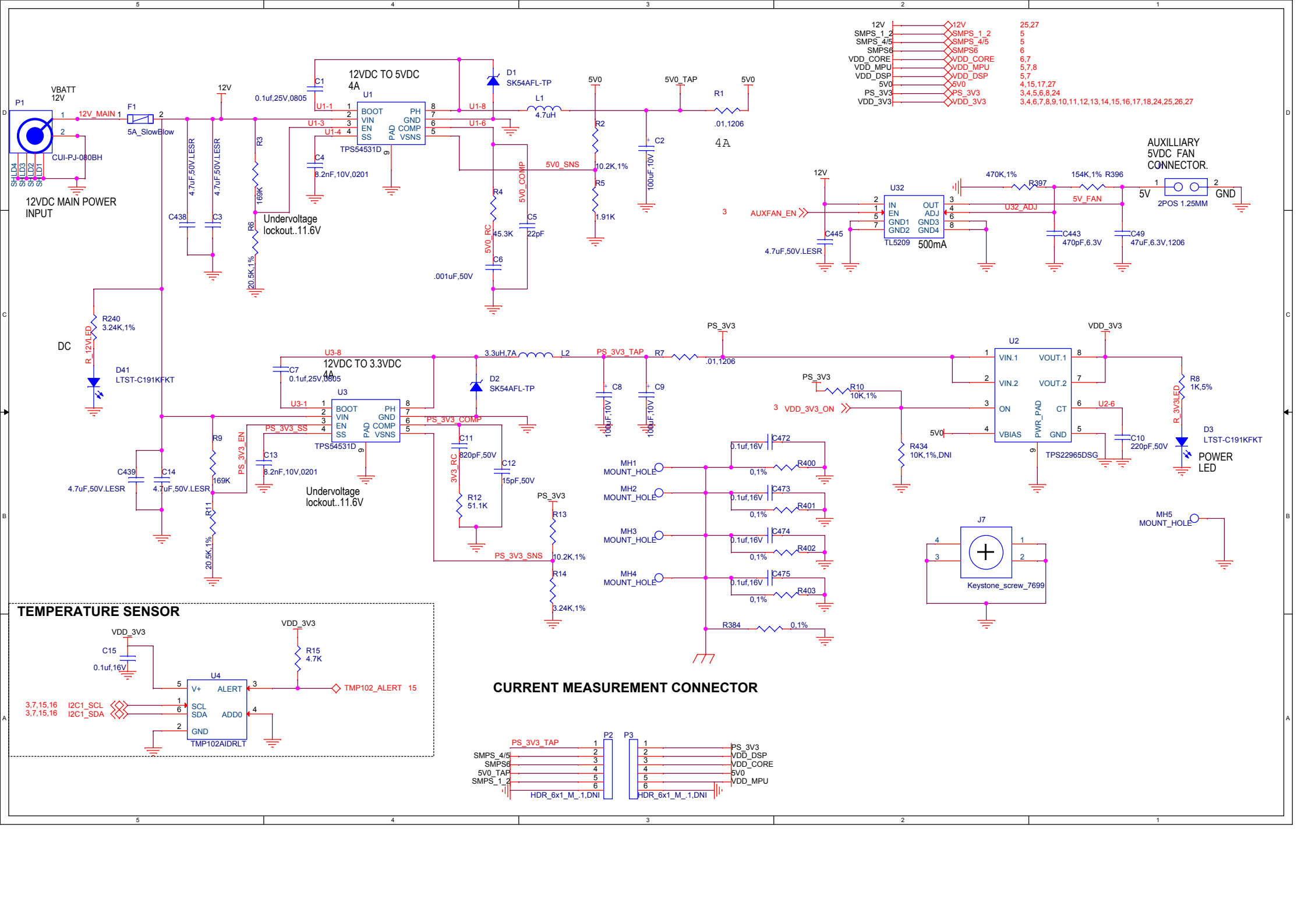
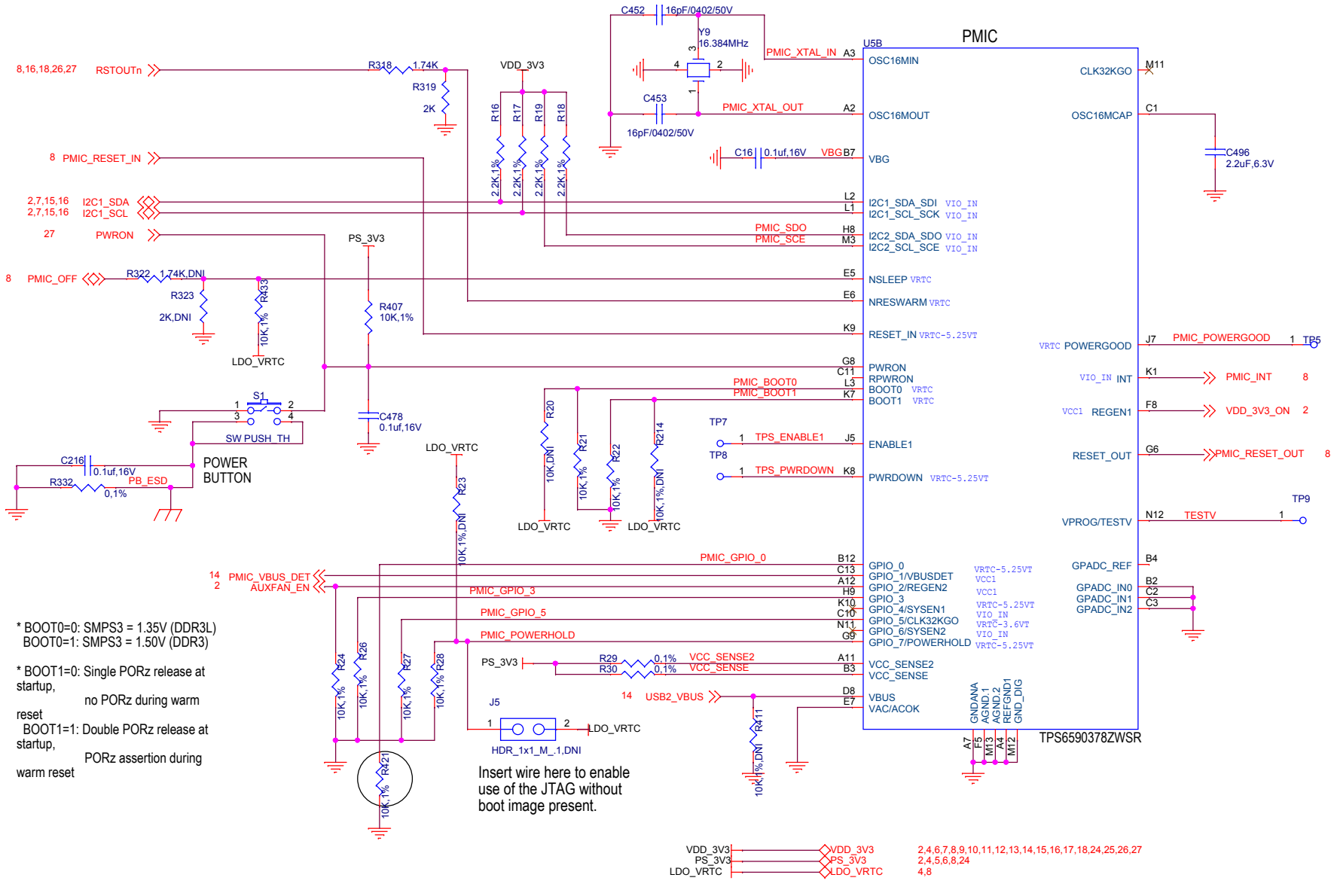
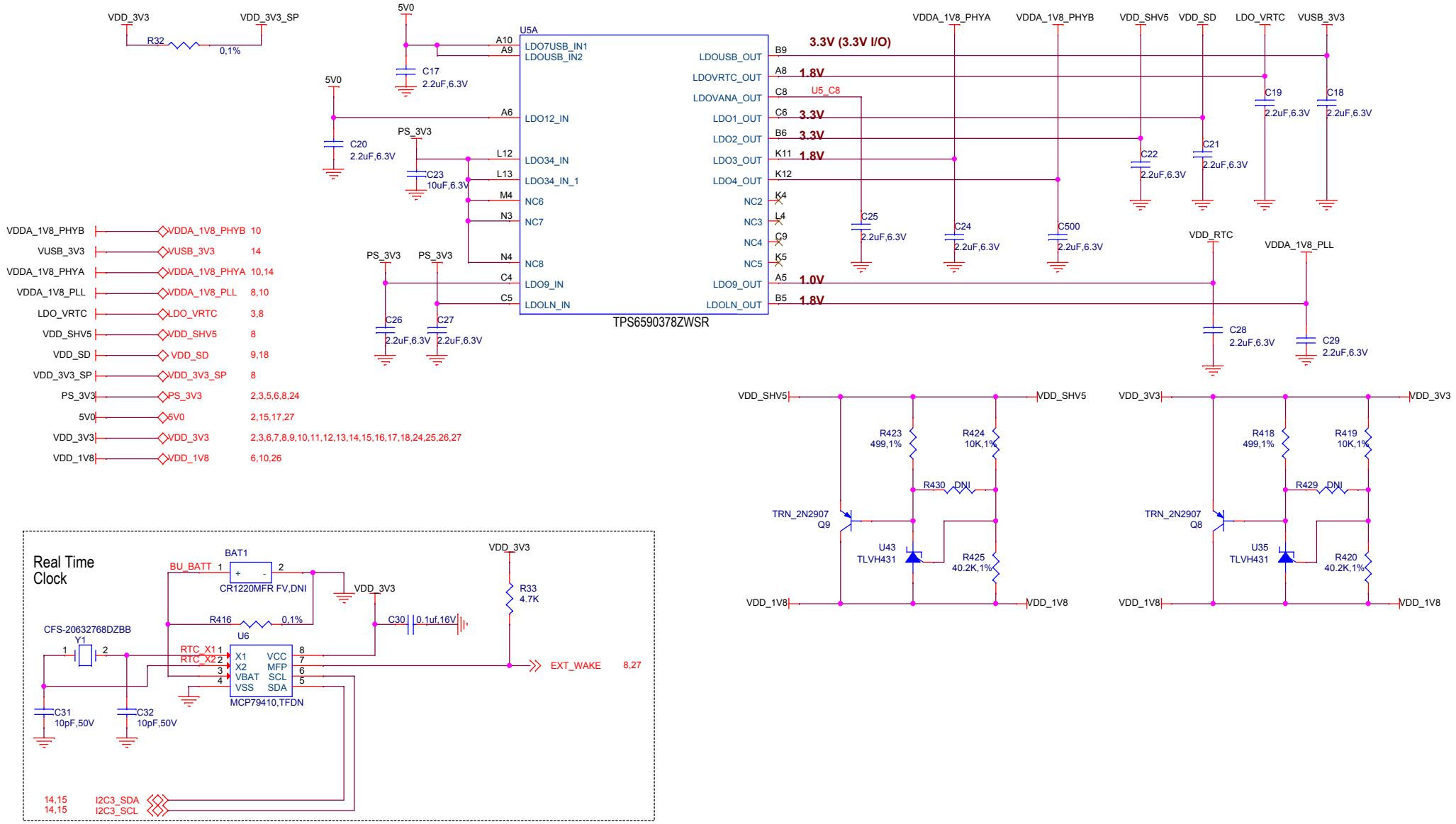
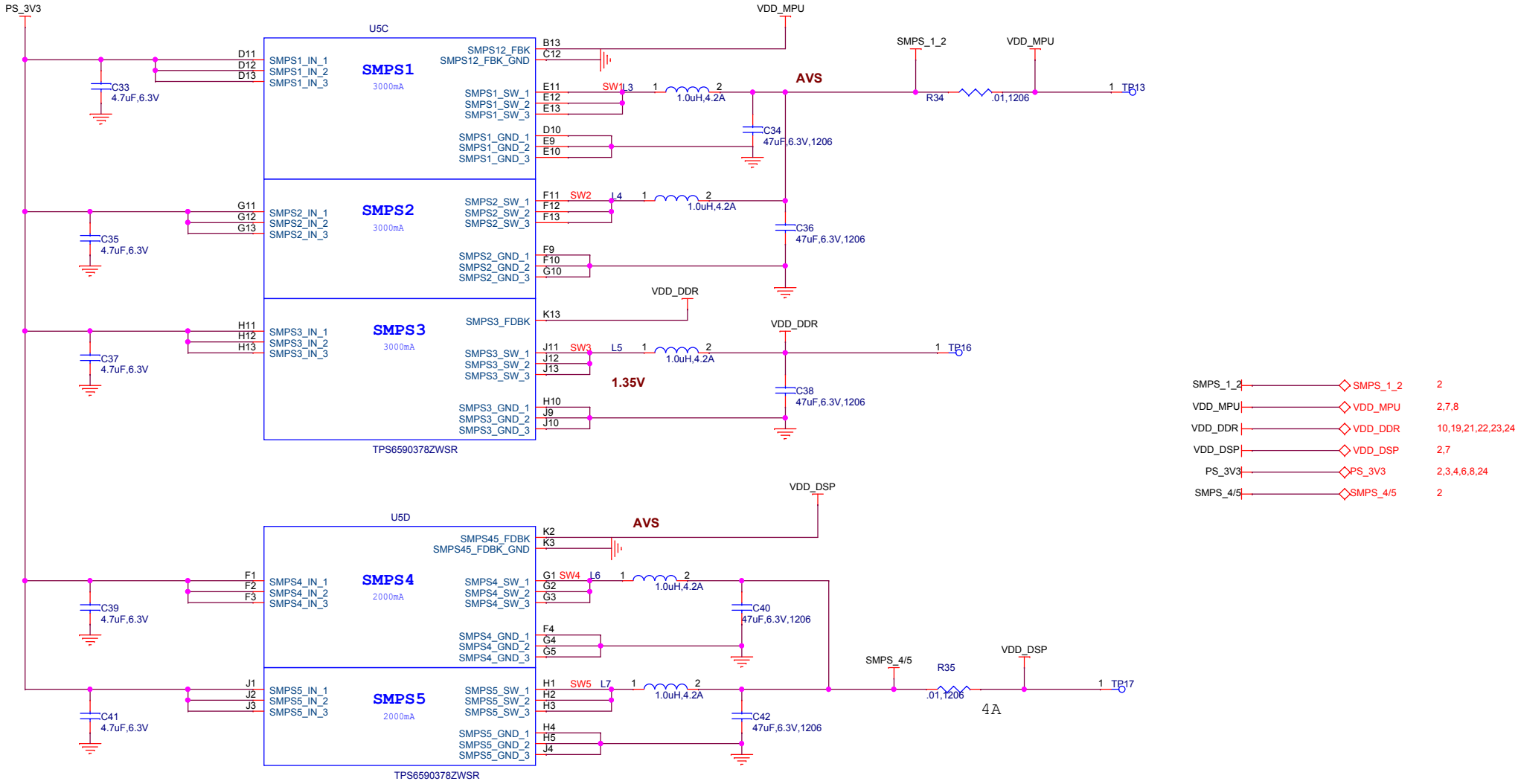
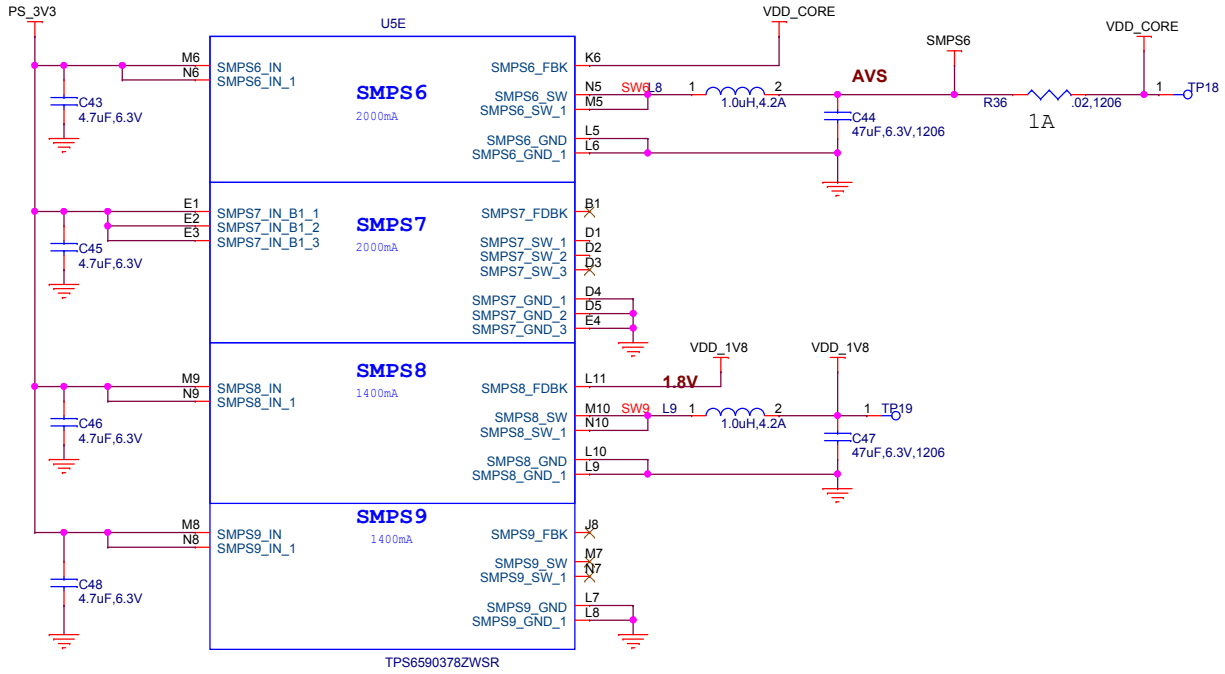

12V
SMPS_1_2
SMPS_4/5
SMPS6
VDD_CORE
VDD_MPU
VDD_DSP
5V0
PS_3V3
VDD_3V3
25,27
5
5
6
6,7
5,7,8
5,7
4,15,17,27
3,4,5,6,8,24
3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,24,25,26,27
12VDC MAIN POWER INPUT
VBATT
12V
P1
12V_MAIN
F1
5A_SlowBlow
CUI-PJ-080BH
SHLD4
SHLD3
SHLD2
SHLD1
12VDC TO 5VDC
4A
U1
TPS54531D
BOOT
VIN
EN
SS
PH
GND
COMP
VSNS
PAD
C1
0.1uf,25V,0805
D1
SK54AFL-TP
L1
4.7uH
5V0
5V0_TAP
R1
.01,1206
4A
R2
10.2K,1%
R5
1.91K
C2
100uF,10V
C4
8.2nF,10V,0201
5V0_SNS
5V0_COMP
R4
45.3K
C5
22pF
C6
.001uF,50V
5V0_RC
C438
C3
4.7uF,50V,LESR
R3
169K
R6
20.5K,1%
Undervoltage
lockout..11.6V
AUXILLIARY
5VDC FAN
CONNECTOR.
U32
TL5209
500mA
IN
EN
GND1
GND2
OUT
ADJ
GND3
GND4
AUXFAN_EN
C445
4.7uF,50V.LESR
470K,1%
R397
154K,1%
R396
U32_ADJ
5V_FAN
C443
470pF,6.3V
C49
47uF,6.3V,1206
5V
GND
2POS 1.25MM
DC
R240
3.24K,1%
R_12VLED
D41
LTST-C191KFKT
12VDC TO 3.3VDC
4A
U3
TPS54531D
C7
0.1uf,25V,0805
3.3uH,7A
L2
PS_3V3_TAP
R7
.01,1206
PS_3V3
D2
SK54AFL-TP
C8
C9
100uF,10V
PS_3V3_COMP
PS_3V3_SS
PS_3V3_EN
C13
8.2nF,10V,0201
C11
820pF,50V
C12
15pF,50V
3V3_RC
R12
51.1K
C439
C14
4.7uF,50V.LESR
R9
169K
R11
20.5K,1%
Undervoltage
lockout..11.6V
R13
10.2K,1%
PS_3V3_SNS
R14
3.24K,1%
U2
TPS22965DSG
VIN.1
VIN.2
ON
VBIAS
VOUT.1
VOUT.2
PWR_PAD
CT
GND
VDD_3V3
R10
10K,1%
VDD_3V3_ON
R434
10K,1%,DNI
U2-6
C10
220pF,50V
R8
1K,5%
R_3V3LED
D3
LTST-C191KFKT
POWER
LED
MH1
MH2
MH3
MH4
MOUNT_HOLE
C472
C473
C474
C475
0.1uf,16V
R400
R401
R402
R403
0,1%
R384
J7
Keystone_screw_7699
MH5
MOUNT_HOLE
TEMPERATURE SENSOR
U4
TMP102AIDRLT
C15
0.1uf,16V
R15
4.7K
V+
SCL
SDA
GND
ALERT
ADD0
TMP102_ALERT
15
3,7,15,16
I2C1_SCL
3,7,15,16
I2C1_SDA
CURRENT MEASUREMENT CONNECTOR
P2
P3
HDR_6x1_M_.1,DNI
HDR_6x1_M_.1,DNI
PS_3V3_TAP
SMPS_4/5
SMPS6
5V0_TAP
SMPS_1_2
PS_3V3
VDD_DSP
VDD_CORE
5V0
VDD_MPU

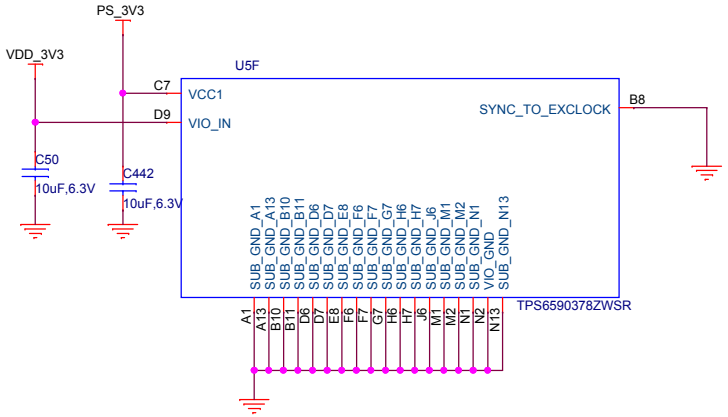

PMIC
U5B
TPS6590378ZWSR
C452 16pF/0402/50V
Y9 16.384MHz
C453 16pF/0402/50V
PMIC_XTAL_IN A3
PMIC_XTAL_OUT A2
OSC16MIN
OSC16MOUT
CLK32KGO M11
OSC16MCAP C1
C496 2.2uF,6.3V
8,16,18,26,27 RSTOUTn
R318 1.74K
R319 2K
VDD_3V3
R16 R17 R19 R18 2.2K,1%
8 PMIC_RESET_IN
C16 0.1uf,16V VBG B7
VBG
2,7,15,16 I2C1_SDA
2,7,15,16 I2C1_SCL
I2C1_SDA_SDI VIO_IN
I2C1_SCL_SCK VIO_IN
27 PWRON
PS_3V3
PMIC_SDO H8
PMIC_SCE M3
I2C2_SDA_SDO VIO_IN
I2C2_SCL_SCE VIO_IN
8 PMIC_OFF
R322 1.74K,DNI
R323 2K,DNI
R33 10K,1%
LDO_VRTC
R407 10K,1%
NSLEEP VRTC
NRESWARM VRTC
RESET_IN VRTC-5.25VT
PWRON
RPWRON
BOOT0 VRTC
BOOT1 VRTC
S1
SW PUSH_TH
POWER BUTTON
C478 0.1uf,16V
C216 0.1uf,16V
R332 0,1%
PB_ESD
PMIC_BOOT0
PMIC_BOOT1
R20 10K,DNI
R21 10K,1%
R22 10K,1%
R214 10K,1%,DNI
TP7
TP8
TPS_ENABLE1 J5
TPS_PWRDOWN K8
ENABLE1
PWRDOWN VRTC-5.25VT
VRTC POWERGOOD J7 PMIC_POWERGOOD 1 TP5
VIO_IN INT K1 PMIC_INT 8
VCC1 REGEN1 F8 VDD_3V3_ON 2
RESET_OUT G6 PMIC_RESET_OUT 8
TP9
VPROG/TESTV N12 TESTV 1
R23 10K,1%,DNI
PMIC_GPIO_0
14 PMIC_VBUS_DET
2 AUXFAN_EN
PMIC_GPIO_3
PMIC_GPIO_5
PMIC_POWERHOLD
GPIO_0
GPIO_1/VBUSDET
GPIO_2/REGEN2
GPIO_3
GPIO_4/SYSEN1
GPIO_5/CLK32KGO
GPIO_6/SYSEN2
GPIO_7/POWERHOLD
VRTC-5.25VT
VCC1
VCC1
VRTC-5.25VT
VIO_IN
VRTC-3.6VT
VIO_IN
VRTC-5.25VT
GPADC_REF B4
GPADC_IN0 B2
GPADC_IN1 C2
GPADC_IN2 C3
R24 R26 R27 R28 10K,1%
R421 10K,1%
PS_3V3
R29 0.1% VCC_SENSE2
R30 0.1% VCC_SENSE
VCC_SENSE2
VCC_SENSE
14 USB2_VBUS
VBUS
VAC/ACOK
R411 10K,1%,DNI
GNDANA A7
AGND1 F5
AGND2 M13
REFGND1 A4
GND_DIG M12
J5
HDR_1x1_M_.1,DNI
LDO_VRTC
Insert wire here to enable use of the JTAG without boot image present.
* BOOT0=0: SMPS3 = 1.35V (DDR3L)
BOOT0=1: SMPS3 = 1.50V (DDR3)
* BOOT1=0: Single PORz release at startup,
no PORz during warm reset
BOOT1=1: Double PORz release at startup,
PORz assertion during warm reset
VDD_3V3 VDD_3V3 2,4,6,7,8,9,10,11,12,13,14,15,16,17,18,24,25,26,27
PS_3V3 PS_3V3 2,4,5,6,8,24
LDO_VRTC LDO_VRTC 4,8


VDD_3V3
VDD_3V3_SP
R32
0,1%
5V0
U5A
A10
A9
LDO7USB_IN1
LDOUSB_IN2
C17
2.2uF,6.3V
A6
LDO12_IN
C20
2.2uF,6.3V
PS_3V3
L12
LDO34_IN
C23
10uF,6.3V
L13
LDO34_IN_1
M4
NC6
N3
NC7
N4
NC8
C4
LDO9_IN
C5
LDOLN_IN
C26
2.2uF,6.3V
C27
2.2uF,6.3V
LDOUSB_OUT
LDOVRTC_OUT
LDOVANA_OUT
LDO1_OUT
LDO2_OUT
LDO3_OUT
LDO4_OUT
NC2
NC3
NC4
NC5
LDO9_OUT
LDOLN_OUT
TPS6590378ZWSR
B9
3.3V (3.3V I/O)
A8
1.8V
C8
U5_C8
C6
3.3V
B6
3.3V
K11
1.8V
K12
K4
L4
C9
K5
A5
1.0V
B5
1.8V
VDDA_1V8_PHYA
VDDA_1V8_PHYB
VDD_SHV5
VDD_SD
LDO_VRTC
VUSB_3V3
C19
2.2uF,6.3V
C18
2.2uF,6.3V
C22
2.2uF,6.3V
C21
2.2uF,6.3V
C25
2.2uF,6.3V
C24
2.2uF,6.3V
C500
2.2uF,6.3V
VDD_RTC
VDDA_1V8_PLL
C28
2.2uF,6.3V
C29
2.2uF,6.3V
VDDA_1V8_PHYB VDDA_1V8_PHYB 10
VUSB_3V3 VUSB_3V3 14
VDDA_1V8_PHYA VDDA_1V8_PHYA 10,14
VDDA_1V8_PLL VDDA_1V8_PLL 8,10
LDO_VRTC LDO_VRTC 3,8
VDD_SHV5 VDD_SHV5 8
VDD_SD VDD_SD 9,18
VDD_3V3_SP VDD_3V3_SP 8
PS_3V3 PS_3V3 2,3,5,6,8,24
5V0 5V0 2,15,17,27
VDD_3V3 VDD_3V3 2,3,6,7,8,9,10,11,12,13,14,15,16,17,18,24,25,26,27
VDD_1V8 VDD_1V8 6,10,26
VDD_SHV5
VDD_SHV5
R423
499,1%
R424
10K,1%
R430 DNI
TRN_2N2907
Q9
U43
TLVH431
R425
40.2K,1%
VDD_1V8
VDD_1V8
VDD_3V3
VDD_3V3
R418
499,1%
R419
10K,1%
R429 DNI
TRN_2N2907
Q8
U35
TLVH431
R420
40.2K,1%
VDD_1V8
VDD_1V8
Real Time
Clock
BAT1
BU_BATT 1
2
CR1220MFR FV,DNI
VDD_3V3
R416
0,1%
C30
0.1uf,16V
VDD_3V3
R33
4.7K
CFS-20632768DZBB
Y1
U6
RTC_X1
RTC_X2
X1
X2
VBAT
VSS
VCC
MFP
SCL
SDA
MCP79410,TFDN
EXT_WAKE
8,27
C31
10pF,50V
C32
10pF,50V
14,15 I2C3_SDA
14,15 I2C3_SCL

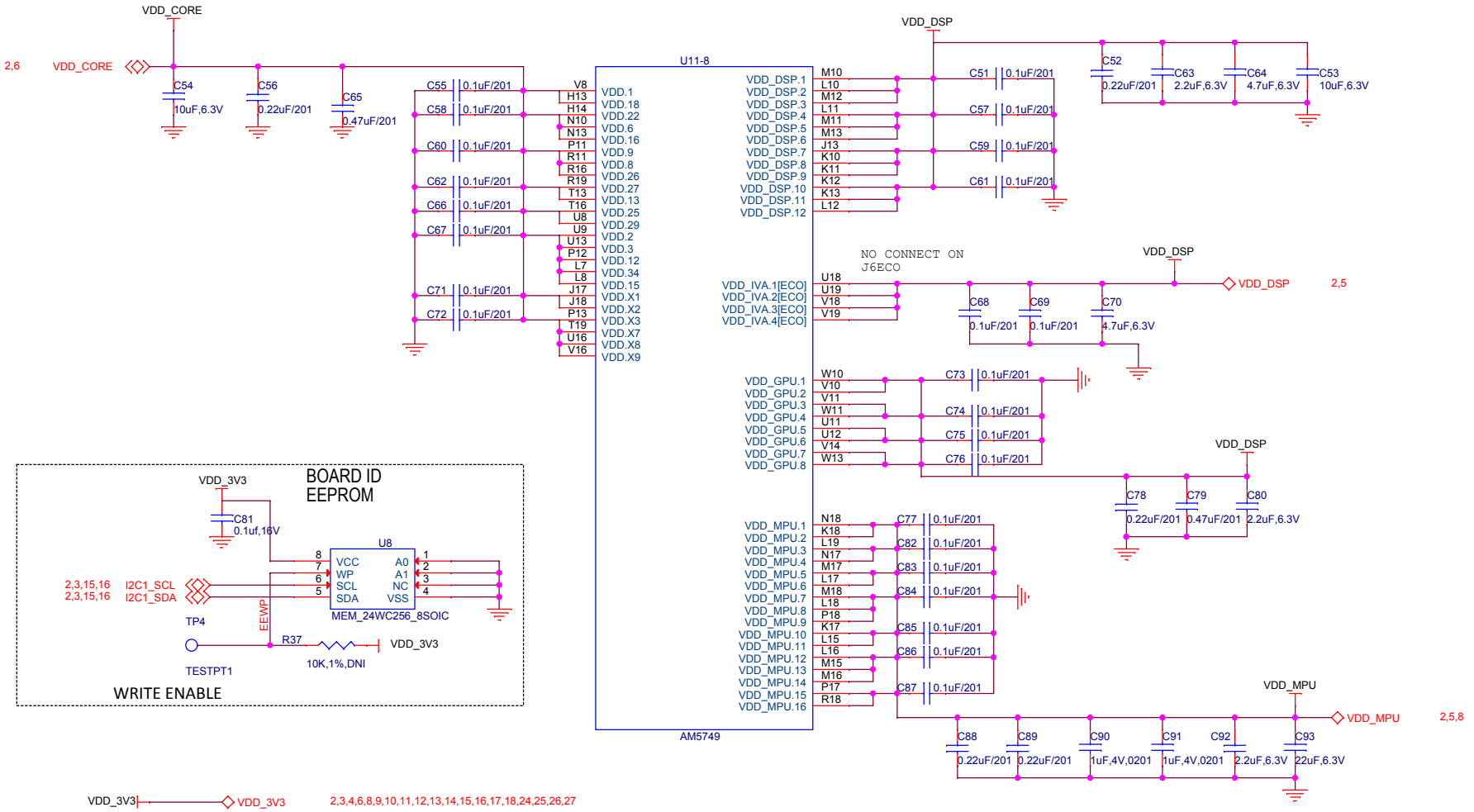


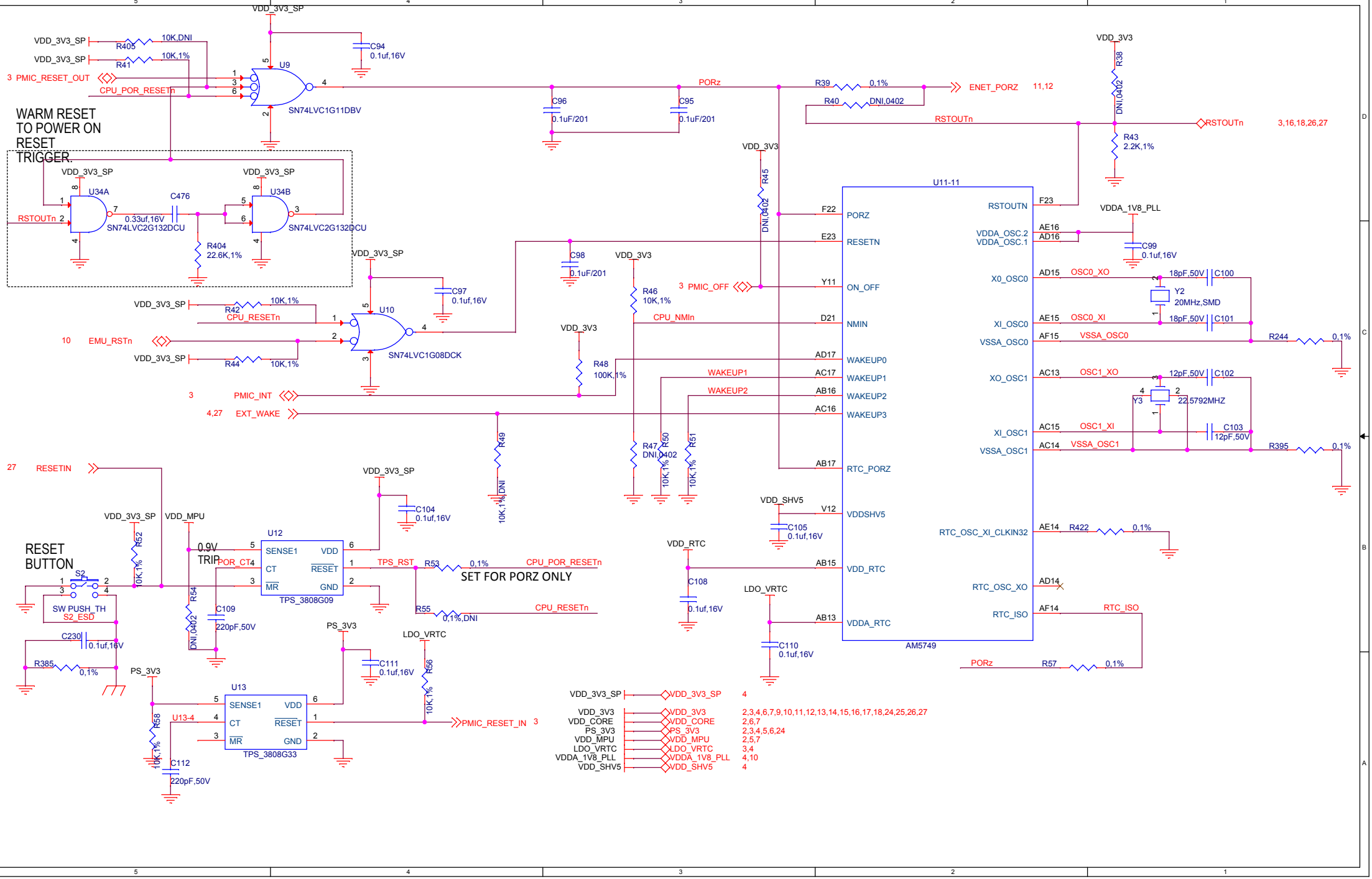
SMPS_1_2	SMPS_1_2	2
VDD_MPU	VDD_MPU	2,7,8
VDD_DDR	VDD_DDR	10,19,21,22,23,24
VDD_DSP	VDD_DSP	2,7
PS_3V3	PS_3V3	2,3,4,6,8,24
SMPS_4/5	SMPS_4/5	2

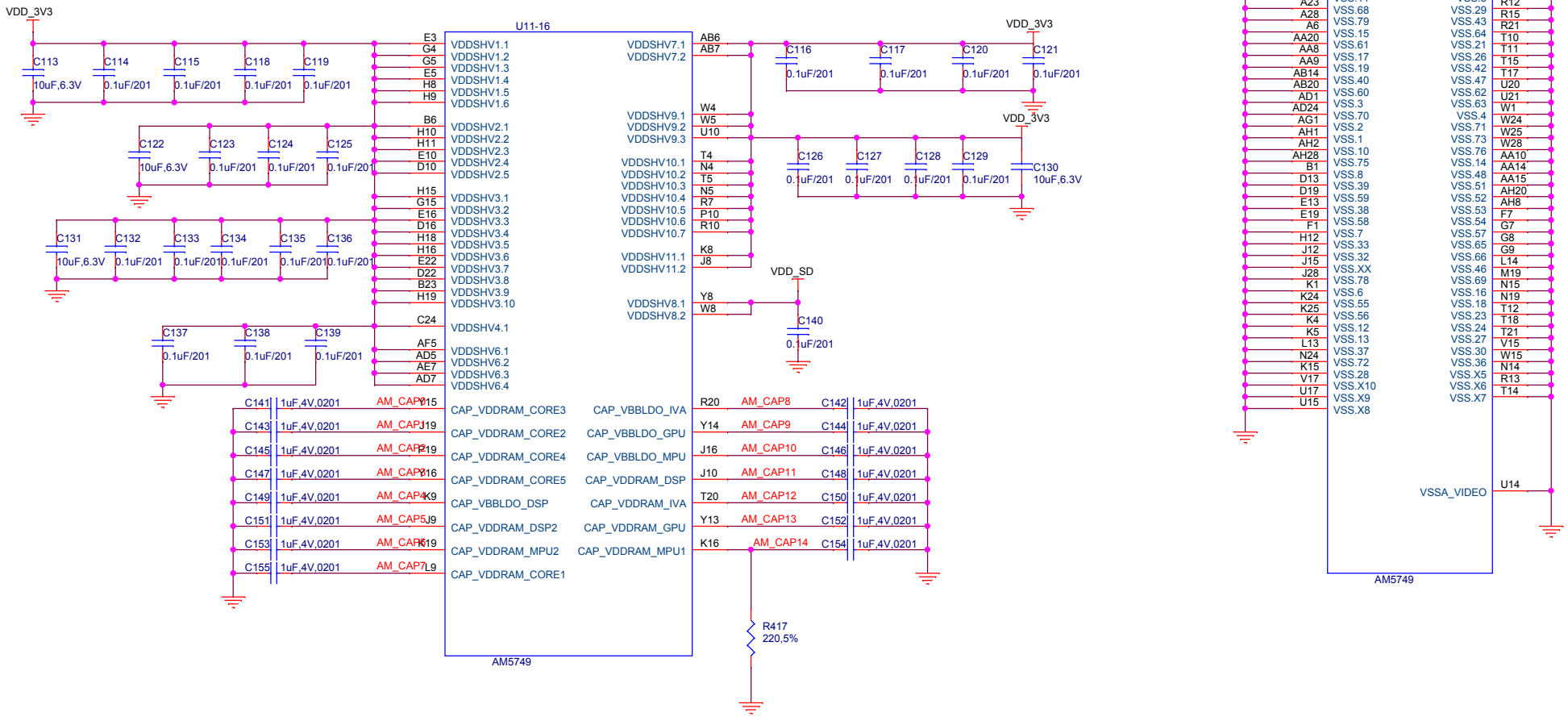

PS_3V3
U5E
VDD_CORE
SMPS6
VDD_CORE
M6
N6
SMPS6_IN
SMPS6_IN_1
SMPS6
2000mA
SMPS6_FBK
SMPS6_SW
SMPS6_SW_1
SMPS6_GND
SMPS6_GND_1
K6
N5
M5
L5
L6
SW6
L8
1.0uH,4.2A
AVS
C44
47uF,6.3V,1206
R36
.02,1206
1A
TP18
C43
4.7uF,6.3V
E1
E2
E3
SMPS7_IN_B1_1
SMPS7_IN_B1_2
SMPS7_IN_B1_3
SMPS7
2000mA
SMPS7_FDBK
SMPS7_SW_1
SMPS7_SW_2
SMPS7_SW_3
SMPS7_GND_1
SMPS7_GND_2
SMPS7_GND_3
B1
D1
D2
D3
D4
D5
E4
C45
4.7uF,6.3V
VDD_1V8
VDD_1V8
M9
N9
SMPS8_IN
SMPS8_IN_1
SMPS8
1400mA
SMPS8_FDBK
SMPS8_SW
SMPS8_SW_1
SMPS8_GND
SMPS8_GND_1
L11
1.8V
M10
N10
SW9
L9
L10
L9
1.0uH,4.2A
C47
47uF,6.3V,1206
TP19
C46
4.7uF,6.3V
M8
N8
SMPS9_IN
SMPS9_IN_1
SMPS9
1400mA
SMPS9_FBK
SMPS9_SW
SMPS9_SW_1
SMPS9_GND
SMPS9_GND_1
J8
M7
N7
L7
L8
C48
4.7uF,6.3V
TPS6590378ZWSR

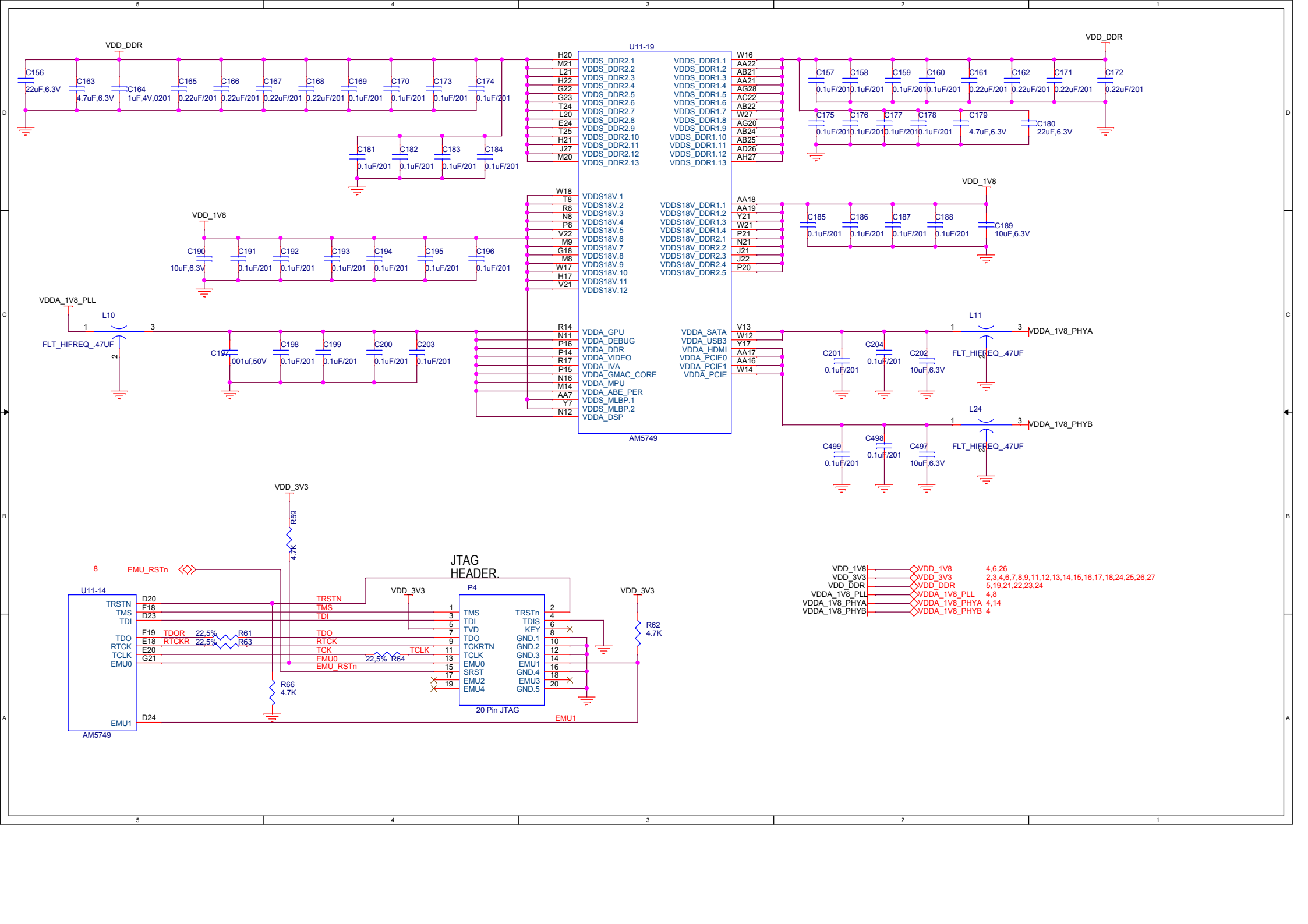

PS_3V3
VDD_3V3
U5F
C7
D9
VCC1
VIO_IN
SYNC_TO_EXCLOCK
B8
C50
10uF,6.3V
C442
10uF,6.3V
SUB_GND_A1
SUB_GND_A13
SUB_GND_B10
SUB_GND_B11
SUB_GND_D6
SUB_GND_D7
SUB_GND_E8
SUB_GND_F6
SUB_GND_F7
SUB_GND_G7
SUB_GND_H6
SUB_GND_H7
SUB_GND_J6
SUB_GND_M1
SUB_GND_M2
SUB_GND_N1
VIO_GND
SUB_GND_N13
A1
A13
B10
B11
D6
D7
E8
F6
F7
G7
H6
H7
J6
M1
M2
N1
N2
N13
TPS6590378ZWSR

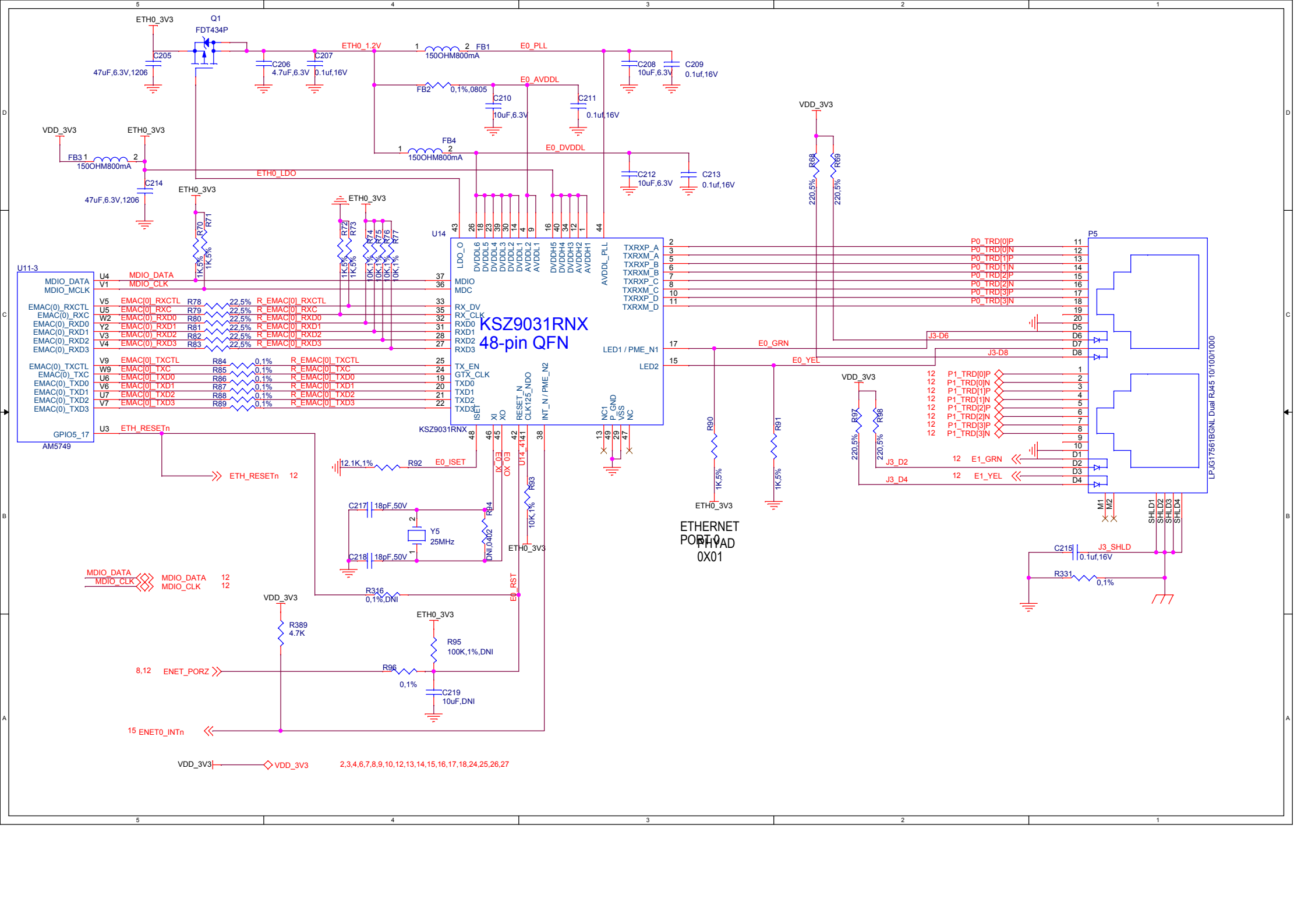

SMPS6
SMPS6
2
PS_3V3
PS_3V3
2,3,4,5,8,24
VDD_3V3
VDD_3V3
2,3,4,7,8,9,10,11,12,13,14,15,16,17,18,24,25,26,27
VDD_1V8
VDD_1V8
4,10,26
VDD_CORE
VDD_CORE
2,7

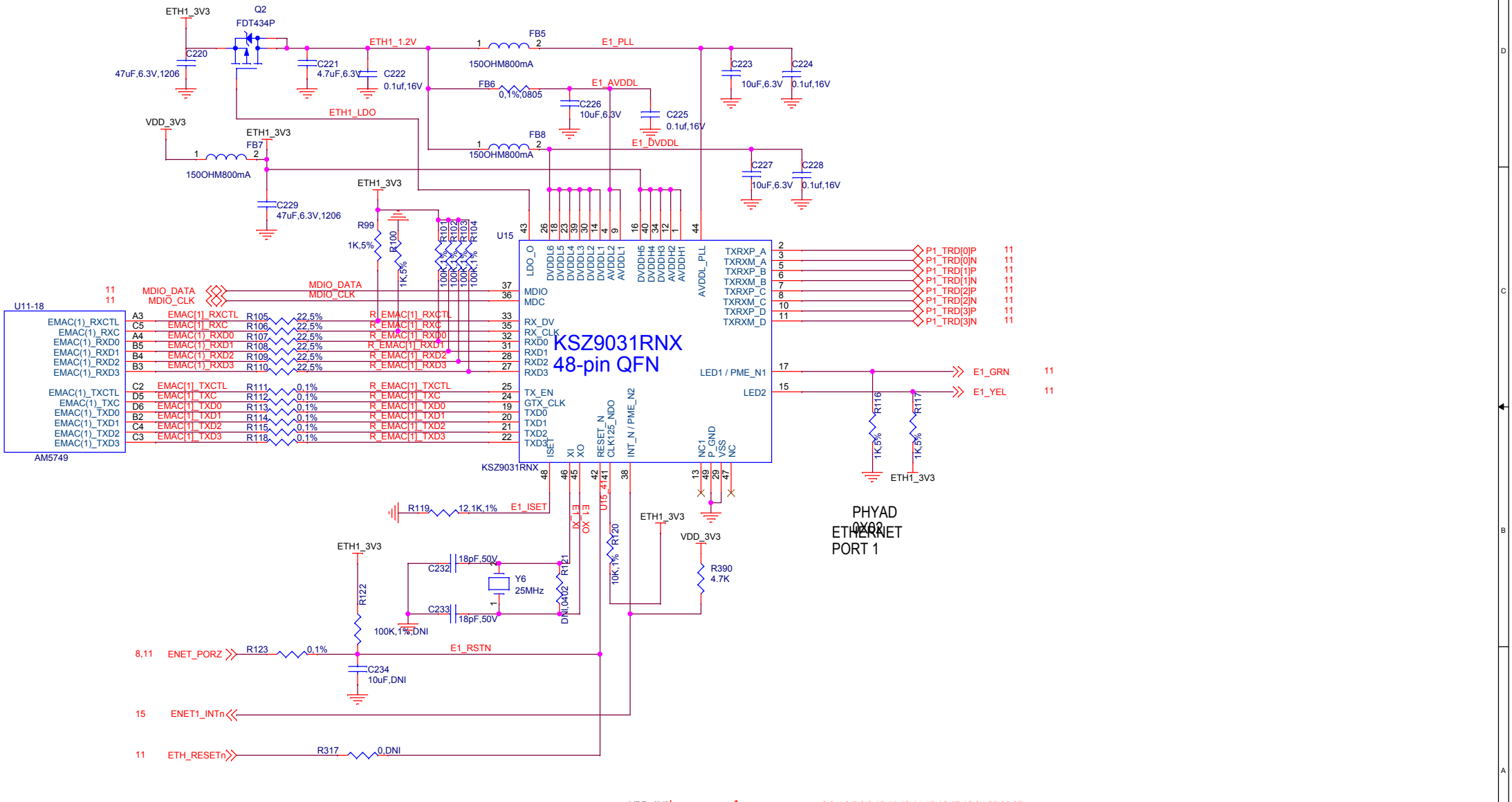

VDD_CORE
2,6
VDD_CORE
C54
10uF,6.3V
C56
0.22uF/201
C65
0.47uF/201
C55 0.1uF/201
C58 0.1uF/201
C60 0.1uF/201
C62 0.1uF/201
C66 0.1uF/201
C67 0.1uF/201
C71 0.1uF/201
C72 0.1uF/201
U11-8
VDD.1
VDD.18
VDD.22
VDD.6
VDD.16
VDD.9
VDD.8
VDD.26
VDD.27
VDD.13
VDD.25
VDD.29
VDD.2
VDD.3
VDD.12
VDD.34
VDD.15
VDD.X1
VDD.X2
VDD.X3
VDD.X7
VDD.X8
VDD.X9
AM5749
VDD_DSP
VDD_DSP.1
VDD_DSP.2
VDD_DSP.3
VDD_DSP.4
VDD_DSP.5
VDD_DSP.6
VDD_DSP.7
VDD_DSP.8
VDD_DSP.9
VDD_DSP.10
VDD_DSP.11
VDD_DSP.12
C51 0.1uF/201
C57 0.1uF/201
C59 0.1uF/201
C61 0.1uF/201
C52
0.22uF/201
C63
2.2uF,6.3V
C64
4.7uF,6.3V
C53
10uF,6.3V
NO CONNECT ON
J6ECO
VDD_IVA.1[ECO]
VDD_IVA.2[ECO]
VDD_IVA.3[ECO]
VDD_IVA.4[ECO]
C68 0.1uF/201
C69 0.1uF/201
C70 4.7uF,6.3V
VDD_DSP
2,5
VDD_GPU.1
VDD_GPU.2
VDD_GPU.3
VDD_GPU.4
VDD_GPU.5
VDD_GPU.6
VDD_GPU.7
VDD_GPU.8
C73 0.1uF/201
C74 0.1uF/201
C75 0.1uF/201
C76 0.1uF/201
VDD_DSP
C78
0.22uF/201
C79
0.47uF/201
C80
2.2uF,6.3V
VDD_MPU.1
VDD_MPU.2
VDD_MPU.3
VDD_MPU.4
VDD_MPU.5
VDD_MPU.6
VDD_MPU.7
VDD_MPU.8
VDD_MPU.9
VDD_MPU.10
VDD_MPU.11
VDD_MPU.12
VDD_MPU.13
VDD_MPU.14
VDD_MPU.15
VDD_MPU.16
C77 0.1uF/201
C82 0.1uF/201
C83 0.1uF/201
C84 0.1uF/201
C85 0.1uF/201
C86 0.1uF/201
C87 0.1uF/201
VDD_MPU
VDD_MPU
2,5,8
C88
0.22uF/201
C89
0.22uF/201
C90
1uF,4V,0201
C91
1uF,4V,0201
C92
2.2uF,6.3V
C93
22uF,6.3V
BOARD ID
EEPROM
VDD_3V3
C81
0.1uf,16V
U8
VCC
WP
SCL
SDA
A0
A1
NC
VSS
2,3,15,16 I2C1_SCL
2,3,15,16 I2C1_SDA
TP4
EEWP
R37
10K,1%,DNI
VDD_3V3
TESTPT1
MEM_24WC256_8SOIC
WRITE ENABLE
VDD_3V3
VDD_3V3
2,3,4,6,8,9,10,11,12,13,14,15,16,17,18,24,25,26,27

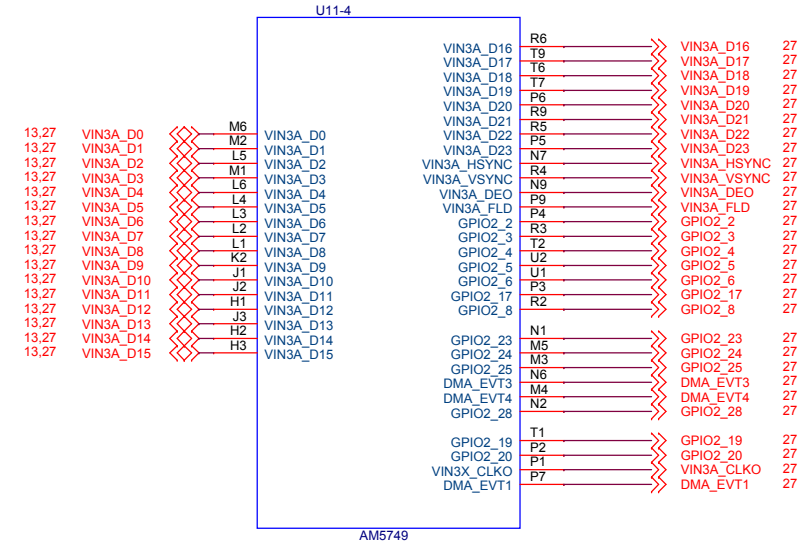

WARM RESET TO POWER ON RESET TRIGGER.
RESET BUTTON
0.9V TRIP
SET FOR PORZ ONLY
SN74LVC1G11DBV
SN74LVC2G132DCU
SN74LVC1G08DCK
TPS_3808G09
TPS_3808G33
AM5749
SW PUSH_TH
S2_ESD
PMIC_RESET_OUT
CPU_POR_RESETn
EMU_RSTn
PMIC_INT
EXT_WAKE
RESETIN
PMIC_OFF
PMIC_RESET_IN
ENET_PORZ
RSTOUTn
CPU_NMIn
CPU_RESETn
TPS_RST
WAKEUP1
WAKEUP2
PORz
LDO_VRTC
OSC0_XO
OSC0_XI
OSC1_XO
OSC1_XI
RTC_ISO
Y2 20MHz,SMD
Y3 22.5792MHZ


U11-16
VDD_3V3
C113 10uF,6.3V
C114 0.1uF/201
C115 0.1uF/201
C118 0.1uF/201
C119 0.1uF/201
C122 10uF,6.3V
C123 0.1uF/201
C124 0.1uF/201
C125 0.1uF/201
C131 10uF,6.3V
C132 0.1uF/201
C133 0.1uF/201
C134 0.1uF/201
C135 0.1uF/201
C136 0.1uF/201
C137 0.1uF/201
C138 0.1uF/201
C139 0.1uF/201
E3 G4 G5 E5 H8 H9 B6 H10 H11 E10 D10 H15 G15 E16 D16 H18 H16 E22 D22 B23 H19 C24 AF5 AD5 AE7 AD7
VDDSHV1.1 VDDSHV1.2 VDDSHV1.3 VDDSHV1.4 VDDSHV1.5 VDDSHV1.6
VDDSHV2.1 VDDSHV2.2 VDDSHV2.3 VDDSHV2.4 VDDSHV2.5
VDDSHV3.1 VDDSHV3.2 VDDSHV3.3 VDDSHV3.4 VDDSHV3.5 VDDSHV3.6 VDDSHV3.7 VDDSHV3.8 VDDSHV3.9 VDDSHV3.10
VDDSHV4.1
VDDSHV6.1 VDDSHV6.2 VDDSHV6.3 VDDSHV6.4
C141 1uF,4V,0201 AM_CAP1 K15
C143 1uF,4V,0201 AM_CAP2 J19
C145 1uF,4V,0201 AM_CAP3 J19
C147 1uF,4V,0201 AM_CAP4 K16
C149 1uF,4V,0201 AM_CAP5 K9
C151 1uF,4V,0201 AM_CAP6 J9
C153 1uF,4V,0201 AM_CAP7 K19
C155 1uF,4V,0201 AM_CAP8 L9
CAP_VDDRAM_CORE3 CAP_VDDRAM_CORE2 CAP_VDDRAM_CORE4 CAP_VDDRAM_CORE5 CAP_VBBLDO_DSP CAP_VDDRAM_DSP2 CAP_VDDRAM_MPU2 CAP_VDDRAM_CORE1
CAP_VBBLDO_IVA CAP_VBBLDO_GPU CAP_VBBLDO_MPU CAP_VDDRAM_DSP CAP_VDDRAM_IVA CAP_VDDRAM_GPU CAP_VDDRAM_MPU1
AM5749
AB6 AB7 W4 W5 U10 T4 N4 T5 N5 R7 P10 R10 K8 J8 Y8 W8
VDDSHV7.1 VDDSHV7.2 VDDSHV9.1 VDDSHV9.2 VDDSHV9.3 VDDSHV10.1 VDDSHV10.2 VDDSHV10.3 VDDSHV10.4 VDDSHV10.5 VDDSHV10.6 VDDSHV10.7 VDDSHV11.1 VDDSHV11.2 VDDSHV8.1 VDDSHV8.2
C116 0.1uF/201
C117 0.1uF/201
C120 0.1uF/201
C121 0.1uF/201
C126 0.1uF/201
C127 0.1uF/201
C128 0.1uF/201
C129 0.1uF/201
C130 10uF,6.3V
VDD_3V3
VDD_SD
C140 0.1uF/201
R20 AM_CAP8 C142 1uF,4V,0201
Y14 AM_CAP9 C144 1uF,4V,0201
J16 AM_CAP10 C146 1uF,4V,0201
J10 AM_CAP11 C148 1uF,4V,0201
T20 AM_CAP12 C150 1uF,4V,0201
Y13 AM_CAP13 C152 1uF,4V,0201
K16 AM_CAP14 C154 1uF,4V,0201
R417 220,5%
U11-9
A1 A14 A2 A23 A28 A6 AA20 AA8 AA9 AB14 AB20 AD1 AD24 AG1 AH1 AH2 AH28 B1 D13 D19 E13 E19 F1 H12 J12 J15 J28 K1 K24 K25 K4 K5 L13 N24 K15 V17 U17 U15
VSS.9 VSS.41 VSS.11 VSS.68 VSS.79 VSS.15 VSS.61 VSS.17 VSS.19 VSS.40 VSS.60 VSS.3 VSS.70 VSS.2 VSS.1 VSS.10 VSS.75 VSS.8 VSS.39 VSS.59 VSS.38 VSS.58 VSS.7 VSS.33 VSS.32 VSS.XX VSS.78 VSS.6 VSS.55 VSS.56 VSS.12 VSS.13 VSS.37 VSS.72 VSS.28 VSS.X10 VSS.X9 VSS.X8
VSS.74 VSS.77 VSS.5 VSS.29 VSS.43 VSS.64 VSS.21 VSS.26 VSS.42 VSS.47 VSS.62 VSS.63 VSS.4 VSS.71 VSS.73 VSS.76 VSS.14 VSS.48 VSS.51 VSS.52 VSS.53 VSS.54 VSS.57 VSS.65 VSS.66 VSS.46 VSS.69 VSS.16 VSS.18 VSS.23 VSS.24 VSS.27 VSS.30 VSS.36 VSS.X5 VSS.X6 VSS.X7
N25 P28 R1 R12 R15 R21 T10 T11 T15 T17 U20 U21 W1 W24 W25 W28 AA10 AA14 AA15 AH20 AH8 F7 G7 G8 G9 L14 M19 N15 N19 T12 T18 T21 V15 W15 N14 R13 T14
VSSA_VIDEO
U14
AM5749
VDD_SD VDD_SD 4,18
VDD_3V3 VDD_3V3 2,3,4,6,7,8,10,11,12,13,14,15,16,17,18,24,25,26,27

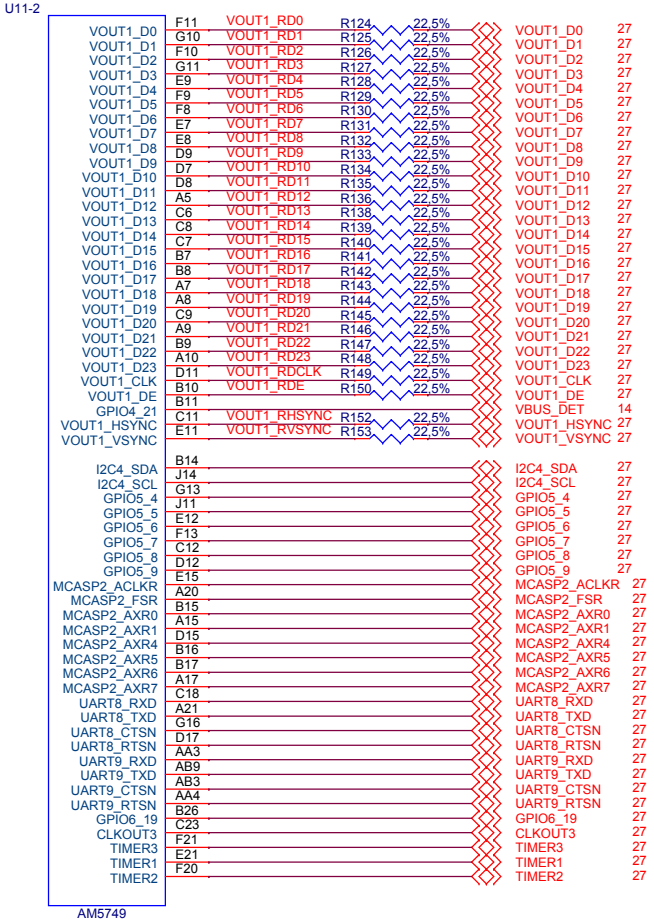

VDD_DDR
C156 22uF,6.3V
C163 4.7uF,6.3V
C164 1uF,4V,0201
C165 0.22uF/201
C166 0.22uF/201
C167 0.22uF/201
C168 0.22uF/201
C169 0.1uF/201
C170 0.1uF/201
C173 0.1uF/201
C174 0.1uF/201
C181 0.1uF/201
C182 0.1uF/201
C183 0.1uF/201
C184 0.1uF/201
U11-19
H20 M21 L21 H22 G22 G23 T24 L20 E24 T25 H21 J27 M20
VDDS_DDR2.1 VDDS_DDR2.2 VDDS_DDR2.3 VDDS_DDR2.4 VDDS_DDR2.5 VDDS_DDR2.6 VDDS_DDR2.7 VDDS_DDR2.8 VDDS_DDR2.9 VDDS_DDR2.10 VDDS_DDR2.11 VDDS_DDR2.12 VDDS_DDR2.13
VDDS_DDR1.1 VDDS_DDR1.2 VDDS_DDR1.3 VDDS_DDR1.4 VDDS_DDR1.5 VDDS_DDR1.6 VDDS_DDR1.7 VDDS_DDR1.8 VDDS_DDR1.9 VDDS_DDR1.10 VDDS_DDR1.11 VDDS_DDR1.12 VDDS_DDR1.13
W16 AA22 AB21 AA21 AG28 AC22 AB22 W27 AG20 AB24 AB25 AD26 AH27
VDD_DDR
C157 C158 C159 C160 C161 C162 C171 C172 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201 0.22uF/201 0.22uF/201 0.22uF/201 0.22uF/201
C175 C176 C177 C178 C179 C180 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201 4.7uF,6.3V 22uF,6.3V
VDD_1V8
C190 10uF,6.3V
C191 C192 C193 C194 C195 C196 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201
W18 T8 R8 N8 P8 V22 M9 G18 M8 W17 H17 V21
VDDS18V.1 VDDS18V.2 VDDS18V.3 VDDS18V.4 VDDS18V.5 VDDS18V.6 VDDS18V.7 VDDS18V.8 VDDS18V.9 VDDS18V.10 VDDS18V.11 VDDS18V.12
VDDS18V_DDR1.1 VDDS18V_DDR1.2 VDDS18V_DDR1.3 VDDS18V_DDR1.4 VDDS18V_DDR2.1 VDDS18V_DDR2.2 VDDS18V_DDR2.3 VDDS18V_DDR2.4 VDDS18V_DDR2.5
AA18 AA19 Y21 W21 P21 N21 J21 J22 P20
VDD_1V8
C185 C186 C187 C188 C189 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201 10uF,6.3V
VDDA_1V8_PLL
L10 FLT_HIFREQ_.47UF
C197 .001uf,50V
C198 C199 C200 C203 0.1uF/201 0.1uF/201 0.1uF/201 0.1uF/201
R14 N11 P16 P14 R17 P15 N16 M14 AA7 Y7 N12
VDDA_GPU VDDA_DEBUG VDDA_DDR VDDA_VIDEO VDDA_IVA VDDA_GMAC_CORE VDDA_MPU VDDA_ABE_PER VDDS_MLBP.1 VDDS_MLBP.2 VDDA_DSP
VDDA_SATA VDDA_USB3 VDDA_HDMI VDDA_PCIE0 VDDA_PCIE1 VDDA_PCIE
V13 W12 Y17 AA17 AA16 W14
AM5749
L11 FLT_HIFREQ_.47UF VDDA_1V8_PHYA
C201 C204 C202 0.1uF/201 0.1uF/201 10uF,6.3V
L24 FLT_HIFREQ_.47UF VDDA_1V8_PHYB
C499 C498 C497 0.1uF/201 0.1uF/201 10uF,6.3V
VDD_3V3
R59 4.7K
8 EMU_RSTn
JTAG HEADER
U11-14
TRSTN TMS TDI TDO RTCK TCLK EMU0 EMU1
D20 F18 D23 F19 E18 E20 G21 D24
TDOR 22.5% R61
RTCKR 22.5% R63
R64 22.5%
R66 4.7K
P4
TMS TDI TVD TDO TCKRTN TCLK EMU0 SRST EMU2 EMU4
TRSTn TDIS KEY GND.1 GND.2 GND.3 EMU1 GND.4 EMU3 GND.5
1 3 5 7 9 11 13 15 17 19
2 4 6 8 10 12 14 16 18 20
20 Pin JTAG
R62 4.7K
VDD_1V8 4,6,26
VDD_3V3 2,3,4,6,7,8,9,11,12,13,14,15,16,17,18,24,25,26,27
VDD_DDR 5,19,21,22,23,24
VDDA_1V8_PLL 4,8
VDDA_1V8_PHYA 4,14
VDDA_1V8_PHYB 4

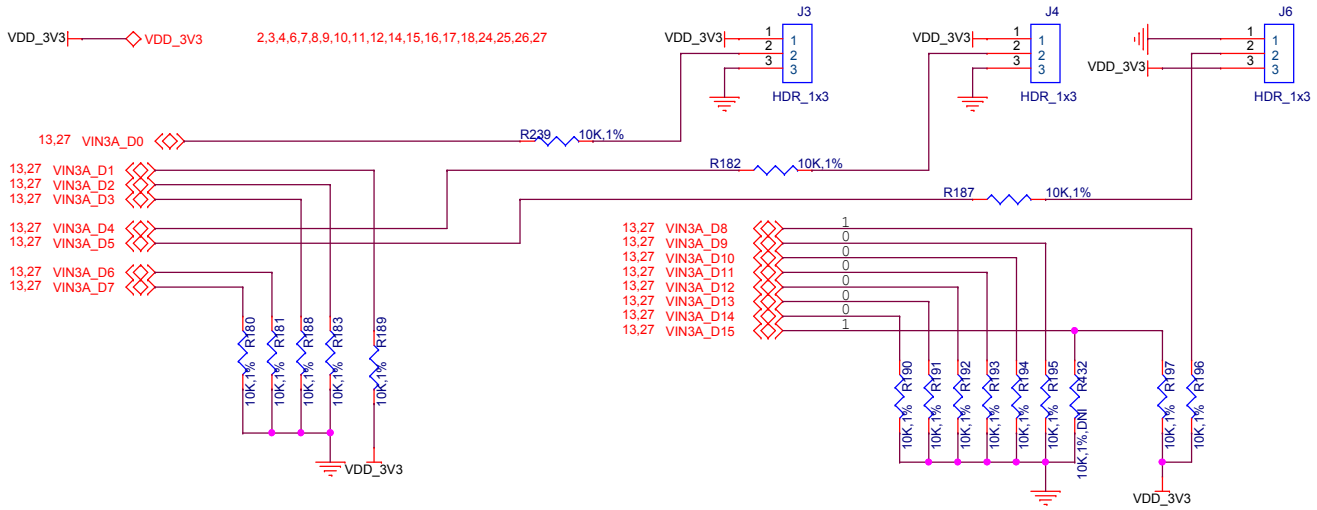

KSZ9031RNX
48-pin QFN
ETHERNET PORT 0
PHYAD 0X01
LPJG17561BGNL Dual RJ45 10/100/1000
U11-3
AM5749
U14
P5
Q1
FDT434P
ETH0_3V3
VDD_3V3
ETH0_1.2V
E0_PLL
E0_AVDDL
E0_DVDDL
ETH0_LDO
FB1
FB2
FB3
FB4
150OHM800mA
0,1%,0805
C205
47uF,6.3V,1206
C206
4.7uF,6.3V
C207
0.1uf,16V
C208
10uF,6.3V
C209
0.1uf,16V
C210
10uF,6.3V
C211
0.1uf,16V
C212
10uF,6.3V
C213
0.1uf,16V
C214
47uF,6.3V,1206
C215
0.1uf,16V
C217
18pF,50V
C218
18pF,50V
C219
10uF,DNI
Y5
25MHz
R68
R69
220,5%
R70
R71
R72
R73
R74
R75
R76
R77
1K,5%
10K,1%
R78
R79
R80
R81
R82
R83
22,5%
R84
R85
R86
R87
R88
R89
0,1%
R90
R91
1K,5%
R92
12.1K,1%
E0_ISET
R93
10K,1%
R94
DNI,0402
R95
100K,1%,DNI
R96
0,1%
R97
R98
220,5%
R316
0,1%,DNI
R331
0,1%
R389
4.7K
E0_RST
E0_GRN
E0_YEL
J3-D6
J3-D8
J3_D2
J3_D4
J3_SHLD
E1_GRN
E1_YEL
ETH_RESETn
ENET_PORZ
ENET0_INTn
MDIO_DATA
MDIO_CLK
EMAC(0)_RXCTL
EMAC(0)_RXC
EMAC(0)_RXD0
EMAC(0)_RXD1
EMAC(0)_RXD2
EMAC(0)_RXD3
EMAC(0)_TXCTL
EMAC(0)_TXC
EMAC(0)_TXD0
EMAC(0)_TXD1
EMAC(0)_TXD2
EMAC(0)_TXD3
R_EMAC[0]_RXCTL
R_EMAC[0]_RXC
R_EMAC[0]_RXD0
R_EMAC[0]_RXD1
R_EMAC[0]_RXD2
R_EMAC[0]_RXD3
R_EMAC[0]_TXCTL
R_EMAC[0]_TXC
R_EMAC[0]_TXD0
R_EMAC[0]_TXD1
R_EMAC[0]_TXD2
R_EMAC[0]_TXD3
P0_TRD[0]P
P0_TRD[0]N
P0_TRD[1]P
P0_TRD[1]N
P0_TRD[2]P
P0_TRD[2]N
P0_TRD[3]P
P0_TRD[3]N
P1_TRD[0]P
P1_TRD[0]N
P1_TRD[1]P
P1_TRD[1]N
P1_TRD[2]P
P1_TRD[2]N
P1_TRD[3]P
P1_TRD[3]N
LDO_O
DVDDL6
DVDDL5
DVDDL4
DVDDL3
DVDDL2
DVDDL1
AVDDL1
DVDDH5
DVDDH4
DVDDH3
DVDDH2
AVDDH1
AVDDL_PLL
MDIO
MDC
RX_DV
RX_CLK
RXD0
RXD1
RXD2
RXD3
TX_EN
GTX_CLK
TXD0
TXD1
TXD2
TXD3
ISET
XI
XO
RESET_N
CLK125_NDO
INT_N / PME_N2
LED1 / PME_N1
LED2
NC1
P_GND
VSS
NC
TXRXP_A
TXRXM_A
TXRXP_B
TXRXM_B
TXRXP_C
TXRXM_C
TXRXP_D
TXRXM_D
M1
M2
SHLD1
SHLD2
SHLD3
SHLD4
2,3,4,6,7,8,9,10,12,13,14,15,16,17,18,24,25,26,27

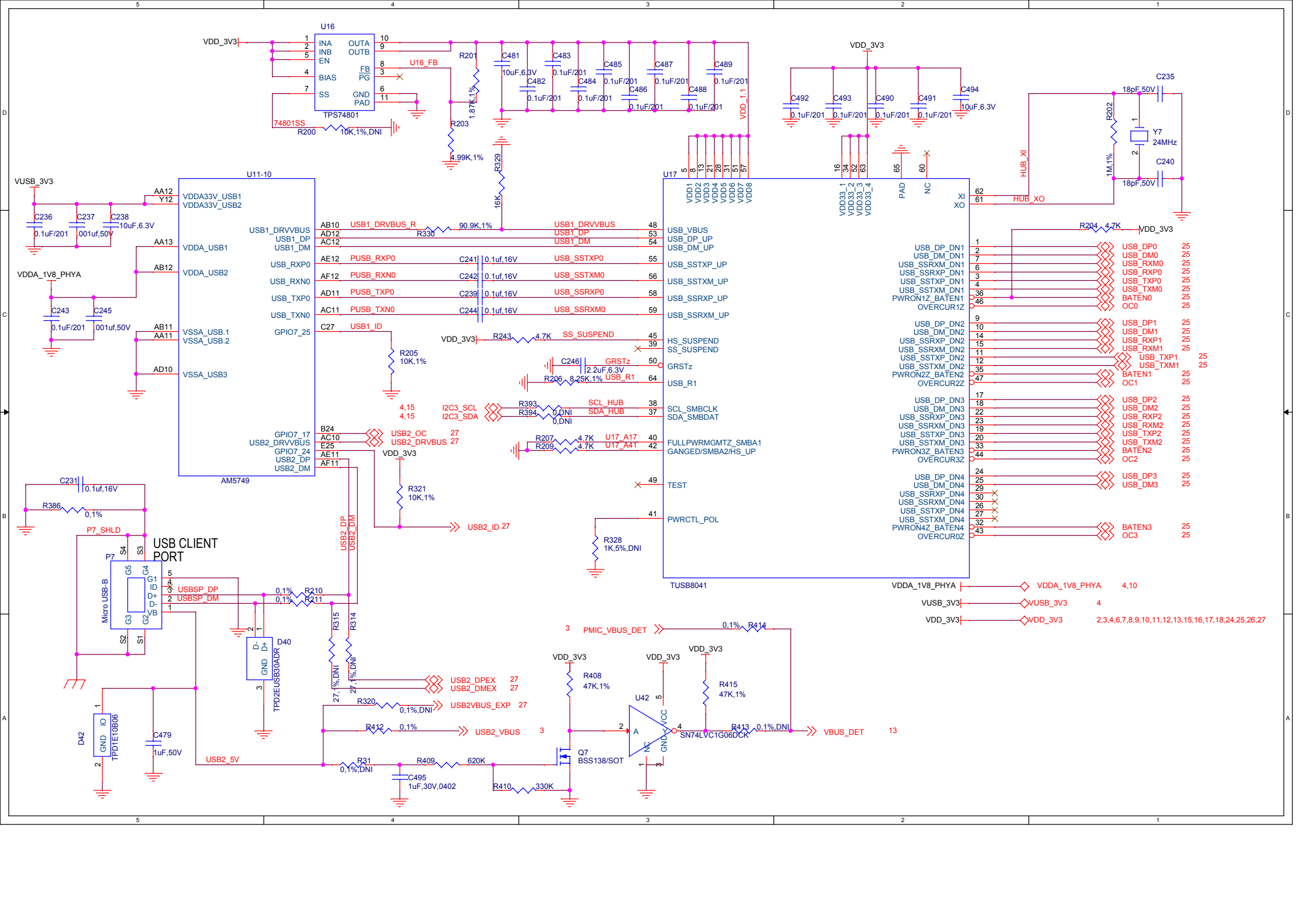

KSZ9031RNX
48-pin QFN
U15
KSZ9031RNX
U11-18
AM5749
Q2
FDT434P
FB5
FB6
FB7
FB8
150OHM800mA
0,1%,0805
ETH1_1.2V
E1_PLL
E1_AVDDL
E1_DVDDL
ETH1_LDO
ETH1_3V3
VDD_3V3
C220
47uF,6.3V,1206
C221
4.7uF,6.3V
C222
0.1uf,16V
C223
10uF,6.3V
C224
0.1uf,16V
C225
0.1uf,16V
C226
10uF,6.3V
C227
10uF,6.3V
C228
0.1uf,16V
C229
47uF,6.3V,1206
R99
1K,5%
R100
1K,5%
R101
R102
R103
R104
100K,1%
MDIO_DATA
MDIO_CLK
MDIO
MDC
RX_DV
RX_CLK
RXD0
RXD1
RXD2
RXD3
TX_EN
GTX_CLK
TXD0
TXD1
TXD2
TXD3
ISET
XI
XO
RESET_N
CLK125_NDO
INT_N / PME_N2
LED1 / PME_N1
LED2
NC1
P_GND
VSS
NC
TXRXP_A
TXRXM_A
TXRXP_B
TXRXM_B
TXRXP_C
TXRXM_C
TXRXP_D
TXRXM_D
P1_TRD[0]P
P1_TRD[0]N
P1_TRD[1]P
P1_TRD[1]N
P1_TRD[2]P
P1_TRD[2]N
P1_TRD[3]P
P1_TRD[3]N
E1_GRN
E1_YEL
R116
R117
1K,5%
EMAC(1)_RXCTL
EMAC(1)_RXC
EMAC(1)_RXD0
EMAC(1)_RXD1
EMAC(1)_RXD2
EMAC(1)_RXD3
EMAC(1)_TXCTL
EMAC(1)_TXC
EMAC(1)_TXD0
EMAC(1)_TXD1
EMAC(1)_TXD2
EMAC(1)_TXD3
R105
R106
R107
R108
R109
R110
R111
R112
R113
R114
R115
R118
22,5%
0,1%
R_EMAC[1]_RXCTL
R_EMAC[1]_RXC
R_EMAC[1]_RXD0
R_EMAC[1]_RXD1
R_EMAC[1]_RXD2
R_EMAC[1]_RXD3
R_EMAC[1]_TXCTL
R_EMAC[1]_TXC
R_EMAC[1]_TXD0
R_EMAC[1]_TXD1
R_EMAC[1]_TXD2
R_EMAC[1]_TXD3
R119
12,1K,1%
E1_ISET
R120
10K,1%
R121
DNI,0402
R122
100K,1%,DNI
C232
18pF,50V
C233
18pF,50V
Y6
25MHz
R123
0,1%
ENET_PORZ
E1_RSTN
C234
10uF,DNI
ENET1_INTn
ETH_RESETn
R317
0,DNI
R390
4.7K
PHYAD
0X02
ETHERNET
PORT 1
VDD_3V3
2,3,4,6,7,8,9,10,11,13,14,15,16,17,18,24,25,26,27

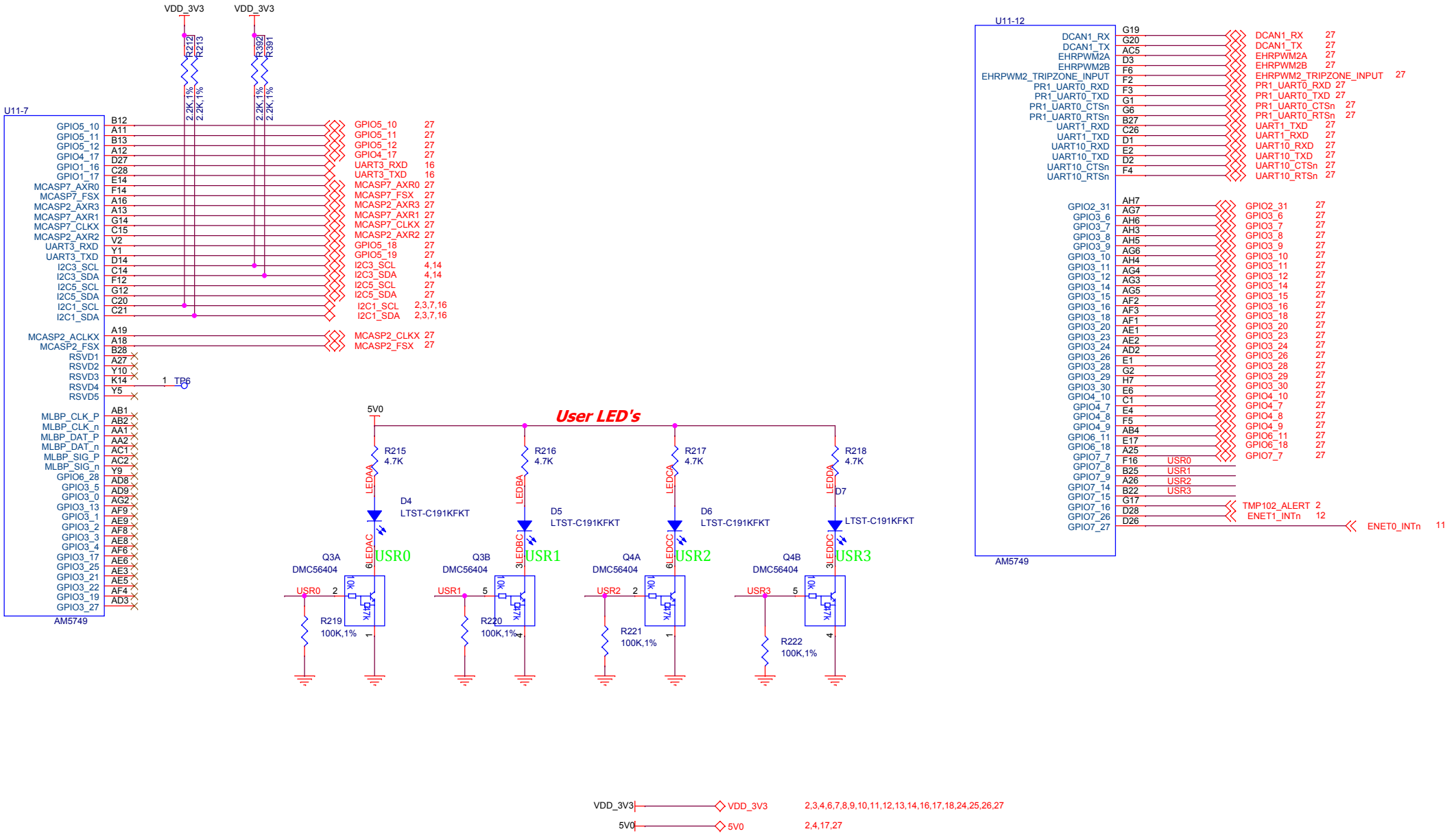


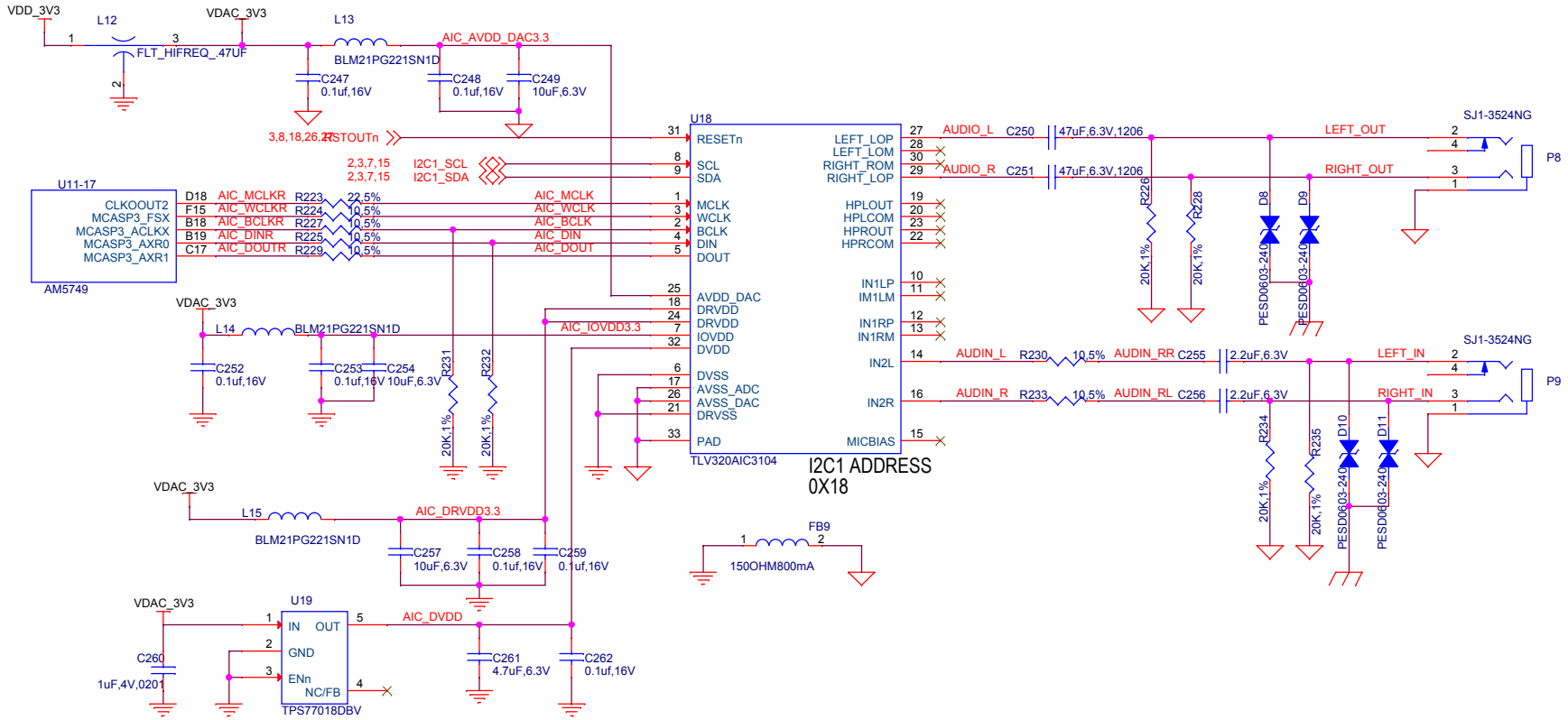
		1-2	2-3
BOOT from SD then eMMC	J3		X
	J4		X
	J6		X
BOOT from UART	J3	X	
	J4	X	
	J6	X	
BOOT from SATA then SD	J3	X	
	J4		X
	J6		X

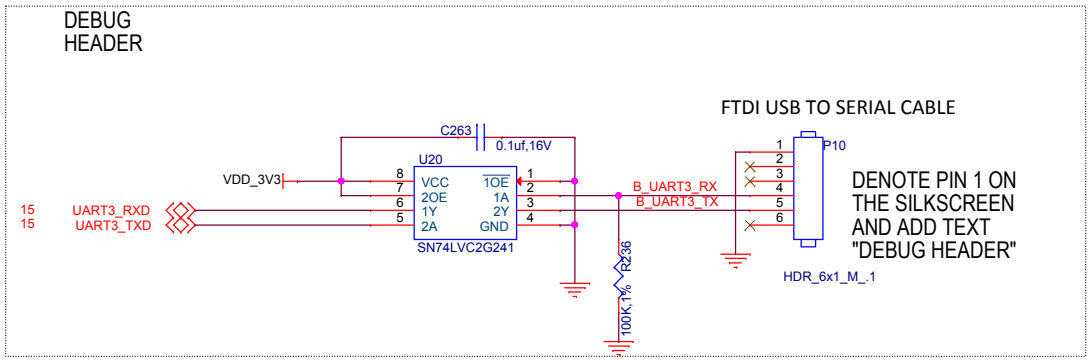




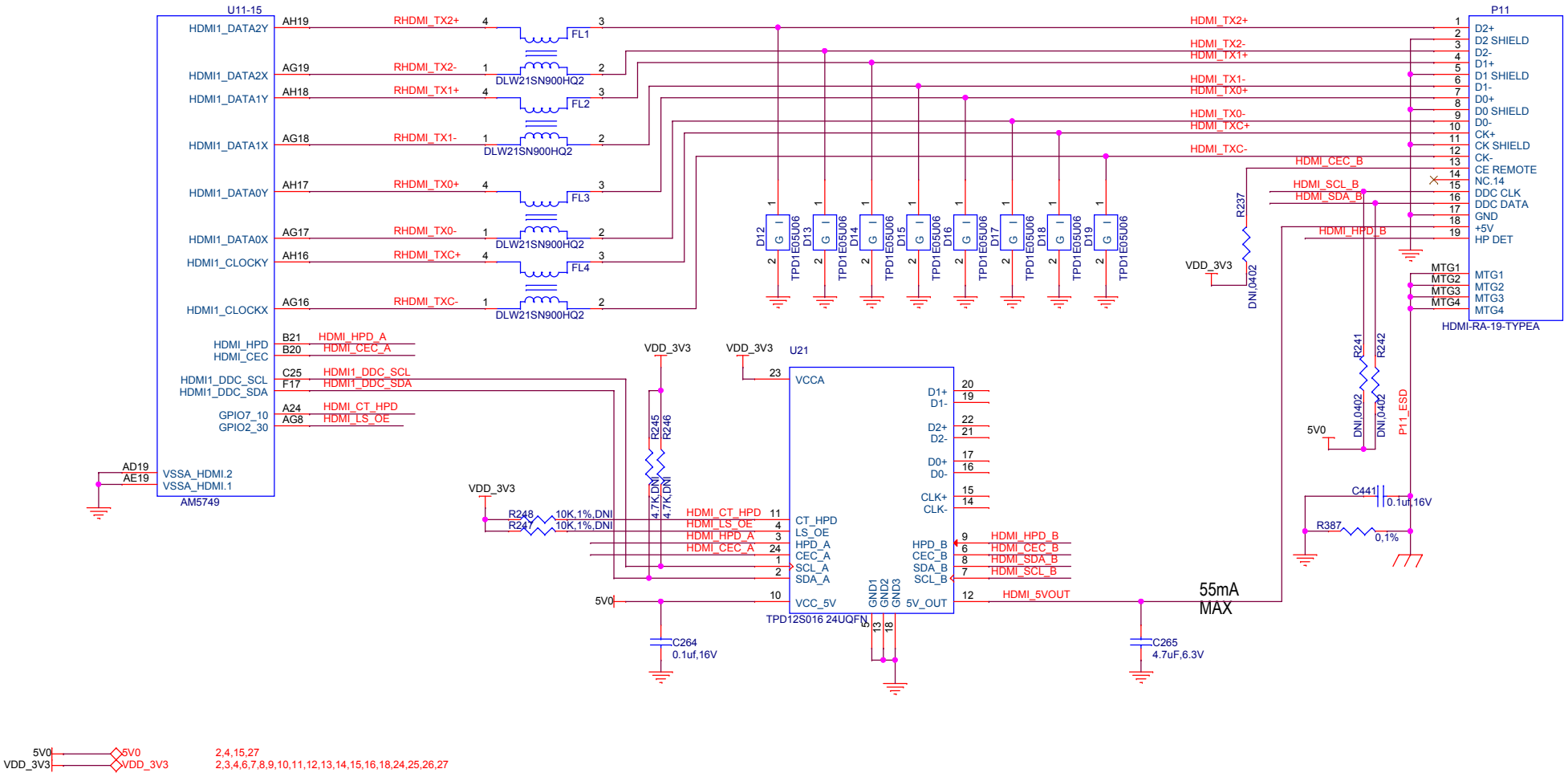

U16
TPS74801
U11-10
AM5749
U17
TUSB8041
USB CLIENT PORT
Micro USB-B
P7
D40
TPD2EUSB30ADR
D42
TPD1E10B06
U42
SN74LVC1G06DCK
Q7
BSS138/SOT
Y7
24MHz
VDD_3V3
VUSB_3V3
VDDA_1V8_PHYA
HUB_XI
HUB_XO
USB_DP0
USB_DM0
USB_RXM0
USB_RXP0
USB_TXP0
USB_TXM0
BATEN0
OC0
USB_DP1
USB_DM1
USB_RXP1
USB_RXM1
USB_TXP1
USB_TXM1
BATEN1
OC1
USB_DP2
USB_DM2
USB_RXP2
USB_RXM2
USB_TXP2
USB_TXM2
BATEN2
OC2
USB_DP3
USB_DM3
BATEN3
OC3
USB2_OC
USB2_DRVBUS
USB2_ID
USB2_DP
USB2_DM
USB2_DPEX
USB2_DMEX
USB2VBUS_EXP
USB2_VBUS
USB2_5V
PMIC_VBUS_DET
VBUS_DET
I2C3_SCL
I2C3_SDA
SCL_HUB
SDA_HUB
USB1_DRVVBUS
USB1_DP
USB1_DM
USB1_ID
SS_SUSPEND
GRSTz
USB_R1
FULLPWRMGMTZ_SMBA1
GANGED/SMBA2/HS_UP
PWRCTL_POL
U16_FB
74801SS
P7_SHLD


VDD_3V3
VDD_3V3
R212
R213
R392
R391
2.2K,1%
U11-7
AM5749
TP6
User LED's
5V0
R215 4.7K
R216 4.7K
R217 4.7K
R218 4.7K
D4 LTST-C191KFKT
D5 LTST-C191KFKT
D6 LTST-C191KFKT
D7 LTST-C191KFKT
USR0
USR1
USR2
USR3
Q3A DMC56404
Q3B DMC56404
Q4A DMC56404
Q4B DMC56404
R219 100K,1%
R220 100K,1%
R221 100K,1%
R222 100K,1%
10K
47K
U11-12
AM5749
VDD_3V3 2,3,4,6,7,8,9,10,11,12,13,14,16,17,18,24,25,26,27
5V0 2,4,17,27



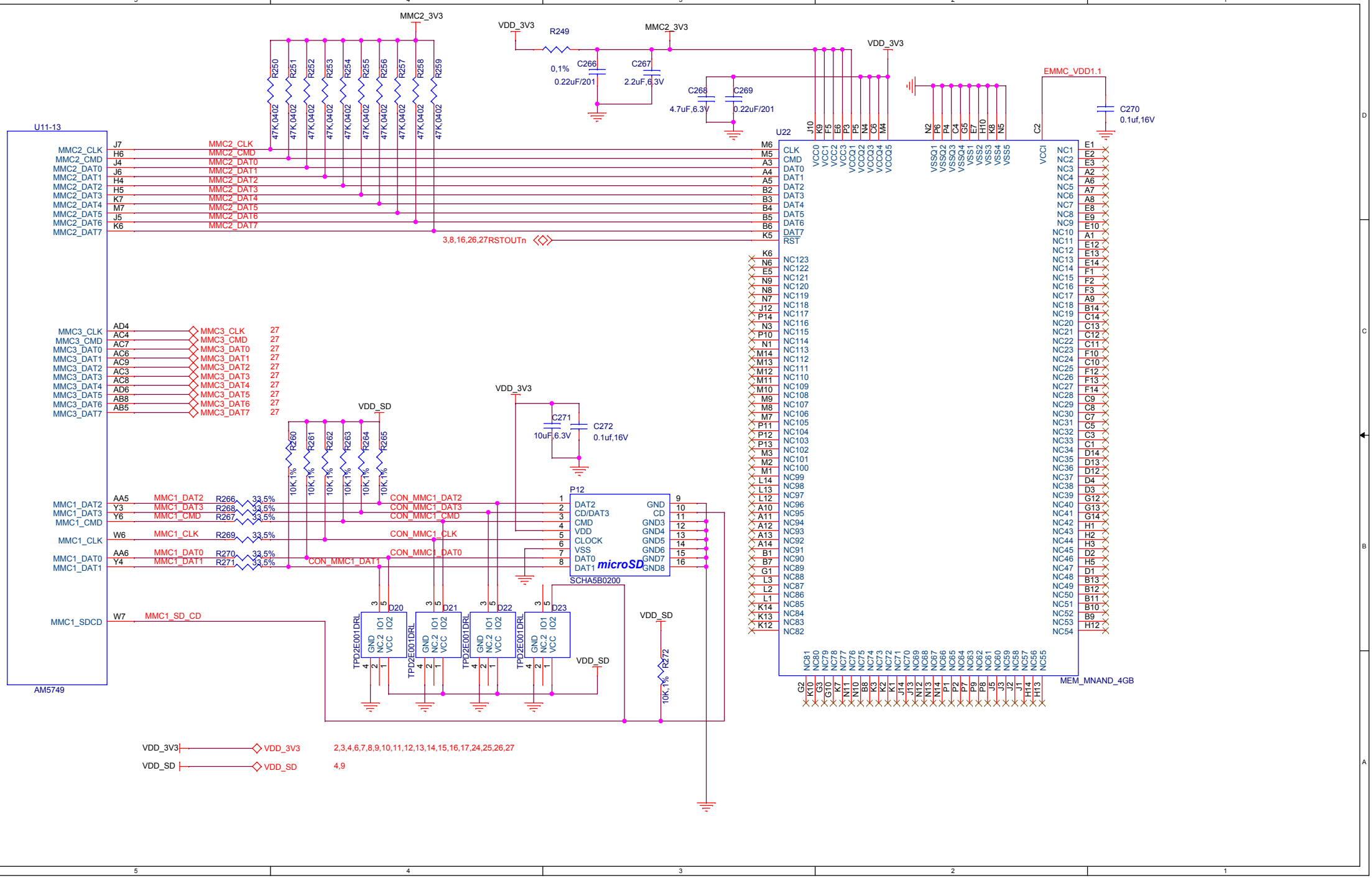


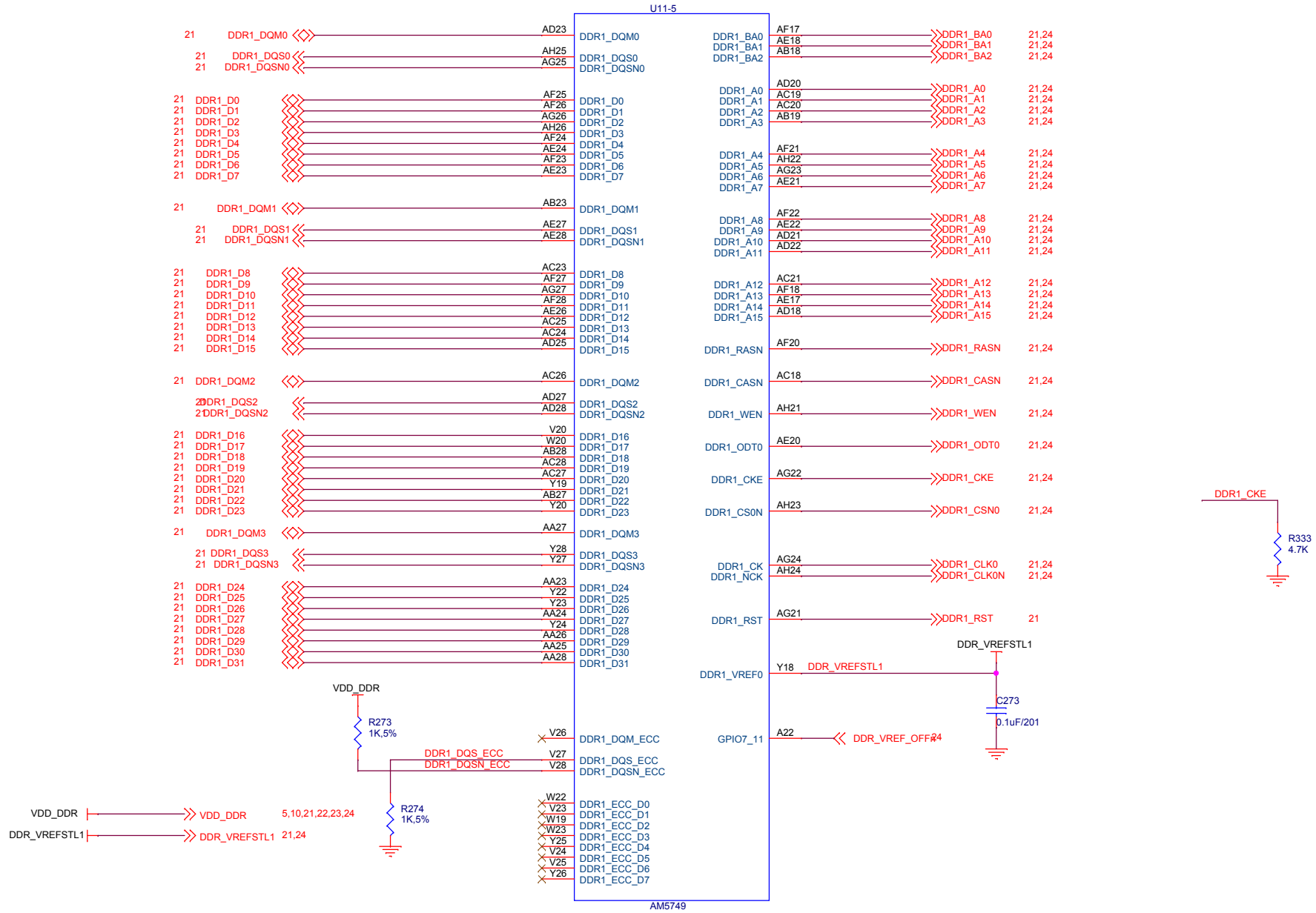
VDD_3V3 — VDD_3V3 — 2,3,4,6,7,8,9,10,11,12,13,14,15,17,18,24,25,26,27

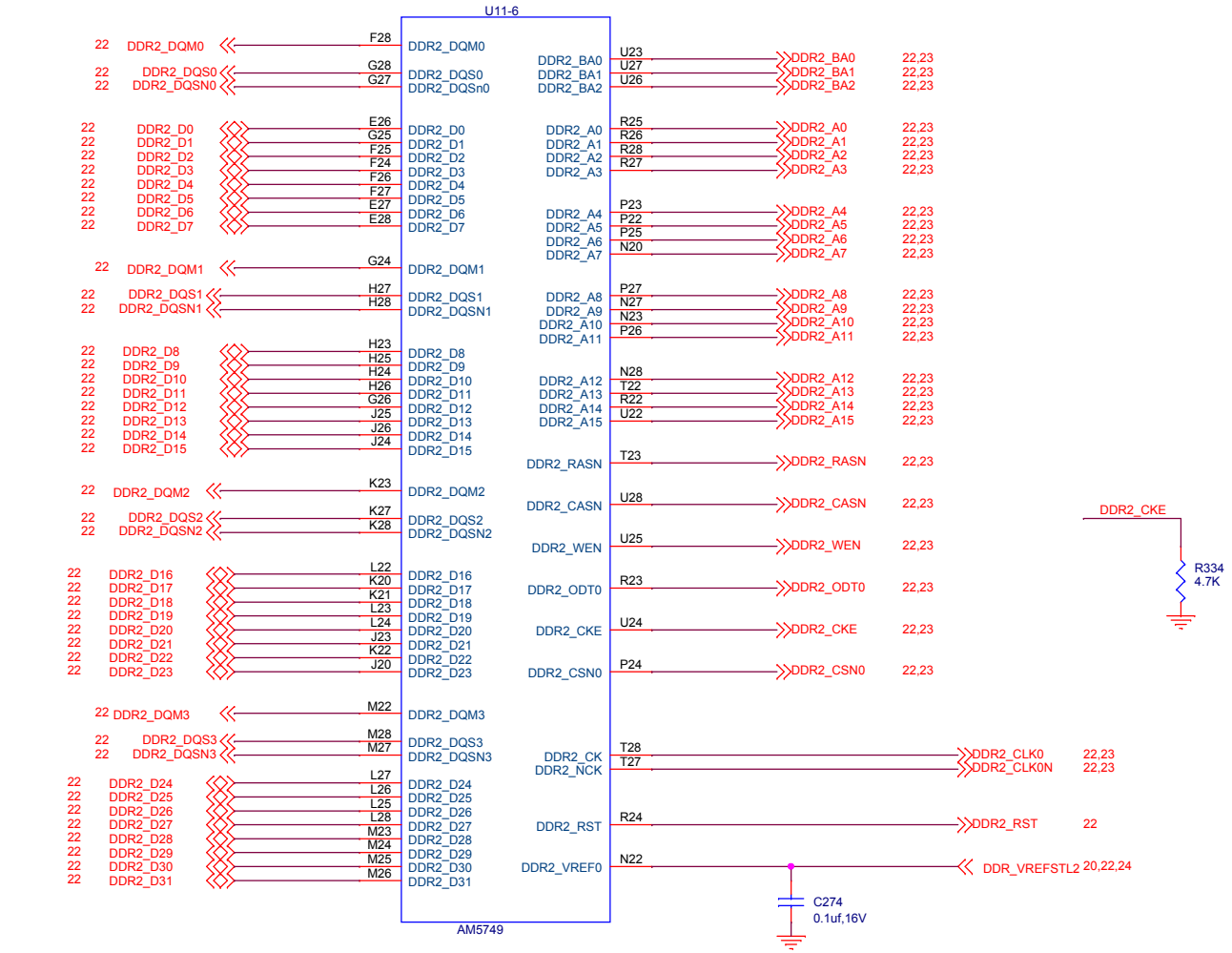


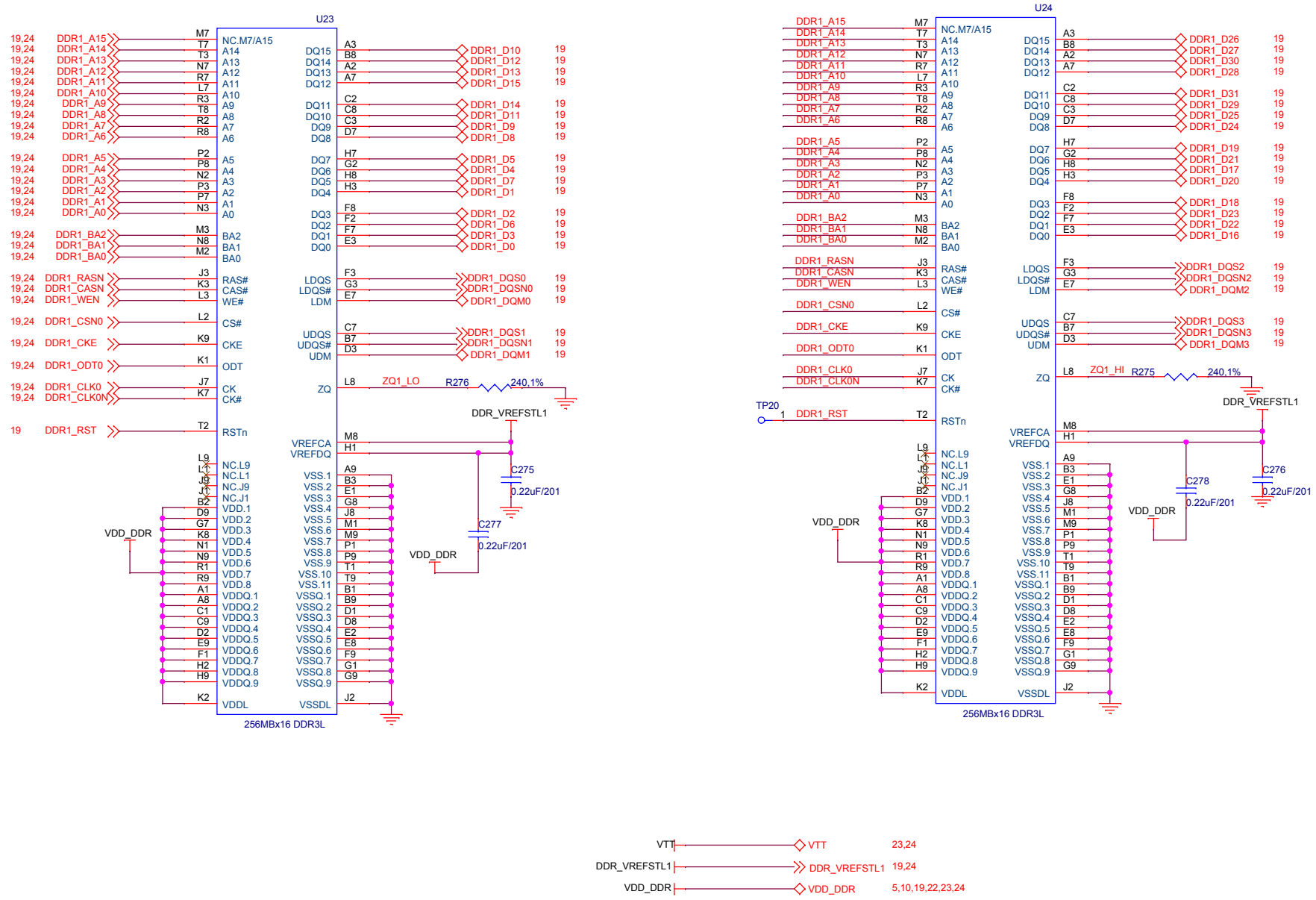
5V0 — 5V0 — 2,4,15,27

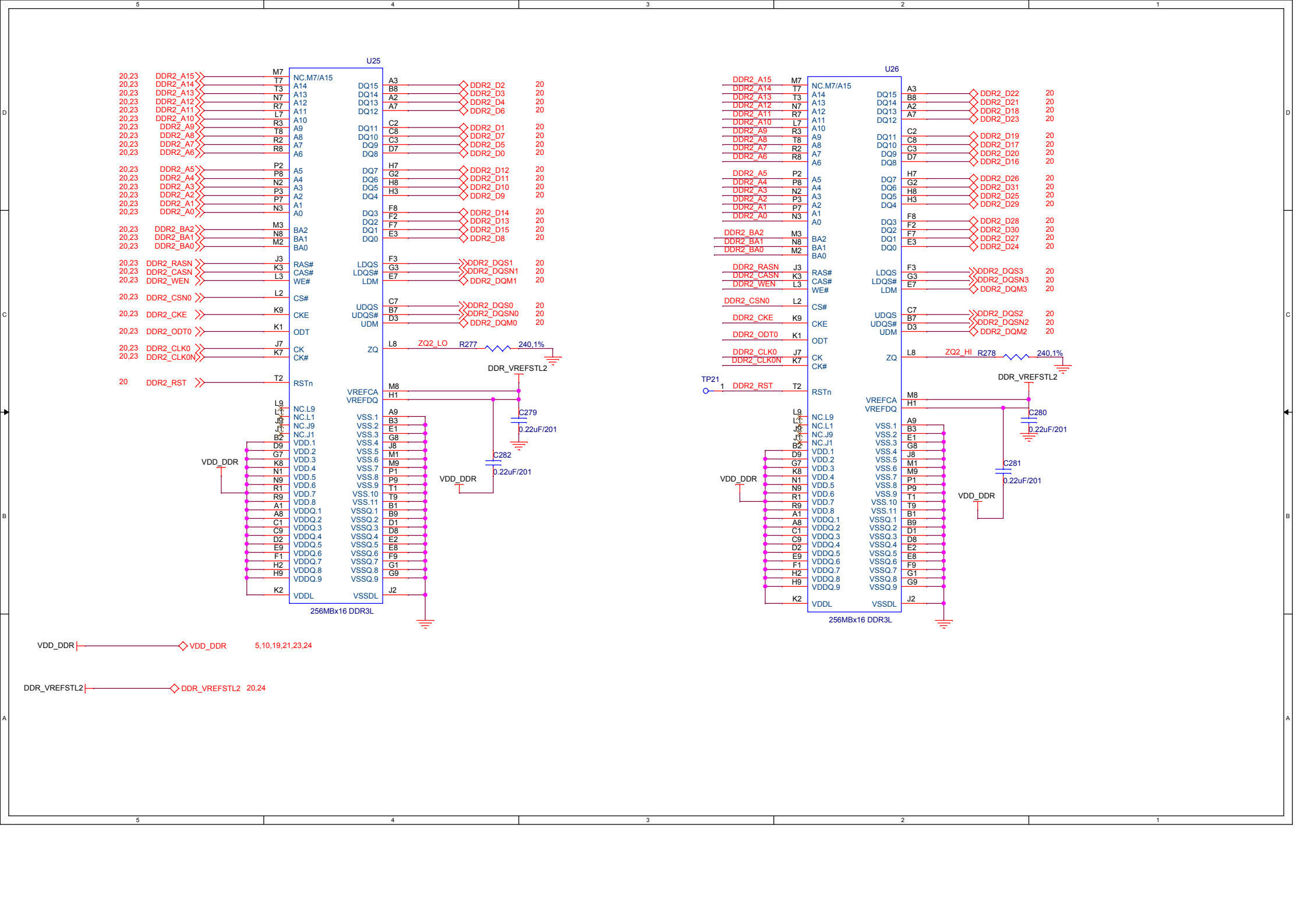
VDD_3V3 — VDD_3V3 — 2,3,4,6,7,8,9,10,11,12,13,14,15,16,18,24,25,26,27

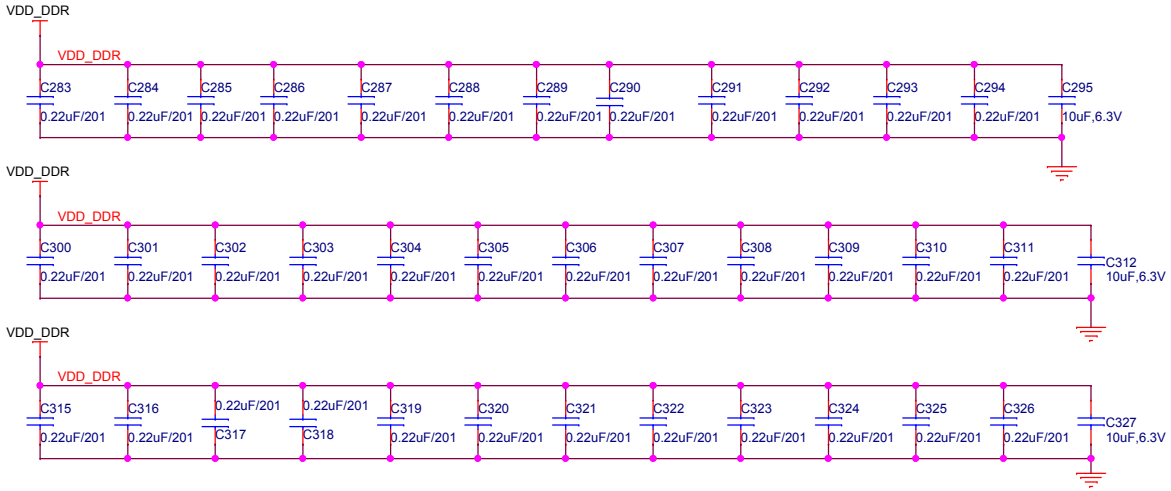

MMC2_3V3
VDD_3V3
R249
0,1%
C266
0.22uF/201
C267
2.2uF,6.3V
C268
4.7uF,6.3V
C269
0.22uF/201
EMMC_VDD1.1
C270
0.1uf,16V
R250
R251
R252
R253
R254
R255
R256
R257
R258
R259
47K,0402
U11-13
AM5749
MMC2_CLK
MMC2_CMD
MMC2_DAT0
MMC2_DAT1
MMC2_DAT2
MMC2_DAT3
MMC2_DAT4
MMC2_DAT5
MMC2_DAT6
MMC2_DAT7
J7
H6
J4
J6
H4
H5
K7
M7
J5
K6
3,8,16,26,27RSTOUTn
U22
CLK
CMD
DAT0
DAT1
DAT2
DAT3
DAT4
DAT5
DAT6
DAT7
RST
MEM_MNAND_4GB
MMC3_CLK
MMC3_CMD
MMC3_DAT0
MMC3_DAT1
MMC3_DAT2
MMC3_DAT3
MMC3_DAT4
MMC3_DAT5
MMC3_DAT6
MMC3_DAT7
27
VDD_SD
R260
R261
R262
R263
R264
R265
10K,1%
C271
10uF,6.3V
C272
0.1uf,16V
P12
SCHA5B0200
microSD
DAT2
CD/DAT3
CMD
VDD
CLOCK
VSS
DAT0
DAT1
GND
CD
GND3
GND4
GND5
GND6
GND7
GND8
MMC1_DAT2
MMC1_DAT3
MMC1_CMD
MMC1_CLK
MMC1_DAT0
MMC1_DAT1
MMC1_SDCD
MMC1_SD_CD
R266
R268
R267
R269
R270
R271
33,5%
CON_MMC1_DAT2
CON_MMC1_DAT3
CON_MMC1_CMD
CON_MMC1_CLK
CON_MMC1_DAT0
CON_MMC1_DAT1
D20
D21
D22
D23
TPD2E001DRL
GND
NC.2
VCC
IO1
IO2
R272
VDD_3V3
2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,24,25,26,27
VDD_SD
4,9

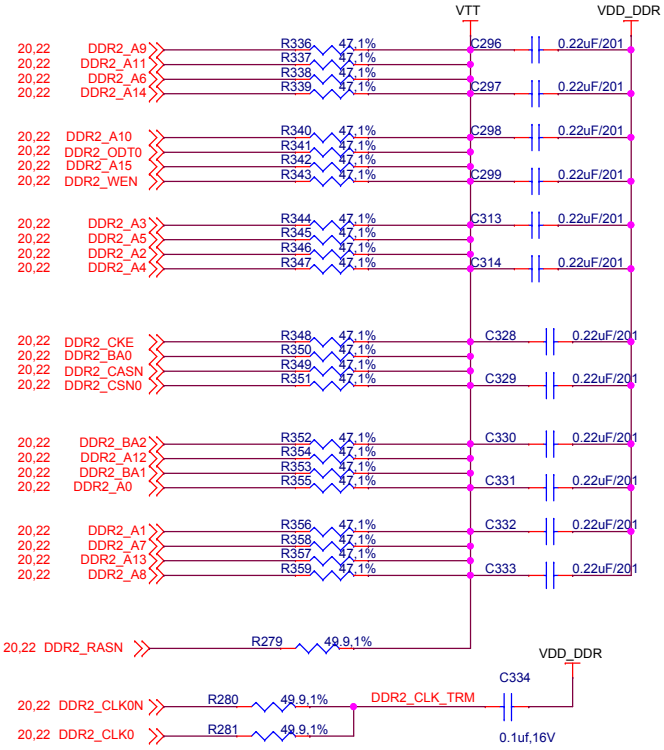

U11-5
DDR1_DQM0
DDR1_DQS0
DDR1_DQSN0
DDR1_D0
DDR1_D1
DDR1_D2
DDR1_D3
DDR1_D4
DDR1_D5
DDR1_D6
DDR1_D7
DDR1_DQM1
DDR1_DQS1
DDR1_DQSN1
DDR1_D8
DDR1_D9
DDR1_D10
DDR1_D11
DDR1_D12
DDR1_D13
DDR1_D14
DDR1_D15
DDR1_DQM2
DDR1_DQS2
DDR1_DQSN2
DDR1_D16
DDR1_D17
DDR1_D18
DDR1_D19
DDR1_D20
DDR1_D21
DDR1_D22
DDR1_D23
DDR1_DQM3
DDR1_DQS3
DDR1_DQSN3
DDR1_D24
DDR1_D25
DDR1_D26
DDR1_D27
DDR1_D28
DDR1_D29
DDR1_D30
DDR1_D31
DDR1_DQM_ECC
DDR1_DQS_ECC
DDR1_DQSN_ECC
DDR1_ECC_D0
DDR1_ECC_D1
DDR1_ECC_D2
DDR1_ECC_D3
DDR1_ECC_D4
DDR1_ECC_D5
DDR1_ECC_D6
DDR1_ECC_D7
AM5749
DDR1_BA0
DDR1_BA1
DDR1_BA2
DDR1_A0
DDR1_A1
DDR1_A2
DDR1_A3
DDR1_A4
DDR1_A5
DDR1_A6
DDR1_A7
DDR1_A8
DDR1_A9
DDR1_A10
DDR1_A11
DDR1_A12
DDR1_A13
DDR1_A14
DDR1_A15
DDR1_RASN
DDR1_CASN
DDR1_WEN
DDR1_ODT0
DDR1_CKE
DDR1_CS0N
DDR1_CK
DDR1_NCK
DDR1_RST
DDR1_VREF0
GPIO7_11
DDR_VREF_OFF
DDR_VREFSTL1
C273
0.1uF/201
VDD_DDR
R273
1K,5%
R274
1K,5%
5,10,21,22,23,24
21,24
R333
4.7K


U11-6
AM5749
22 DDR2_DQM0
22 DDR2_DQS0
22 DDR2_DQSN0
22 DDR2_D0
22 DDR2_D1
22 DDR2_D2
22 DDR2_D3
22 DDR2_D4
22 DDR2_D5
22 DDR2_D6
22 DDR2_D7
22 DDR2_DQM1
22 DDR2_DQS1
22 DDR2_DQSN1
22 DDR2_D8
22 DDR2_D9
22 DDR2_D10
22 DDR2_D11
22 DDR2_D12
22 DDR2_D13
22 DDR2_D14
22 DDR2_D15
22 DDR2_DQM2
22 DDR2_DQS2
22 DDR2_DQSN2
22 DDR2_D16
22 DDR2_D17
22 DDR2_D18
22 DDR2_D19
22 DDR2_D20
22 DDR2_D21
22 DDR2_D22
22 DDR2_D23
22 DDR2_DQM3
22 DDR2_DQS3
22 DDR2_DQSN3
22 DDR2_D24
22 DDR2_D25
22 DDR2_D26
22 DDR2_D27
22 DDR2_D28
22 DDR2_D29
22 DDR2_D30
22 DDR2_D31
DDR2_BA0 DDR2_BA1 DDR2_BA2
DDR2_A0 DDR2_A1 DDR2_A2 DDR2_A3 DDR2_A4 DDR2_A5 DDR2_A6 DDR2_A7 DDR2_A8 DDR2_A9 DDR2_A10 DDR2_A11 DDR2_A12 DDR2_A13 DDR2_A14 DDR2_A15
DDR2_RASN
DDR2_CASN
DDR2_WEN
DDR2_ODT0
DDR2_CKE
DDR2_CSN0
DDR2_CK
DDR2_NCK
DDR2_RST
DDR2_VREF0
DDR2_BA0 22,23
DDR2_BA1 22,23
DDR2_BA2 22,23
DDR2_A0 22,23
DDR2_A1 22,23
DDR2_A2 22,23
DDR2_A3 22,23
DDR2_A4 22,23
DDR2_A5 22,23
DDR2_A6 22,23
DDR2_A7 22,23
DDR2_A8 22,23
DDR2_A9 22,23
DDR2_A10 22,23
DDR2_A11 22,23
DDR2_A12 22,23
DDR2_A13 22,23
DDR2_A14 22,23
DDR2_A15 22,23
DDR2_RASN 22,23
DDR2_CASN 22,23
DDR2_WEN 22,23
DDR2_ODT0 22,23
DDR2_CKE 22,23
DDR2_CSN0 22,23
DDR2_CLK0 22,23
DDR2_CLK0N 22,23
DDR2_RST 22
DDR_VREFSTL2 20,22,24
DDR2_CKE
R334
4.7K
C274
0.1uf,16V
DDR_VREFSTL2
DDR_VREFSTL2 20,22,24

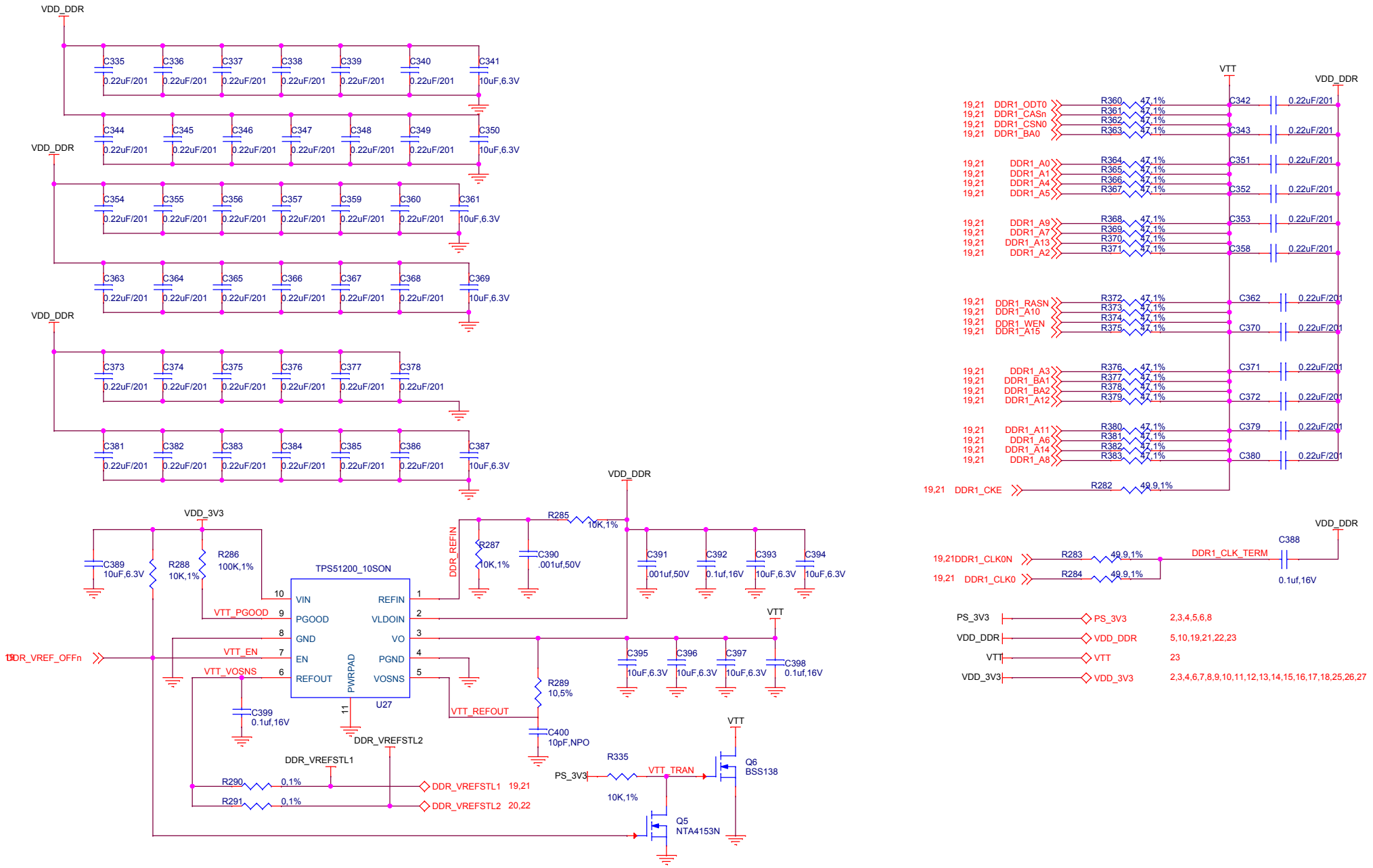

U23
U24
256MBx16 DDR3L
256MBx16 DDR3L
DDR_VREFSTL1
VDD_DDR
ZQ1_LO
ZQ1_HI
R276
R275
240,1%
C275
C276
C277
C278
0.22uF/201
TP20
DDR1_RST
VTT
23,24
DDR_VREFSTL1
19,24
VDD_DDR
5,10,19,22,23,24

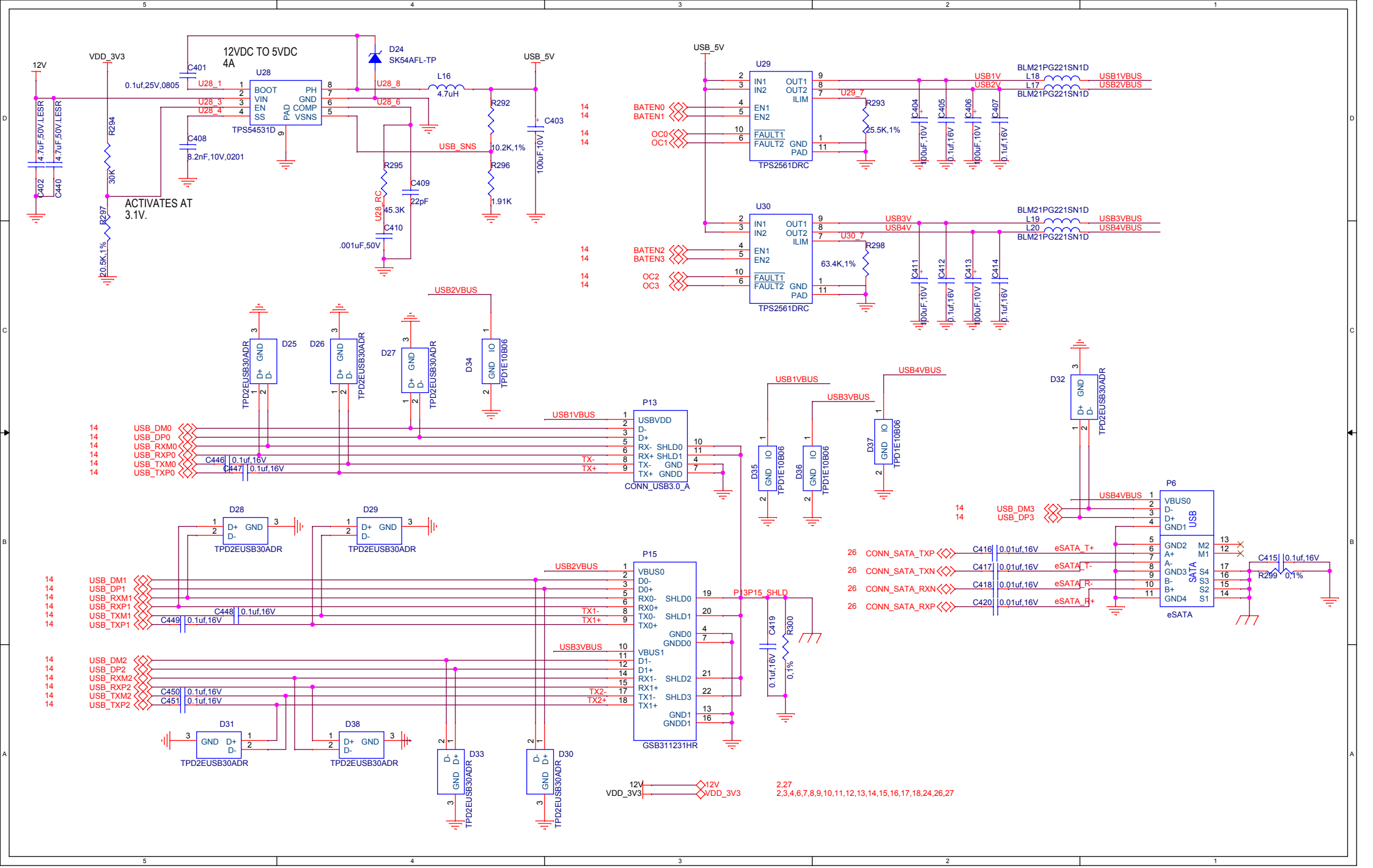

U25
256MBx16 DDR3L
U26
256MBx16 DDR3L
DDR2_A15
DDR2_A14
DDR2_A13
DDR2_A12
DDR2_A11
DDR2_A10
DDR2_A9
DDR2_A8
DDR2_A7
DDR2_A6
DDR2_A5
DDR2_A4
DDR2_A3
DDR2_A2
DDR2_A1
DDR2_A0
DDR2_BA2
DDR2_BA1
DDR2_BA0
DDR2_RASN
DDR2_CASN
DDR2_WEN
DDR2_CSN0
DDR2_CKE
DDR2_ODT0
DDR2_CLK0
DDR2_CLK0N
DDR2_RST
DDR2_D2
DDR2_D3
DDR2_D4
DDR2_D6
DDR2_D1
DDR2_D7
DDR2_D5
DDR2_D0
DDR2_D12
DDR2_D11
DDR2_D10
DDR2_D9
DDR2_D14
DDR2_D13
DDR2_D15
DDR2_D8
DDR2_DQS1
DDR2_DQSN1
DDR2_DQM1
DDR2_DQS0
DDR2_DQSN0
DDR2_DQM0
DDR2_D22
DDR2_D21
DDR2_D18
DDR2_D23
DDR2_D19
DDR2_D17
DDR2_D20
DDR2_D16
DDR2_D26
DDR2_D31
DDR2_D25
DDR2_D29
DDR2_D28
DDR2_D30
DDR2_D27
DDR2_D24
DDR2_DQS3
DDR2_DQSN3
DDR2_DQM3
DDR2_DQS2
DDR2_DQSN2
DDR2_DQM2
ZQ2_LO
ZQ2_HI
R277
R278
240,1%
DDR_VREFSTL2
VDD_DDR
C279
C280
C281
C282
0.22uF/201
TP21
VDD_DDR 5,10,19,21,23,24
DDR_VREFSTL2 20,24



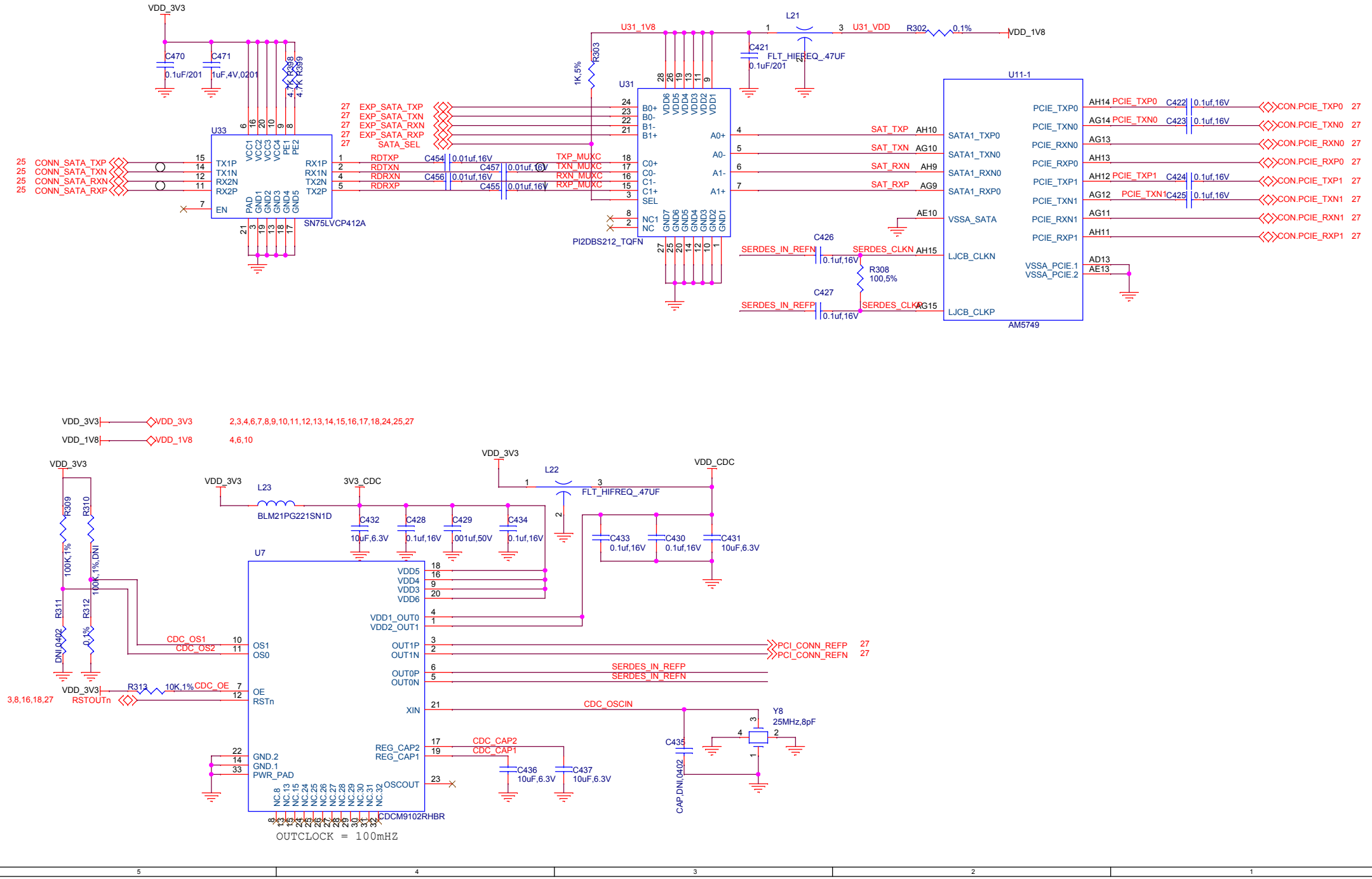


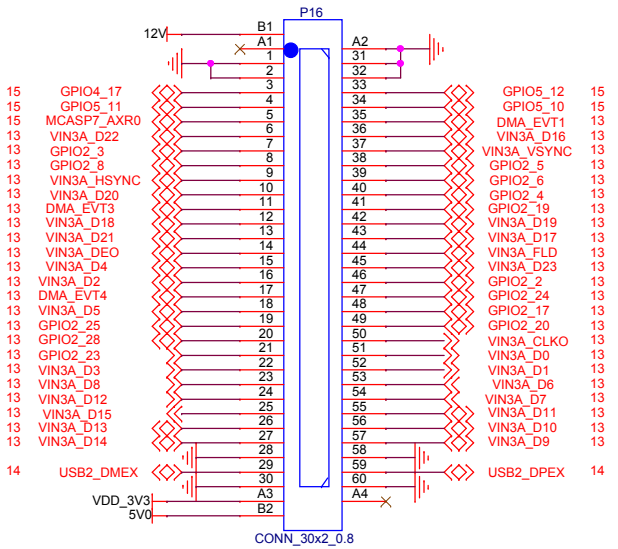
VDD_DDR	VDD_DDR	5,10,19,21,22,24
VTT	VTT	24

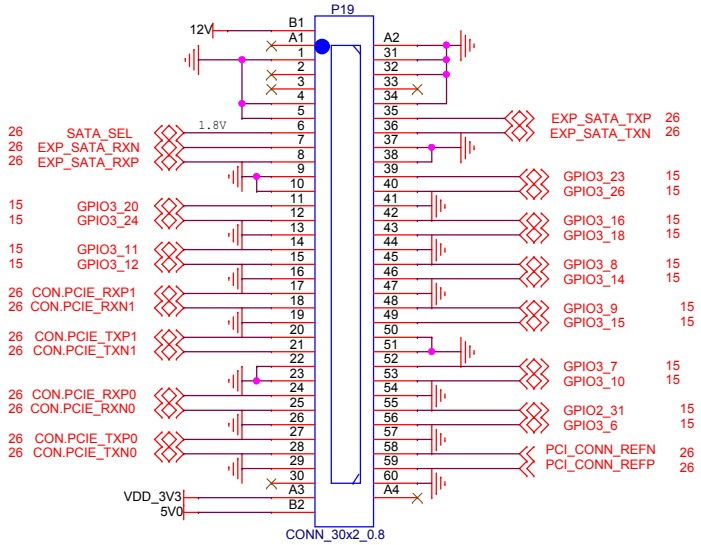

VDD_DDR
C335 0.22uF/201
C336 0.22uF/201
C337 0.22uF/201
C338 0.22uF/201
C339 0.22uF/201
C340 0.22uF/201
C341 10uF,6.3V
C344 0.22uF/201
C345 0.22uF/201
C346 0.22uF/201
C347 0.22uF/201
C348 0.22uF/201
C349 0.22uF/201
C350 10uF,6.3V
C354 0.22uF/201
C355 0.22uF/201
C356 0.22uF/201
C357 0.22uF/201
C359 0.22uF/201
C360 0.22uF/201
C361 10uF,6.3V
C363 0.22uF/201
C364 0.22uF/201
C365 0.22uF/201
C366 0.22uF/201
C367 0.22uF/201
C368 0.22uF/201
C369 10uF,6.3V
C373 0.22uF/201
C374 0.22uF/201
C375 0.22uF/201
C376 0.22uF/201
C377 0.22uF/201
C378 0.22uF/201
C381 0.22uF/201
C382 0.22uF/201
C383 0.22uF/201
C384 0.22uF/201
C385 0.22uF/201
C386 0.22uF/201
C387 10uF,6.3V
VTT
19,21 DDR1_ODT0
19,21 DDR1_CASn
19,21 DDR1_CSN0
19,21 DDR1_BA0
R360 47,1%
R361 47,1%
R362 47,1%
R363 47,1%
C342 0.22uF/201
C343 0.22uF/201
19,21 DDR1_A0
19,21 DDR1_A1
19,21 DDR1_A4
19,21 DDR1_A5
R364 47,1%
R365 47,1%
R366 47,1%
R367 47,1%
C351 0.22uF/201
C352 0.22uF/201
19,21 DDR1_A9
19,21 DDR1_A7
19,21 DDR1_A13
19,21 DDR1_A2
R368 47,1%
R369 47,1%
R370 47,1%
R371 47,1%
C353 0.22uF/201
C358 0.22uF/201
19,21 DDR1_RASN
19,21 DDR1_A10
19,21 DDR1_WEN
19,21 DDR1_A15
R372 47,1%
R373 47,1%
R374 47,1%
R375 47,1%
C362 0.22uF/201
C370 0.22uF/201
19,21 DDR1_A3
19,21 DDR1_BA1
19,21 DDR1_BA2
19,21 DDR1_A12
R376 47,1%
R377 47,1%
R378 47,1%
R379 47,1%
C371 0.22uF/201
C372 0.22uF/201
19,21 DDR1_A11
19,21 DDR1_A6
19,21 DDR1_A14
19,21 DDR1_A8
R380 47,1%
R381 47,1%
R382 47,1%
R383 47,1%
C379 0.22uF/201
C380 0.22uF/201
19,21 DDR1_CKE
R282 49,9,1%
VDD_3V3
C389 10uF,6.3V
R288 10K,1%
R286 100K,1%
TPS51200_10SON
10 VIN
9 PGOOD
8 GND
7 EN
6 REFOUT
PWRPAD
11
U27
1 REFIN
2 VLDOIN
3 VO
4 PGND
5 VOSNS
VTT_PGOOD
VTT_EN
VTT_VOSNS
19DDR_VREF_OFFn
DDR_REFIN
R287 10K,1%
C390 .001uf,50V
R285 10K,1%
C391 .001uf,50V
C392 0.1uf,16V
C393 10uF,6.3V
C394 10uF,6.3V
C395 10uF,6.3V
C396 10uF,6.3V
C397 10uF,6.3V
C398 0.1uf,16V
R289 10,5%
C399 0.1uf,16V
C400 10pF,NPO
VTT_REFOUT
DDR_VREFSTL1
DDR_VREFSTL2
R290 0,1%
R291 0,1%
DDR_VREFSTL1 19,21
DDR_VREFSTL2 20,22
R335
PS_3V3
VTT_TRAN
10K,1%
Q6 BSS138
Q5 NTA4153N
19,21DDR1_CLK0N
19,21 DDR1_CLK0
R283 49,9,1%
R284 49,9,1%
DDR1_CLK_TERM
C388 0.1uf,16V
PS_3V3 PS_3V3 2,3,4,5,6,8
VDD_DDR VDD_DDR 5,10,19,21,22,23
VTT VTT 23
VDD_3V3 VDD_3V3 2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,25,26,27

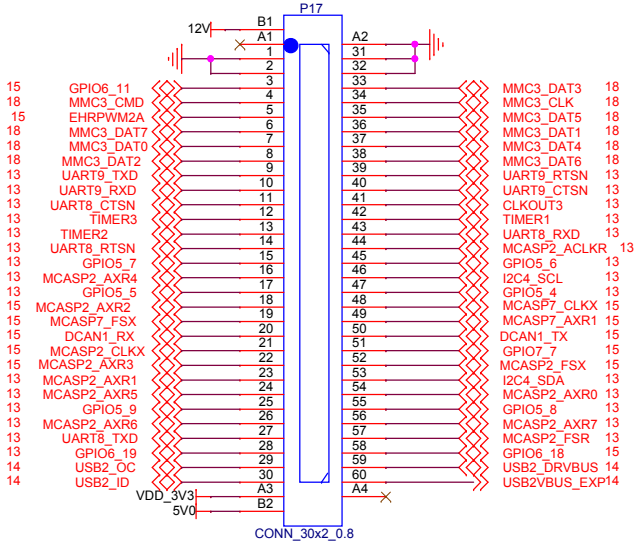


Preliminary Information - Subject to change

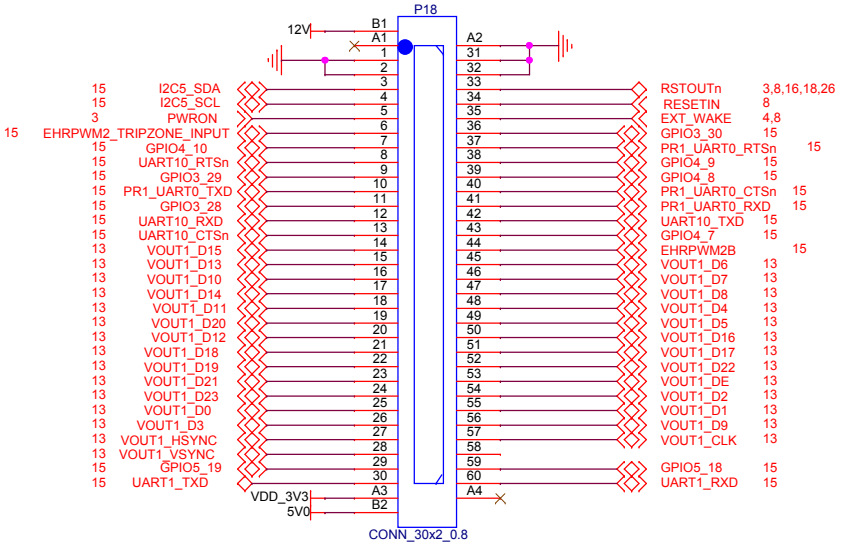

VDD_3V3
C470
0.1uF/201
C471
1uF,4V,0201
R306
R307
R399
4.7K
4.7K
U33
VCC1
VCC2
VCC3
VCC4
PE1
PE2
TX1P
TX1N
RX2N
RX2P
EN
RX1P
RX1N
TX2N
TX2P
PAD
GND1
GND2
GND3
GND4
GND5
SN75LVCP412A
CONN_SATA_TXP
CONN_SATA_TXN
CONN_SATA_RXN
CONN_SATA_RXP
EXP_SATA_TXP
EXP_SATA_TXN
EXP_SATA_RXN
EXP_SATA_RXP
SATA_SEL
RDTXP
RDTXN
RDRXN
RDRXP
C454
C456
C457
C455
0.01uf,16V
TXP_MUXC
TXN_MUXC
RXN_MUXC
RXP_MUXC
U31_1V8
R303
1K,5%
U31
B0+
B0-
B1-
B1+
C0+
C0-
C1-
C1+
SEL
NC1
NC
A0+
A0-
A1-
A1+
VDD6
VDD5
VDD4
VDD3
VDD2
VDD1
GND7
GND6
GND5
GND4
GND3
GND2
GND1
PI2DBS212_TQFN
L21
FLT_HIFREQ_.47UF
C421
0.1uF/201
U31_VDD
R302
0,1%
VDD_1V8
U11-1
SATA1_TXP0
SATA1_TXN0
SATA1_RXN0
SATA1_RXP0
VSSA_SATA
LJCB_CLKN
LJCB_CLKP
PCIE_TXP0
PCIE_TXN0
PCIE_RXN0
PCIE_RXP0
PCIE_TXP1
PCIE_TXN1
PCIE_RXN1
PCIE_RXP1
VSSA_PCIE.1
VSSA_PCIE.2
AM5749
SAT_TXP
SAT_TXN
SAT_RXN
SAT_RXP
AH10
AG10
AH9
AG9
AE10
AH15
AG15
C426
C427
R308
100,5%
SERDES_IN_REFN
SERDES_IN_REFP
SERDES_CLKN
SERDES_CLKP
AH14
AG14
AG13
AH13
AH12
AG12
AG11
AH11
AD13
AE13
C422
C423
C424
C425
CON.PCIE_TXP0
CON.PCIE_TXN0
CON.PCIE_RXN0
CON.PCIE_RXP0
CON.PCIE_TXP1
CON.PCIE_TXN1
CON.PCIE_RXN1
CON.PCIE_RXP1
VDD_3V3
VDD_1V8
2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,24,25,27
4,6,10
VDD_CDC
L22
FLT_HIFREQ_.47UF
L23
BLM21PG221SN1D
3V3_CDC
C432
10uF,6.3V
C428
0.1uf,16V
C429
.001uf,50V
C434
0.1uf,16V
C433
0.1uf,16V
C430
0.1uf,16V
C431
10uF,6.3V
R309
100K,1%
R310
100K,1%,DNI
R311
DNI,0402
R312
0,1%
R313
10K,1%
CDC_OE
RSTOUTn
3,8,16,18,27
U7
OS1
OS0
OE
RSTn
VDD5
VDD4
VDD3
VDD6
VDD1_OUT0
VDD2_OUT1
OUT1P
OUT1N
OUT0P
OUT0N
XIN
REG_CAP2
REG_CAP1
OSCOUT
GND.2
GND.1
PWR_PAD
CDC_OS1
CDC_OS2
PCI_CONN_REFP
PCI_CONN_REFN
SERDES_IN_REFP
SERDES_IN_REFN
CDC_OSCIN
CDC_CAP2
CDC_CAP1
C436
10uF,6.3V
C437
10uF,6.3V
C435
CAP,DNI,0402
Y8
25MHz,8pF
CDCM9102RHBR
OUTCLOCK = 100mHZ


P16
CONN_30x2_0.8
12V
VDD_3V3
5V0
15 GPIO4_17
15 GPIO5_11
15 MCASP7_AXR0
13 VIN3A_D22
13 GPIO2_3
13 GPIO2_8
13 VIN3A_HSYNC
13 VIN3A_D20
13 DMA_EVT3
13 VIN3A_D18
13 VIN3A_D21
13 VIN3A_DEO
13 VIN3A_D4
13 VIN3A_D2
13 DMA_EVT4
13 VIN3A_D5
13 GPIO2_25
13 GPIO2_28
13 GPIO2_23
13 VIN3A_D3
13 VIN3A_D8
13 VIN3A_D12
13 VIN3A_D15
13 VIN3A_D13
13 VIN3A_D14
14 USB2_DMEX
GPIO5_12 15
GPIO5_10 15
DMA_EVT1 13
VIN3A_D16 13
VIN3A_VSYNC 13
GPIO2_5 13
GPIO2_6 13
GPIO2_4 13
GPIO2_19 13
VIN3A_D19 13
VIN3A_D17 13
VIN3A_FLD 13
VIN3A_D23 13
GPIO2_2 13
GPIO2_24 13
GPIO2_17 13
GPIO2_20 13
VIN3A_CLKO 13
VIN3A_D0 13
VIN3A_D1 13
VIN3A_D6 13
VIN3A_D7 13
VIN3A_D11 13
VIN3A_D10 13
VIN3A_D9 13
USB2_DPEX 14


P19
CONN_30x2_0.8
12V
1.8V
VDD_3V3
5V0
26 SATA_SEL
26 EXP_SATA_RXN
26 EXP_SATA_RXP
15 GPIO3_20
15 GPIO3_24
15 GPIO3_11
15 GPIO3_12
26 CON.PCIE_RXP1
26 CON.PCIE_RXN1
26 CON.PCIE_TXP1
26 CON.PCIE_TXN1
26 CON.PCIE_RXP0
26 CON.PCIE_RXN0
26 CON.PCIE_TXP0
26 CON.PCIE_TXN0
EXP_SATA_TXP 26
EXP_SATA_TXN 26
GPIO3_23 15
GPIO3_26 15
GPIO3_16 15
GPIO3_18 15
GPIO3_8 15
GPIO3_14 15
GPIO3_9 15
GPIO3_15 15
GPIO3_7 15
GPIO3_10 15
GPIO2_31 15
GPIO2_6 15
PCI_CONN_REFN 26
PCI_CONN_REFP 26


P17
CONN_30x2_0.8
12V
VDD_3V3
5V0
15 GPIO6_11
18 MMC3_CMD
15 EHRPWM2A
18 MMC3_DAT7
18 MMC3_DAT0
18 MMC3_DAT2
13 UART9_TXD
13 UART9_RXD
13 UART8_CTSN
13 TIMER3
13 TIMER2
13 UART8_RTSN
13 GPIO5_7
13 MCASP2_AXR4
13 GPIO5_5
15 MCASP2_AXR2
15 MCASP7_FSX
15 DCAN1_RX
15 MCASP2_CLKX
15 MCASP2_AXR3
13 MCASP2_AXR1
13 MCASP2_AXR5
13 GPIO5_9
13 MCASP2_AXR6
13 UART8_TXD
13 GPIO6_19
14 USB2_OC
14 USB2_ID
MMC3_DAT3 18
MMC3_CLK 18
MMC3_DAT5 18
MMC3_DAT1 18
MMC3_DAT4 18
MMC3_DAT6 18
UART9_RTSN 13
UART9_CTSN 13
CLKOUT3 13
TIMER1 13
UART8_RXD 13
MCASP2_ACLKR 13
GPIO5_6 13
I2C4_SCL 13
GPIO5_4 13
MCASP7_CLKX 15
MCASP7_AXR1 15
DCAN1_TX 15
GPIO7_7 15
MCASP2_FSX 15
I2C4_SDA 13
MCASP2_AXR0 13
GPIO5_8 13
MCASP2_AXR7 13
MCASP2_FSR 13
GPIO6_18 15
USB2_DRVBUS 14
USB2VBUS_EXP 14


12V
5V0
VDD_3V3
12V 2,25
5V0 2,4,15,17
VDD_3V3 2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,24,25,26


P18
CONN_30x2_0.8
12V
VDD_3V3
5V0
15 I2C5_SDA
15 I2C5_SCL
3 PWRON
15 EHRPWM2_TRIPZONE_INPUT
15 GPIO4_10
15 UART10_RTSn
15 GPIO3_29
15 PR1_UART0_TXD
15 GPIO3_28
15 UART10_RXD
15 UART10_CTSn
13 VOUT1_D15
13 VOUT1_D13
13 VOUT1_D10
13 VOUT1_D14
13 VOUT1_D11
13 VOUT1_D20
13 VOUT1_D12
13 VOUT1_D18
13 VOUT1_D19
13 VOUT1_D21
13 VOUT1_D23
13 VOUT1_D0
13 VOUT1_D3
13 VOUT1_HSYNC
13 VOUT1_VSYNC
15 GPIO5_19
15 UART1_TXD
RSTOUTn 3,8,16,18,26
RESETIN 8
EXT_WAKE 4,8
GPIO3_30 15
PR1_UART0_RTSn 15
GPIO4_9 15
GPIO4_8 15
PR1_UART0_CTSn 15
PR1_UART0_RXD 15
UART10_TXD 15
GPIO4_7 15
EHRPWM2B 15
VOUT1_D6 13
VOUT1_D7 13
VOUT1_D8 13
VOUT1_D4 13
VOUT1_D5 13
VOUT1_D16 13
VOUT1_D17 13
VOUT1_D22 13
VOUT1_DE 13
VOUT1_D2 13
VOUT1_D1 13
VOUT1_D9 13
VOUT1_CLK 13
GPIO5_18 15
UART1_RXD 15