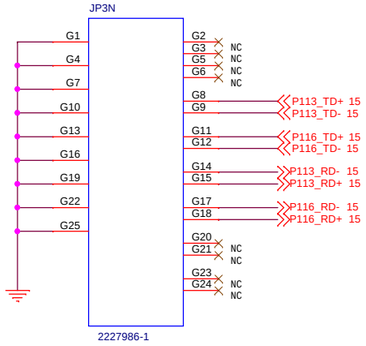


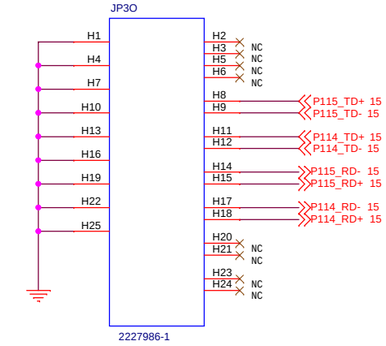






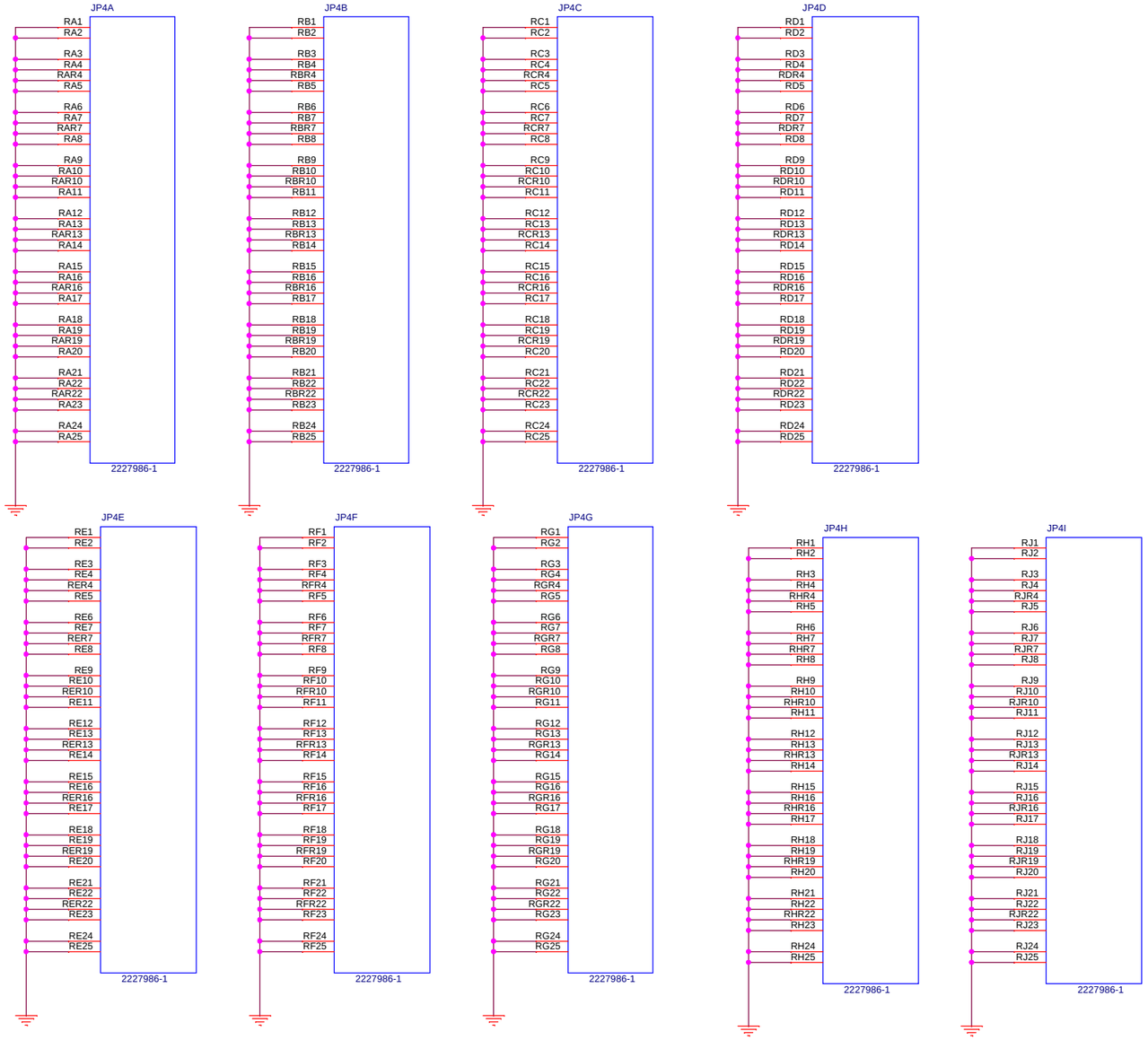






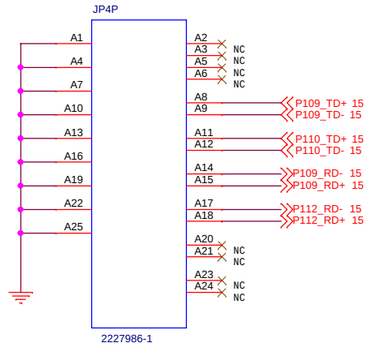
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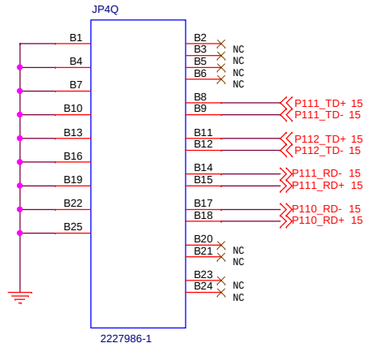
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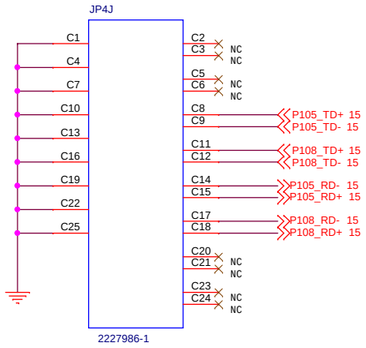


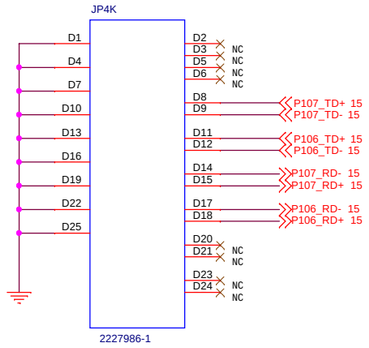
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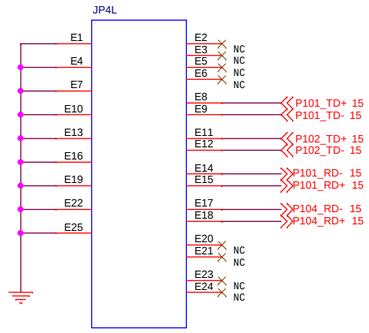
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	SENTINEL	
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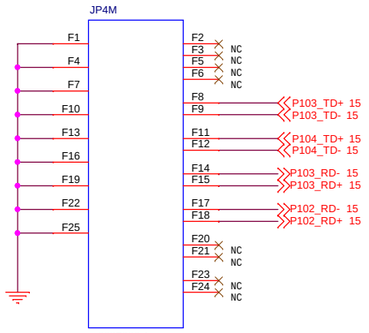


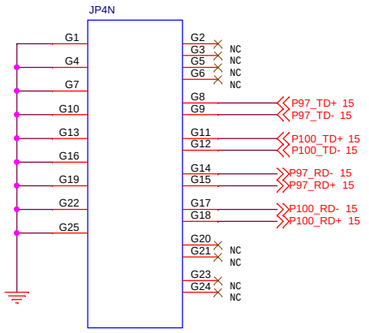


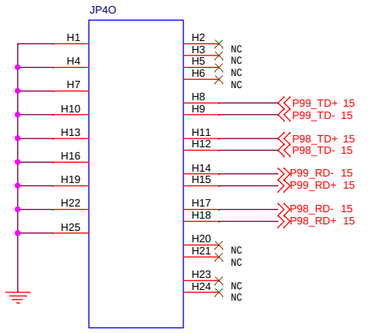












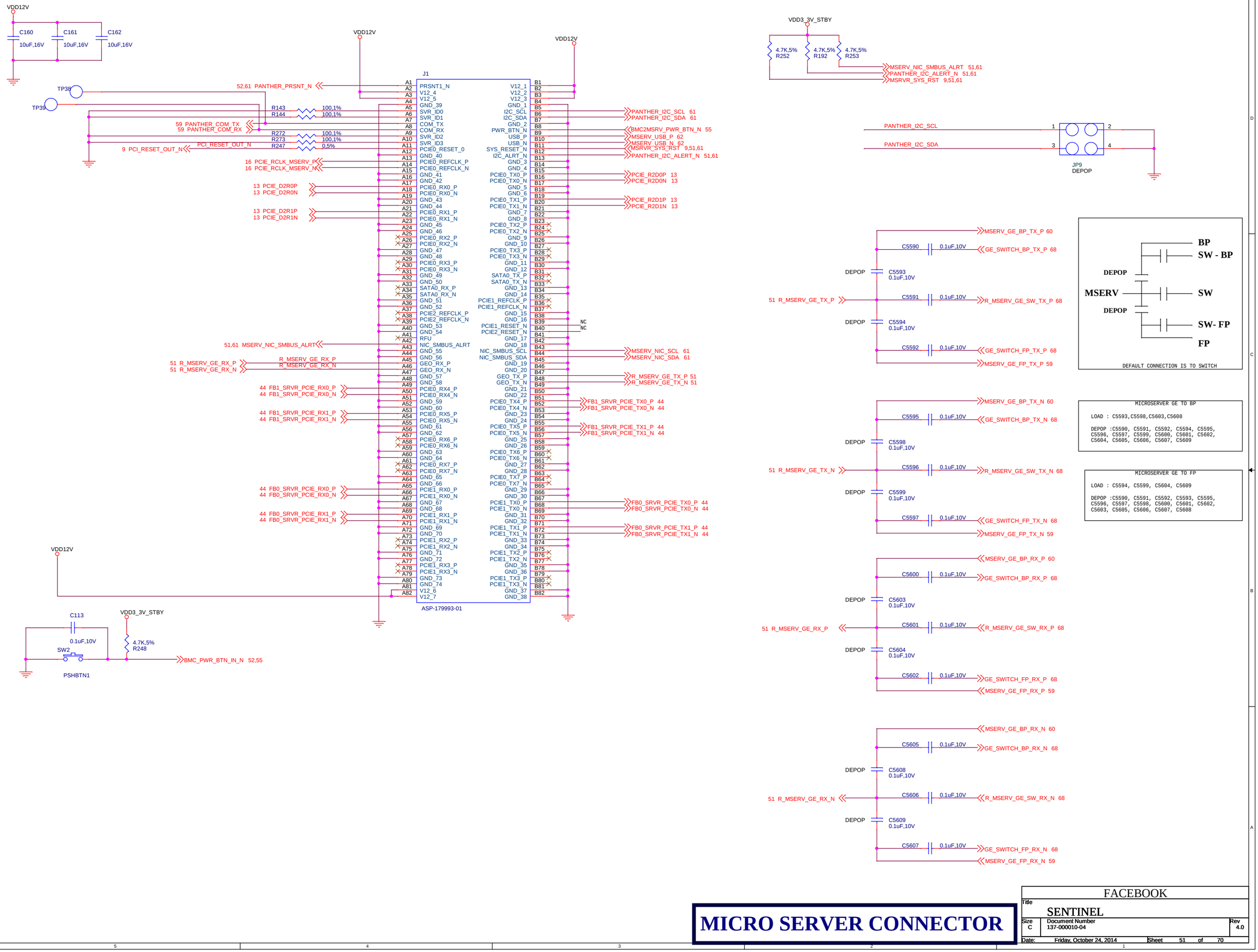
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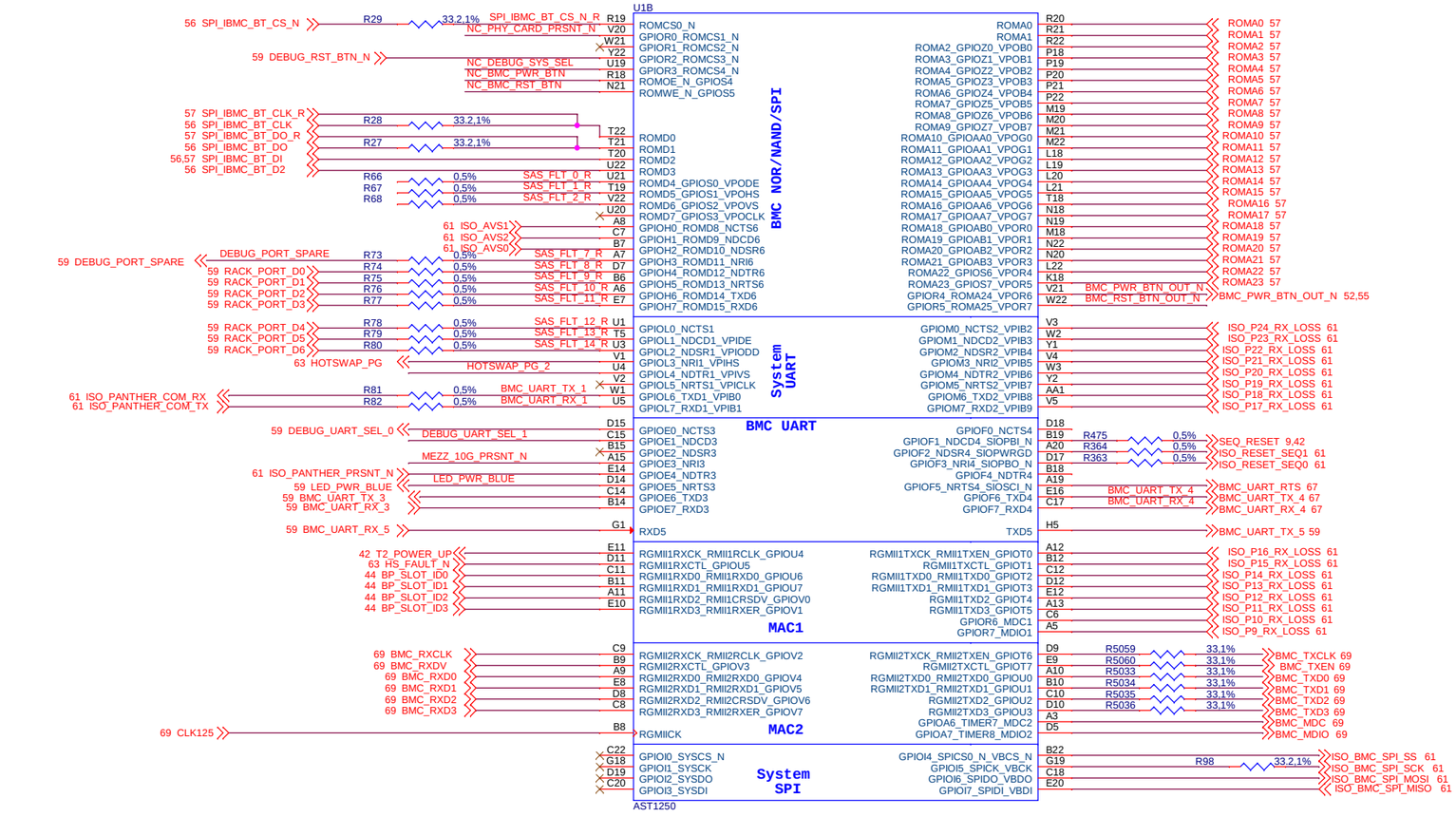
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VDD12V
C160
10uF,16V
C161
10uF,16V
C162
10uF,16V
TP39
TP39
J1
52,61 PANTHER_PRSNT_N
R143 100,1%
R144 100,1%
59 PANTHER_COM_TX
59 PANTHER_COM_RX
R272 100,1%
R273 100,1%
PCI_RESET_OUT_N
R247 0,5%
9 PCI_RESET_OUT_N
16 PCIE_RCLK_MSERV_P
16 PCIE_RCLK_MSERV_N
13 PCIE_D2R0P
13 PCIE_D2R0N
13 PCIE_D2R1P
13 PCIE_D2R1N
51,61 MSERV_NIC_SMBUS_ALRT
51 R_MSERV_GE_RX_P
51 R_MSERV_GE_RX_N
R_MSERV_GE_RX_P
R_MSERV_GE_RX_N
44 FB1_SRVR_PCIE_RX0_P
44 FB1_SRVR_PCIE_RX0_N
44 FB1_SRVR_PCIE_RX1_P
44 FB1_SRVR_PCIE_RX1_N
44 FB0_SRVR_PCIE_RX0_P
44 FB0_SRVR_PCIE_RX0_N
44 FB0_SRVR_PCIE_RX1_P
44 FB0_SRVR_PCIE_RX1_N
PRSNT1_N
V12_4
V12_5
GND_39
SVR_ID0
SVR_ID1
COM_TX
COM_RX
SVR_ID2
SVR_ID3
PCIE0_RESET_0
GND_40
PCIE0_REFCLK_P
PCIE0_REFCLK_N
GND_41
GND_42
PCIE0_RX0_P
PCIE0_RX0_N
GND_43
GND_44
PCIE0_RX1_P
PCIE0_RX1_N
GND_45
GND_46
PCIE0_RX2_P
PCIE0_RX2_N
GND_47
GND_48
PCIE0_RX3_P
PCIE0_RX3_N
GND_49
GND_50
SATA0_RX_P
SATA0_RX_N
GND_51
GND_52
PCIE2_REFCLK_P
PCIE2_REFCLK_N
GND_53
GND_54
RFU
NIC_SMBUS_ALRT
GND_55
GND_56
GEO_RX_P
GEO_RX_N
GND_57
GND_58
PCIE0_RX4_P
PCIE0_RX4_N
GND_59
GND_60
PCIE0_RX5_P
PCIE0_RX5_N
GND_61
GND_62
PCIE0_RX6_P
PCIE0_RX6_N
GND_63
GND_64
PCIE0_RX7_P
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GND_66
PCIE1_RX0_P
PCIE1_RX0_N
GND_67
GND_68
PCIE1_RX1_P
PCIE1_RX1_N
GND_69
GND_70
PCIE1_RX2_P
PCIE1_RX2_N
GND_71
GND_72
PCIE1_RX3_P
PCIE1_RX3_N
GND_73
GND_74
V12_6
V12_7
V12_1
V12_2
V12_3
GND_1
I2C_SCL
I2C_SDA
GND_2
PWR_BTN_N
USB_P
USB_N
SYS_RESET_N
I2C_ALRT_N
GND_3
GND_4
PCIE0_TX0_P
PCIE0_TX0_N
GND_5
GND_6
PCIE0_TX1_P
PCIE0_TX1_N
GND_7
GND_8
PCIE0_TX2_P
PCIE0_TX2_N
GND_9
GND_10
PCIE0_TX3_P
PCIE0_TX3_N
GND_11
GND_12
SATA0_TX_P
SATA0_TX_N
GND_13
GND_14
PCIE1_REFCLK_P
PCIE1_REFCLK_N
GND_15
GND_16
PCIE1_RESET_N
PCIE2_RESET_N
GND_17
GND_18
NIC_SMBUS_SCL
NIC_SMBUS_SDA
GND_19
GND_20
GEO_TX_P
GEO_TX_N
GND_21
GND_22
PCIE0_TX4_P
PCIE0_TX4_N
GND_23
GND_24
PCIE0_TX5_P
PCIE0_TX5_N
GND_25
GND_26
PCIE0_TX6_P
PCIE0_TX6_N
GND_27
GND_28
PCIE0_TX7_P
PCIE0_TX7_N
GND_29
GND_30
PCIE1_TX0_P
PCIE1_TX0_N
GND_31
GND_32
PCIE1_TX1_P
PCIE1_TX1_N
GND_33
GND_34
PCIE1_TX2_P
PCIE1_TX2_N
GND_35
GND_36
PCIE1_TX3_P
PCIE1_TX3_N
GND_37
GND_38
PANTHER_I2C_SCL 61
PANTHER_I2C_SDA 61
BMC2MSRV_PWR_BTN_N 55
MSERV_USB_P 62
MSERV_USB_N 62
MSRVR_SYS_RST 9,51,61
PANTHER_I2C_ALERT_N 51,61
PCIE_R2D0P 13
PCIE_R2D0N 13
PCIE_R2D1P 13
PCIE_R2D1N 13
NC
NC
MSERV_NIC_SCL 61
MSERV_NIC_SDA 61
R_MSERV_GE_TX_P 51
R_MSERV_GE_TX_N 51
FB1_SRVR_PCIE_TX0_P 44
FB1_SRVR_PCIE_TX0_N 44
FB1_SRVR_PCIE_TX1_P 44
FB1_SRVR_PCIE_TX1_N 44
FB0_SRVR_PCIE_TX0_P 44
FB0_SRVR_PCIE_TX0_N 44
FB0_SRVR_PCIE_TX1_P 44
FB0_SRVR_PCIE_TX1_N 44
ASP-179993-01
VDD12V
C113
0.1uF,10V
VDD3_3V_STBY
4.7K,5%
R248
SW2
PSHBTN1
BMC_PWR_BTN_IN_N 52,55
VDD3_3V_STBY
4.7K,5%
R252
4.7K,5%
R192
4.7K,5%
R253
MSERV_NIC_SMBUS_ALRT 51,61
PANTHER_I2C_ALERT_N 51,61
MSRVR_SYS_RST 9,51,61
PANTHER_I2C_SCL
PANTHER_I2C_SDA
JP9
DEPOP
MSERV_GE_BP_TX_P 60
C5590 0.1uF,10V
GE_SWITCH_BP_TX_P 68
DEPOP
C5593
0.1uF,10V
51 R_MSERV_GE_TX_P
C5591 0.1uF,10V
R_MSERV_GE_SW_TX_P 68
DEPOP
C5594
0.1uF,10V
C5592 0.1uF,10V
GE_SWITCH_FP_TX_P 68
MSERV_GE_FP_TX_P 59
BP
SW - BP
DEPOP
MSERV
SW
DEPOP
SW- FP
FP
DEFAULT CONNECTION IS TO SWITCH
MSERV_GE_BP_TX_N 60
C5595 0.1uF,10V
GE_SWITCH_BP_TX_N 68
DEPOP
C5598
0.1uF,10V
51 R_MSERV_GE_TX_N
C5596 0.1uF,10V
R_MSERV_GE_SW_TX_N 68
DEPOP
C5599
0.1uF,10V
C5597 0.1uF,10V
GE_SWITCH_FP_TX_N 68
MSERV_GE_FP_TX_N 59
MICROSERVER GE TO BP
LOAD : C5593,C5598,C5603,C5608
DEPOP :C5590, C5591, C5592, C5594, C5595, C5596, C5597, C5599, C5600, C5601, C5602, C5604, C5605, C5606, C5607, C5609
MICROSERVER GE TO FP
LOAD : C5594, C5599, C5604, C5609
DEPOP :C5590, C5591, C5592, C5593, C5595, C5596, C5597, C5598, C5600, C5601, C5602, C5603, C5605, C5606, C5607, C5608
MSERV_GE_BP_RX_P 60
C5600 0.1uF,10V
GE_SWITCH_BP_RX_P 68
DEPOP
C5603
0.1uF,10V
51 R_MSERV_GE_RX_P
C5601 0.1uF,10V
R_MSERV_GE_SW_RX_P 68
DEPOP
C5604
0.1uF,10V
C5602 0.1uF,10V
GE_SWITCH_FP_RX_P 68
MSERV_GE_FP_RX_P 59
MSERV_GE_BP_RX_N 60
C5605 0.1uF,10V
GE_SWITCH_BP_RX_N 68
DEPOP
C5608
0.1uF,10V
51 R_MSERV_GE_RX_N
C5606 0.1uF,10V
R_MSERV_GE_SW_RX_N 68
DEPOP
C5609
0.1uF,10V
C5607 0.1uF,10V
GE_SWITCH_FP_RX_N 68
MSERV_GE_FP_RX_N 59
MICRO SERVER CONNECTOR
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BOARD MANAGEMENT CONTROLLER

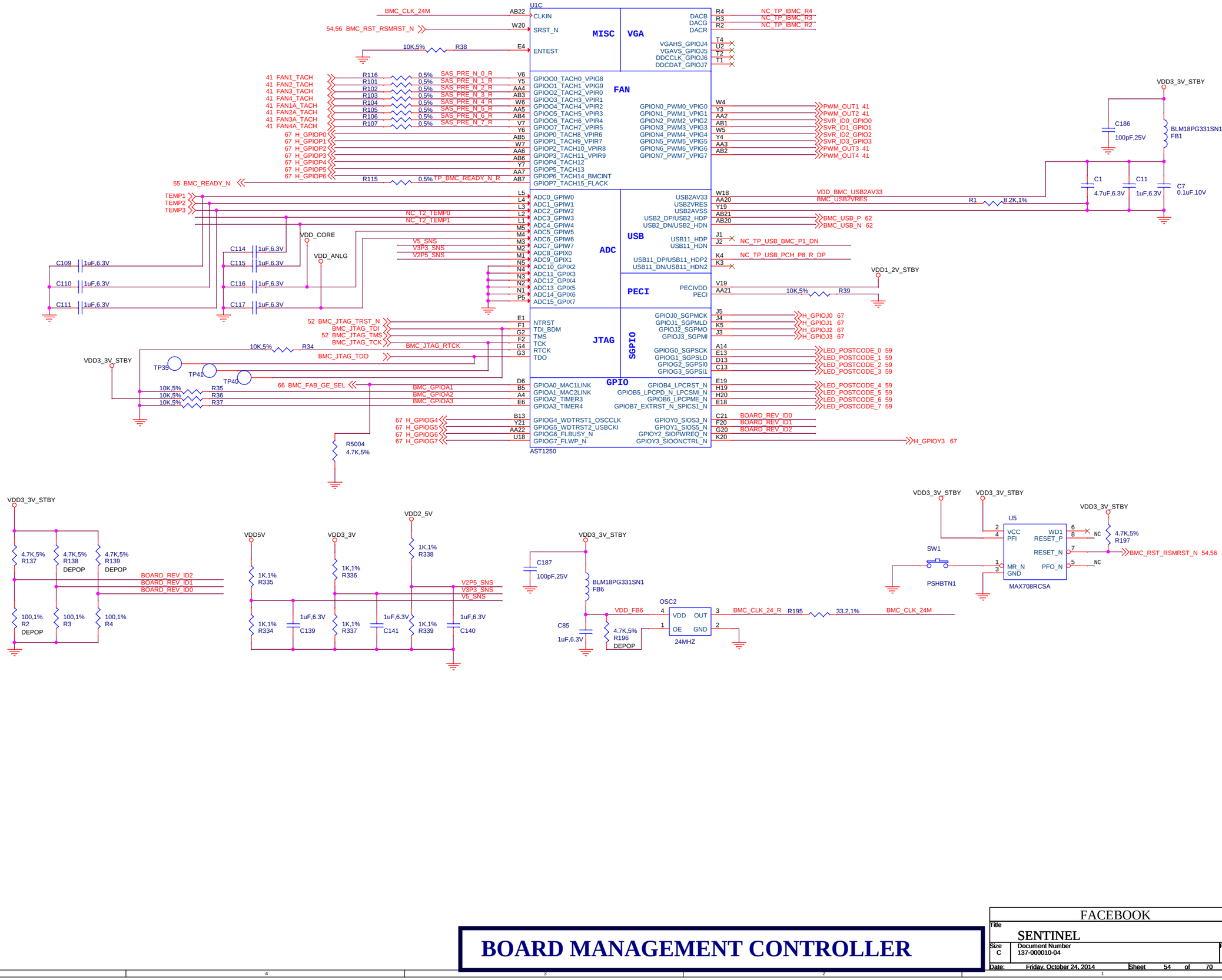
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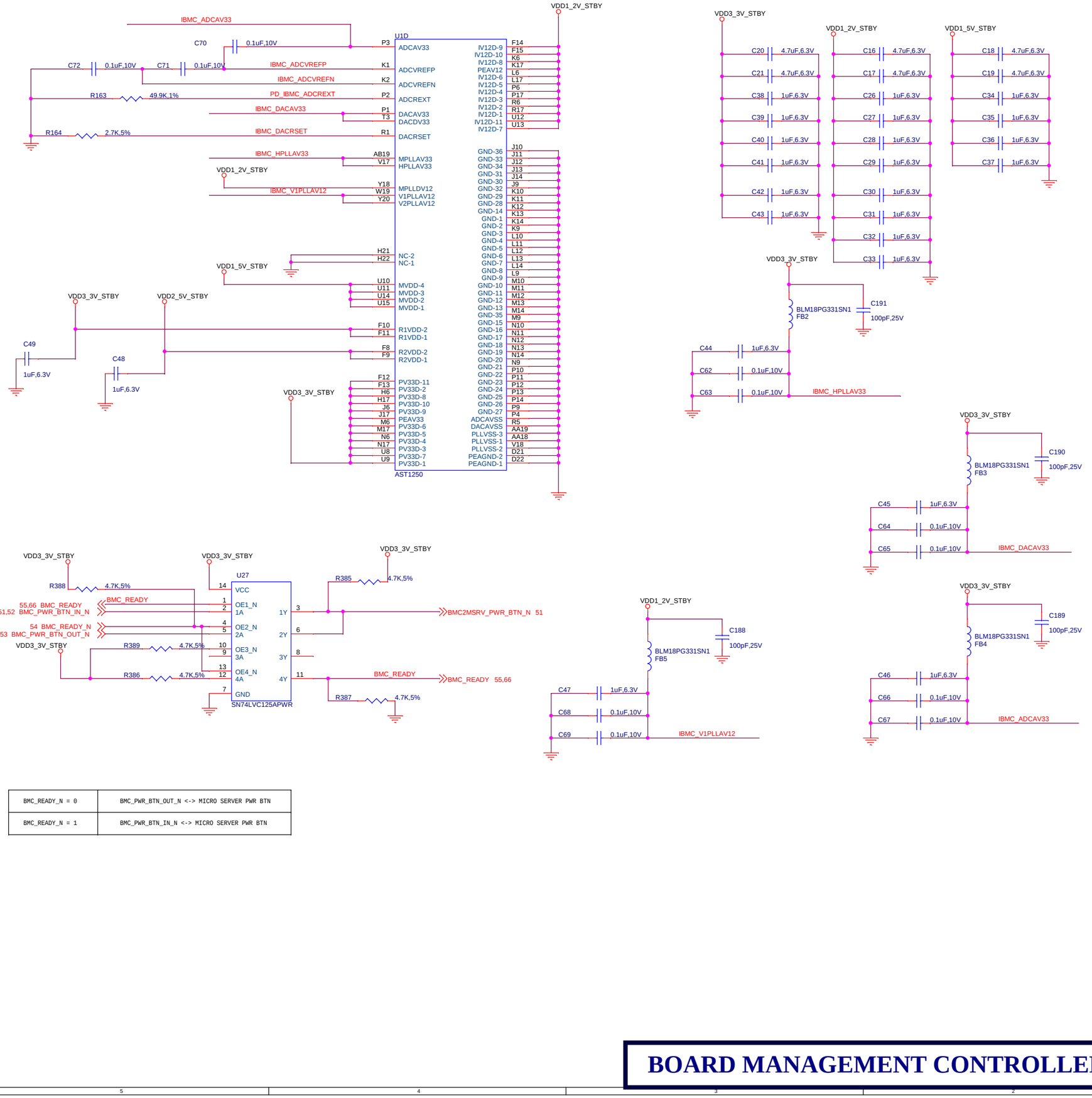
BOARD MANAGEMENT CONTROLLER

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BMC_READY_N = 0	BMC_PWR_BTN_OUT_N <-> MICRO SERVER PWR BTN
BMC_READY_N = 1	BMC_PWR_BTN_IN_N <-> MICRO SERVER PWR BTN

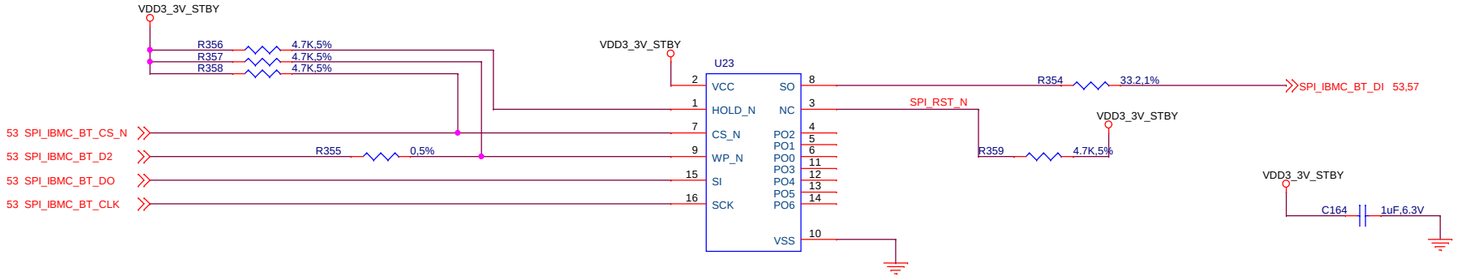
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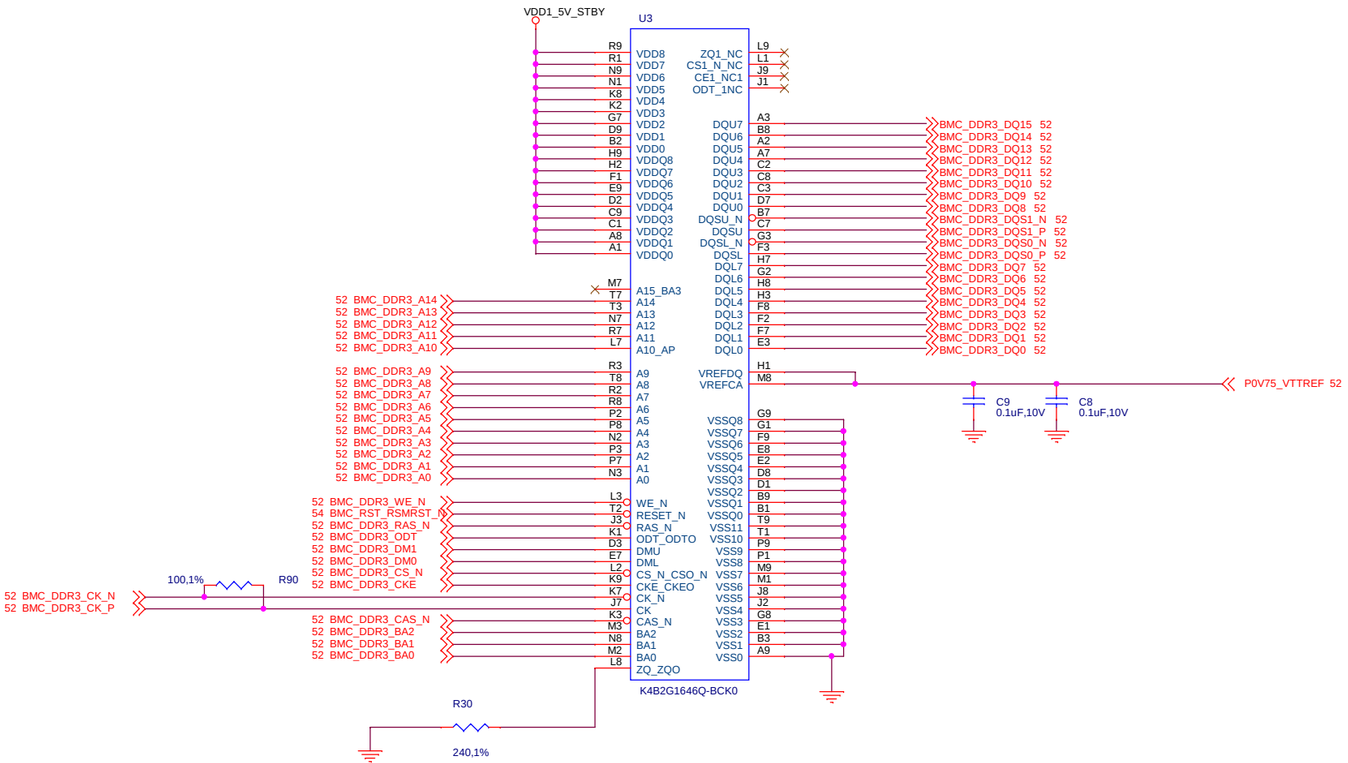
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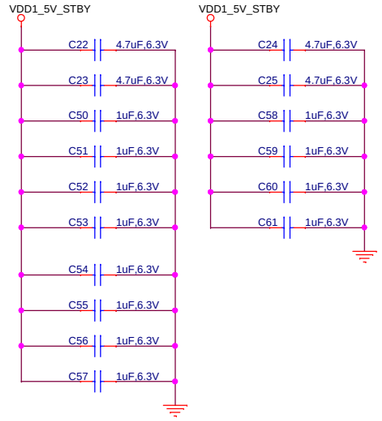
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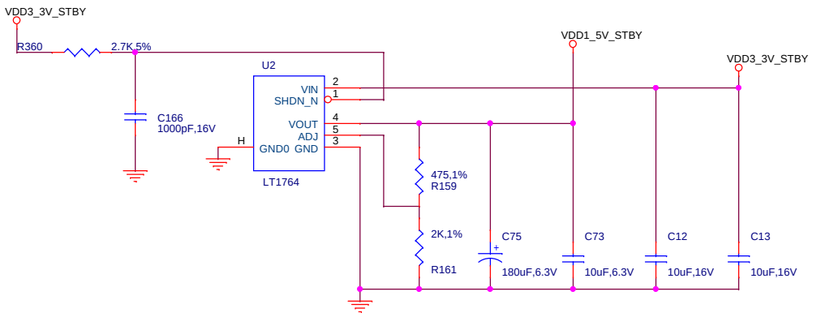


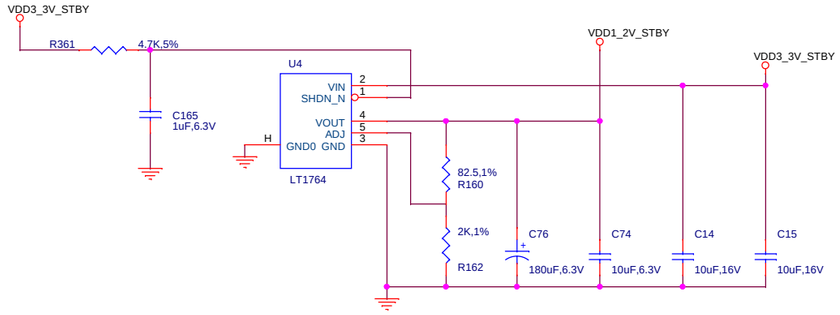


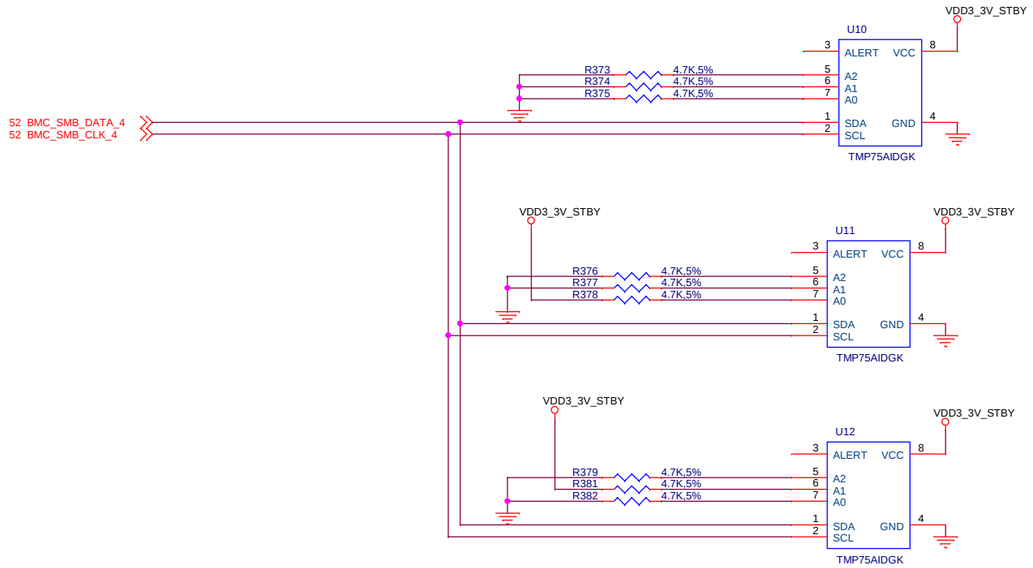
BMC DDR

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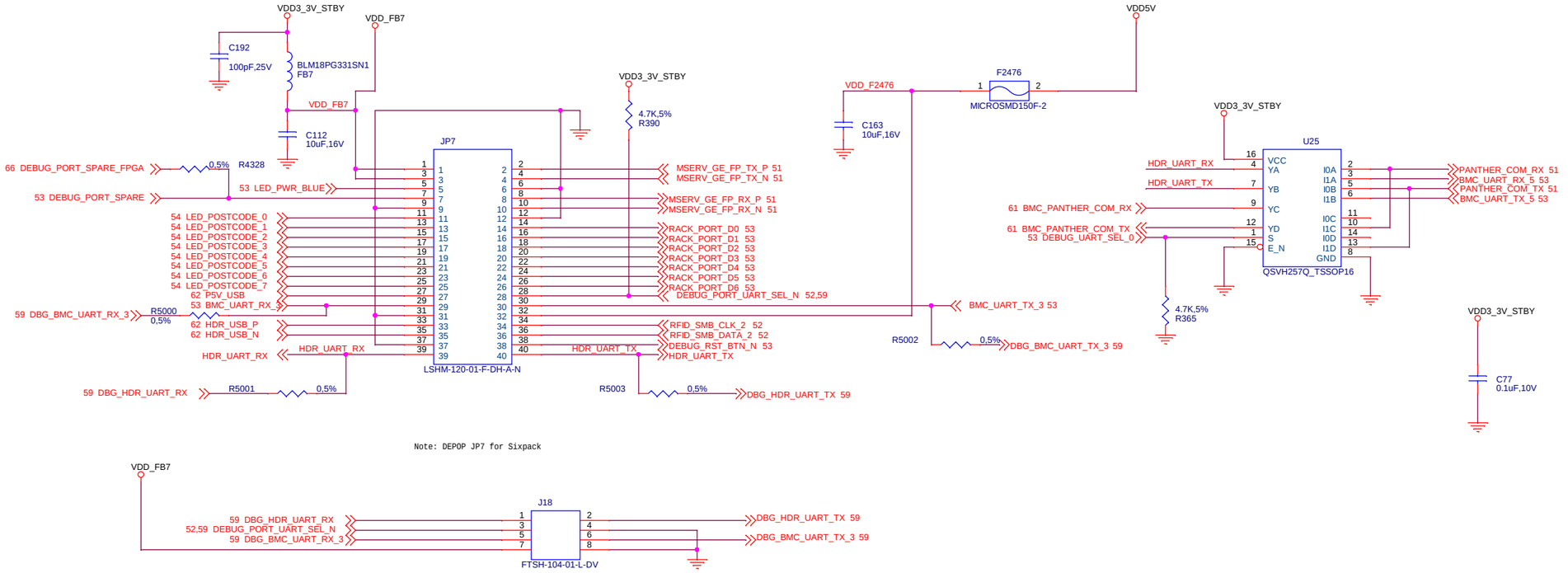




TEMP SENSOR, BMC POWER & STRAPPING

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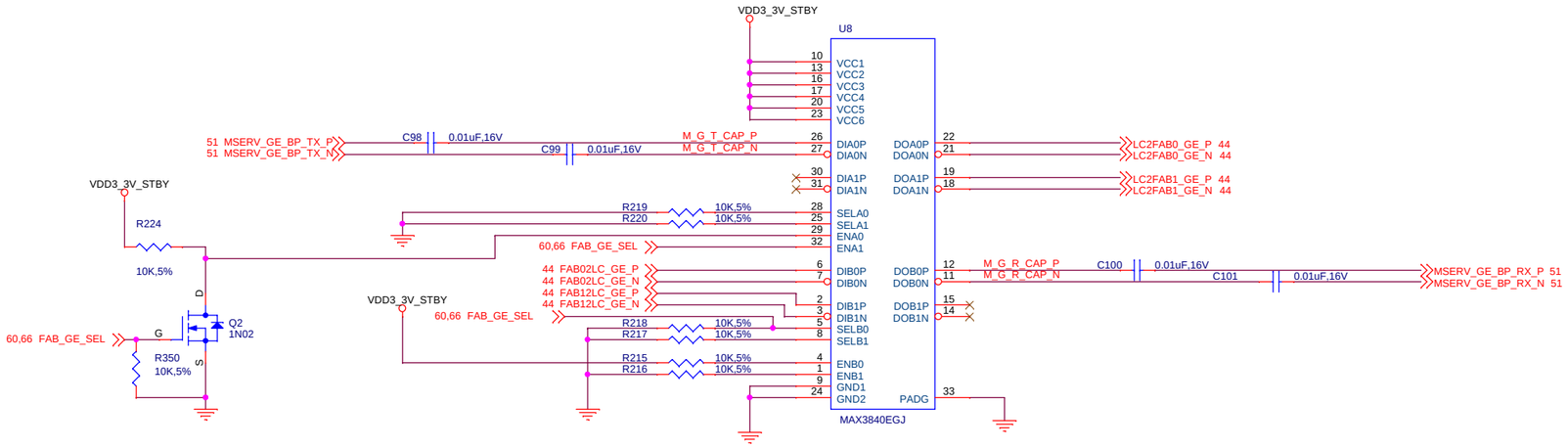


Note: DEPOP JP7 for Sixpack

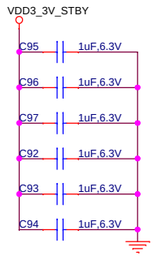
Make J18 ,R5000,R5001,R5002,R5003 DEPOP for Wedge

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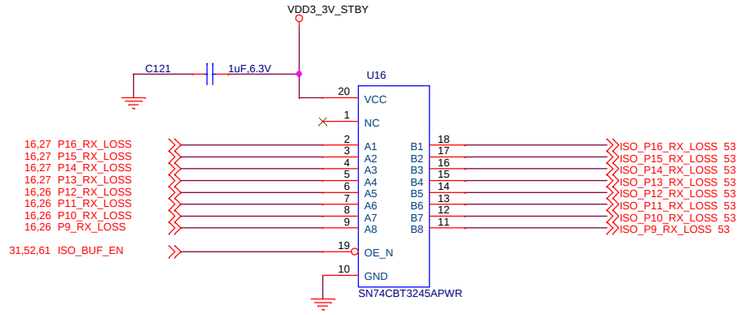


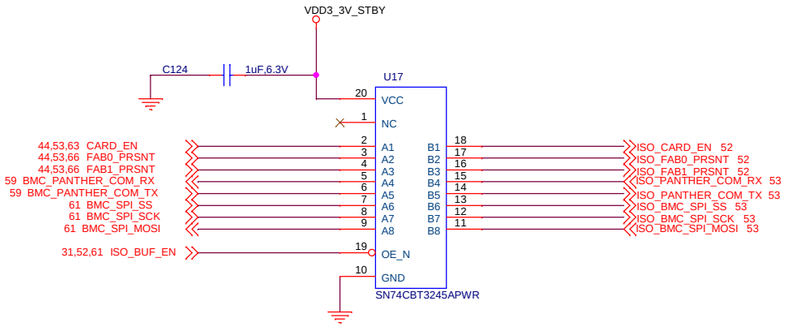
Note: DEPOP U8 for Wedge

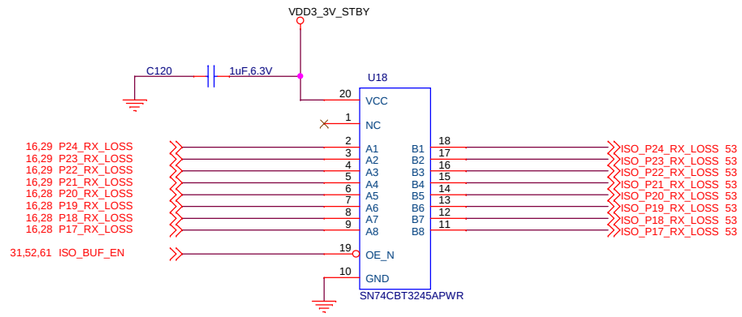


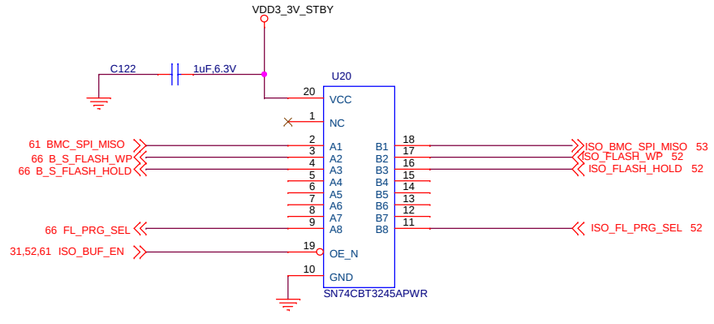
BP GE MUX/DEMUX

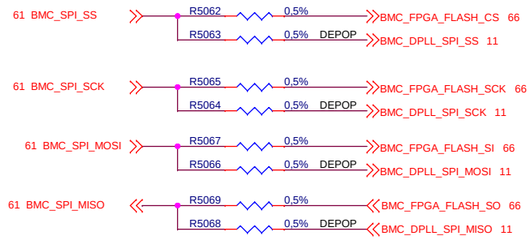
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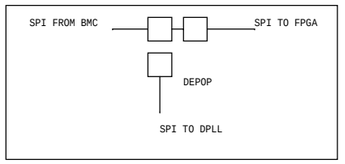


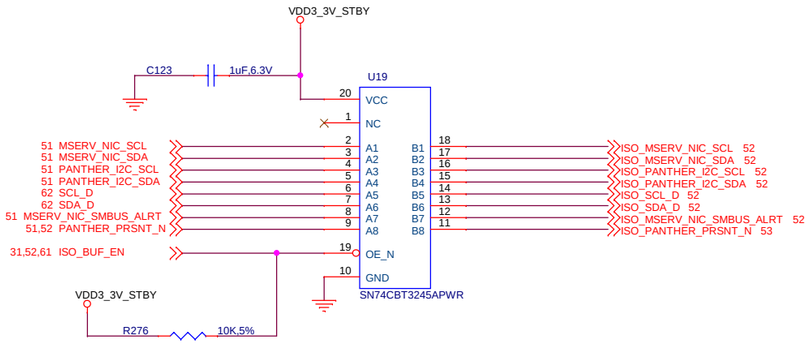


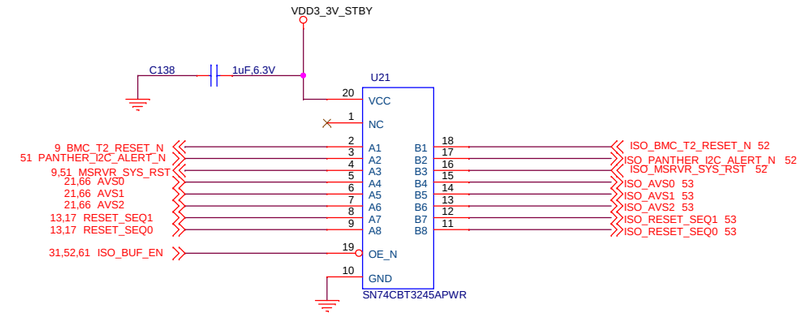






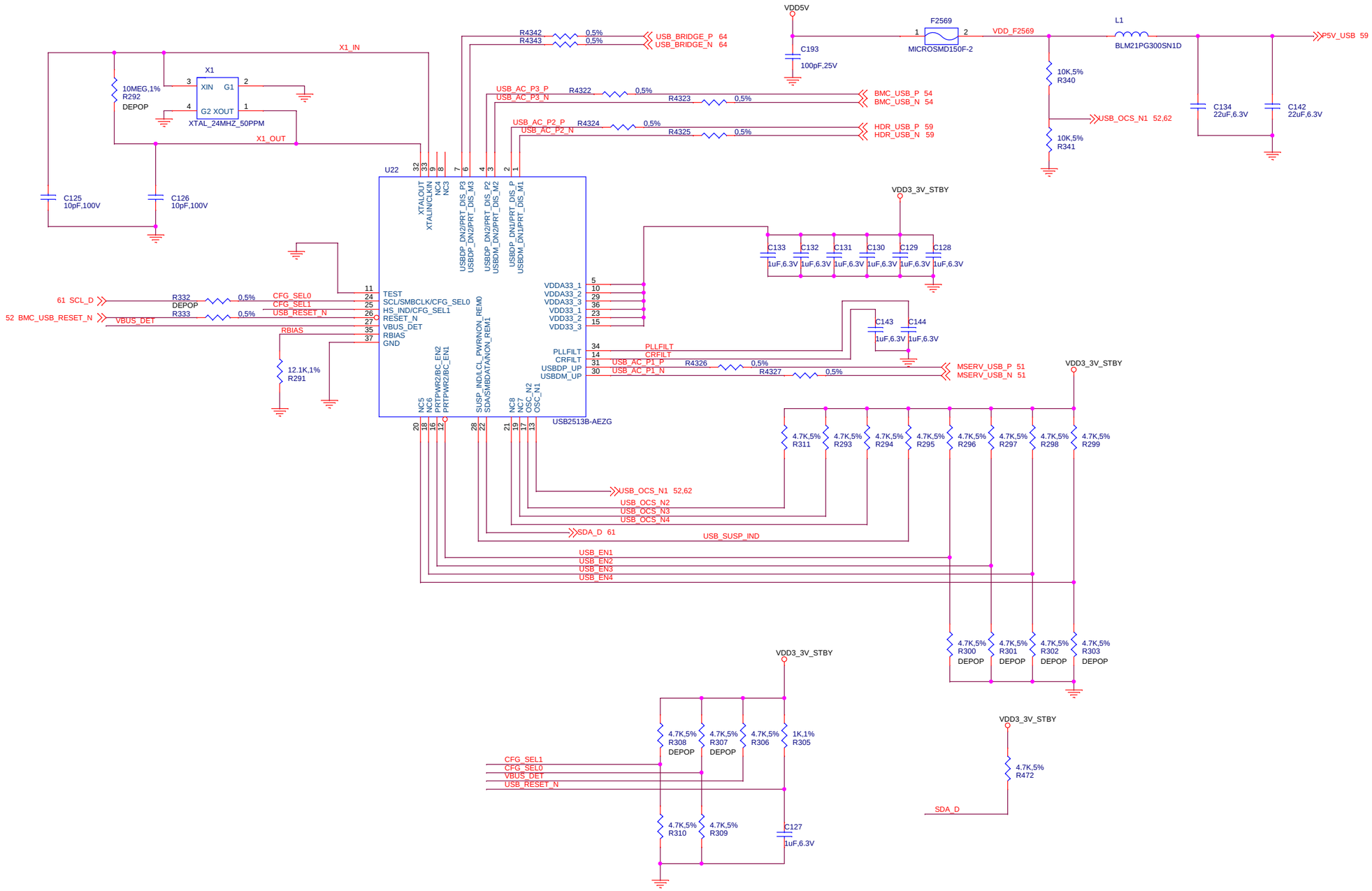






BMC SIGNAL ISOLATION BUFFERS

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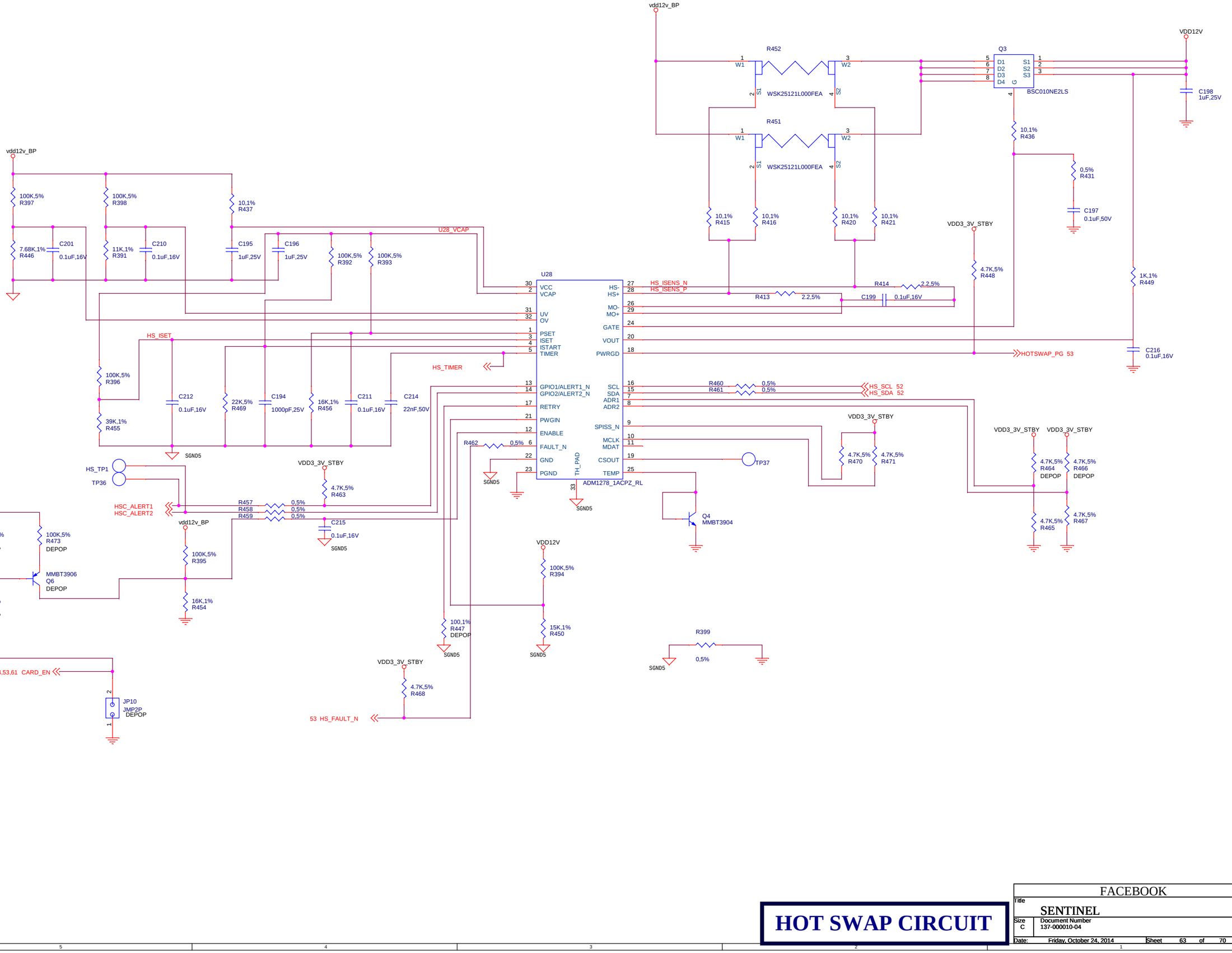
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USB HUB

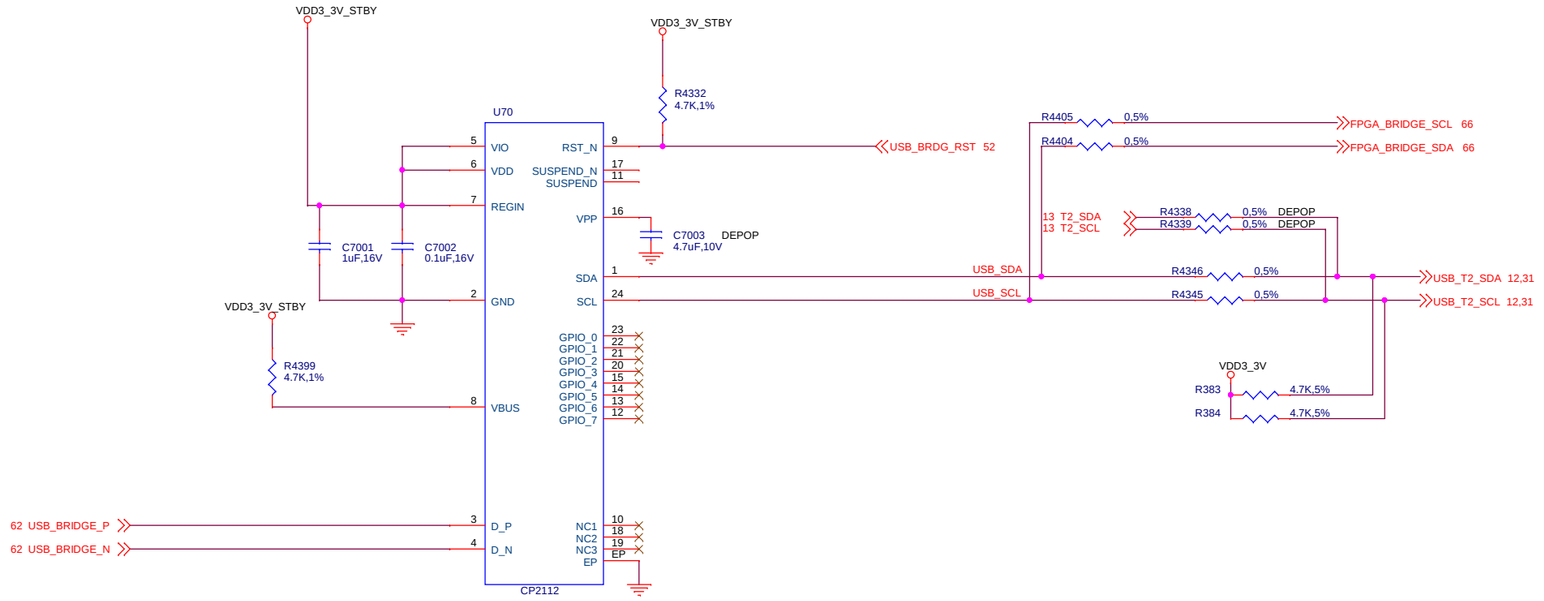
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HOT SWAP CIRCUIT

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USB I2C BRIDGE

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VDD3_3V

VDD5V

QSFP 0

PORT 0 PORT 1 PORT 2 PORT3

D4118 D1 D2 D4119

QSFP 1

PORT 4 PORT 5 PORT 6 PORT 7

D4120 D3 D4 D4121

QSFP 2

PORT 8 PORT 9 PORT 10 PORT 11

D4122 D5 D6 D4123

QSFP3

PORT 12 PORT 13 PORT 14 PORT15

D4124 D7 D8 D4125

330,5% R4365 R4366 R198 R234 R4367 R4368 R4369 R4370 R258 R259 R4371 R4372 R4373 R4374 R260 R261 R4375 R4376 R4379 R4380 R262 R263 R4377 R4378

66 10G_LED_P0
66 40G_LED_P0
66 10G_LED_P1
66 10G_LED_P2
66 10G_LED_P3
66 40G_LED_P1

66 10G_LED_P4
66 40G_LED_P2
66 10G_LED_P5
66 10G_LED_P6
66 10G_LED_P7
66 40G_LED_P3

66 10G_LED_P8
66 40G_LED_P4
66 10G_LED_P9
66 10G_LED_P10
66 10G_LED_P11
66 40G_LED_P5

66 10G_LED_P12
66 40G_LED_P6
66 10G_LED_P13
66 10G_LED_P14
66 10G_LED_P15
66 40G_LED_P7

VDD3_3V

VDD5V

QSFP 4

PORT 16 PORT 17 PORT 18 PORT 19

D4126 D9 D10 D4127

QSFP 5

PORT 20 PORT 21 PORT 22 PORT 23

D4128 D11 D12 D4129

QSFP 6

PORT 24 PORT 25 PORT 26 PORT 27

D4130 D13 D14 D4131

QSFP 7

PORT 28 PORT 29 PORT 30 PORT 31

D4132 D15 D16 D4133

330,5% R4383 R4384 R264 R225 R4385 R4386 R4387 R4388 R226 R227 R4389 R4390 R4391 R4392 R230 R231 R4393 R4394 R4395 R4396 R232 R233 R4397 R4398

66 10G_LED_P16
66 40G_LED_P8
66 10G_LED_P17
66 10G_LED_P18
66 10G_LED_P19
66 40G_LED_P9

66 10G_LED_P20
66 40G_LED_P10
66 10G_LED_P21
66 10G_LED_P22
66 10G_LED_P23
66 40G_LED_P11

66 10G_LED_P24
66 40G_LED_P12
66 10G_LED_P25
66 10G_LED_P26
66 10G_LED_P27
66 40G_LED_P13

66 10G_LED_P28
66 40G_LED_P14
66 10G_LED_P29
66 10G_LED_P30
66 10G_LED_P31
66 40G_LED_P15

QSFP LEDs

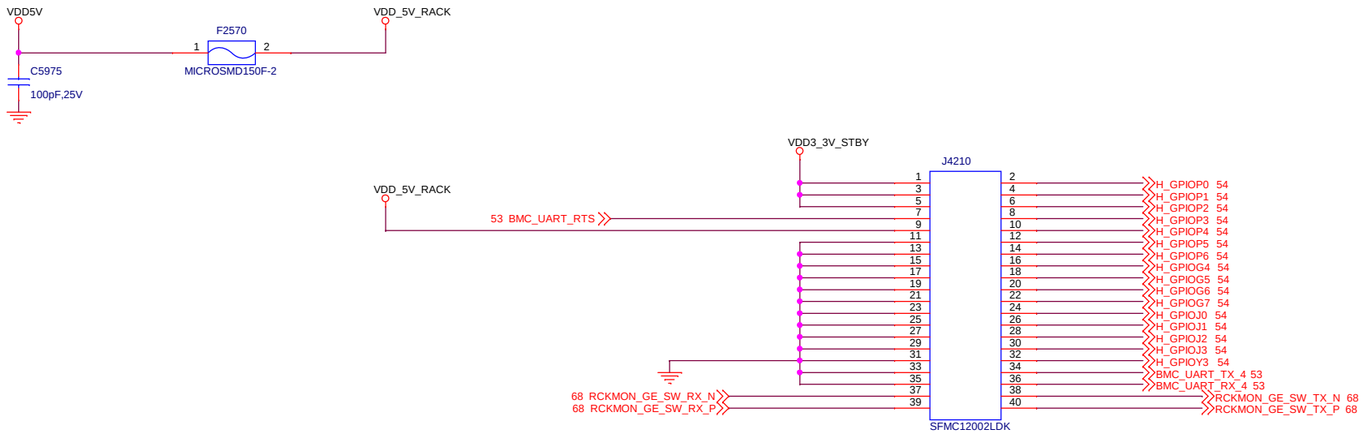
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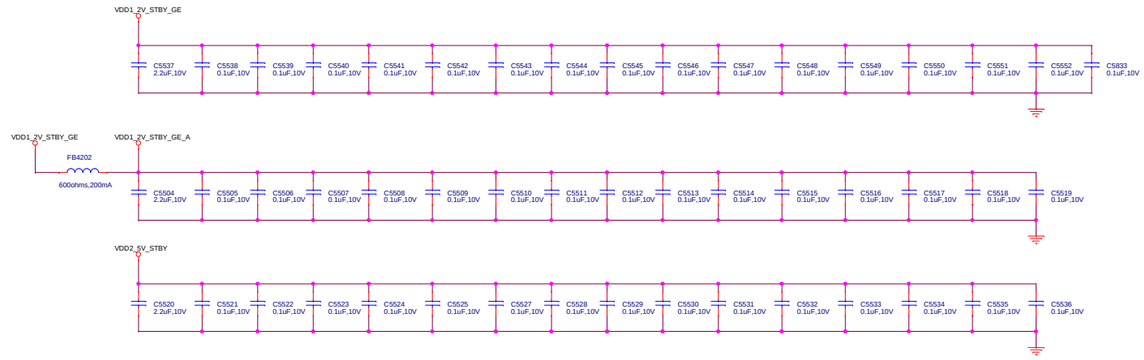
U6A
XC3S50AFT256
U6B
XC3S50AFT256
U6C
XC3S50AFT256
U6D
XC3S50AFT256
U7
AT45DB011D_SSH_B
U14
QSVH257Q
U15
QSVH257Q
U91
NL17SZ126
U83
NCP4687DH12T1G
JP4303
878980204
JP6
MOL87832-1420
R5006 0.5%
R4329 4.7K,5%
R5005 475,1%
R4330 100,1%
R235 100,1%
R5007 475,1%
R369 0.5%
R370 0.5%
R371 0.5%
R372 0.5%
R5008 475,1%
R257 4.7K,5%
R270 4.7K,5%
R271 4.7K,5%
R312 1K,5%
R256 4.7K,5%
R255 4.7K,5%
R266 4.7K,5%
R267 4.7K,5%
R268 4.7K,5%
R265 4.7K,5%
R236 330,5%
R199 1K,5%
R208 1K,1%
R209 1K,1% DEPOP
R210 1K,1%
R211 1K,1% DEPOP
R212 1K,1% DEPOP
R214 1K,1% DEPOP
R207 33.2,1%
R200 33.2,1%
R201 33.2,1%
R203 33.2,1%
C8004 1uF,6.3V
C8005 1uF,6.3V
C8006 1uF,6.3V
C8007 1uF,6.3V
C8008 1uF,6.3V
C8009 1uF,6.3V
C86 1uF,6.3V
C87 1uF,6.3V
C88 1uF,6.3V
C89 1uF,6.3V
C90 1uF,6.3V
C91 1uF,6.3V
C137 1uF,6.3V
C136 1uF,6.3V
C135 1uF,6.3V
C6555 1uF,6.3V
C5573 1uF,16V
C5572 1uF,16V
C104 1uF,6.3V
C105 1uF,6.3V
C106 1uF,6.3V
C8000 1uF,6.3V
C8001 1uF,6.3V
C8002 1uF,6.3V
VDD3_3V
VDD3_3V_STBY
VDD1_2V
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FPGA LOGIC
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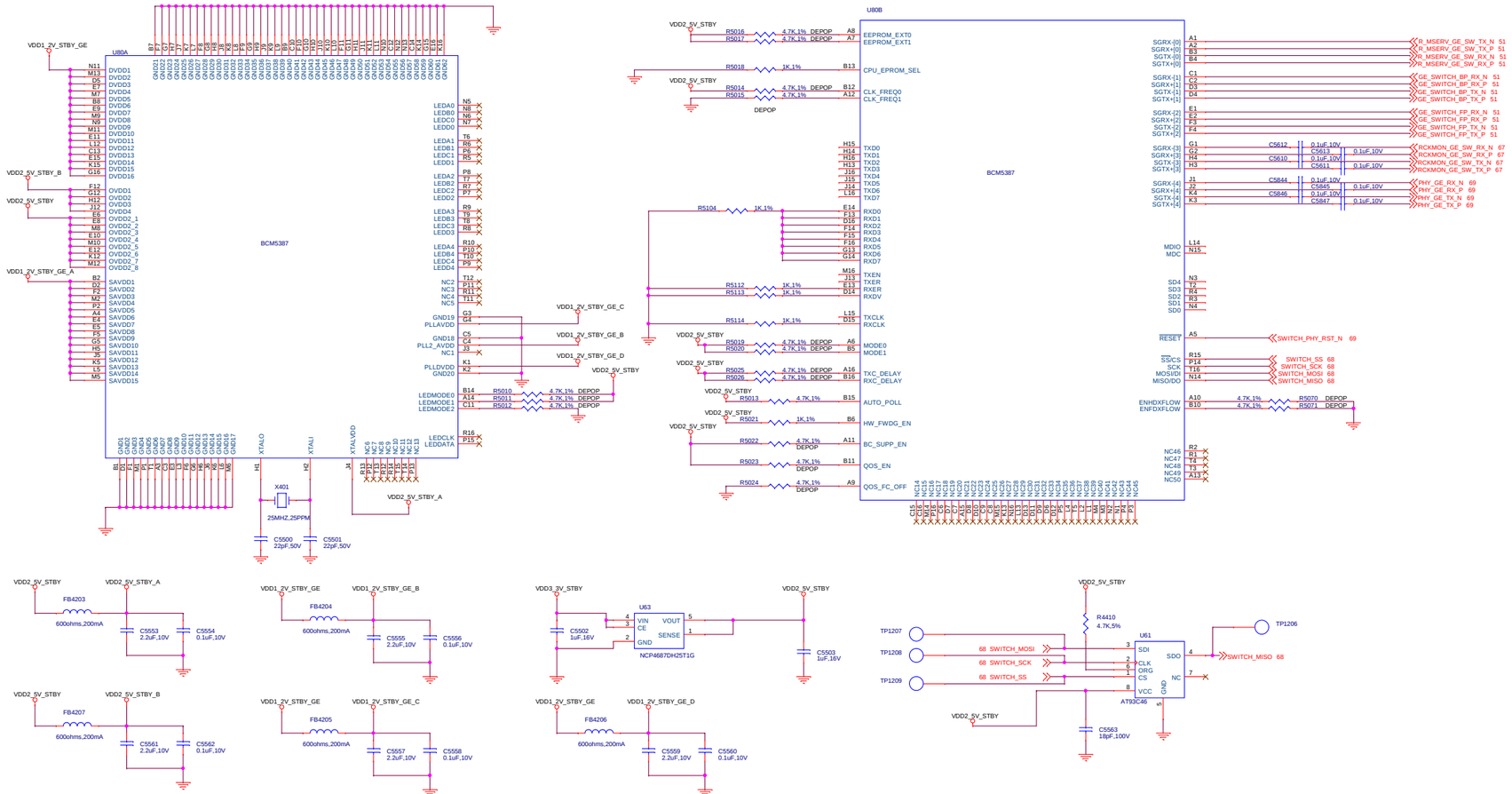
Note: DEPOP J4210 for Sixpack

RACKMON CONNECTOR

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HARDWARE STRAPPING TABLE		
PINS	STRAPPING VALUE	DESCRIPTION
MODE[1,0]	00	RGMII MODE
QOS_EN	0	DISABLE QOS FUNCTION
QOS_FC_OFF	1	DISABLE FLOW CONTROL
HW_FWDG_EN	1	FRAME FORWARDING ENABLED
CPU_EPROM_SEL	0	EEPROM INTERFACE ENABLED
CLK_FREQ[1:0]	10	113MHz NORMAL OPERATION
EEPROM_EXT[1:0]	00	Supports 93C46 EEPROM
AUTO_POLL	1	EXTERNAL PHY POLLING DISABLED
BC_SUPP_EN	0	RATE BASED BROADCAST SUPPRESSION DISABLED



org pin pulled high to select x16 mode

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GE SWITCH

HARDWARE STRAPPING TABLE		
PINS	STRAPPING VALUE	DESCRIPTION
REFCLK_SEL[1:0]	10	XTAL INPUT SELECTED
CLK_SEL_125	0	25Mhz INPUT REF CLK ON CLK PINS
RGMII_SEL[1:0]	01	RGMII 2.5V SELECTED
INTERF_SEL[1:0]	01	RGMII-FIBRE MODE SELECTED
LOWPWR	0	ULTRA LOW POWER DOWN MODE DISABLED

PHY

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Sl.No	Change in schematic	Schematic Page No	Rev
1	Loaded R4321 with 20k	42	1
2	Loaded position 1 for R3502, R3702, R3905 with 0 ohm	34,36,38	1
3	C197 changed to 0.1uF from 1uF	63	1
4	C214 changed to 22nf from 0.1uF	63	1
5	R431 changed to 0 ohm	63	1
6	R305 changed to 100k	62	1
7	C125 and C126 changed to 10pf	62	1
8	C145, C146, C147, C148,C149, C150 to be replaced by 0 ohm resistors	62	1
9	VCC pin (pin number2) of U5 (MAX708) connected to 3.3V standby not 3.3V	54	1
10	R3532 change to 11.3K,C3512 change to 1.5nF to reduce power supply noise	34	1
11	R180 populated.	57	1
12	Corrected the connection to program header JP6 as per the data sheet of Xilinx	66	1
13	The configuration mode setting of U6 (FPGA) is wrong. Made R209 depop and populated R210	66	1
14	Replaced ferrite beads for XG_VDD, FB2001, FB2002, FB2003, FB2004, FB2005, FB2006, FB2007, FB2008, FB2009, FB2010, B2011, FB2012, FB2013, FB2014, FB2015, FB2016, FB2101 by B201212K121 by jKMT	24	1
15	470uF DIP capacitors Changed with new part.	35,37,39,40	1
16	R1232 populated.	16	1
17	Changed FPGA to 256 BGA package	66	1
18	Changed QSFP connectors with new part	26,27,28,29	1
19	Added USB to I2C bridge(U70)	64	1
20	Changed the ref des of all stuffing resistors as per DFM feedback	12,17,31,34,36,38,42,51	1
21	Revision ID Resistor stuffing changed to 001(R139 populated and R4 made depop)	54	1
22	C166 changed to 0.001uF and C165 changed to 1uF to get reasonable delay between power up	57	1
23	Power sequencer feed EN4 connected to EN3 through a 0 ohm resistor	42	1
24	Populated R221 and Q1 (power sequencer enable through BMC)	42	1
25	Populated R333 (for resetting USB hub from BMC)	62	1
26	All TH connectors, except fan connectors made DEPOP	42,35,32,51,17,63,8,40,34,36,38	1
27	DDR3 memory increased to 2Gbit (U3)	56	1
28	C227 changed to 22pF	8	1

Sl.No	Change in schematic	Schematic Page No	Rev
29	Added bicolour LEDs for modified QSFP led scheme	65	1
30	Added pull ups to the PWM outputs to fan	41	1
31	Added Rackmon connector	67	1
32	Changed the USB HUB to USB2513B-AEZG	62	1
33	Changed X202 with VXB1-1F4-25M000 part,from Vectron	8	1
34	Depop R4382 and populated R4381	42	1
35	R199 Populated, to pull down PUDC_B	66	1
36	Added I2C connection from USB Bridge to FPGA	64	1
37	Changed LED voltage to 5volt	65	1
38	DDR3 part updated to -1600 speed device	56	1
39	FB2101 changed with 120ohms,6000mA part	25	1
40	Changed R4302 with 160K ohm and C4308 with 1uF	42	1
41	Added debug connector J18	59	2
42	Added resistors R5000,R5001,R5002,R5003	59	2
43	R138,R4 populated and R139,R3 made Depop	54	2
44	Added BMC_FAB_GE_SEL signal to FPGA,Given pull down through R5004	54,66	2
45	Added BMC_READY signal to FPGA	66	2
46	Changed the power rail of U8 from VDD3_3V to VDD3_3V_STBY	60	2
47	Added GE MUX selection logic in stby mode	66	2
48	Changed C197 from 0.1uF ,16V to 0.1uF,50V	63	2
49	Changed R305 from 100K to 1K	62	2
50	Changed the Refdes of 4 testpoints as per DFM feed back		2
51	Changed C4308 to 4.7uF ,10V from 1uF ,16V	42	2
52	Added GE Switch and PHY	68,69	3
53	Populated R183, R2VDD of BMC changed to 2.5V stby	57,55	3
54	Added U83 to generate vdd1.2v for fpga	66	3
55	SPI to FPGA flash changed to dedicated SPI of BMC	52,53,66	3
56	Revision ID Resistor stuffing changed to 011(Populate R139 and DEPOP R4)	54	3
57	Added BMC_UART_RTS signal and VDD_5V_RACK to rackmon connector	67	3
58	Added MDC,MDIO connection from BMC to PHY	69,53	4
59	Added USB_BRDG_RST from BMC to U70(I2C Bridge)	64,52	4
60	Changed board Revision ID to 100	54	4

CHANGE HISTORY

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