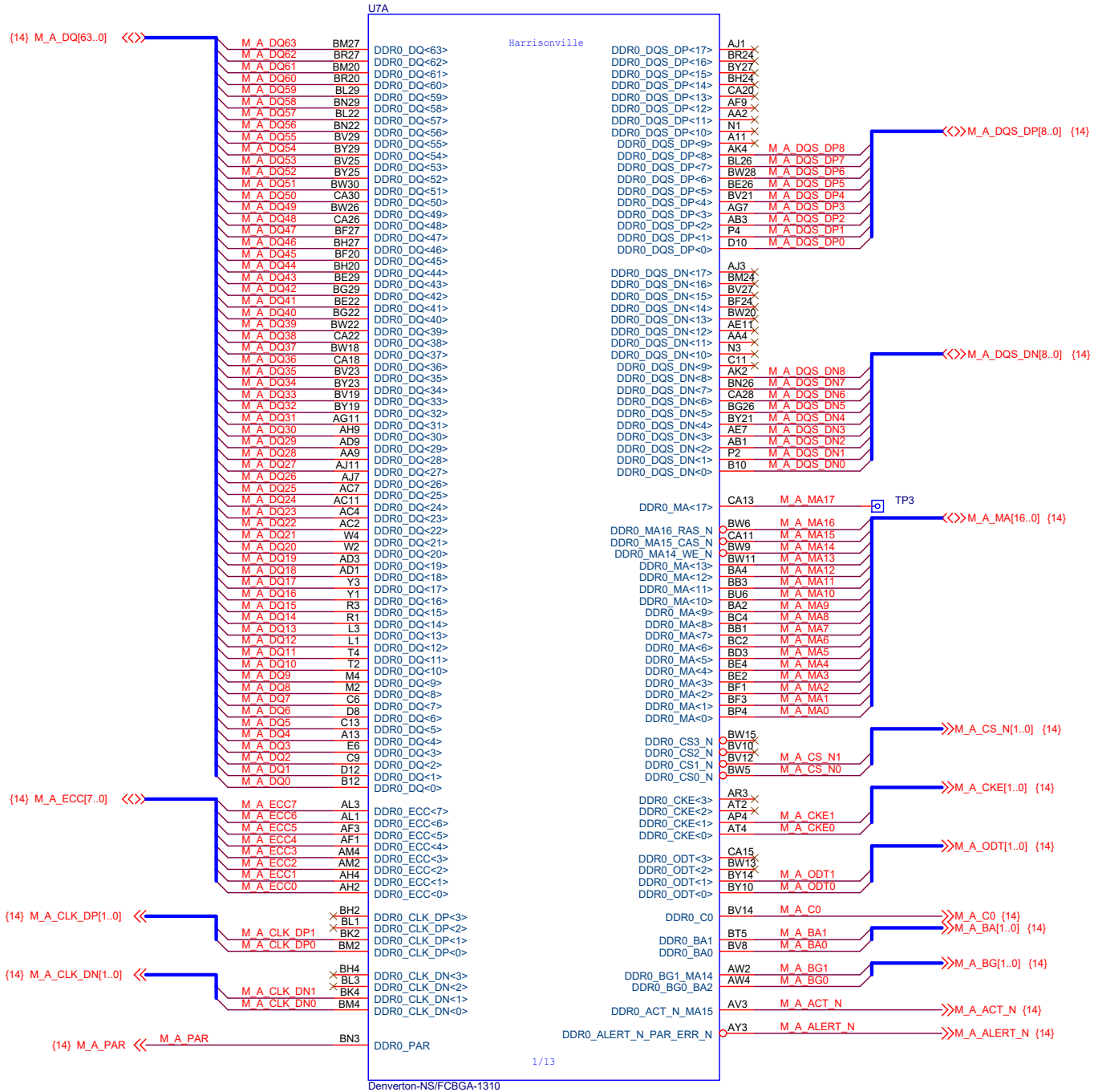
REV	DESCRIPTION	ISSUE DATE

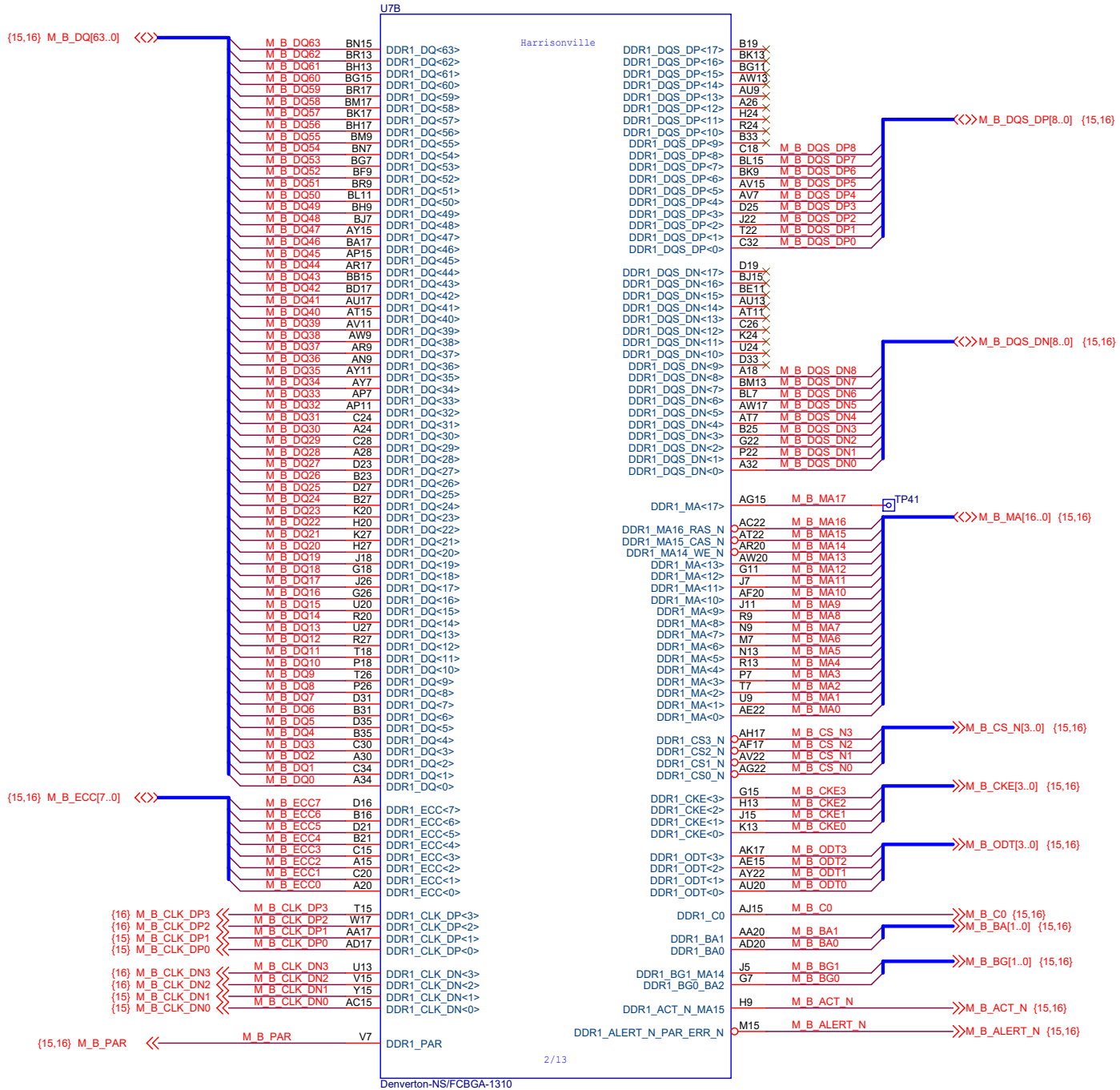
COMe CPU CARD --DENVERTON-NS C3000 PLATFORM

P01_Cover Sheet
P02_Block Diagram
P03_Power Sequence
P04_DNV-DDR4 A
P05_DNV-DDR4 B
P06_DNV-USB, GPIO, RSVD
P07_DNV-HSIO
P08_DNV-LAN KR
P09_DNV-SPI, NCSI, SVID, LAN
P10_DNV-DFX,SMB,PM,eMMC
P11_DNV-Power 1
P12_DNV-Power 2
P13_DNV-Power 3
P14_DDR4 SO-DIMM 0
P15_DDR4 SO-DIMM 1
P16_DDR4 SO-DIMM 2
P17_PI7C9X2G404 P1
P18_PI7C9X2G404 P2
P19_PI7C9X2G404 P3
P20_Intel LAN i210
P21_XDP
P22_eMMC
P23_SMB Termination, Levelshift
P24_IT5121 EC
P25_COM Express XII Row AB
P26_COM Express XII Row CD
P27_VR13 VCC
P28_VR13 VNN
P29_VR13 VCCRAM
P30_VDDQ, VPP, VTT
P31_+V5_A, +V3P3A
P32_VCCREF, +V1P05A
P33_+V1P8A
P34_Sequence
P35_Discharge circuit
P36_Power Distribution
P37_History, EC Sequence
P38_TPM

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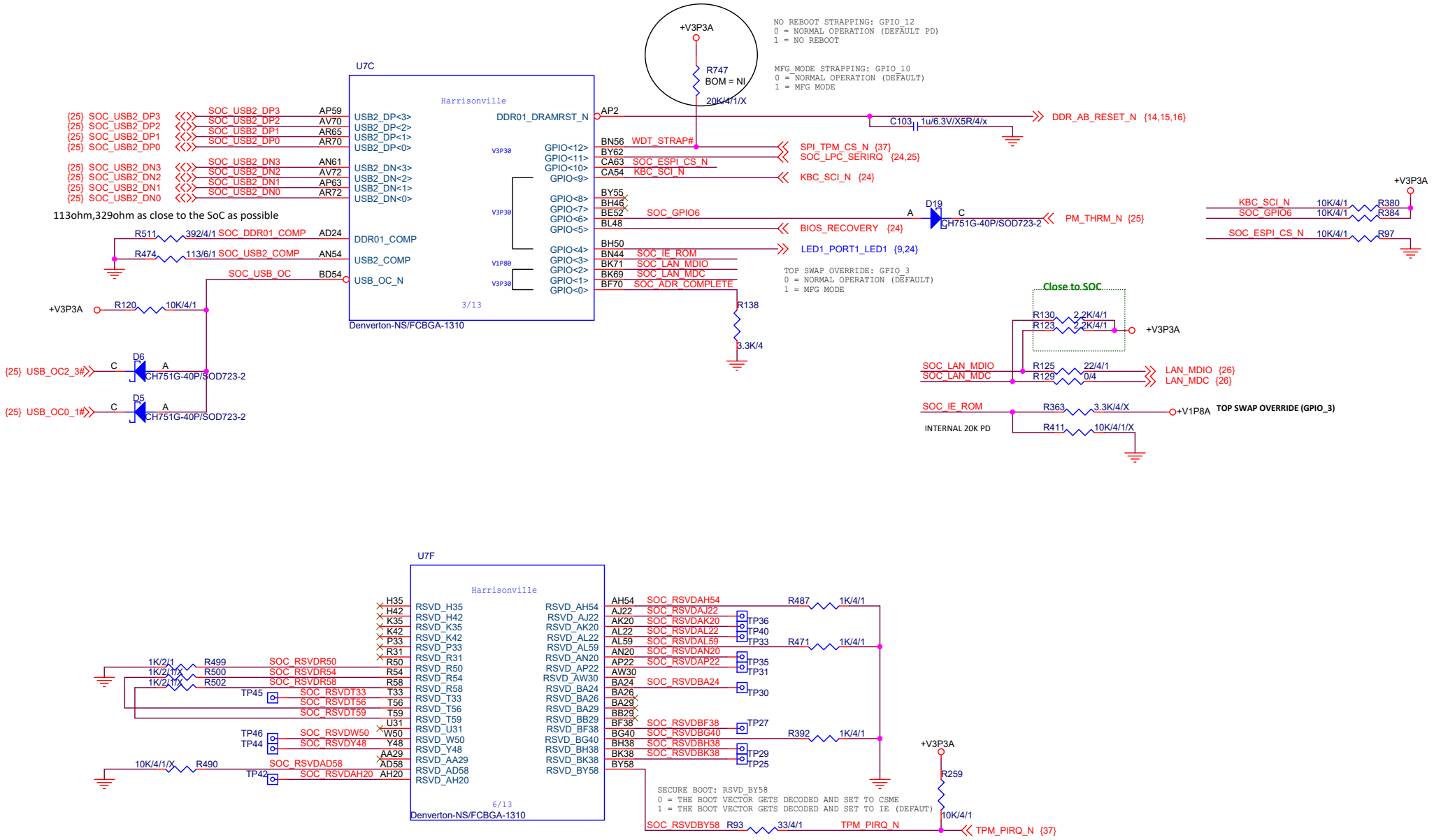
Title: P01_Cover Sheet		
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U7A
Harrisonville
Denverton-NS/FCBGA-1310
1/13
{14} M_A_DQ[63..0]
M_A_DQ63 BM27
M_A_DQ62 BR27
M_A_DQ61 BM20
M_A_DQ60 BR20
M_A_DQ59 BL29
M_A_DQ58 BN29
M_A_DQ57 BL22
M_A_DQ56 BN22
M_A_DQ55 BV29
M_A_DQ54 BY29
M_A_DQ53 BV25
M_A_DQ52 BY25
M_A_DQ51 BW30
M_A_DQ50 CA30
M_A_DQ49 BW26
M_A_DQ48 CA26
M_A_DQ47 BF27
M_A_DQ46 BH27
M_A_DQ45 BF20
M_A_DQ44 BH20
M_A_DQ43 BE29
M_A_DQ42 BG29
M_A_DQ41 BE22
M_A_DQ40 BG22
M_A_DQ39 BW22
M_A_DQ38 CA22
M_A_DQ37 BW18
M_A_DQ36 CA18
M_A_DQ35 BV23
M_A_DQ34 BY23
M_A_DQ33 BV19
M_A_DQ32 BY19
M_A_DQ31 AG11
M_A_DQ30 AH9
M_A_DQ29 AD9
M_A_DQ28 AA9
M_A_DQ27 AJ11
M_A_DQ26 AJ7
M_A_DQ25 AC7
M_A_DQ24 AC11
M_A_DQ23 AC4
M_A_DQ22 AC2
M_A_DQ21 W4
M_A_DQ20 W2
M_A_DQ19 AD3
M_A_DQ18 AD1
M_A_DQ17 Y3
M_A_DQ16 Y1
M_A_DQ15 R3
M_A_DQ14 R1
M_A_DQ13 L3
M_A_DQ12 L1
M_A_DQ11 T4
M_A_DQ10 T2
M_A_DQ9 M4
M_A_DQ8 M2
M_A_DQ7 C6
M_A_DQ6 D8
M_A_DQ5 C13
M_A_DQ4 A13
M_A_DQ3 E6
M_A_DQ2 C9
M_A_DQ1 D12
M_A_DQ0 B12
DDR0_DQ<63>
DDR0_DQ<62>
DDR0_DQ<61>
DDR0_DQ<60>
DDR0_DQ<59>
DDR0_DQ<58>
DDR0_DQ<57>
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DDR0_DQ<8>
DDR0_DQ<7>
DDR0_DQ<6>
DDR0_DQ<5>
DDR0_DQ<4>
DDR0_DQ<3>
DDR0_DQ<2>
DDR0_DQ<1>
DDR0_DQ<0>
{14} M_A_ECC[7..0]
M_A_ECC7 AL3
M_A_ECC6 AL1
M_A_ECC5 AF3
M_A_ECC4 AF1
M_A_ECC3 AM4
M_A_ECC2 AM2
M_A_ECC1 AH4
M_A_ECC0 AH2
DDR0_ECC<7>
DDR0_ECC<6>
DDR0_ECC<5>
DDR0_ECC<4>
DDR0_ECC<3>
DDR0_ECC<2>
DDR0_ECC<1>
DDR0_ECC<0>
{14} M_A_CLK_DP[1..0]
BH2
BL1
M_A_CLK_DP1 BK2
M_A_CLK_DP0 BM2
DDR0_CLK_DP<3>
DDR0_CLK_DP<2>
DDR0_CLK_DP<1>
DDR0_CLK_DP<0>
{14} M_A_CLK_DN[1..0]
BH4
BL3
M_A_CLK_DN1 BK4
M_A_CLK_DN0 BM4
DDR0_CLK_DN<3>
DDR0_CLK_DN<2>
DDR0_CLK_DN<1>
DDR0_CLK_DN<0>
{14} M_A_PAR
M_A_PAR BN3
DDR0_PAR
DDR0_DQS_DP<17> AJ1
DDR0_DQS_DP<16> BR24
DDR0_DQS_DP<15> BY27
DDR0_DQS_DP<14> BH24
DDR0_DQS_DP<13> CA20
DDR0_DQS_DP<12> AF9
DDR0_DQS_DP<11> AA2
DDR0_DQS_DP<10> N1
DDR0_DQS_DP<9> A11
DDR0_DQS_DP<8> AK4 M_A_DQS_DP8
DDR0_DQS_DP<7> BL26 M_A_DQS_DP7
DDR0_DQS_DP<6> BW28 M_A_DQS_DP6
DDR0_DQS_DP<5> BE26 M_A_DQS_DP5
DDR0_DQS_DP<4> BV21 M_A_DQS_DP4
DDR0_DQS_DP<3> AG7 M_A_DQS_DP3
DDR0_DQS_DP<2> AB3 M_A_DQS_DP2
DDR0_DQS_DP<1> P4 M_A_DQS_DP1
DDR0_DQS_DP<0> D10 M_A_DQS_DP0
M_A_DQS_DP[8..0] {14}
DDR0_DQS_DN<17> AJ3
DDR0_DQS_DN<16> BM24
DDR0_DQS_DN<15> BV27
DDR0_DQS_DN<14> BF24
DDR0_DQS_DN<13> BW20
DDR0_DQS_DN<12> AE11
DDR0_DQS_DN<11> AA4
DDR0_DQS_DN<10> N3
DDR0_DQS_DN<9> C11
DDR0_DQS_DN<8> AK2 M_A_DQS_DN8
DDR0_DQS_DN<7> BN26 M_A_DQS_DN7
DDR0_DQS_DN<6> CA28 M_A_DQS_DN6
DDR0_DQS_DN<5> BG26 M_A_DQS_DN5
DDR0_DQS_DN<4> BY21 M_A_DQS_DN4
DDR0_DQS_DN<3> AE7 M_A_DQS_DN3
DDR0_DQS_DN<2> AB1 M_A_DQS_DN2
DDR0_DQS_DN<1> P2 M_A_DQS_DN1
DDR0_DQS_DN<0> B10 M_A_DQS_DN0
M_A_DQS_DN[8..0] {14}
DDR0_MA<17> CA13 M_A_MA17
TP3
BW6 M_A_MA16
DDR0_MA16_RAS_N CA11 M_A_MA15
DDR0_MA15_CAS_N BW9 M_A_MA14
DDR0_MA14_WE_N BW11 M_A_MA13
DDR0_MA<13> BA4 M_A_MA12
DDR0_MA<12> BB3 M_A_MA11
DDR0_MA<11> BU6 M_A_MA10
DDR0_MA<10> BA2 M_A_MA9
DDR0_MA<9> BC4 M_A_MA8
DDR0_MA<8> BB1 M_A_MA7
DDR0_MA<7> BC2 M_A_MA6
DDR0_MA<6> BD3 M_A_MA5
DDR0_MA<5> BE4 M_A_MA4
DDR0_MA<4> BE2 M_A_MA3
DDR0_MA<3> BF1 M_A_MA2
DDR0_MA<2> BF3 M_A_MA1
DDR0_MA<1> BP4 M_A_MA0
DDR0_MA<0>
M_A_MA[16..0] {14}
BW15
DDR0_CS3_N BV10
DDR0_CS2_N BV12 M_A_CS_N1
DDR0_CS1_N BW5 M_A_CS_N0
DDR0_CS0_N
M_A_CS_N[1..0] {14}
AR3
DDR0_CKE<3> AT2
DDR0_CKE<2> AP4 M_A_CKE1
DDR0_CKE<1> AT4 M_A_CKE0
DDR0_CKE<0>
M_A_CKE[1..0] {14}
CA15
DDR0_ODT<3> BW13
DDR0_ODT<2> BY14 M_A_ODT1
DDR0_ODT<1> BY10 M_A_ODT0
DDR0_ODT<0>
M_A_ODT[1..0] {14}
DDR0_C0 BV14 M_A_C0
M_A_C0 {14}
DDR0_BA1 BT5 M_A_BA1
DDR0_BA0 BV8 M_A_BA0
M_A_BA[1..0] {14}
DDR0_BG1_MA14 AW2 M_A_BG1
DDR0_BG0_BA2 AW4 M_A_BG0
M_A_BG[1..0] {14}
DDR0_ACT_N_MA15 AV3 M_A_ACT_N
M_A_ACT_N {14}
DDR0_ALERT_N_PAR_ERR_N AY3 M_A_ALERT_N
M_A_ALERT_N {14}
ufiSpace
Cloud & Carrier Network
Title
P04_DNV-DDR4 A
Size
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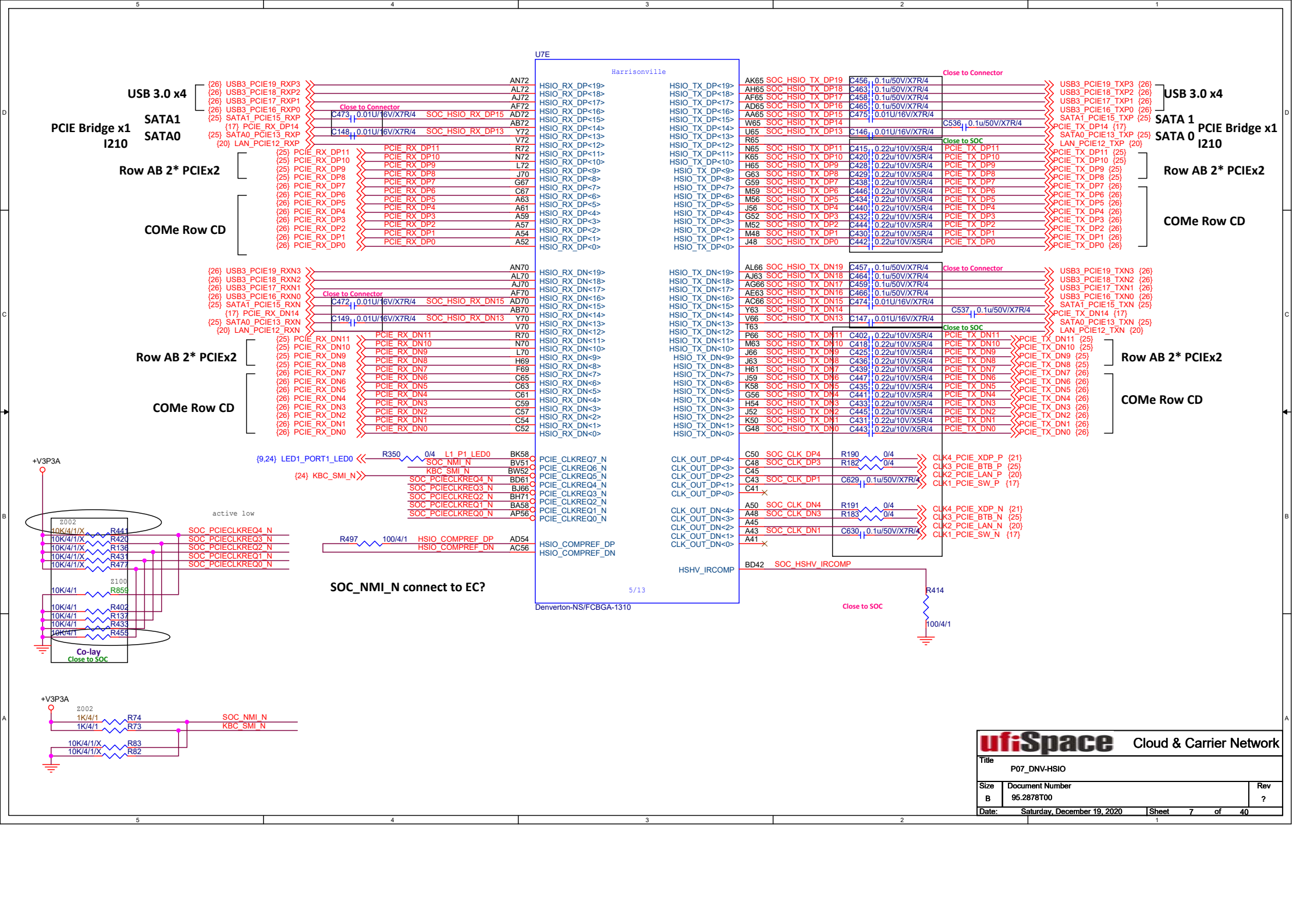
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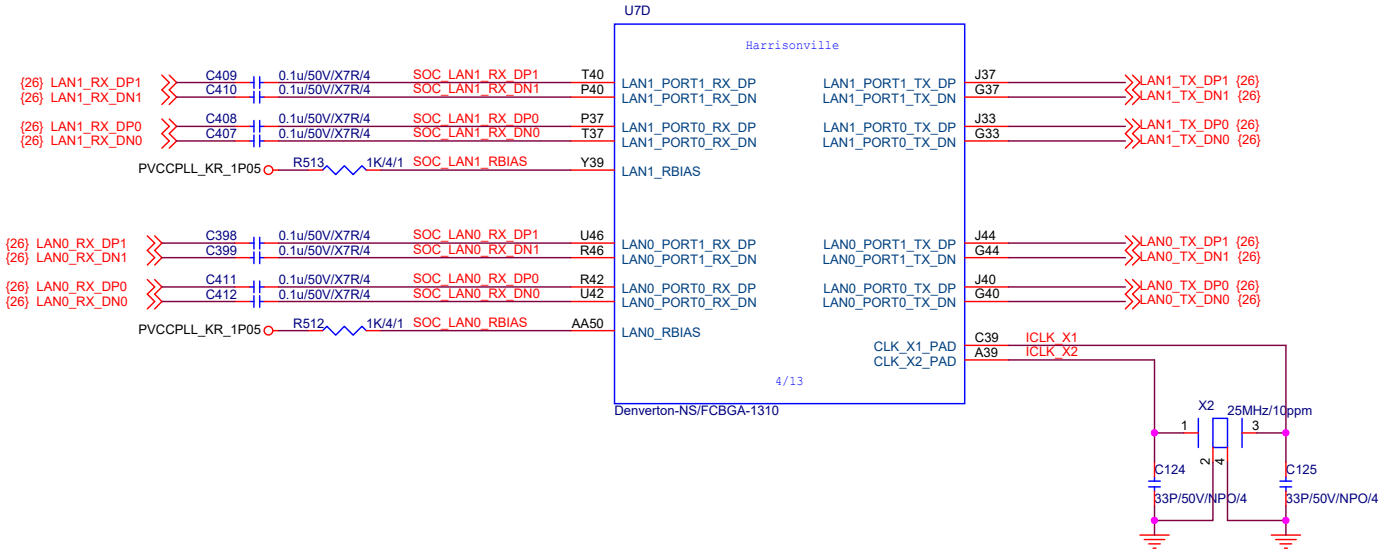
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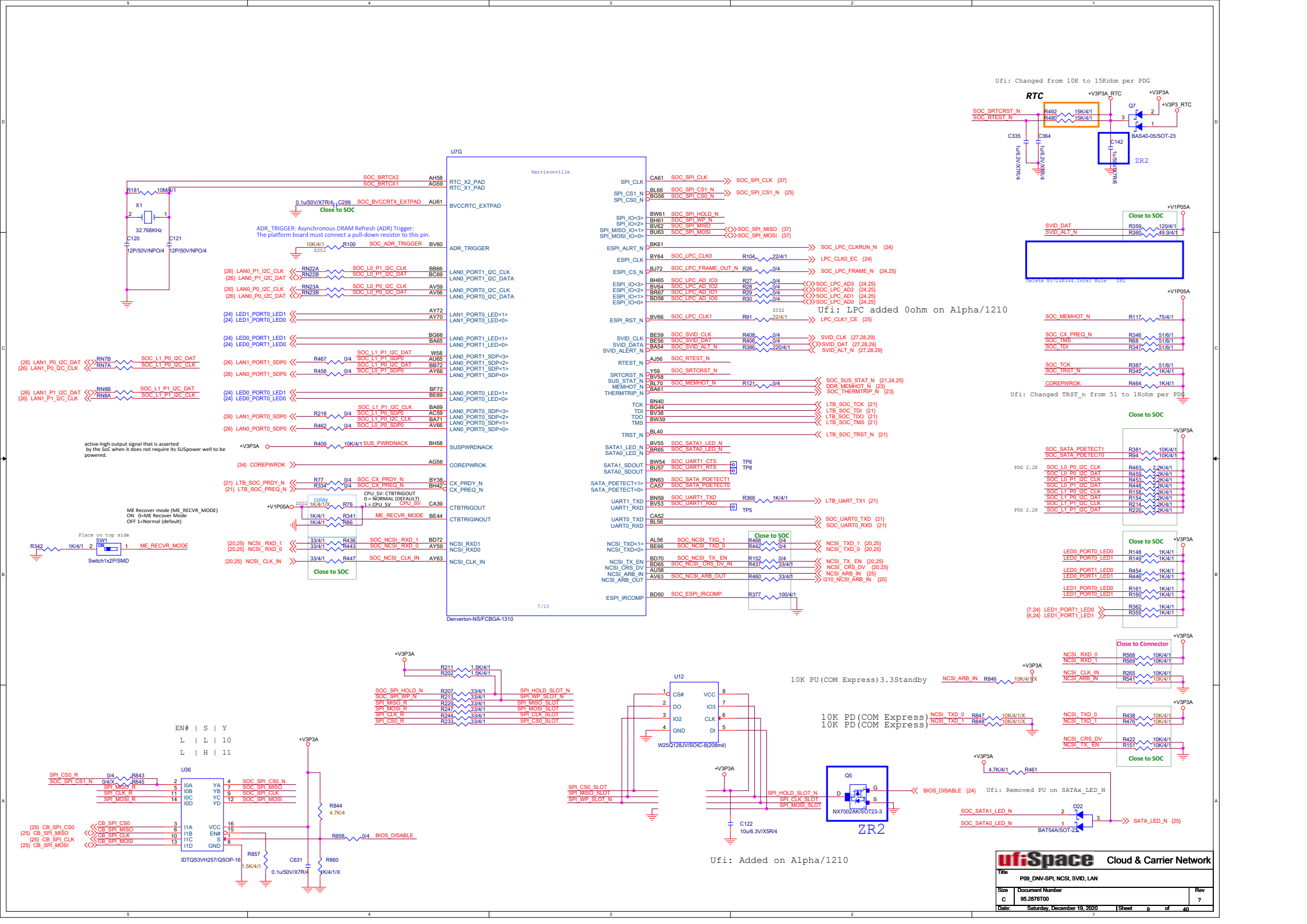
Title: P06_DNV-USB, GPIO, RSVD		
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U7E
Harrisonville
Denverton-NS/FCBGA-1310
5/13
USB 3.0 x4
SATA1
SATA0
PCIE Bridge x1
I210
Row AB 2* PCIEx2
COMe Row CD
Close to Connector
Close to SOC
SOC_NMI_N connect to EC?
active low
Co-lay
Close to SOC
ufiSpace
Cloud & Carrier Network
P07_DNV-HSIO
95.2878T00
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Title: P08_DNV-LAN KR		
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Ufi: Changed from 10K to 15Kohm per PDG
RTC
U7G
Harrisonville
Denverton-NS/FCBGA-1310
7/13
Ufi: LPC added 0ohm on Alpha/1210
Ufi: Changed TRST_n from 51 to 1Kohm per PDG
Close to SOC
Close to Connector
ADR_TRIGGER: Asynchronous DRAM Refresh (ADR) Trigger:
The platform board must connect a pull-down resistor to this pin.
active-high output signal that is asserted
by the SoC when it does not require its SUSpower well to be
powered.
ME Recover mode (ME_RECVR_MODE)
ON 0=ME Recover Mode
OFF 1=Normal (default)
CPU_SV: CTBTRIGOUT
0 = NORMAL (DEFAULT)
1 = CPU_SV
Place on top side
Switch1x2P/SMD
EN# | S | Y
L | L | 10
L | H | 11
U36
IDTQS3VH257/QSOP-16
U12
W25Q128JV/SOIC-8(208mil)
10K PU(COM Express)3.3Standby
10K PD(COM Express)
10K PD(COM Express)
Ufi: Removed PU on SATAx_LED_N
Ufi: Added on Alpha/1210
ZR2
Delete R372&R344.Intel Rule
ufiSpace
Cloud & Carrier Network
P09_DNV-SPI, NCSI, SVID, LAN
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FLASH SECURITY OVERRIDE (SOC_IERR) internal 20 PD
0=NO FLASH SECURITY OVERRIDE (DEFAULT)
1=FLASH SECURITY OVERRIDE

eSPI Flashing Mode (MCERR) internal 20 PD
O=MASTER ATTACHED FLASH MAF (DEFAULT)
1=SLAVE ATTACHED FLASH (SAF)

+V3P3A +V3P3A
R84 3.3K/4/X
R419 3.3K/4/X
SOC_MCERR_N BN52 MCERR_N
SOC_IERR_N BW50 IERR_N

U7H
Harrisonville
8/13
Denverton-NS/FCBGA-1310

{21} LTB_DFX_PORT_CLK1
{21} LTB_DFX_PORT_CLK0
R157 0/2 SOC_LTB_DFX_PORT_CLK1 BB70 DFX_PORT_CLK<1>
R150 0/2 SOC_LTB_DFX_PORT_CLK0 AY56 DFX_PORT_CLK<0>

{21} LTB_DFX_PORT[15..0]

LTB_DFX_PORT15	R106	0/2	SOC_DFX_PORT15 BV40	DFX_PORT<15>
LTB_DFX_PORT14	R99	0/2	SOC_DFX_PORT14 CA41	DFX_PORT<14>
LTB_DFX_PORT13	R369	0/2	SOC_DFX_PORT13 BE48	DFX_PORT<13>
LTB_DFX_PORT12	R105	0/2	SOC_DFX_PORT12 BW41	DFX_PORT<12>
LTB_DFX_PORT11	R416	0/2	SOC_DFX_PORT11 BK42	DFX_PORT<11>
LTB_DFX_PORT10	R388	0/2	SOC_DFX_PORT10 BR42	DFX_PORT<10>
LTB_DFX_PORT9	R373	0/2	SOC_DFX_PORT9 AY52	DFX_PORT<9>
LTB_DFX_PORT8	R103	0/2	SOC_DFX_PORT8 BW67	DFX_PORT<8>
LTB_DFX_PORT7	R109	0/2	SOC_DFX_PORT7 BT69	DFX_PORT<7>
LTB_DFX_PORT6	R390	0/2	SOC_DFX_PORT6 BG63	DFX_PORT<6>
LTB_DFX_PORT5	R131	0/2	SOC_DFX_PORT5 BH69	DFX_PORT<5>
LTB_DFX_PORT4	R107	0/2	SOC_DFX_PORT4 BW68	DFX_PORT<4>
LTB_DFX_PORT3	R110	0/2	SOC_DFX_PORT3 BP69	DFX_PORT<3>
LTB_DFX_PORT2	R404	0/2	SOC_DFX_PORT2 BE63	DFX_PORT<2>
LTB_DFX_PORT1	R113	0/2	SOC_DFX_PORT1 BN70	DFX_PORT<1>
LTB_DFX_PORT0	R378	0/2	SOC_DFX_PORT0 BN68	DFX_PORT<0>

{22} SOC_EMMC_CLK BK46 EMMC_CLK
{22} SOC_EMMC_DSTB BL44 EMMC_STROBE
{22} SOC_EMMC_CMD BN48 EMMC_CMD
200/4/1 R418 SOC_EMMC_IRCOMP BE40 EMMC_IRCOMP
Close to SOC

{22} SOC_EMMC_DAT[7..0]

SOC_EMMC_DAT7	BV42	EMMC_D<7>
SOC_EMMC_DAT6	BY42	EMMC_D<6>
SOC_EMMC_DAT5	CA43	EMMC_D<5>
SOC_EMMC_DAT4	BU43	EMMC_D<4>
SOC_EMMC_DAT3	CA45	EMMC_D<3>
SOC_EMMC_DAT2	BY44	EMMC_D<2>
SOC_EMMC_DAT1	BV44	EMMC_D<1>
SOC_EMMC_DAT0	BW45	EMMC_D<0>

{25} LPC_CLK LPC_CLK TP4 SOC_FLEX_CLK_SE1 CA48 FLEX_CLK_SE<1>
R854 22/4/1 SOC_FLEX_CLK_SE0 BG48 FLEX_CLK_SE<0>

PMU_PLTRST_N BL63 SOC_PLTRST_N {10,24}
PMU_PWRBTN_N CA59 KBC_PWRBTN_N {24}
PMU_WAKE_N BR61 PCIE_WAKE_N {20,25}
10K PU 3.3VStandby COMExpres
PMU_RESETBUTTON_N BL59 KBC_SYSRST_N {21,24}
PMU_SLP_S3_N BK65 SOC_SLP_S3_N {24}
PMU_SLP_S45_N BW59 SOC_SLP_S45_N {24}
PMU_SUSCLK BG59 SOC_SUSCLK TP24
INTRUDER_N AJ59 SOC_INTRUDER_N
RSMRST_N AE59 KBC_RSMRST_N {21,24}
PROCHOT_N BM71 SOC_PROCHOT_N SOC_PROCHOT_N {27}

SMB_LEG_CLK BY51 SMB_LEG_CLK {23}
SMB_LEG_DATA BV49 SMB_LEG_DATA {23}
SMB_LEG_ALRT_N BW48 SOC_SMB_LEG_ALRT_N R69 0/4 SMB_LEG_ALRT_N {23}
SMB_HOST_CLK BR50 SMB_HOST_CLK SMB_HOST_CLK {23}
SMB_HOST_DATA BK50 SMB_HOST_DATA SMB_HOST_DATA {23}
SMB_PECI_CLK BR54 SMB_PECI_CLK SMB_PECI_CLK {23}
SMB_PECI_DATA BY49 SMB_PECI_DAT SMB_PECI_DAT {23}
SMB_ME_SMT0_CLK BR46 SOC_SMB_ME_SMT0_CLK R336 1.78K/4/1 +V3P3A
SMB_ME_SMT0_DATA BV47 SOC_SMB_ME_SMT0_DATA R85 1.78K/4/1
SMB_ME_SMT0_ALRT_N BG52 SOC_SMB_ME_SMT0_ALRT_N R421 1.78K/4/1
SMB_LAN_CLK BH54 SMB_LAN_CLK SMB_LAN_CLK {25}
SMB_LAN_DATA BK54 SMB_LAN_DAT SMB_LAN_DAT {25}
SMB_LAN_ALRT_N BN66 SMB_LAN_ALRT_N SMB_LAN_ALRT_N {25}
ICLKRCOMP W54 SOC_ICLKRCOMP R495 169/6/1
TP7
169ohm close to the SoC as possible
ERROR2_N CA50 SOC_ERROR_N2
ERROR1_N BR58 SOC_ERROR_N1 R361 10K/4/1/X
ERROR0_N BL52 SOC_ERROR_N0 R96 10K/4/1/X
GPIO<152> CA37 SOC_GPIO_CA37 TP1
GPIO<151> BW37 SOC_PECI
GPIO<150> BM38 SOC_GPIO_BM38 TP23 SMB_PECI_ALRT_N_1V05 {23}

ERROR_N[0] Internal 20 k pull-down to VSS.
0 = Low Pin Count (LPC)
1 = Enhanced Serial Peripheral Interface (eSPI)
ERROR_N[1] Boot BIOS Strap
0 = SPI
1 = eSPI or LPC

Close to SOC
SMB_LEG_CLK R95 750/4/1
SMB_LEG_DATA R72 750/4/1
SOC_SMB_LEG_ALRT_N R75 750/4/1
SMB_HOST_CLK R405 20K/4
SMB_HOST_DATA R401 20K/4
KBC_PWRBTN_N R98 1K/4/1
KBC_SYSRST_N R407 1K/4/1
PCIE_WAKE_N R412 10K/4/1
SMB_PECI_CLK R343 1.78K/4/1
SMB_PECI_DAT R340 1.78K/4/1
SMB_LAN_CLK R358 4.7K/4/1
SMB_LAN_DAT R385 4.7K/4/1
SMB_LAN_ALRT_N R413 4.7K/4/1
+V3P3A
D20 C A CH751G-40P/SOD723-2

+V3P3A_RTC
Close to SOC
SOC_INTRUDER_N R475 10K/4/1
KBC_RSMRST_N R488 1K/4/1

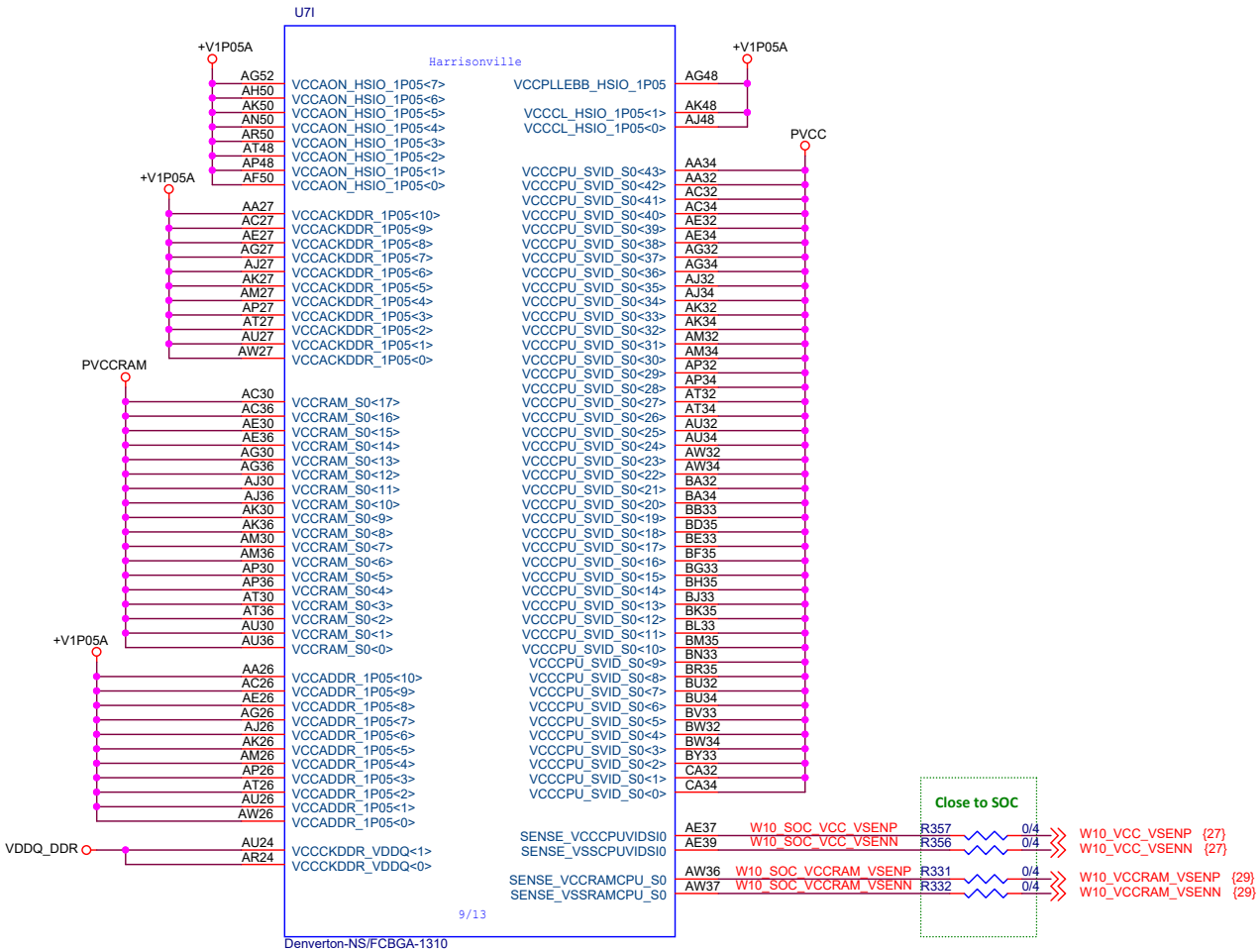
+V1P05A
Close to SOC
SOC_PECI R78 240/4/1
SOC_PROCHOT_N R118 75/4/1
ZR2
Delete R111, R118 Change to 75ohm.

Supports eMMC 5.0 and eMMC 4.5.
Backwards compatible to eMMC 5.1 devices.
8-bit interface, maximum frequency of 200 MHz (data transfer rates of 400 MB/sec).

U6
{10,24} SOC_PLTRST_N
1 1A
2 GND
3 2A
6 1Y
5 VCC
4 2Y
20K/4/1 R273 +V3P3A SOC_PLTRST_BUF1_N {20,26,37}
+V3P3A C252 0.1u/50V/X7R/4 SOC_PLTRST_BUF2_N {17,22}
20K/4/1 R274 +V3P3A
SN74AUP2G34DCKR
SC-70-6C

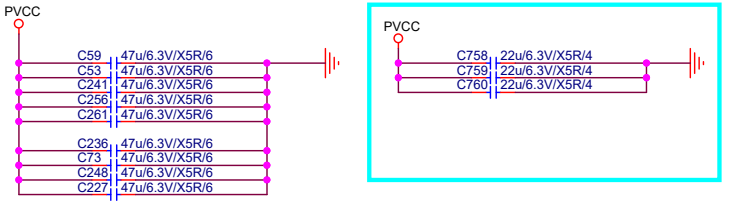
ufiSpace Cloud & Carrier Network

Title: P10_DNV-DFX,SMB,PM,eMMC		
Size: B	Document Number: 95.2878T00	Rev: ?
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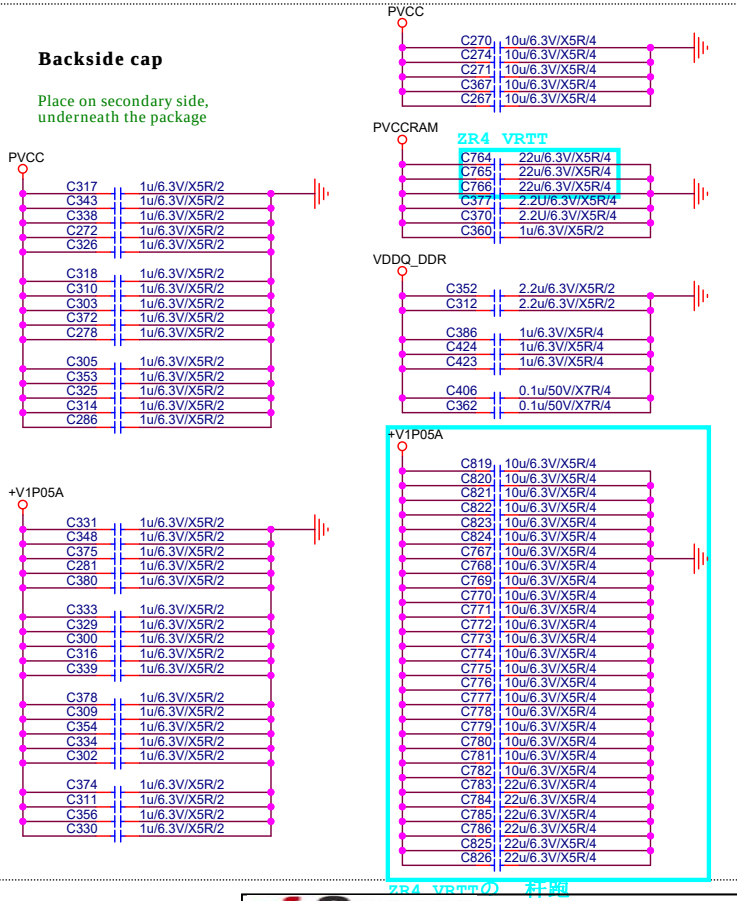
Primary side

Place as close to the package as possible

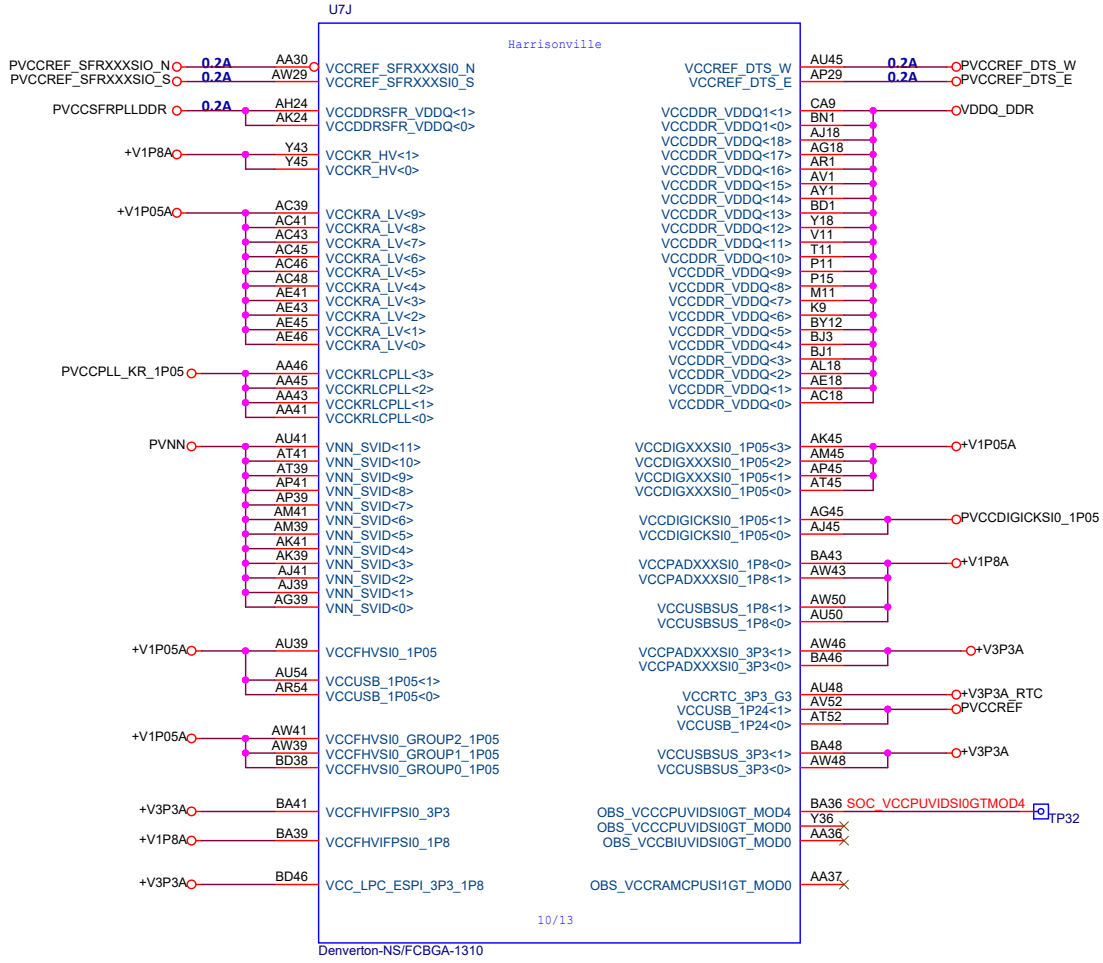


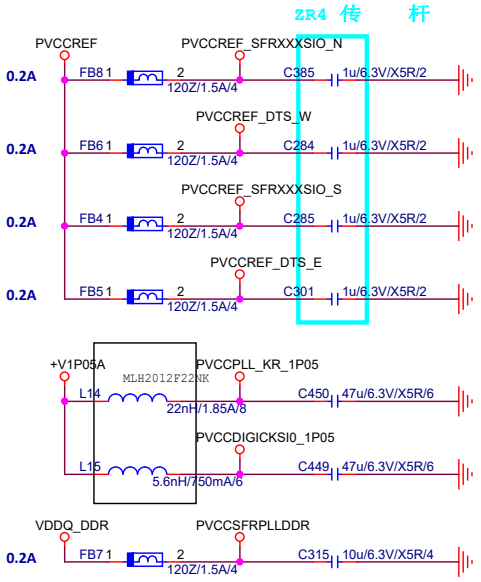
Backside cap

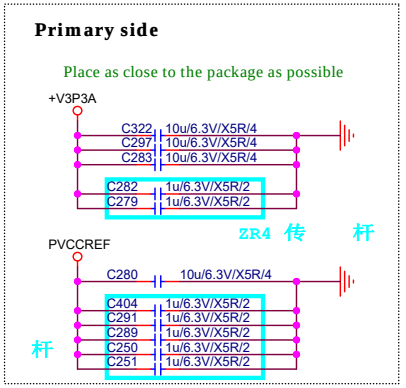
Place on secondary side, underneath the package

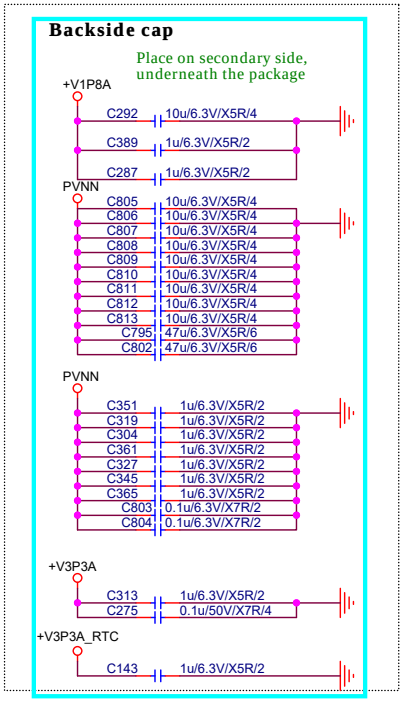


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Title: P11_DNV-Power 1		
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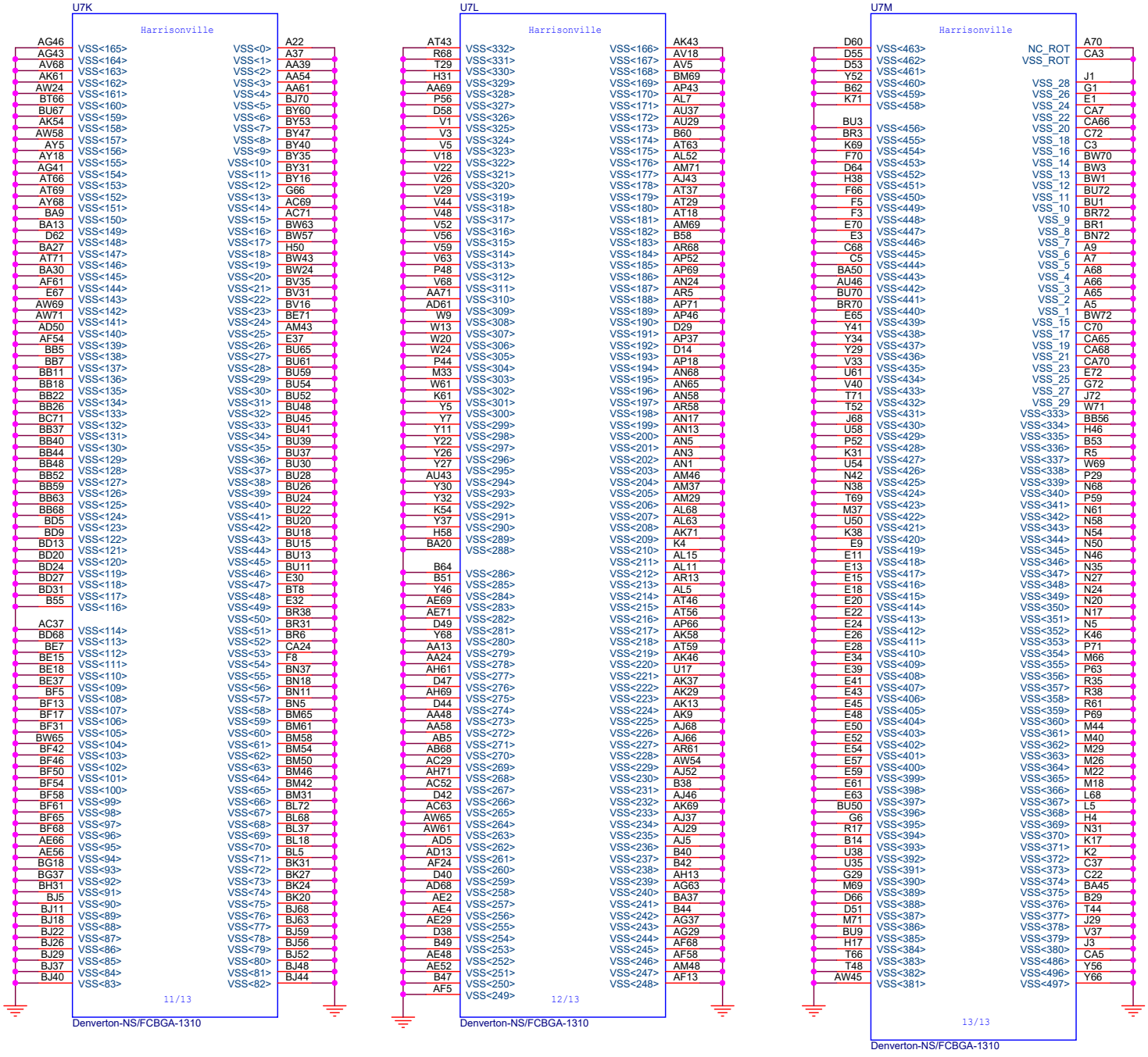




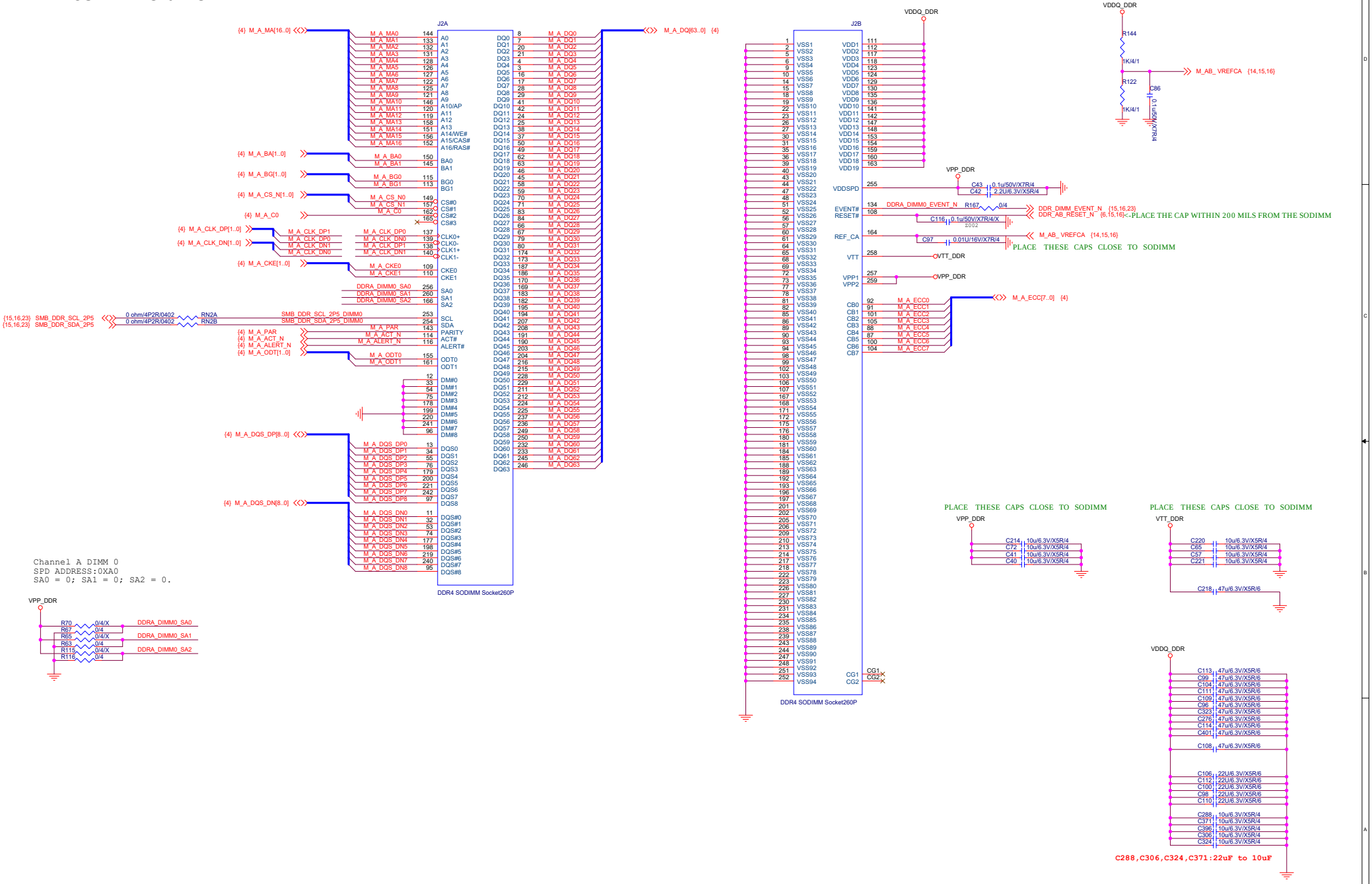
ZR4 VRTTの 杆跑

ufiSpace Cloud & Carrier Network

Title: P12_DNV-Power 2		
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U7K
Harrisonville
AG46 AG43 AV68 AK61 AW24 BT66 BU67 AK54 AW58 AY5 AY18 AG41 AT66 AT69 AY68 BA9 BA13 D62 BA27 AT71 BA30 AF61 E67 AW69 AW71 AD50 AF54 BB5 BB7 BB11 BB18 BB22 BB26 BC71 BB37 BB40 BB44 BB48 BB52 BB59 BB63 BB68 BD5 BD9 BD13 BD20 BD24 BD27 BD31 B55
AC37 BD68 BE7 BE15 BE18 BE37 BF5 BF13 BF17 BF31 BW65 BF42 BF46 BF50 BF54 BF58 BF61 BF65 BF68 AE66 AE56 BG18 BG37 BH31 BJ5 BJ11 BJ18 BJ22 BJ26 BJ29 BJ37 BJ40
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A22 A37 AA39 AA54 AA61 BJ70 BY60 BY53 BY47 BY40 BY35 BY31 BY16 G66 AC69 AC71 BW63 BW57 H50 BW43 BW24 BV35 BV31 BV16 BE71 AM43 E37 BU65 BU61 BU59 BU54 BU52 BU48 BU45 BU41 BU39 BU37 BU30 BU28 BU26 BU24 BU22 BU20 BU18 BU15 BU13 BU11 E30 BT8 E32 BR38 BR31 BR6 CA24 F8 BN37 BN18 BN11 BN5 BM65 BM61 BM58 BM54 BM50 BM46 BM42 BM31 BL72 BL68 BL37 BL18 BL5 BK31 BK27 BK24 BK20 BJ68 BJ63 BJ59 BJ56 BJ52 BJ48 BJ44
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11/13
Denverton-NS/FCBGA-1310
U7L
Harrisonville
AT43 R68 T29 H31 AA69 P56 D58 V1 V3 V5 V18 V22 V26 V29 V44 V48 V52 V56 V59 V63 P48 V68 AA71 AD61 W9 W13 W20 W24 P44 M33 W61 K61 Y5 Y7 Y11 Y22 Y26 Y27 AU43 Y30 Y32 K54 Y37 H58 BA20
B64 B51 Y46 AE69 AE71 D49 Y68 AA13 AA24 AH61 D47 AH69 D44 AA48 AA58 AB5 AB68 AC29 AH71 AC52 D42 AC63 AW65 AW61 AD5 AD13 AF24 D40 AD68 AE2 AE4 AE29 D38 B49 AE48 AE52 B47 AF5
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12/13
Denverton-NS/FCBGA-1310
U7M
Harrisonville
D60 D55 D53 Y52 B62 K71
BU3 BR3 K69 F70 D64 H38 F66 F5 F3 E70 E3 C68 C5 BA50 AU46 BU70 BR70 E65 Y41 Y34 Y29 V33 U61 V40 T71 T52 J68 U58 P52 K31 U54 N42 N38 T69 M37 U50 K38 E9 E11 E13 E15 E18 E20 E22 E24 E26 E28 E34 E39 E41 E43 E45 E48 E50 E52 E54 E57 E59 E61 E63 BU50 G6 R17 B14 U38 U35 G29 M69 D66 D51 M71 BU9 H17 T66 T48 AW45
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NC_ROT VSS_ROT
VSS_28 VSS_26 VSS_24 VSS_22 VSS_20 VSS_18 VSS_16 VSS_14 VSS_13 VSS_12 VSS_11 VSS_10 VSS_9 VSS_8 VSS_7 VSS_6 VSS_5 VSS_4 VSS_3 VSS_2 VSS_1 VSS_15 VSS_17 VSS_19 VSS_21 VSS_23 VSS_25 VSS_27 VSS_29
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13/13
Denverton-NS/FCBGA-1310
ufiSpace
Cloud & Carrier Network
Title
P13_DNV-Power 3
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Document Number
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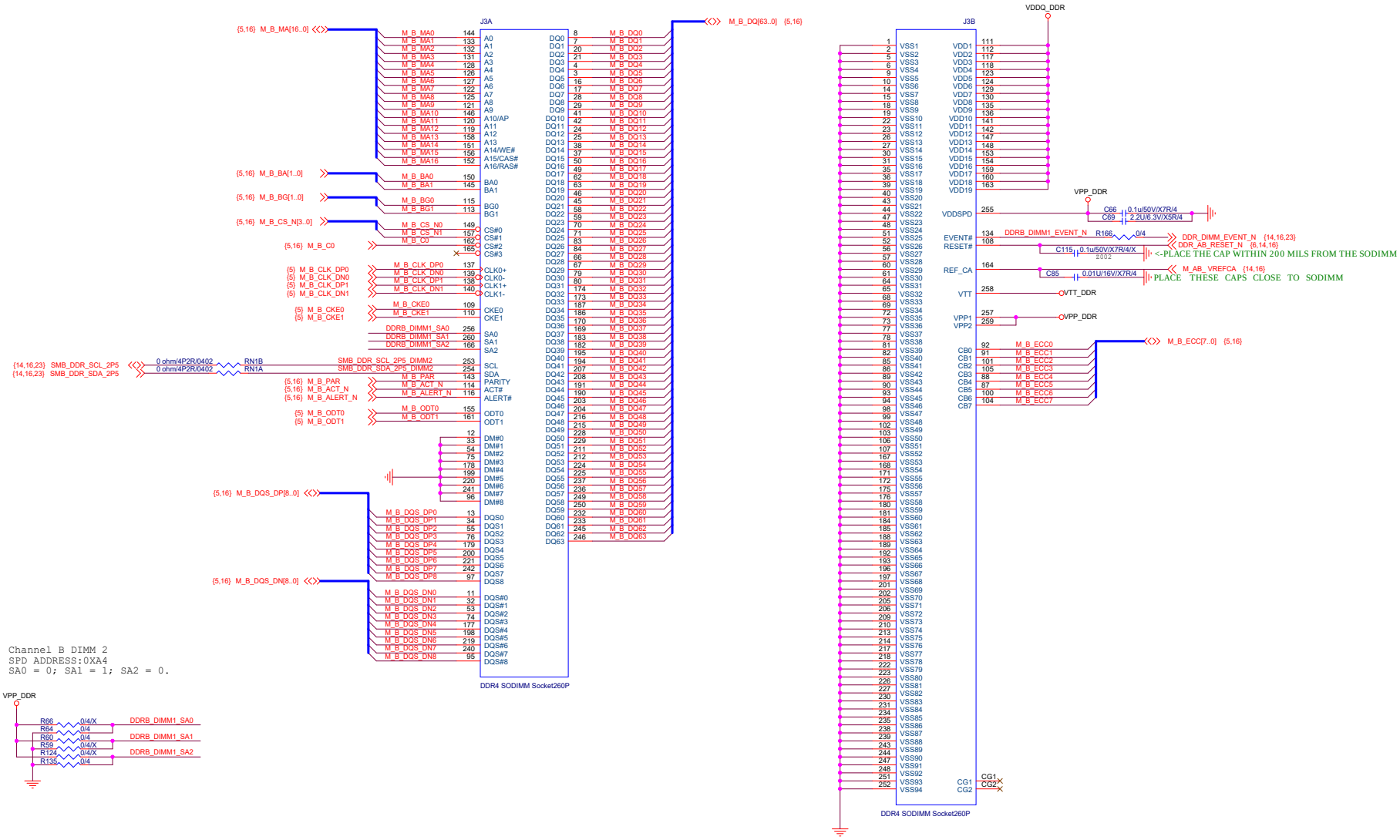
DDR4 SODIMM Channel A



Channel A DIMM 0
SPD ADDRESS:0XA0
SA0 = 0; SA1 = 0; SA2 = 0.

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Title	P14_DDR4 SO-DIMM 0		
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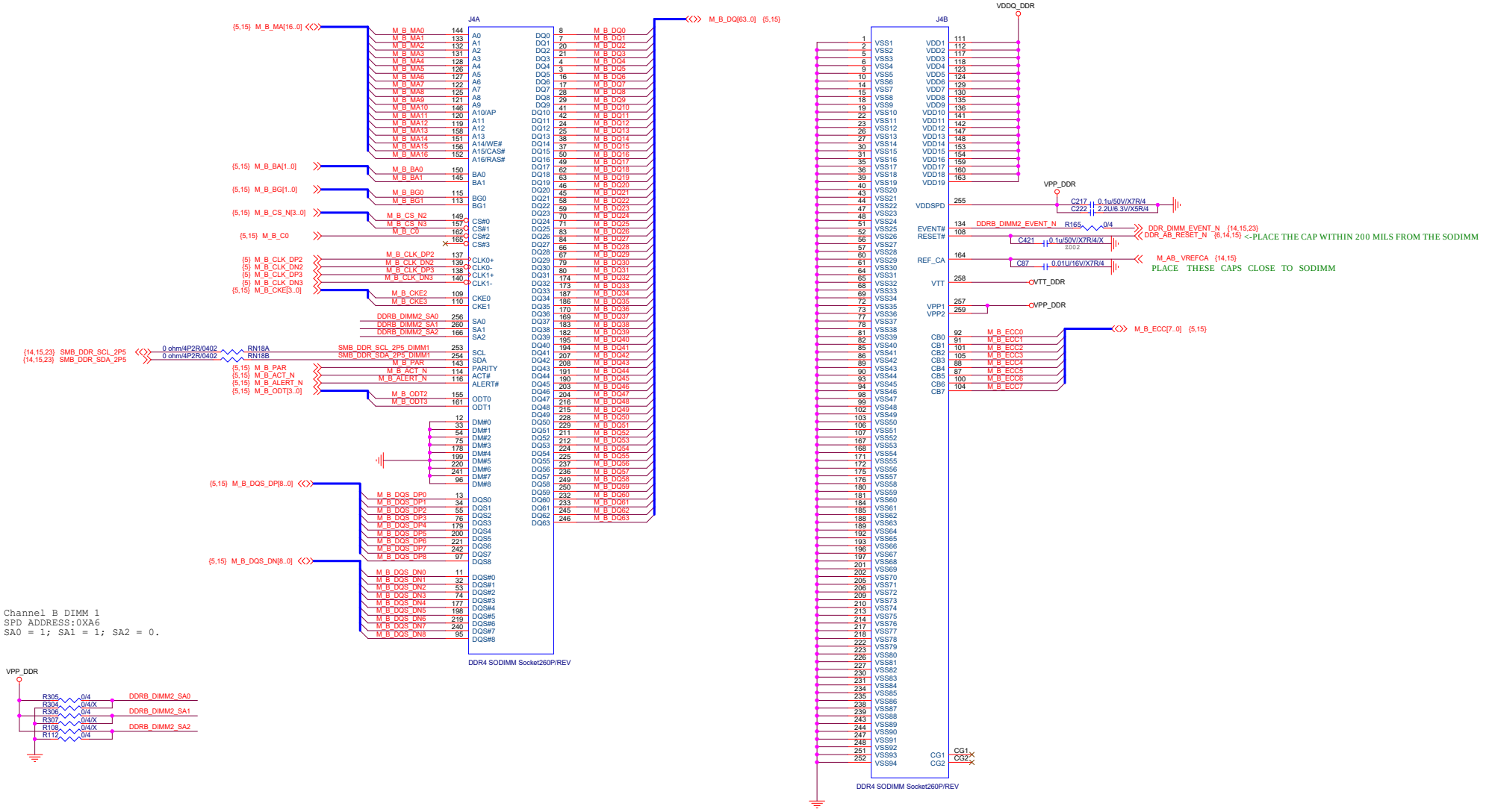
DDR4 SODIMM Channel B (1 of 2)



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Size C	Document Number 95.2878T00	Rev ?
Date: Saturday, December 19, 2020	Sheet 15 of 40	

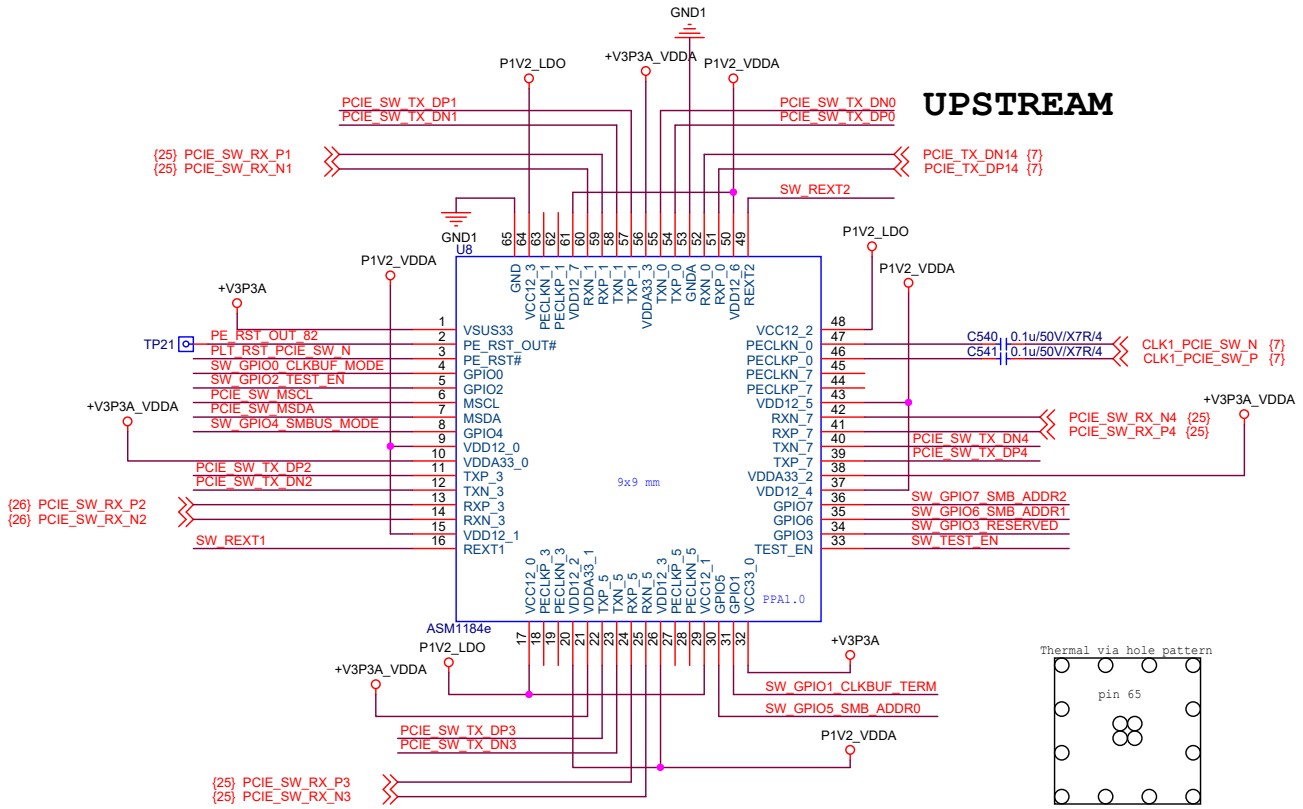
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DDR4 SODIMM Channel B (2of 2)



Title	P16_DDR4 SO-DIMM 2
Size	C
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STRAP PIN SETTING

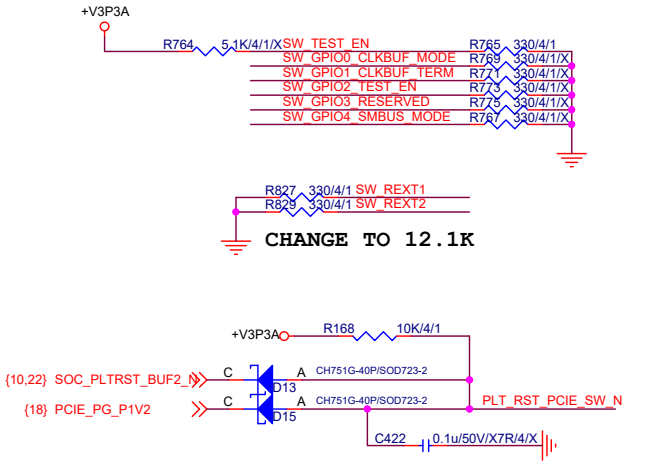
1. Strapping Table

Pins	Function	Default (internal pull)
GPIO0	Clock buffer mode setting. 0: PLL mode; 1: bypass mode	Pull up
GPIO1	Clock buffer termination enable. 0: disable; 1: enable	Pull up
GPIO2	Reserved for test mode.	Pull up
GPIO3	Reserved for ASM1187e	Pull up
GPIO4	SMBus enable. Please refer to below SMBus/I2C table	Pull up
GPIO5	SMBus address[0].	Pull up
GPIO6	SMBus address[1].	Pull up
GPIO7	SMBus address[2].	Pull up
MSCL	I2C enable. Please refer to below SMBus/I2C table.	Pull up

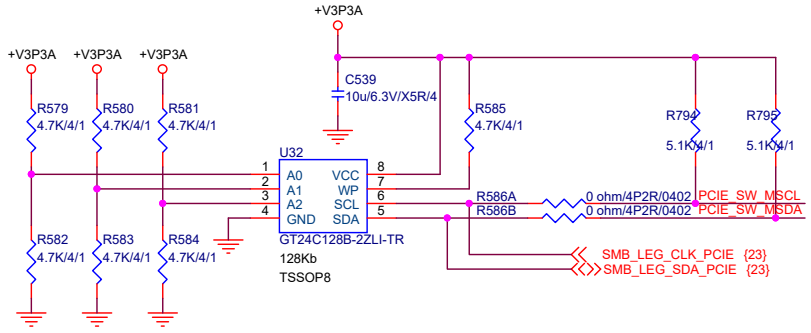
SMBus/I2C table

GPIO4 (SMBus enable)	MSCL (I2C enable)	Function
0	0	(MSCL, MSDA) is no function
0	1	(MSCL, MSDA) is I2C, connected to a EEPROM, chip is master
1	0	(MSCL, MSDA) is SMBus, chip is salve
1	1	(MSCL, MSDA) is SMBus, chip is salve

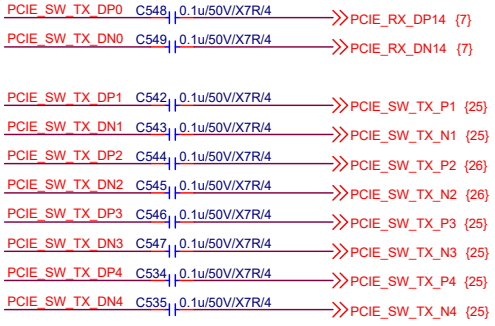
Confidential



EEPROM

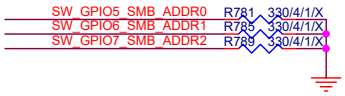


Tx AC Coupling Capacitors



SMBUS ADDRESS

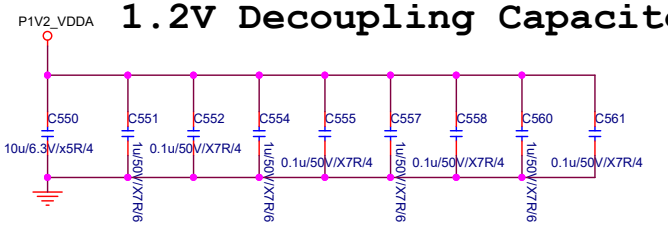
BIT	SMBus Address
0	GPIO[5]
1	GPIO[6]
2	GPIO[7]
3	1
4	0
5	1
6	1
7	0

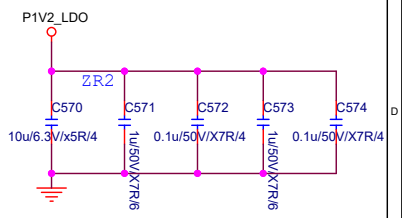


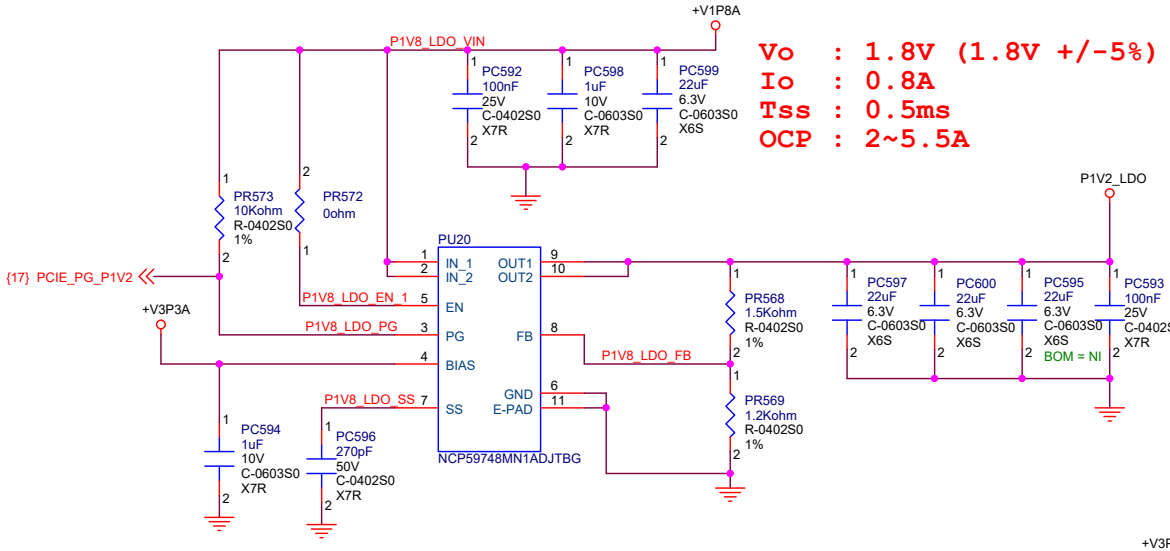
ufiSpace Cloud & Carrier Network

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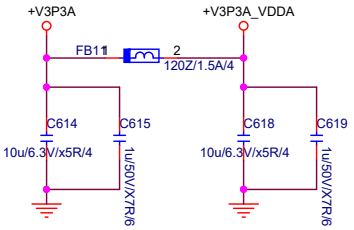
1.2V Decoupling Capacitors

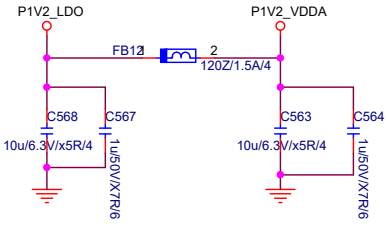




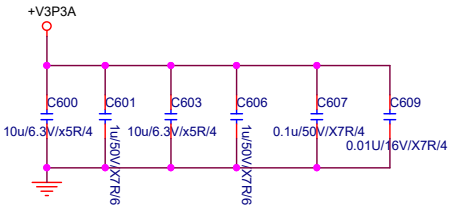


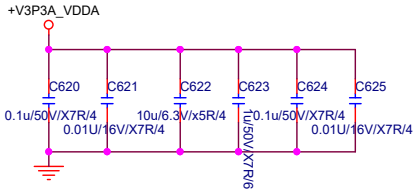
Vo : 1.8V (1.8V +/-5%)
Io : 0.8A
Tss : 0.5ms
OCP : 2~5.5A





3.3V Decoupling Capacitors



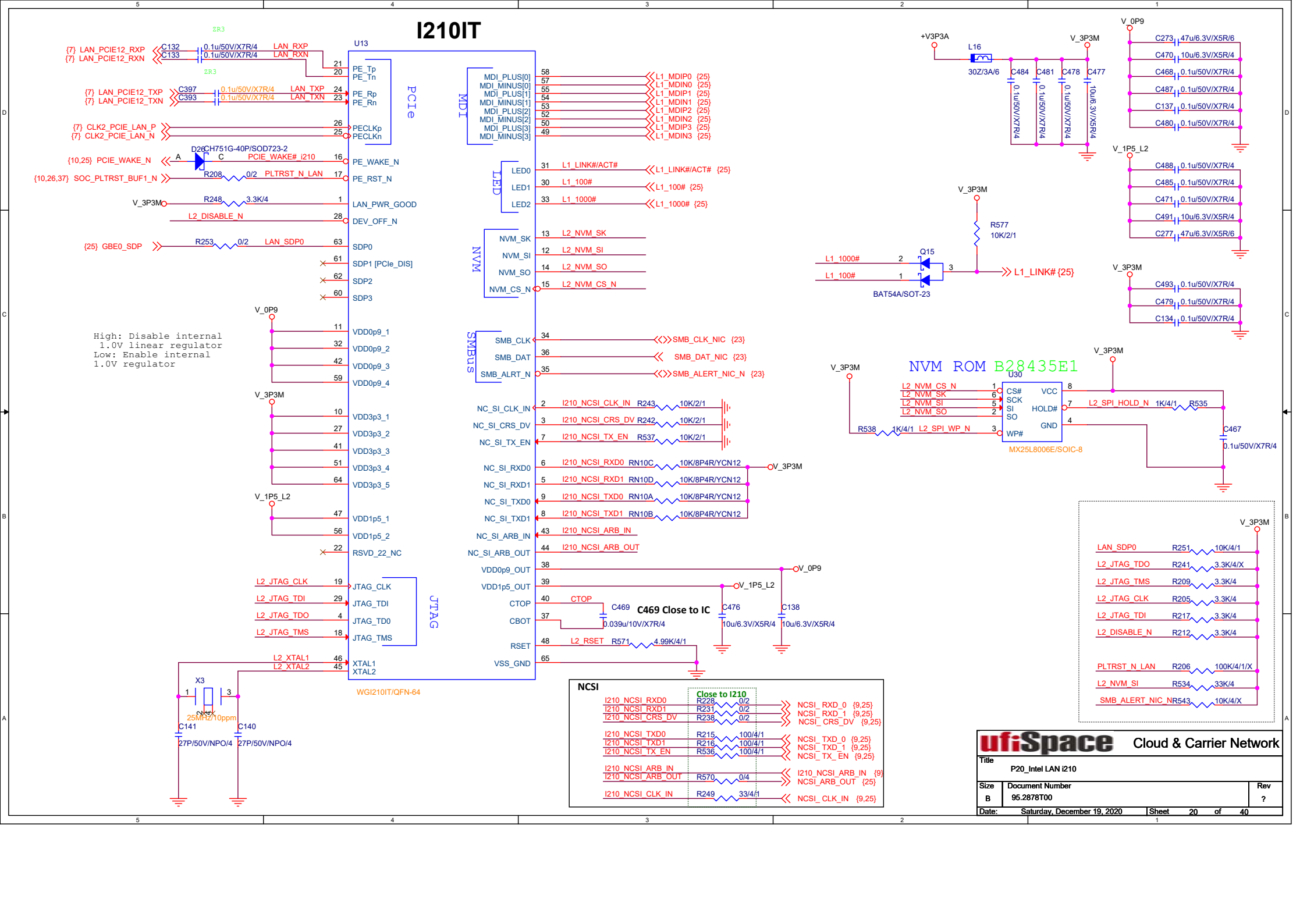


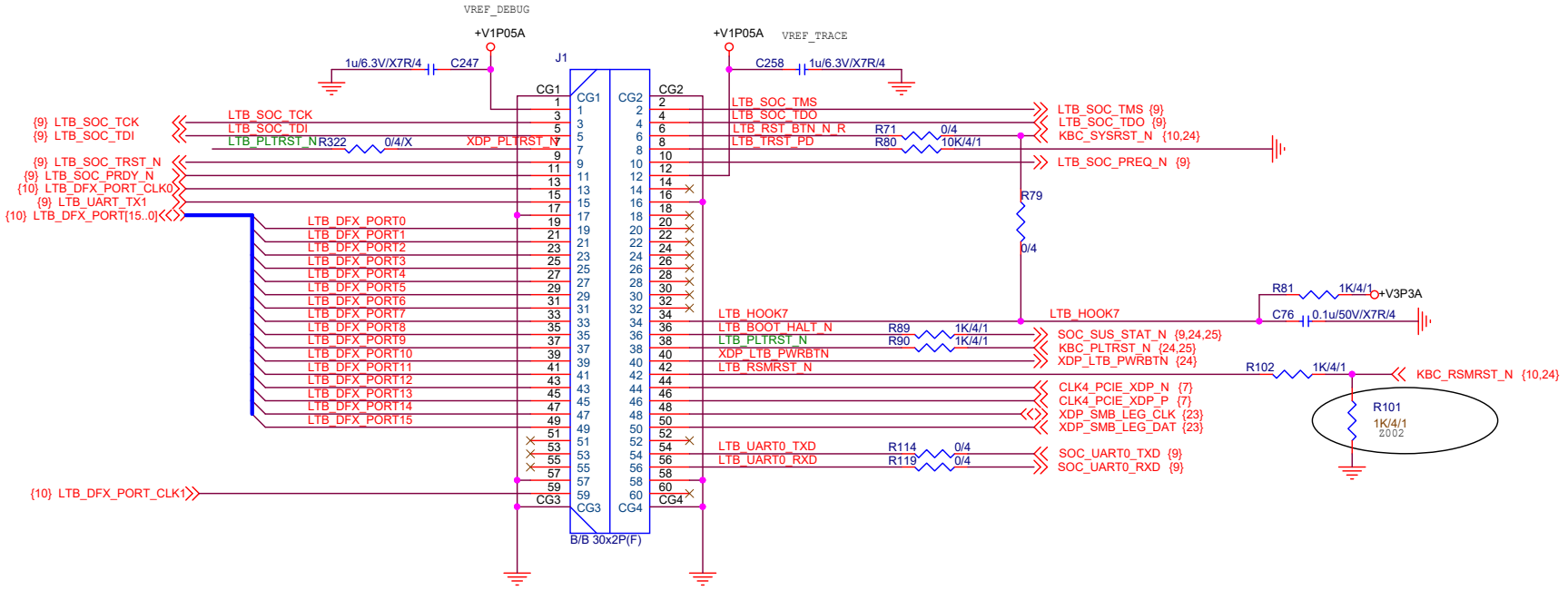
ufiSpace Cloud & Carrier Network		
Title: P19_PI7C9X2G404 Power_P3		
Size: B	Document Number: 95.2878T00	Rev: ?
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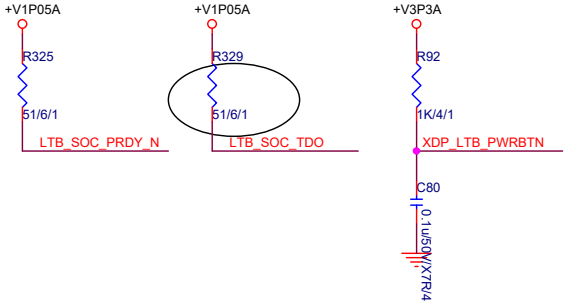
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Size: B	Document Number: 95.2878T00	Rev: ?
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I210IT


U13
PCIe
MDI
LED
NVM
SMBus
JTAG
WGI210IT/QFN-64
High: Disable internal 1.0V linear regulator
Low: Enable internal 1.0V regulator
C469 Close to IC
NCSI
Close to I210
NVM ROM B28435E1
U30
MX25L8006E/SOIC-8
BAT54A/SOT-23
30Z/3A/6
25MHZ/10ppm
Cloud & Carrier Network
P20_Intel LAN i210
Saturday, December 19, 2020

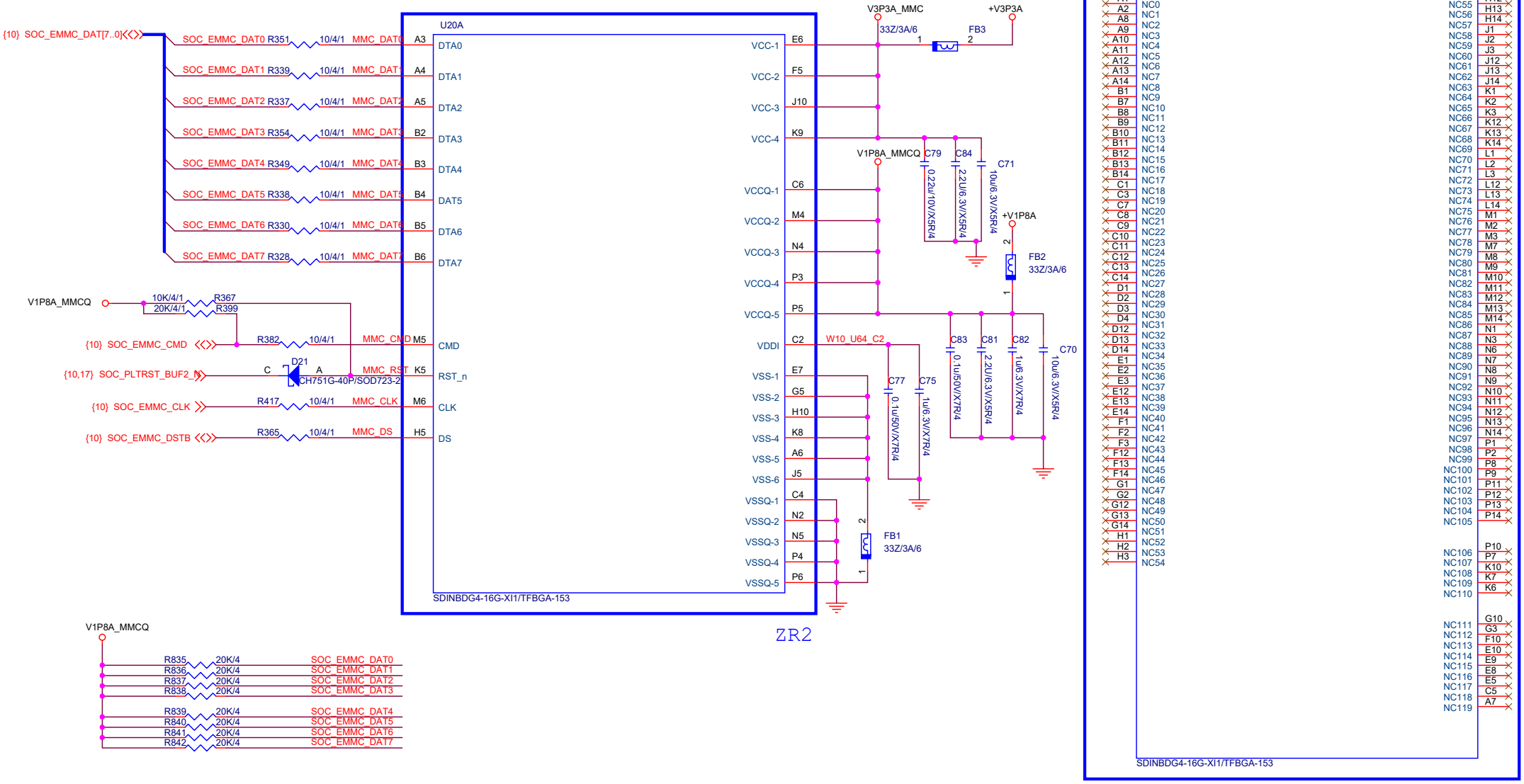


R97 close to XDP cn

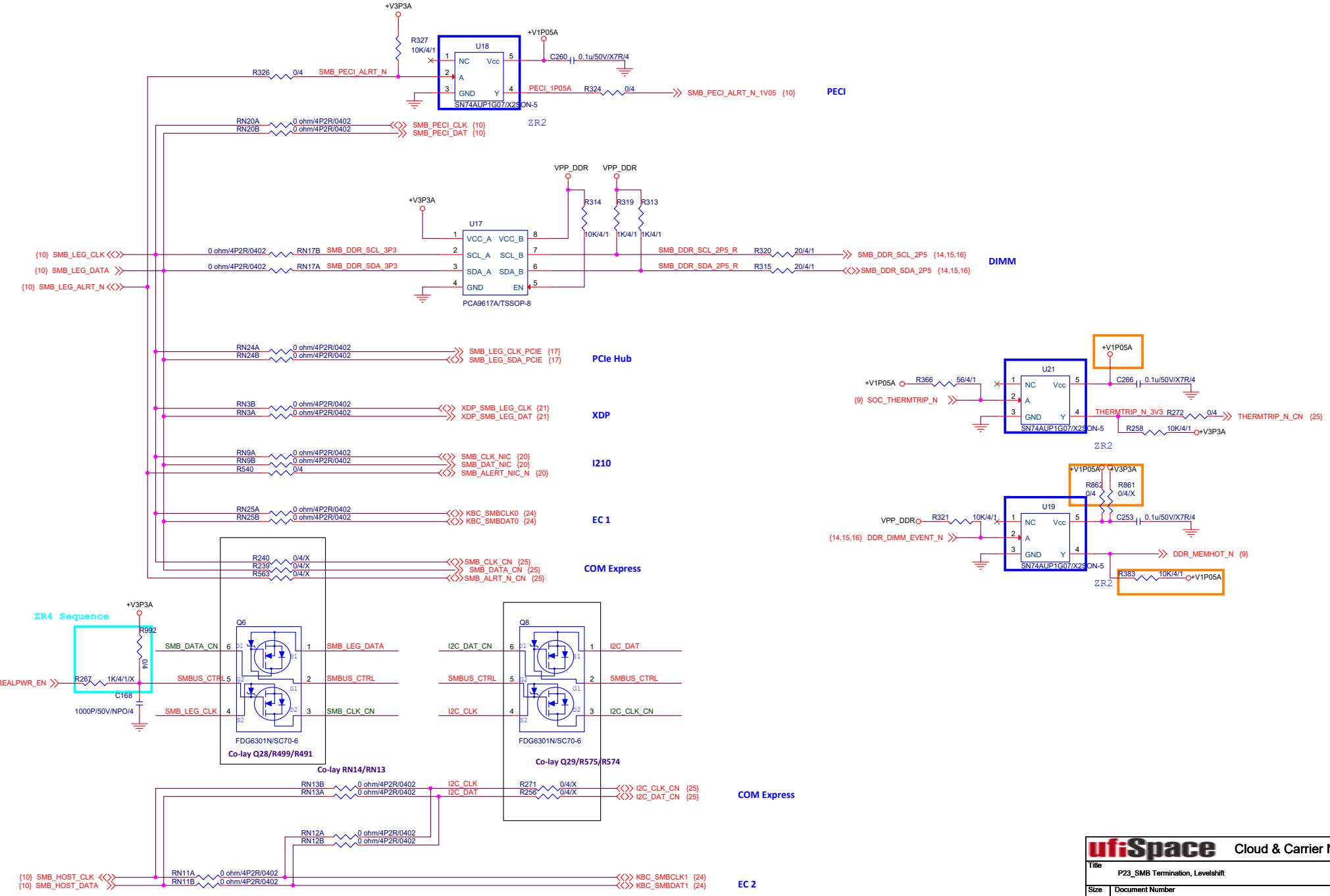


ufiSpace Cloud & Carrier Network

Title: P21_XDP		
Size: B	Document Number: 95.2878T00	Rev: ?
Date: Saturday, December 19, 2020	Sheet 21 of 40	

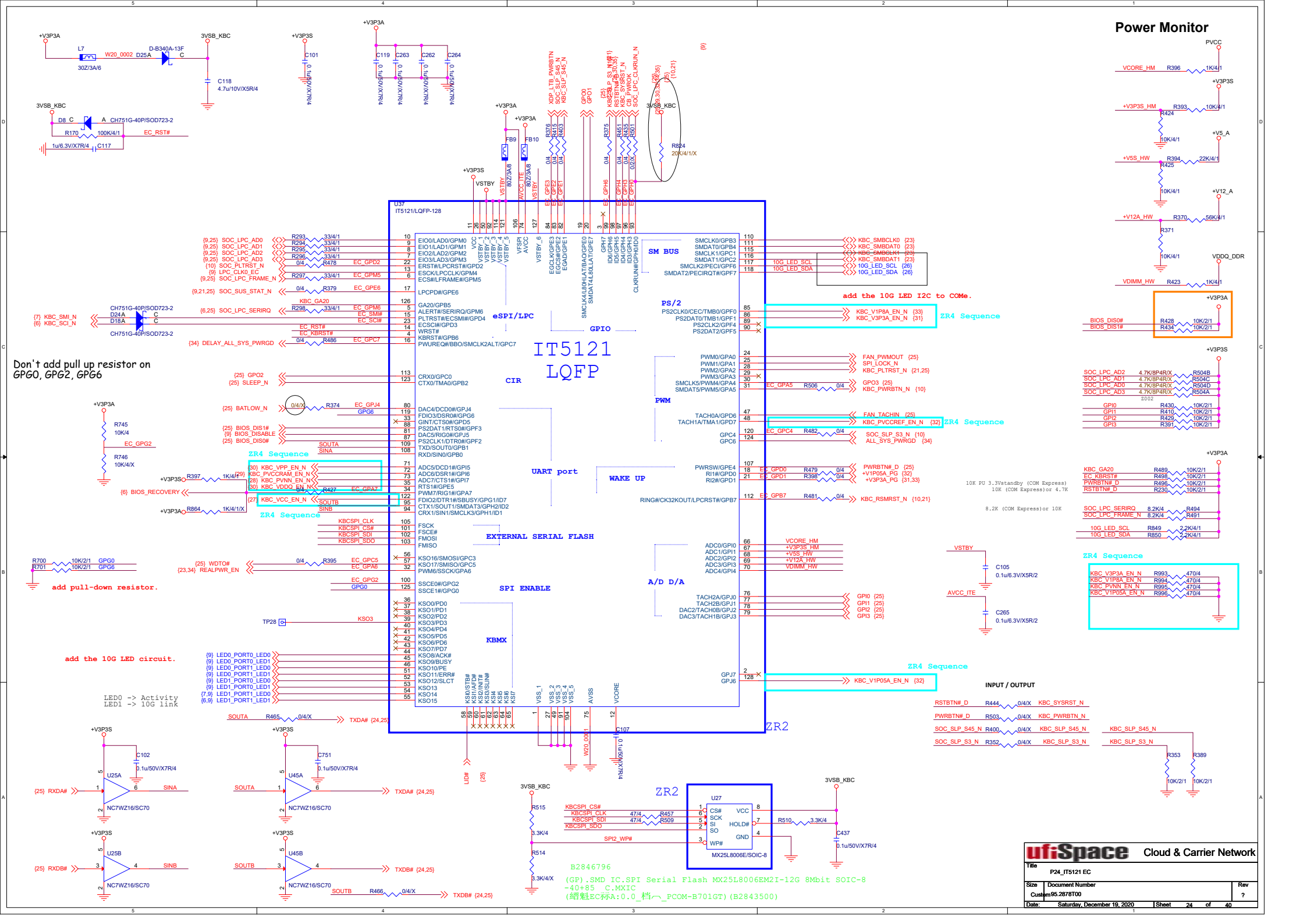


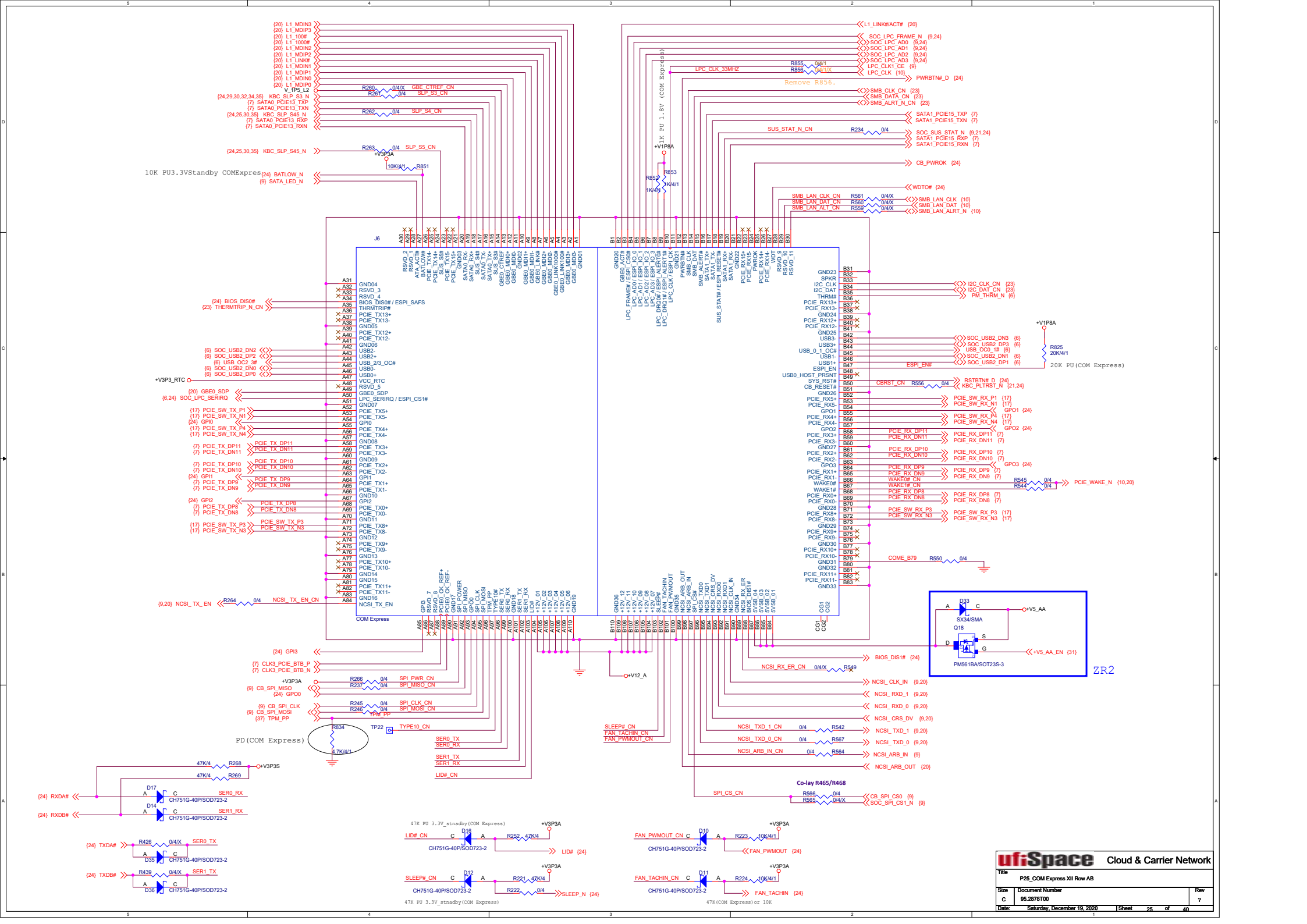
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Size: B	Document Number: 95.2878T00	Rev: ?
Date: Saturday, December 19, 2020	Sheet 22 of 40	



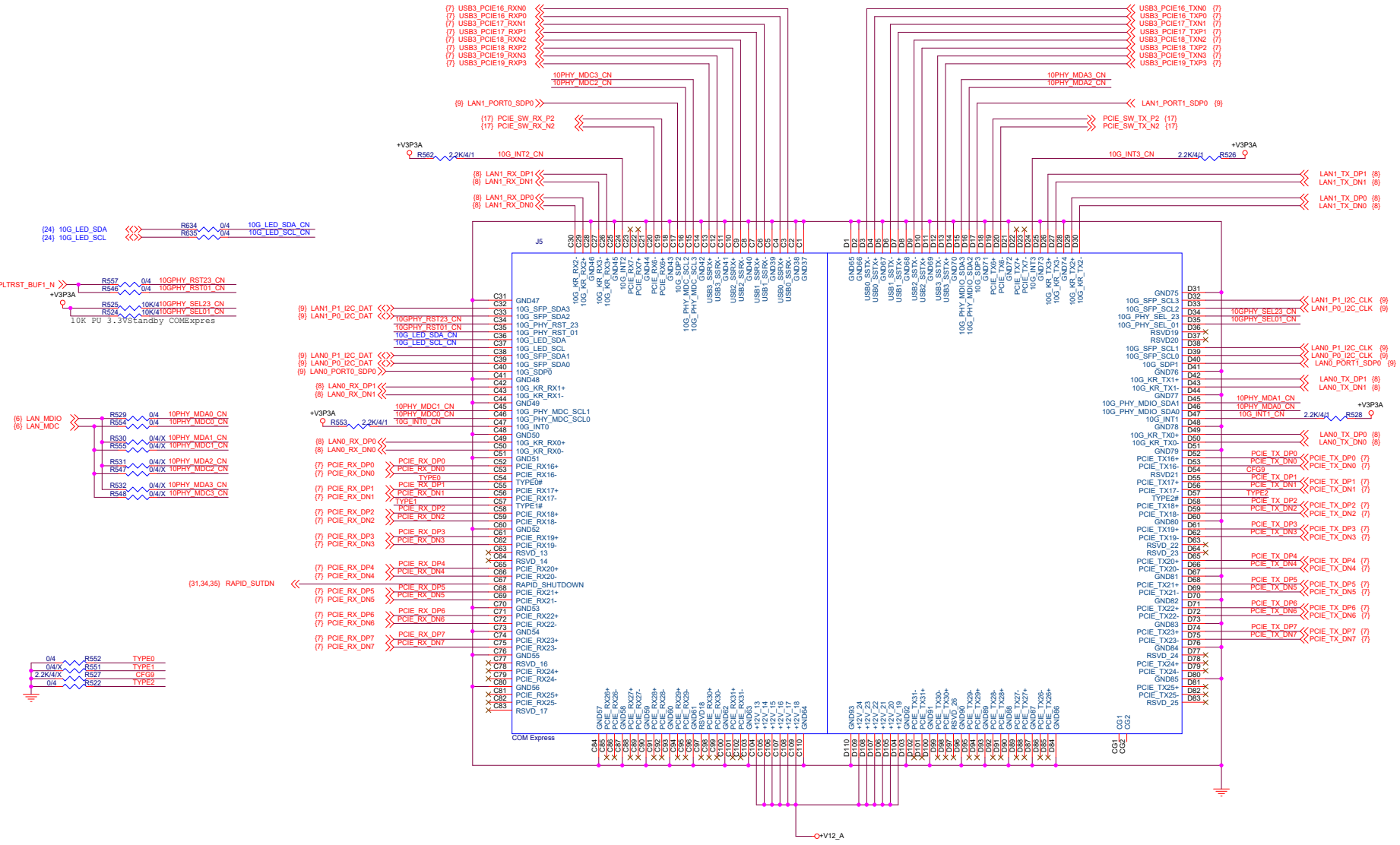
ufiSpace Cloud & Carrier Network

Title: P23_SMB Termination, Levelshift		
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Power Monitor
IT5121
LQFP
U37
IT5121/LQFP-128
SM BUS
PS/2
eSPI/LPC
GPIO
CIR
PWM
UART port
WAKE UP
EXTERNAL SERIAL FLASH
SPI ENABLE
KBMX
A/D D/A
add the 10G LED I2C to COMe.
ZR4 Sequence
Don't add pull up resistor on GPG0, GPG2, GPG6
add pull-down resistor.
add the 10G LED circuit.
LED0 -> Activity
LED1 -> 10G link
INPUT / OUTPUT
ZR2
U27
MX25L8006E/SOIC-8
B2846796
(GP).SMD IC.SPI Serial Flash MX25L8006EM2I-12G 8Mbit SOIC-8
-40+85 C.MXIC
(緯魁EC祘A:0.0_档ㄧ_PCOM-B701GT)(B2843500)
ufiSpace
Cloud & Carrier Network
P24_IT5121 EC
Custom 95.2878T00
Saturday, December 19, 2020
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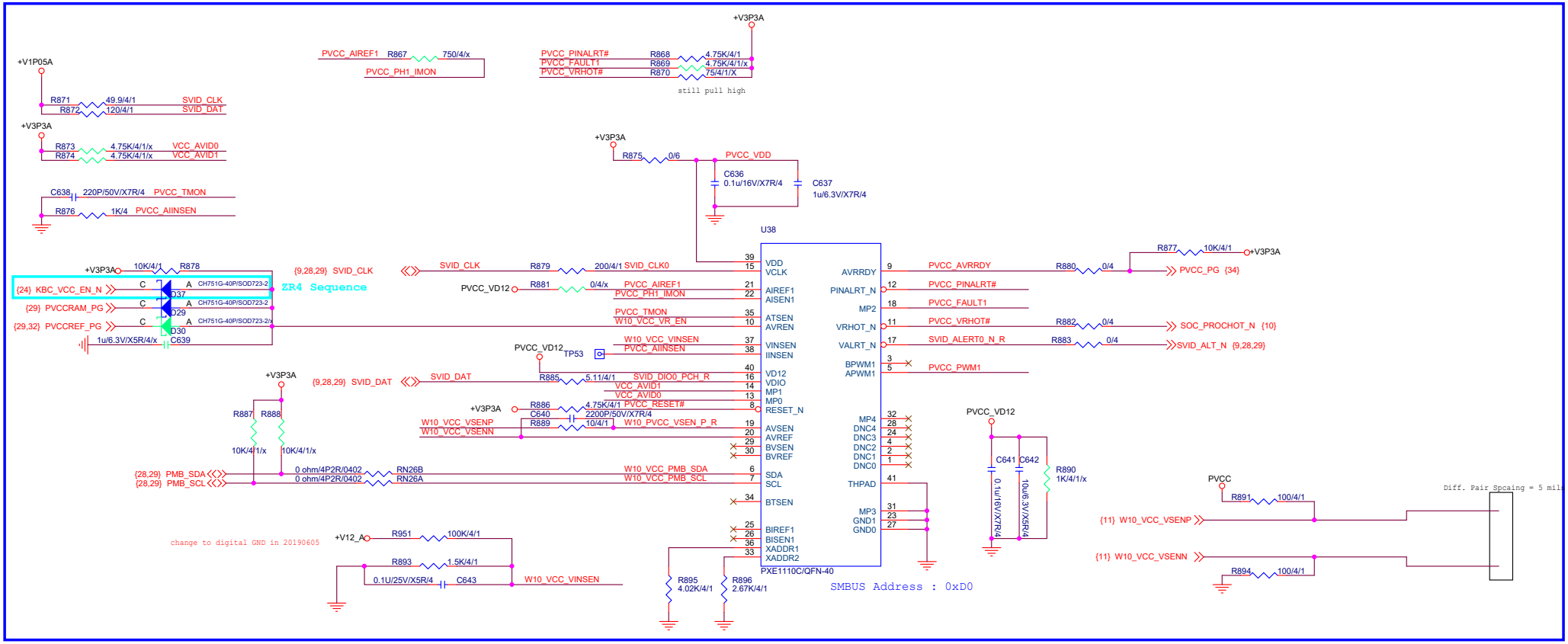
ufiSpace	Cloud & Carrier Network		
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Size	Document Number		Rev
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ufiSpace Cloud & Carrier Network

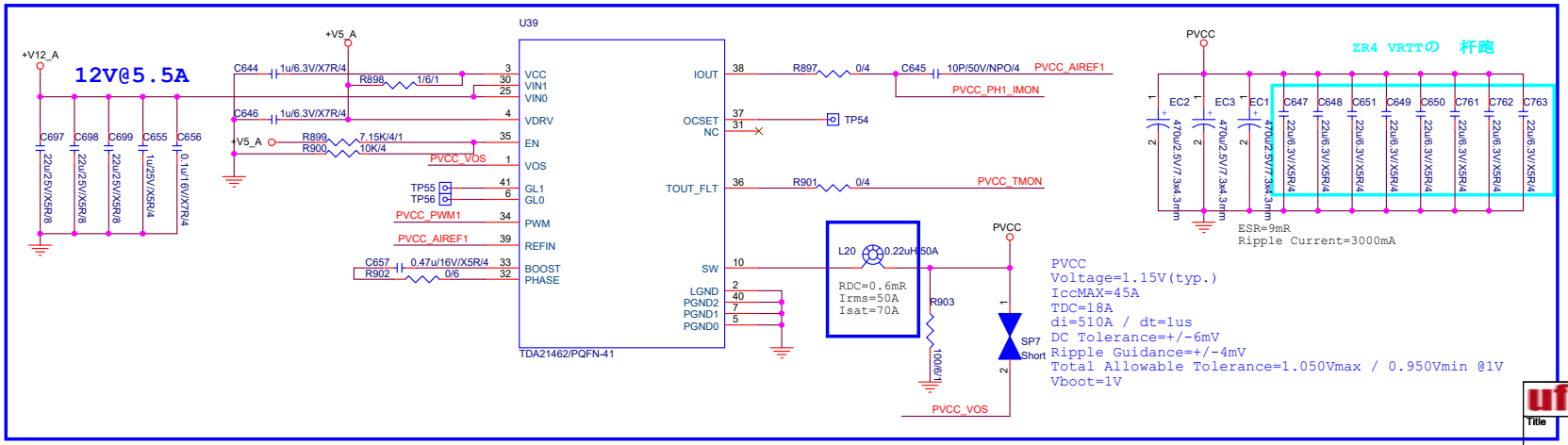
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Size: C	Document Number: 95.2878T00	Rev: ?
Date: Saturday, December 19, 2020	Sheet 26 of 40	

PVCC PWM Controller



ZR2

PVCC Power MOS

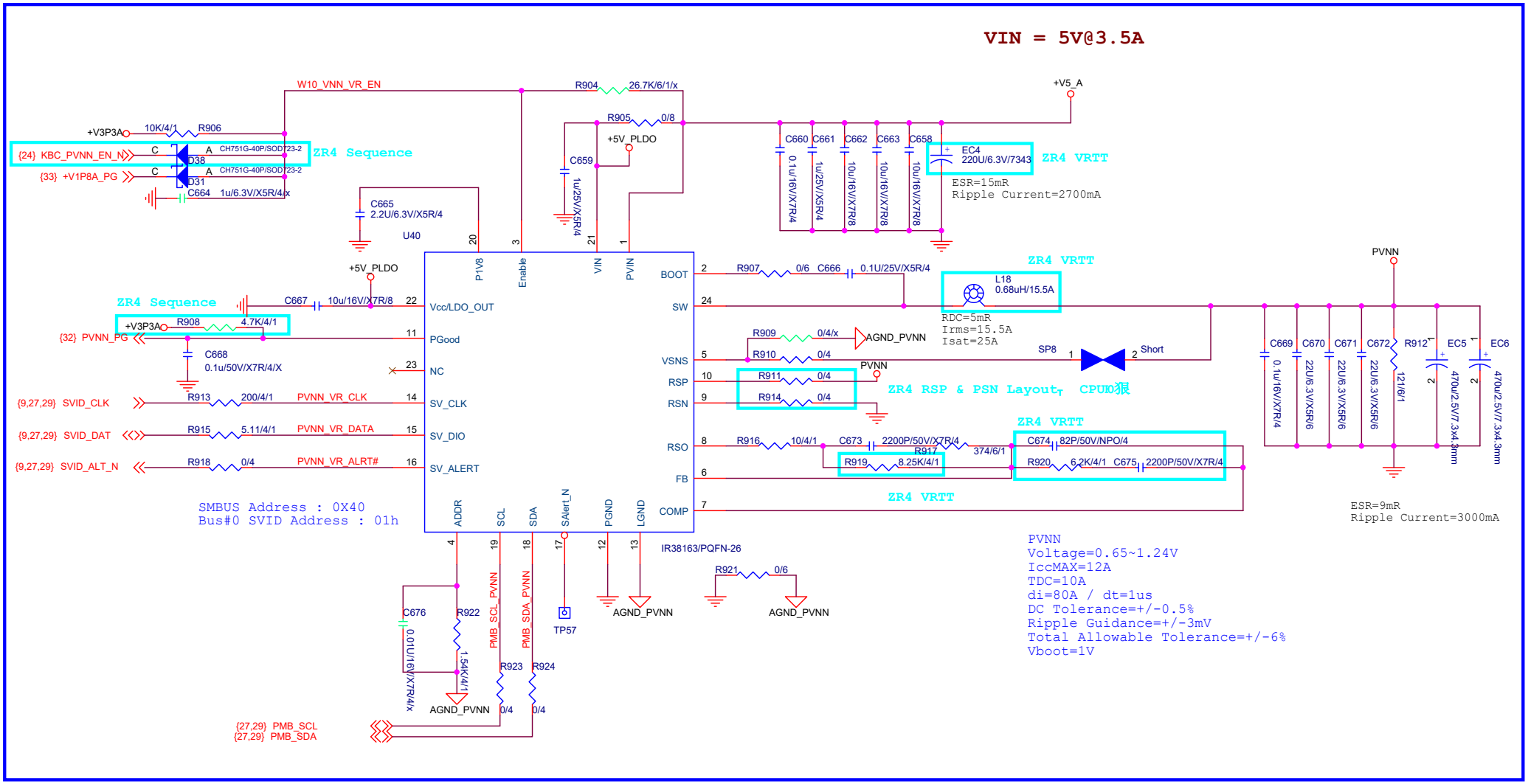


ZR2

ufiSpace Cloud & Carrier Network

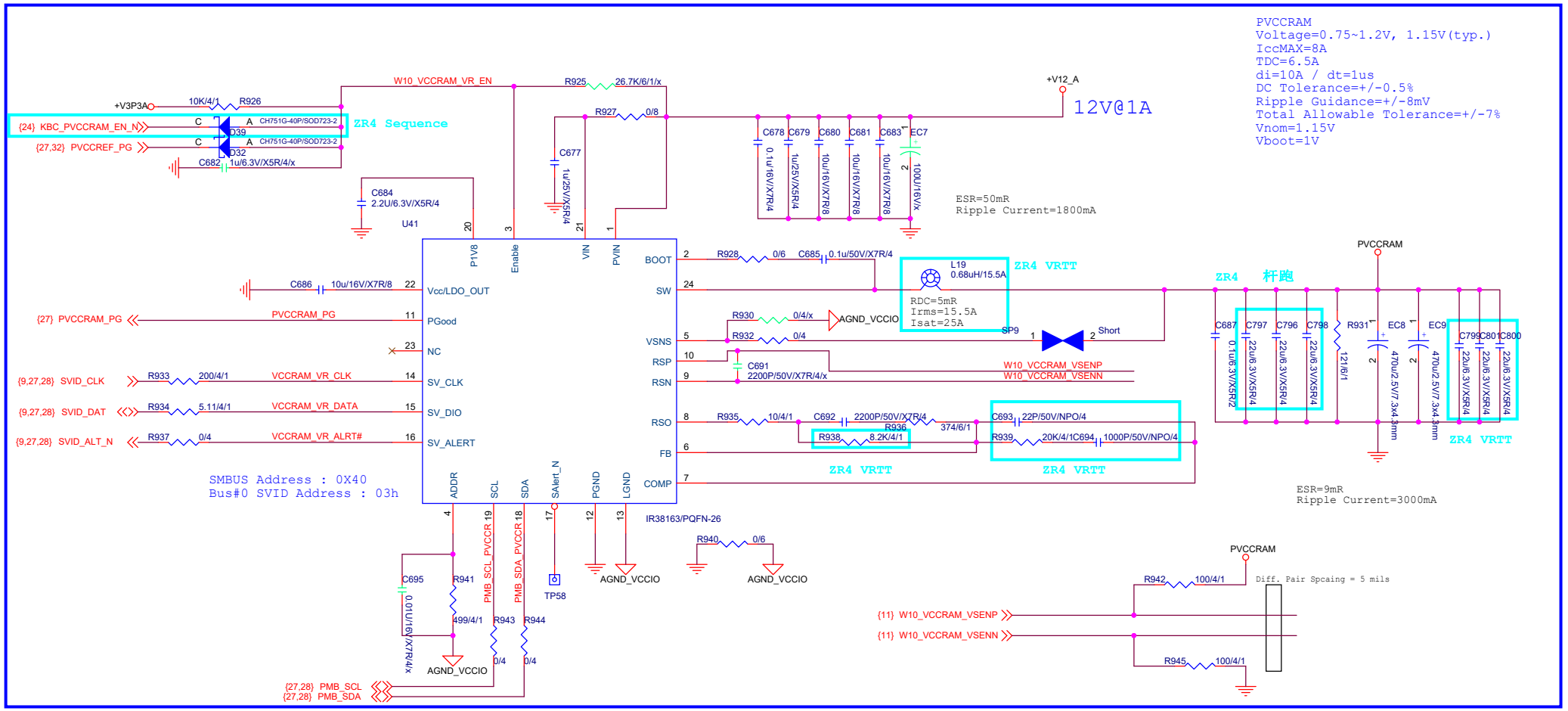
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Size: Custom	Document Number: 95.2878T00	Rev: ?
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PVNN

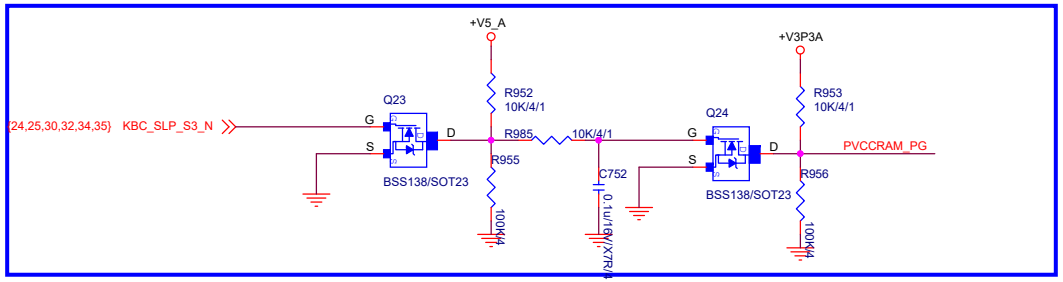


ufiSpace Cloud & Carrier Network		
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Size: B	Document Number: 95.2878T00	Rev: ?
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PVCCRAM



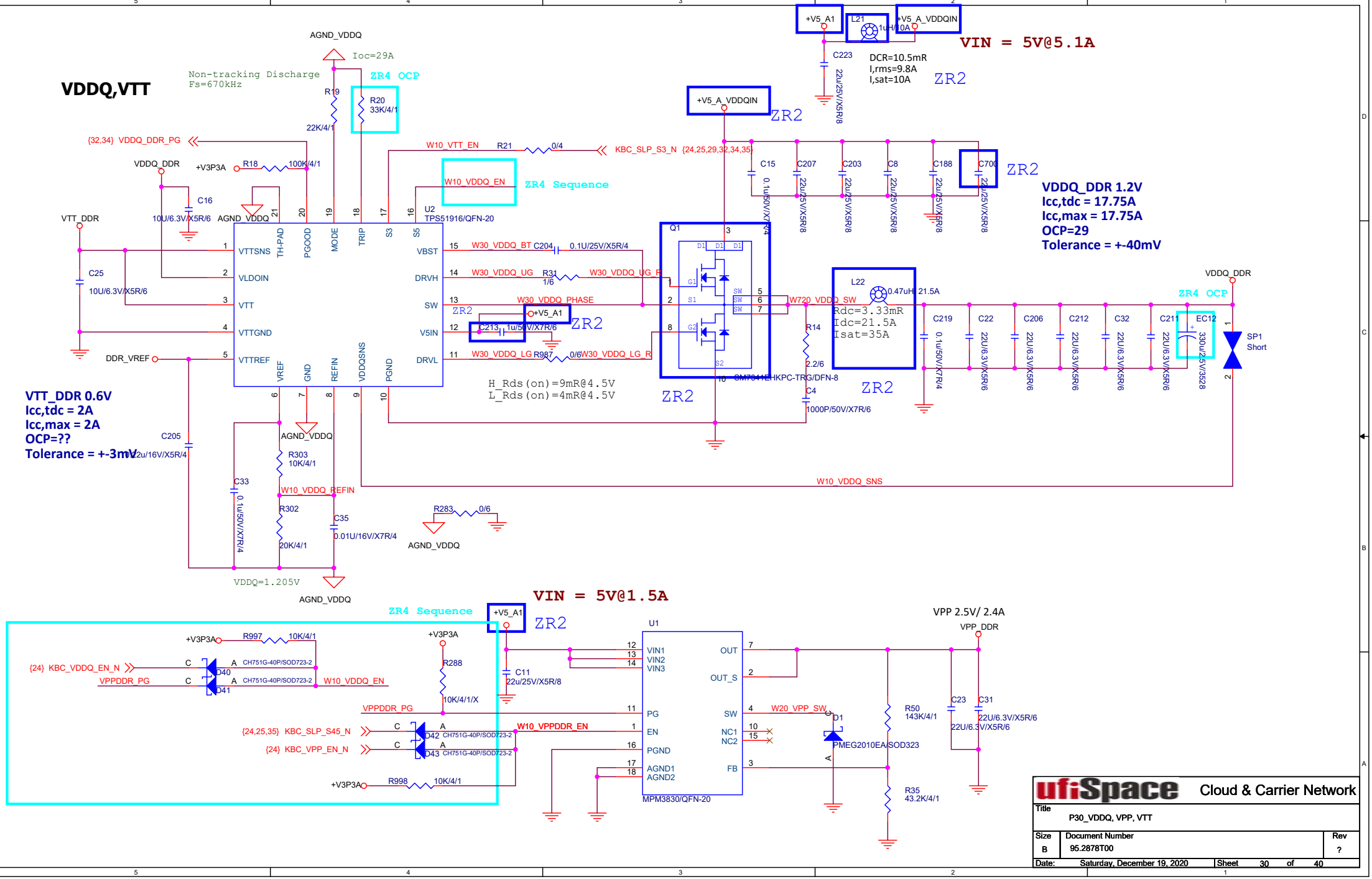
ZR2



ZR2

ñ築箊倒PVCCRAM_PG

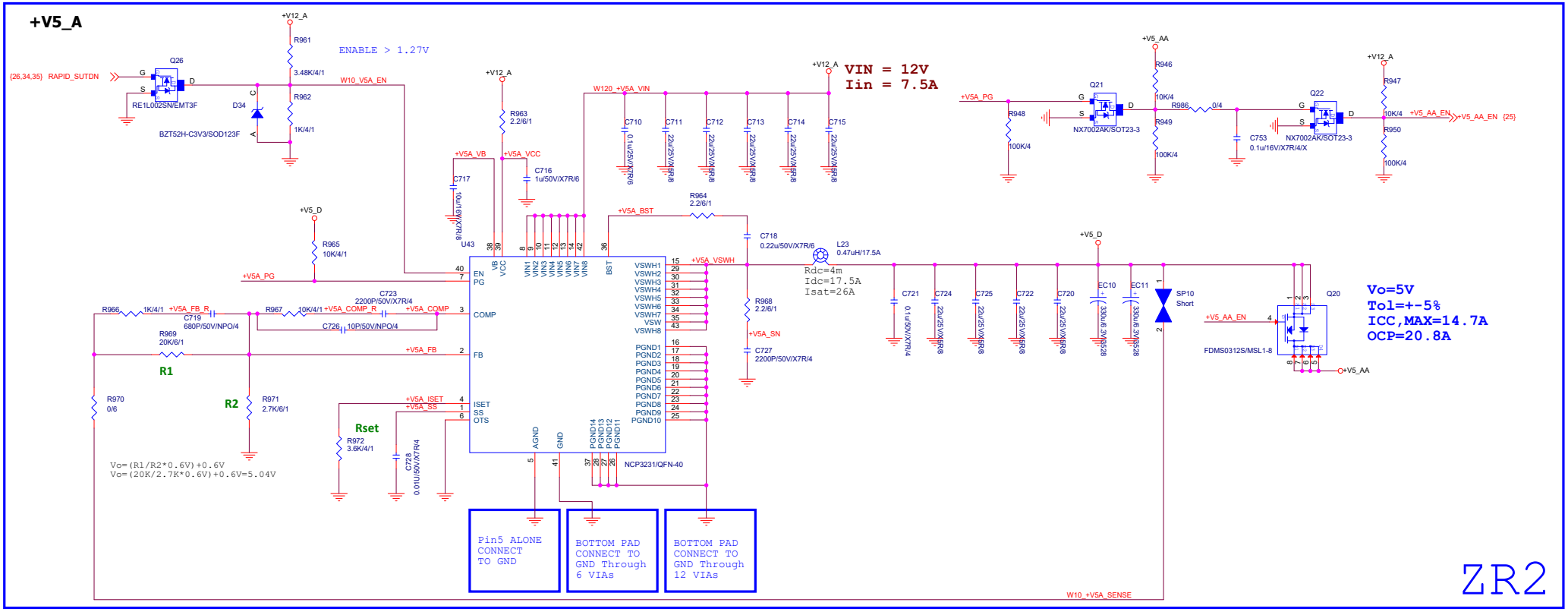
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Size: Custom	Document Number: 95.2878T00	Rev: ?
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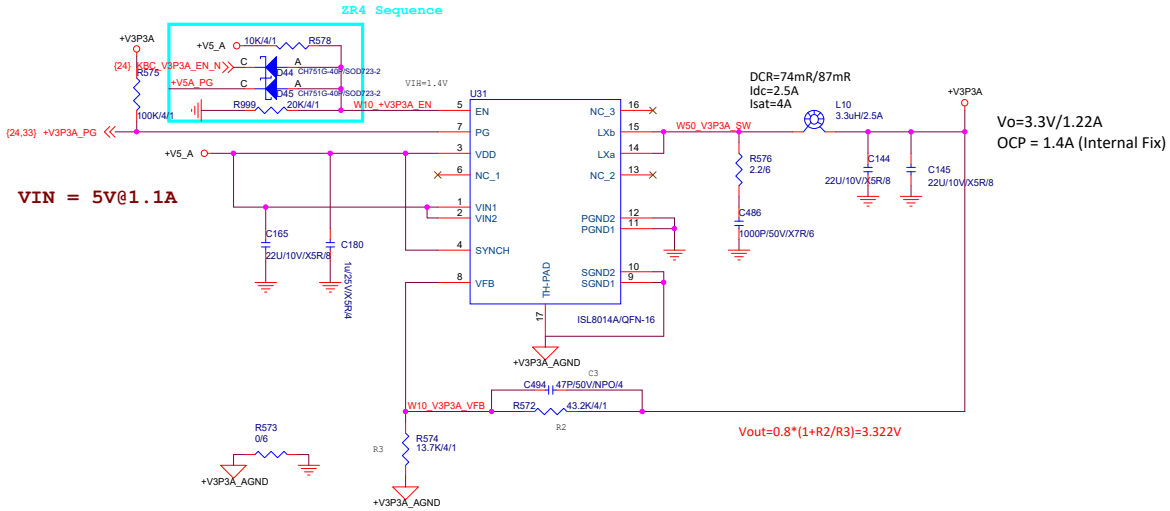
ufiSpace Cloud & Carrier Network

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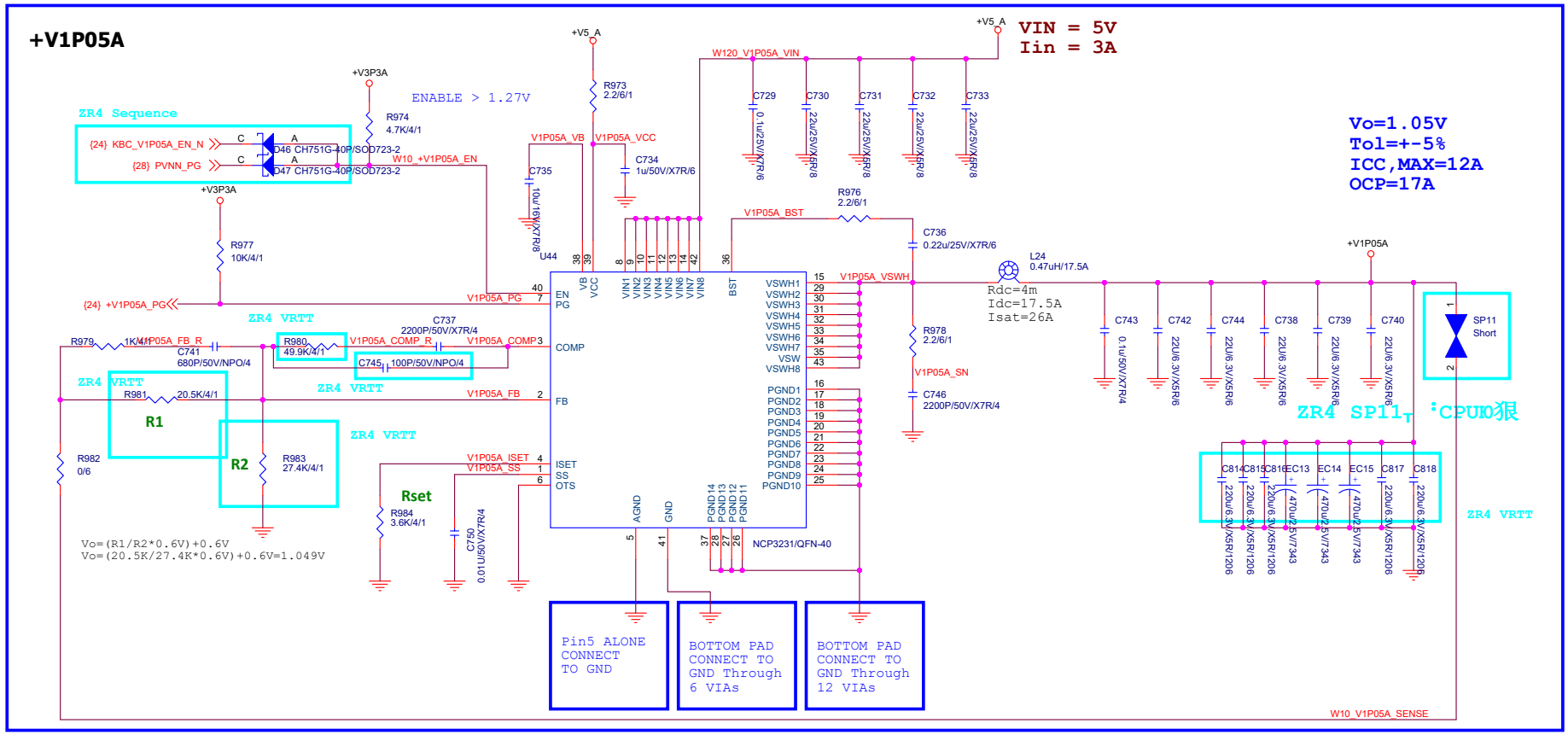
+V5_A



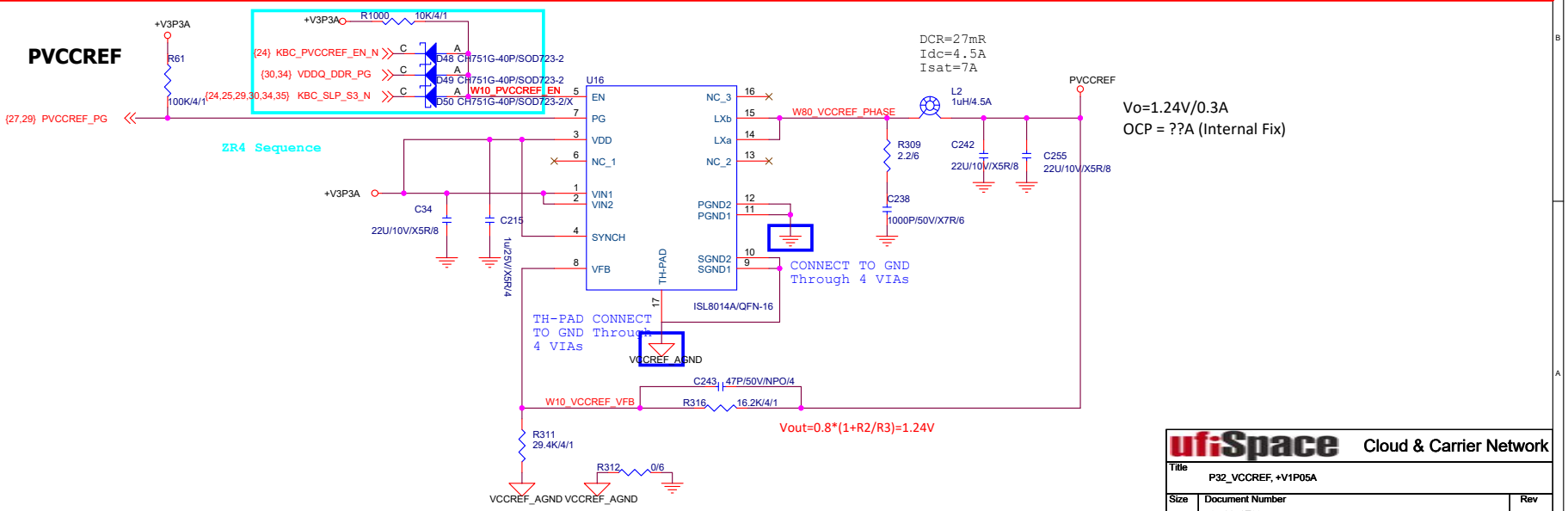
+V3P3A



ufiSpace	Cloud & Carrier Network	
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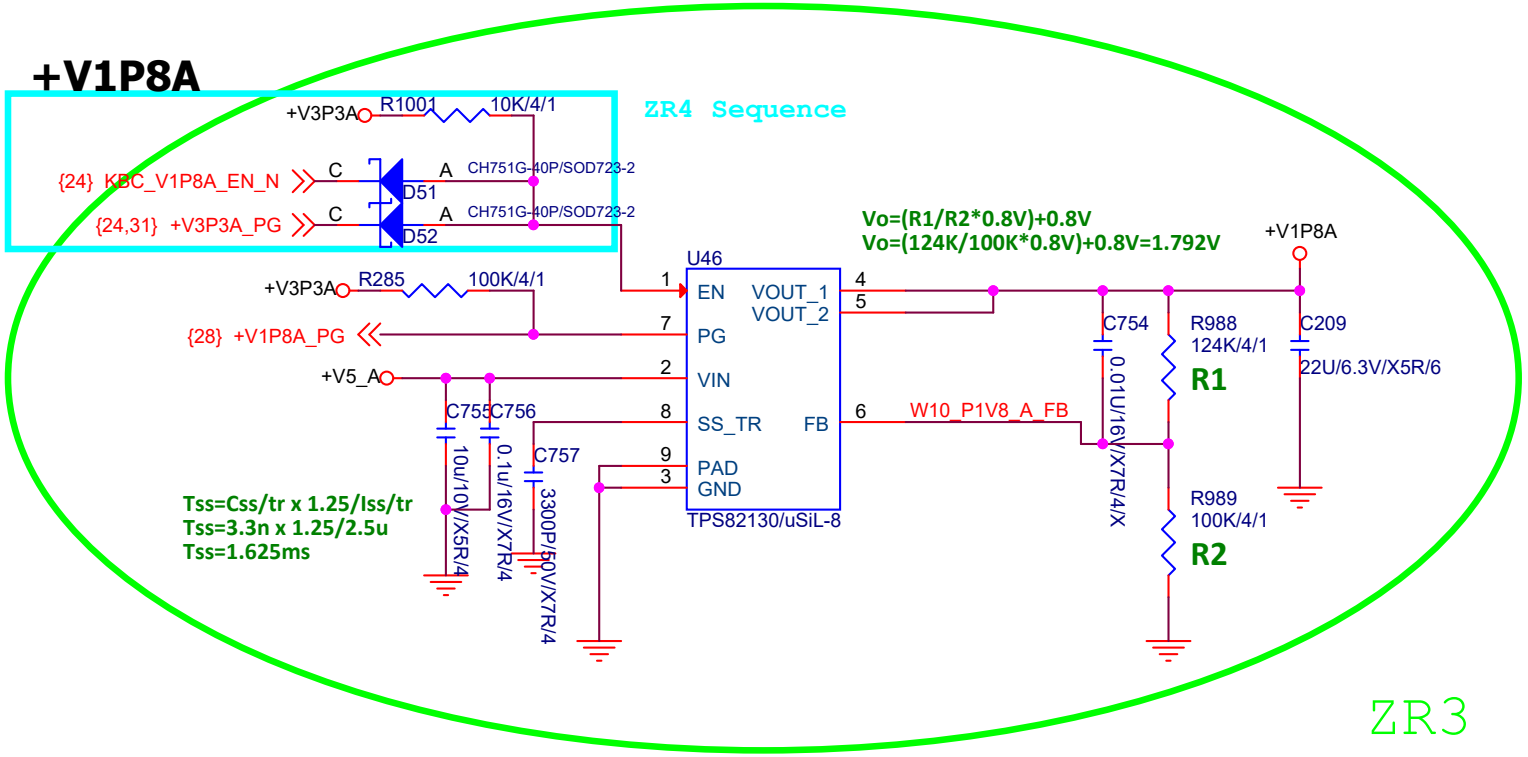


ZR2

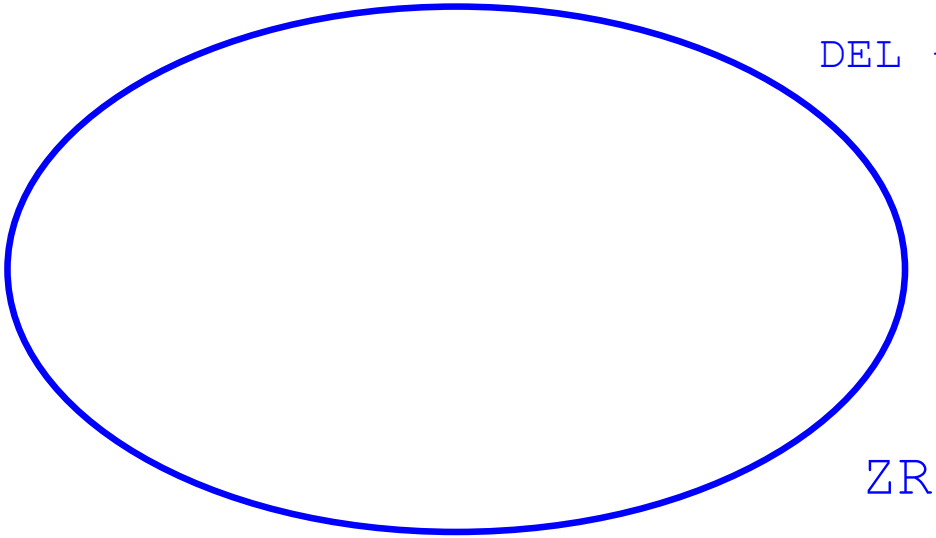


ufiSpace	Cloud & Carrier Network
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Size	Custom
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+V1P8A

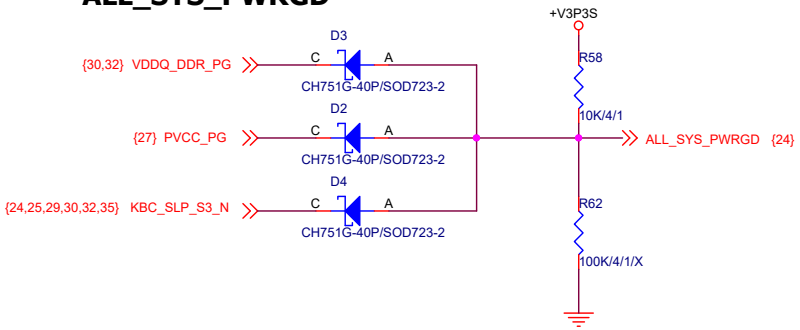


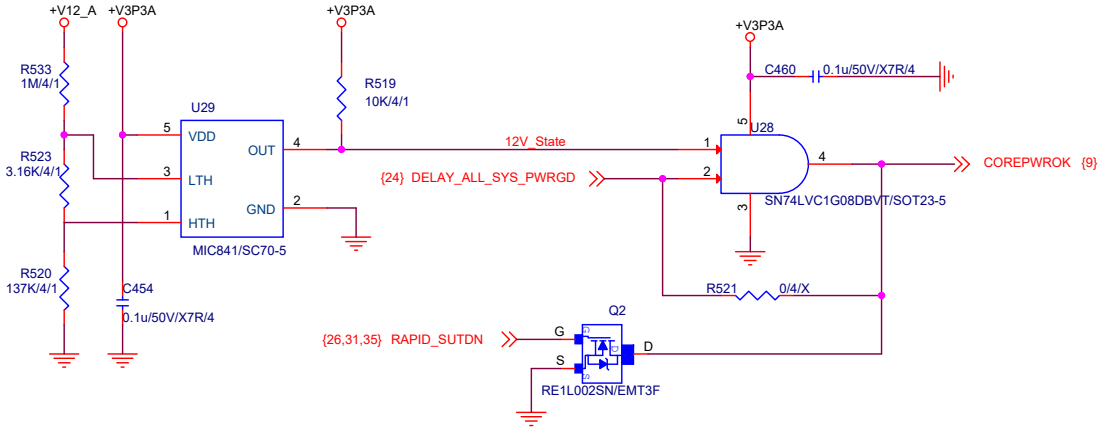
DEL +V1P0A



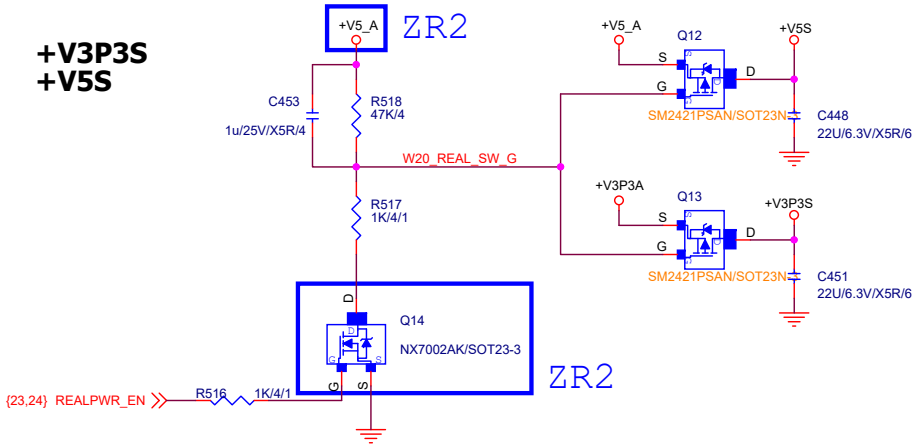
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Size: A	Document Number: 95.2878T00	Rev: ?
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ALL_SYS_PWRGD





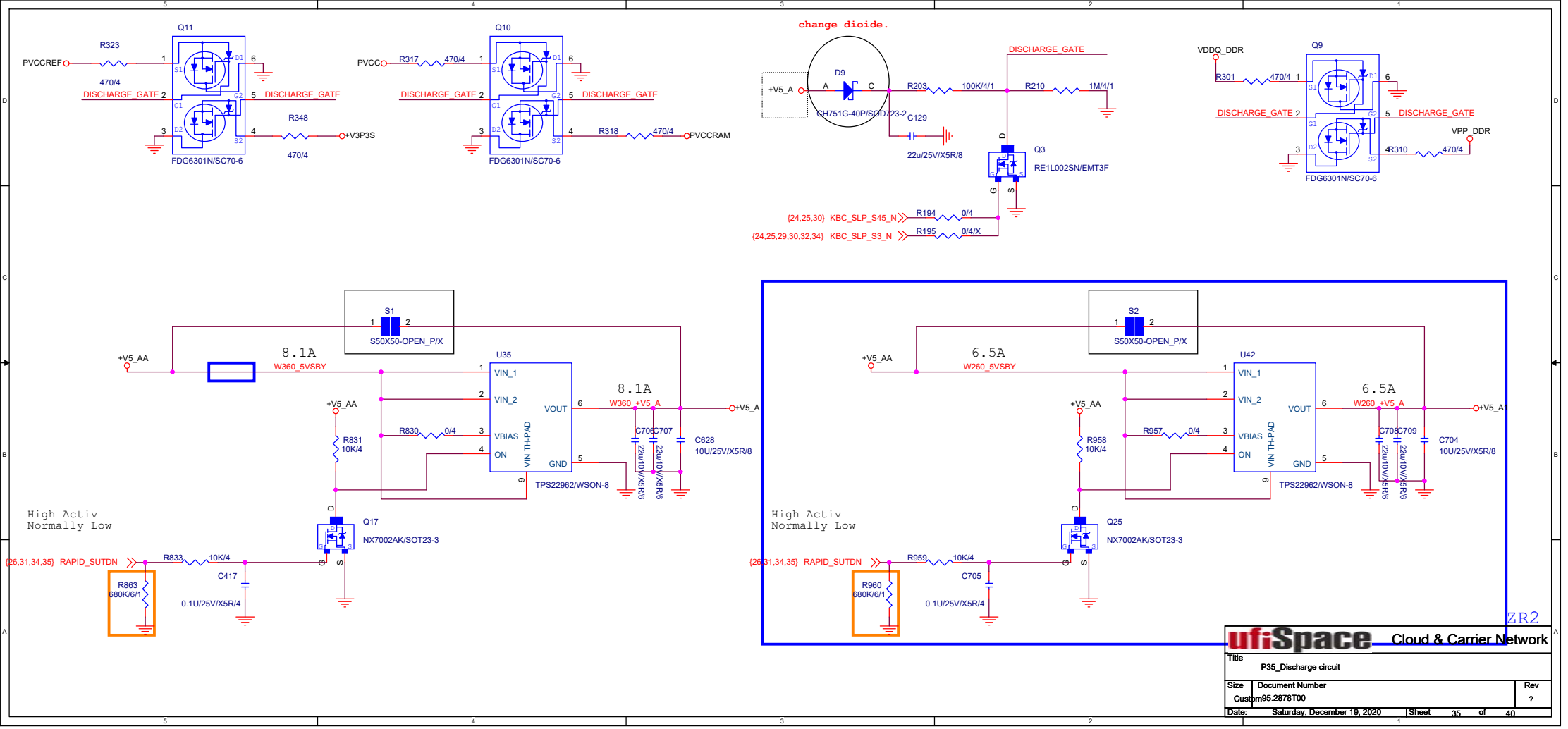
+V3P3S
+V5S



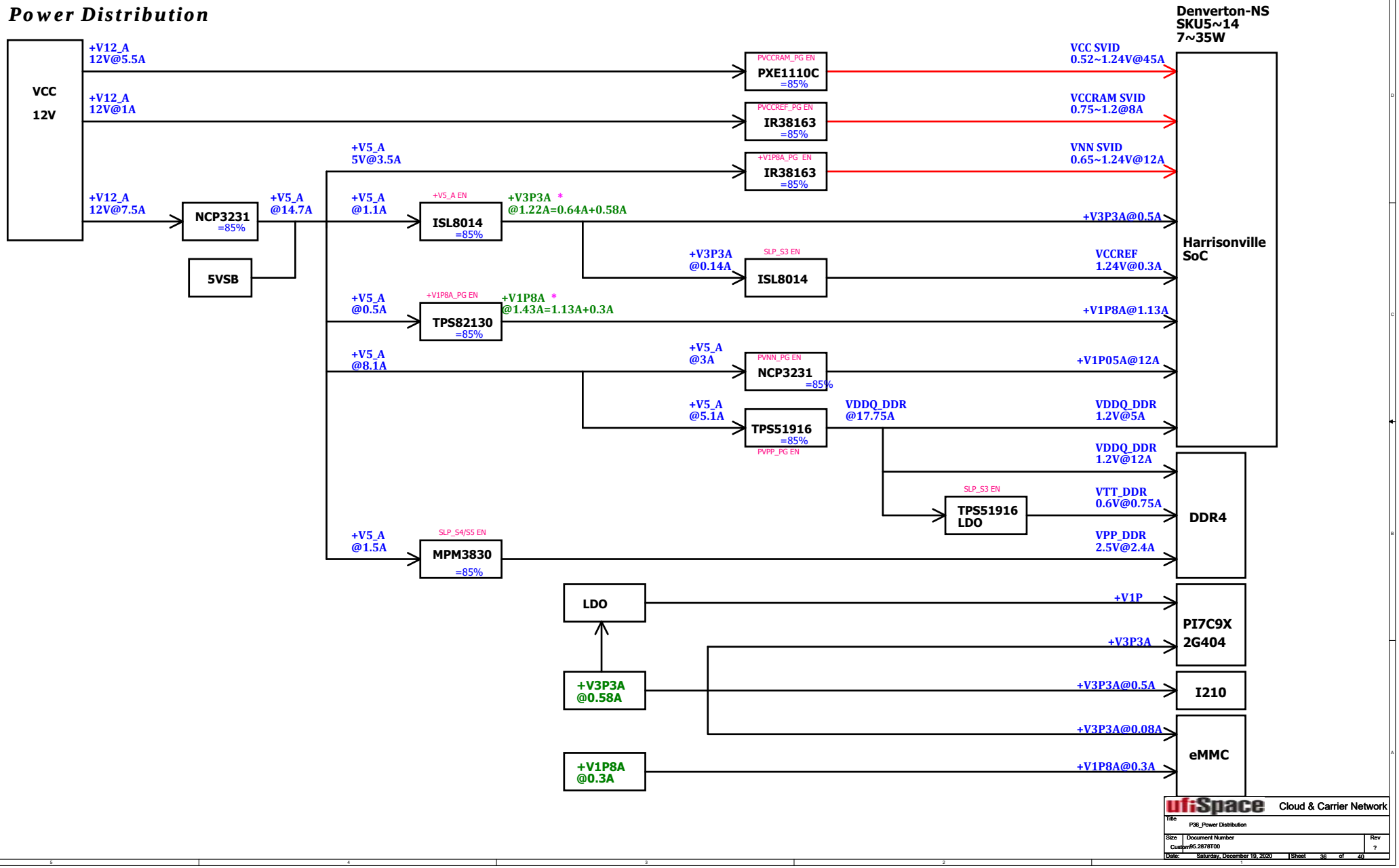
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ufiSpace Cloud & Carrier Network

Title: P34_Sequence		
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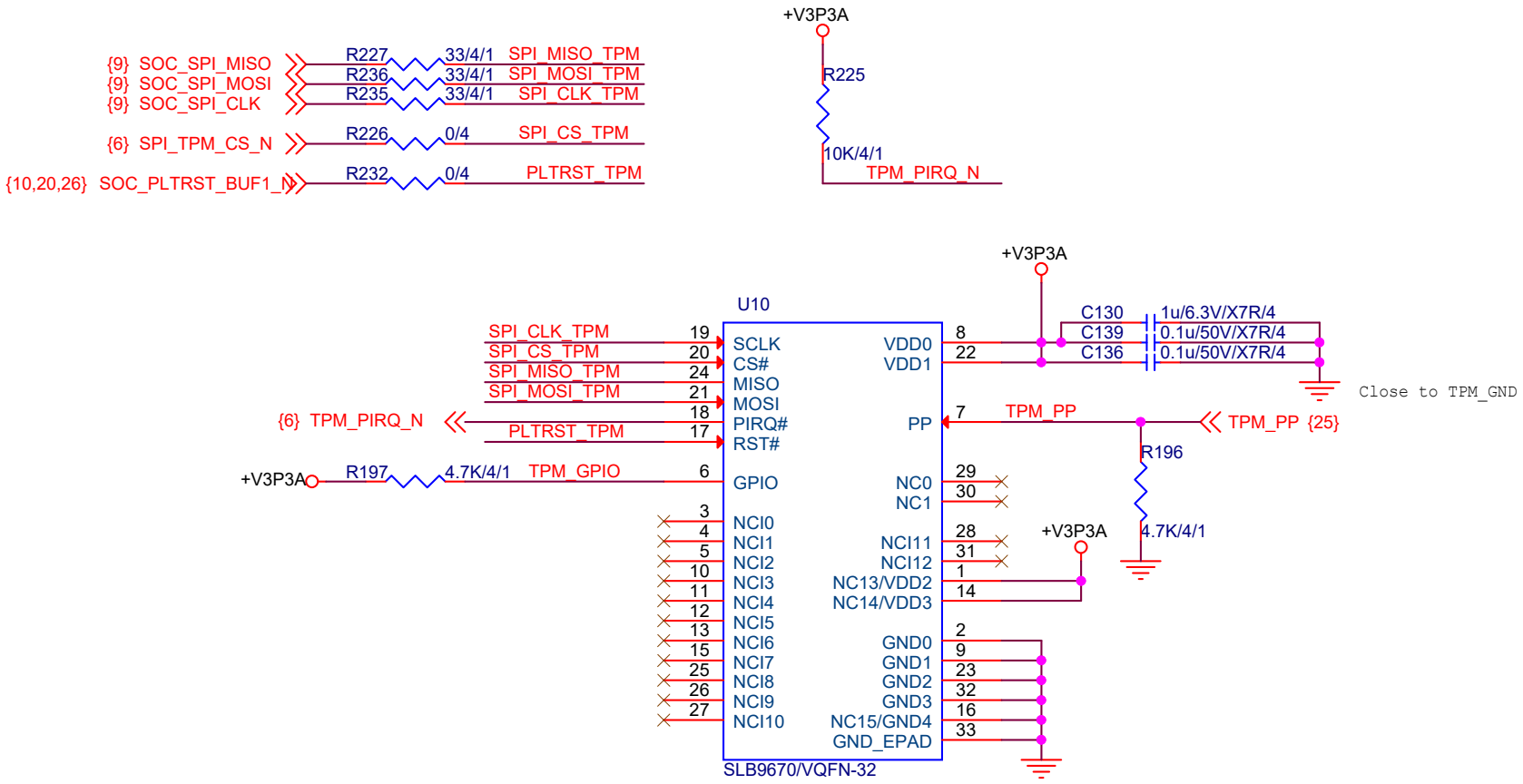

change dioide.
Q11
R323
PVCCREF
470/4
DISCHARGE_GATE
R348
+V3P3S
470/4
FDG6301N/SC70-6
Q10
PVCC
R317
470/4
DISCHARGE_GATE
R318
470/4
PVCCRAM
FDG6301N/SC70-6
D9
+V5_A
CH751G-40P/SOD723-2
R203
100K/4/1
C129
22u/25V/X5R/8
DISCHARGE_GATE
R210
1M/4/1
Q3
RE1L002SN/EMT3F
{24,25,30} KBC_SLP_S45_N
R194
0/4
{24,25,29,30,32,34} KBC_SLP_S3_N
R195
0/4/X
VDDQ_DDR
R301
470/4
Q9
DISCHARGE_GATE
VPP_DDR
R310
470/4
FDG6301N/SC70-6
S1
S50X50-OPEN_P/X
+V5_AA
8.1A
W360_5VSBY
U35
VIN_1
VIN_2
VBIAS
ON
VOUT
GND
VIN TH-PAD
TPS22962/WSON-8
8.1A
W360_+V5_A
+V5_A
C706
C707
22u/10V/X5R6
C628
10U/25V/X5R/8
R831
10K/4
R830
0/4
High Activ
Normally Low
Q17
NX7002AK/SOT23-3
{26,31,34,35} RAPID_SUTDN
R833
10K/4
R863
680K/6/1
C417
0.1U/25V/X5R/4
S2
S50X50-OPEN_P/X
6.5A
W260_5VSBY
U42
6.5A
W260_+V5_A
C708
C709
C704
10U/25V/X5R/8
R958
10K/4
R957
0/4
Q25
NX7002AK/SOT23-3
R959
10K/4
R960
680K/6/1
C705
0.1U/25V/X5R/4
ZR2
ufiSpace
Cloud & Carrier Network
Title
P35_Discharge circuit
Size
Custom
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Power Distribution

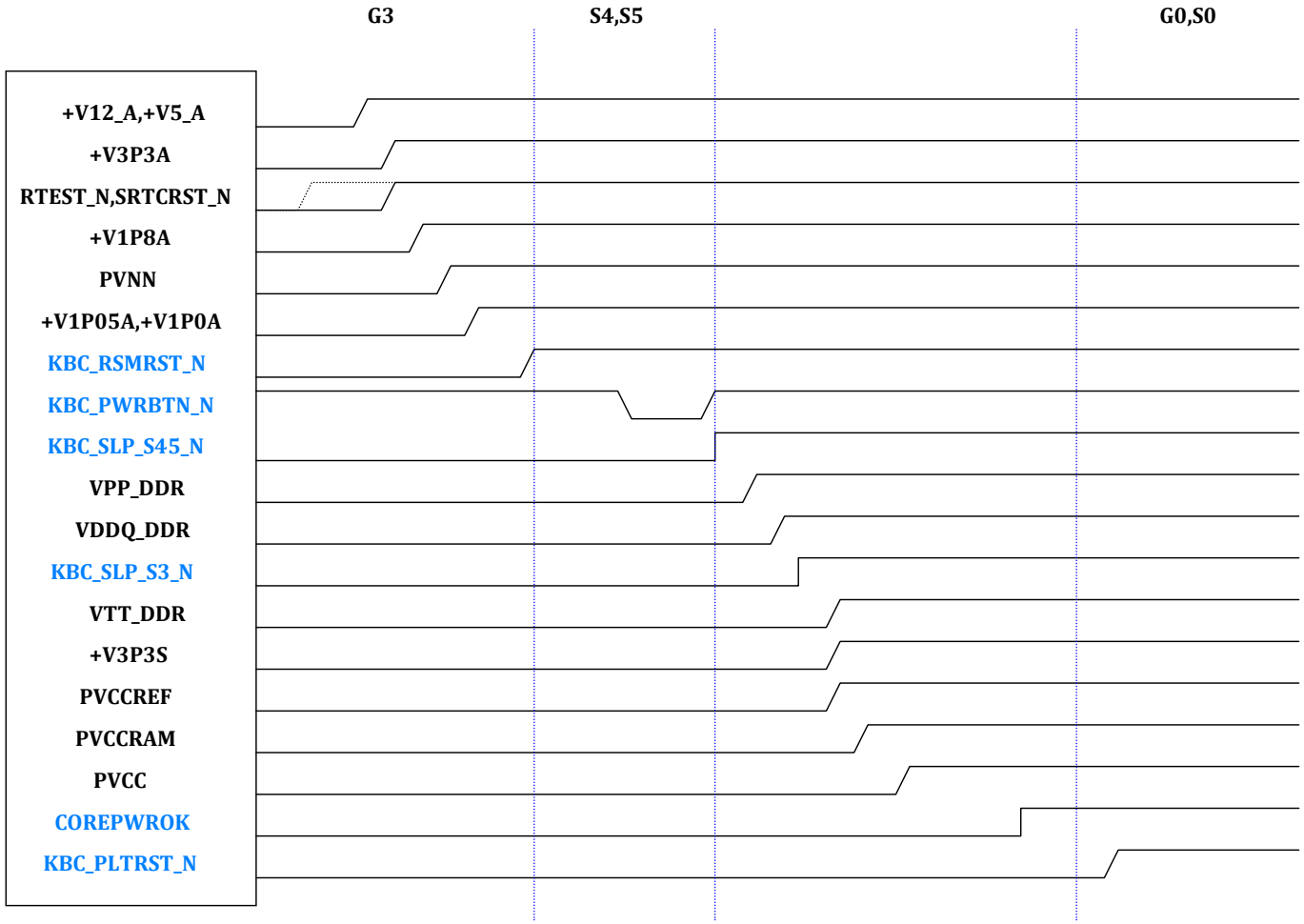


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Title: P36_Power Distribution		
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ufiSpace	Cloud & Carrier Network	
Title: P38_TPM		
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ufiSpace Cloud & Carrier Network		
Title: P37_History, EC Sequence		
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History

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History -- 2

ufiSpace	Cloud & Carrier Network		
Title	P37_History, EC Sequence		
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