catalog

INTEL Calpella Platform

N13DCP

Version : 0.1

Notes:

POP Value : "POP=NA" means not stuff
Part Value prefix: "PCH_" means only stuff for internal sku
Part Value prefix: "AT_" means only stuff for external sku
Part Value prefix: "ATM_" means only stuff for M92 sku
Part Value prefix: "ATP_" means only stuff for PARK sku

Net Value suffix : "#" means Low Active

BYD COMPANY LIMITED	
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Page Name	Cover Sheet
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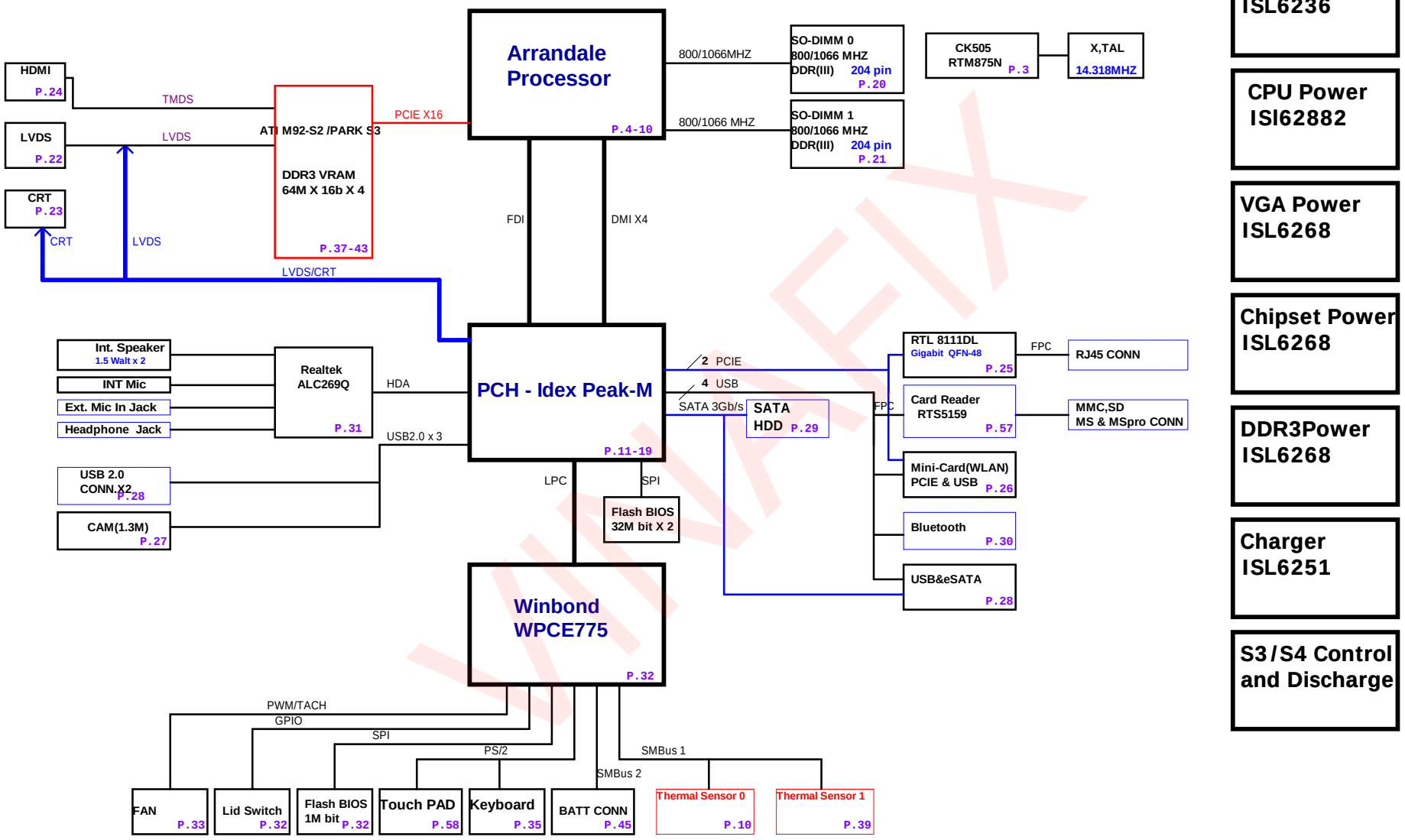
BLOCK DIAGRAM



System Power
ISL6236

CPU Power
ISl62882

VGA Power
ISL6268

Chipset Power
ISL6268

DDR3Power
ISL6268

Charger
ISL6251

S3/S4 Control and Discharge

BYD COMPANY LIMITED	
Mobile Name	N13DCP
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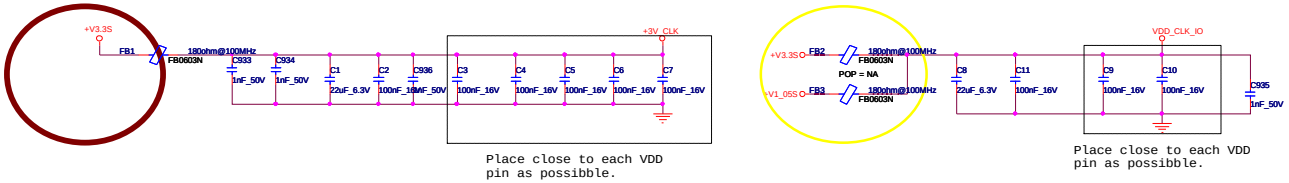

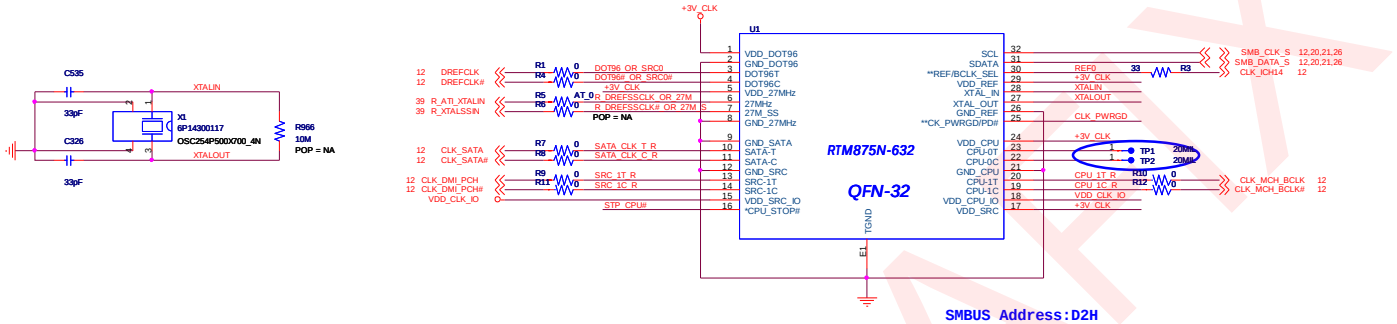

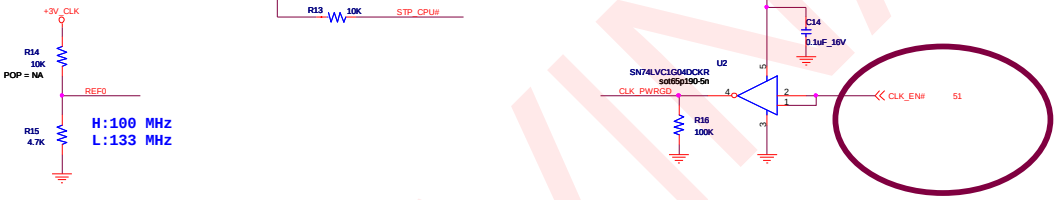

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CK505
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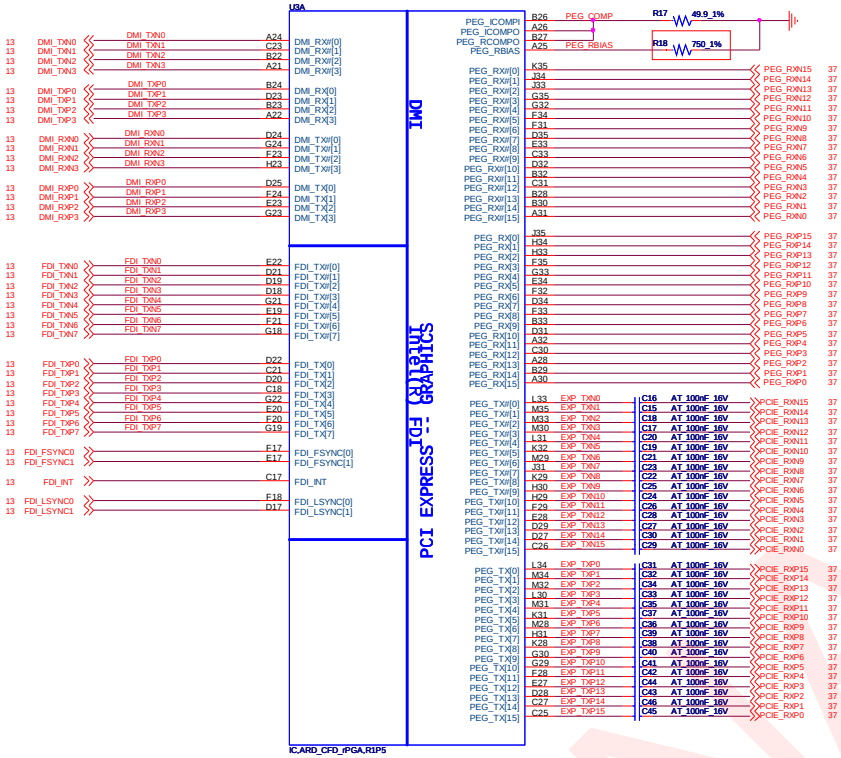

BYD COMPANY LIMITED

Mobile Name: N13DCP

Page Name: CPU(DMI/FDI/PCIE)

Rev: V0.1

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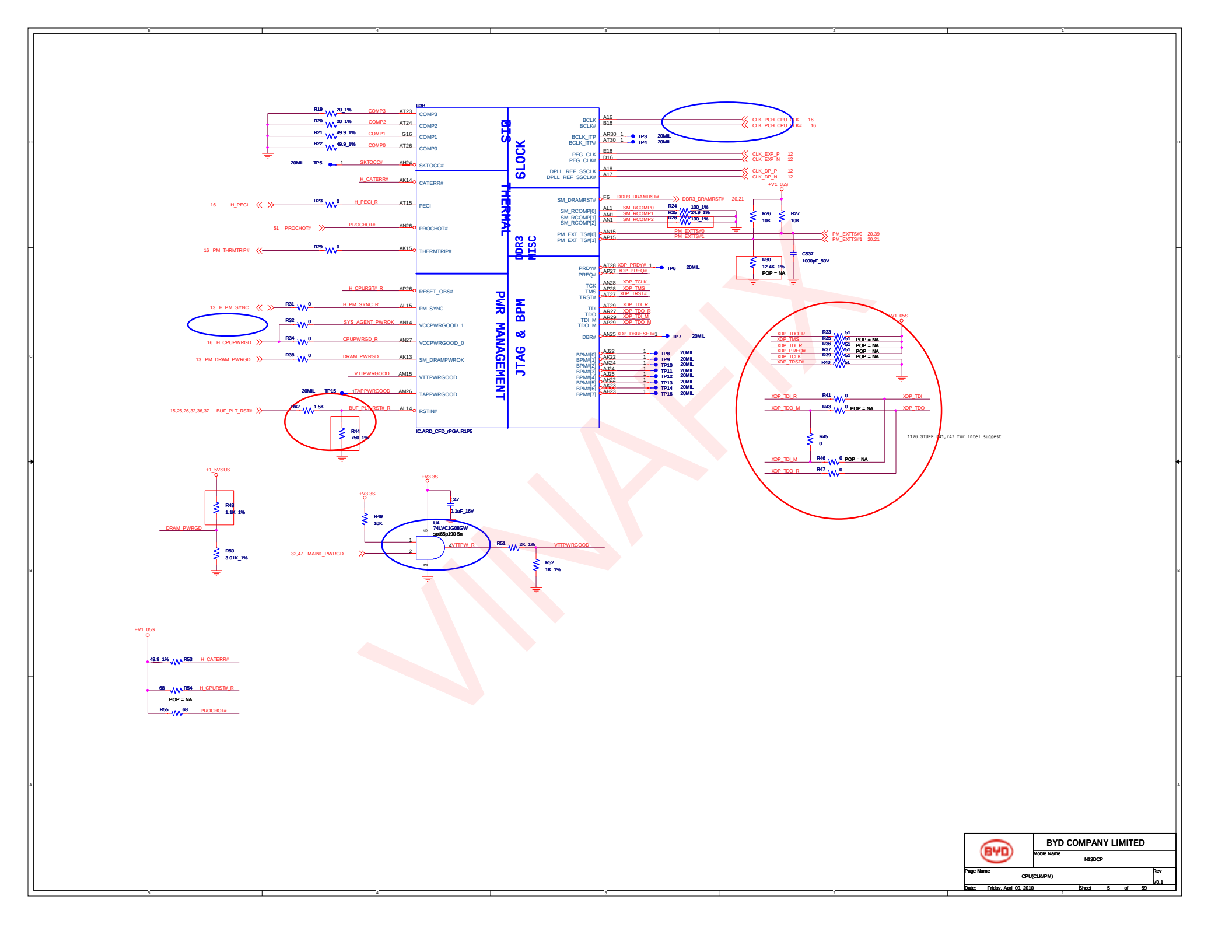
U38
COMP3
COMP2
COMP1
COMP0
SKTOCC#
CATERR#
PECI
PROCHOT#
THERMTRIP#
RESET_OBS#
PM_SYNC
VCCPWRGOOD_1
VCCPWRGOOD_0
SM_DRAMPWROK
VTTPWRGOOD
TAPPWRGOOD
RSTIN#
CLOCK
THERMAL
DDR3 MISC
PWR MANAGEMENT
JTAG & BPM
BCLK
BCLK#
BCLK_ITP
BCLK_ITP#
PEG_CLK
PEG_CLK#
DPLL_REF_SSCLK
DPLL_REF_SSCLK#
SM_DRAMRST#
SM_RCOMP[0]
SM_RCOMP[1]
SM_RCOMP[2]
PM_EXT_TS#[0]
PM_EXT_TS#[1]
PRDY#
PREQ#
TCK
TMS
TRST#
TDI
TDO
TDI_M
TDO_M
DBR#
BPM#[0]
BPM#[1]
BPM#[2]
BPM#[3]
BPM#[4]
BPM#[5]
BPM#[6]
BPM#[7]
IC,ARD_CFD_rPGA,R1P5
CLK_PCH_CPU_CLK
CLK_PCH_CPU_CLK#
CLK_EXP_P
CLK_EXP_N
CLK_DP_P
CLK_DP_N
DDR3_DRAMRST#
SM_RCOMP0
SM_RCOMP1
SM_RCOMP2
PM_EXTTS#0
PM_EXTTS#1
XDP_PRDY#
XDP_PREQ#
XDP_TCLK
XDP_TMS
XDP_TRST#
XDP_TDI_R
XDP_TDO_R
XDP_DBRESET#
XDP_TDI_M
XDP_TDO_M
XDP_TDI
XDP_TDO
TP3
TP4
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP16
+V1_05S
+1_5VSUS
+V3.3S
DRAM_PWRGD
MAIN1_PWRGD
VTTPWRGOOD
VTTPW_R
H_CATERR#
H_PECI
PROCHOT#
H_PM_THRMTRIP#
H_PM_SYNC
H_CPUPWRGD
PM_DRAM_PWRGD
BUF_PLT_RST#
H_CPURST#
SYS_AGENT_PWROK
CPUPWRGD
DRAM_PWRGD
TAPPWRGOOD
SKTOCC#
H_PECI_R
H_PM_SYNC_R
CPUPWRGD_R
DRAM_PWRGD
BUF_PLT_RST#_R
H_CPURST#_R
R19 20_1%
R20 20_1%
R21 49.9_1%
R22 49.9_1%
R23 0
R24 100_1%
R25 24.9_1%
R26 10K
R27 10K
R28 130_1%
R29 0
R30 12.4K_1% POP = NA
R31 0
R32 0
R34 0
R38 0
R33 51
R35 51 POP = NA
R36 51 POP = NA
R37 51 POP = NA
R39 51 POP = NA
R40 51
R41 0
R42 1.5K
R43 0 POP = NA
R44 750_1%
R45 0
R46 0 POP = NA
R47 0
R48 1.1K_1%
R49 10K
R50 3.01K_1%
R51 2K_1%
R52 1K_1%
R53 49.9_1%
R54 68 POP = NA
R55 68
C47 0.1uF_16V
C537 1000pF_50V
U4 74LVC1G08GW sot65p190-5n
TP5
TP15
20MIL
1126 STUFF r41,r47 for intel suggest
BYD COMPANY LIMITED
Mobile Name N13DCP
Page Name CPU(CLK/PM)
Rev V0.1
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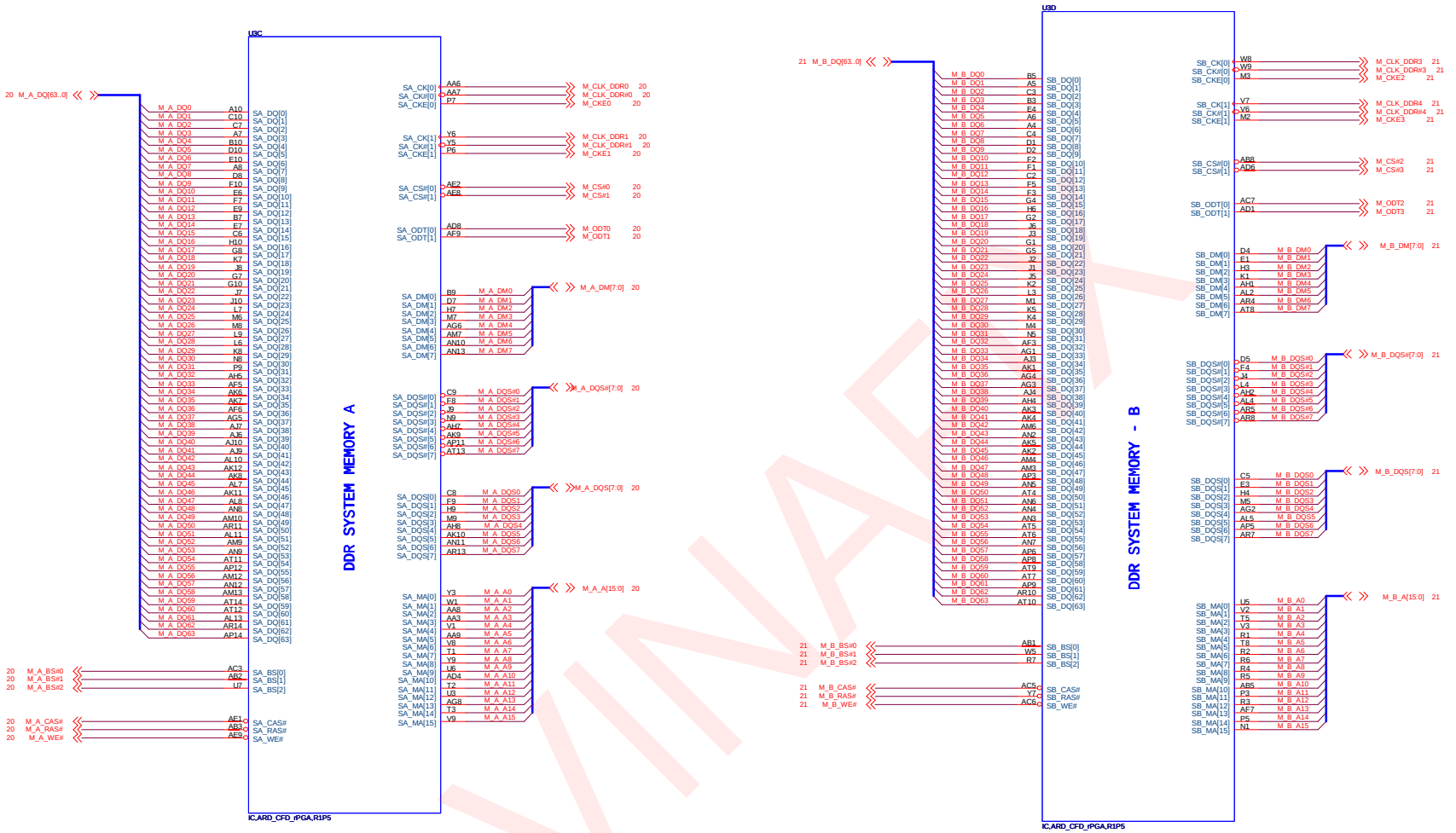

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CPU(DDR3)
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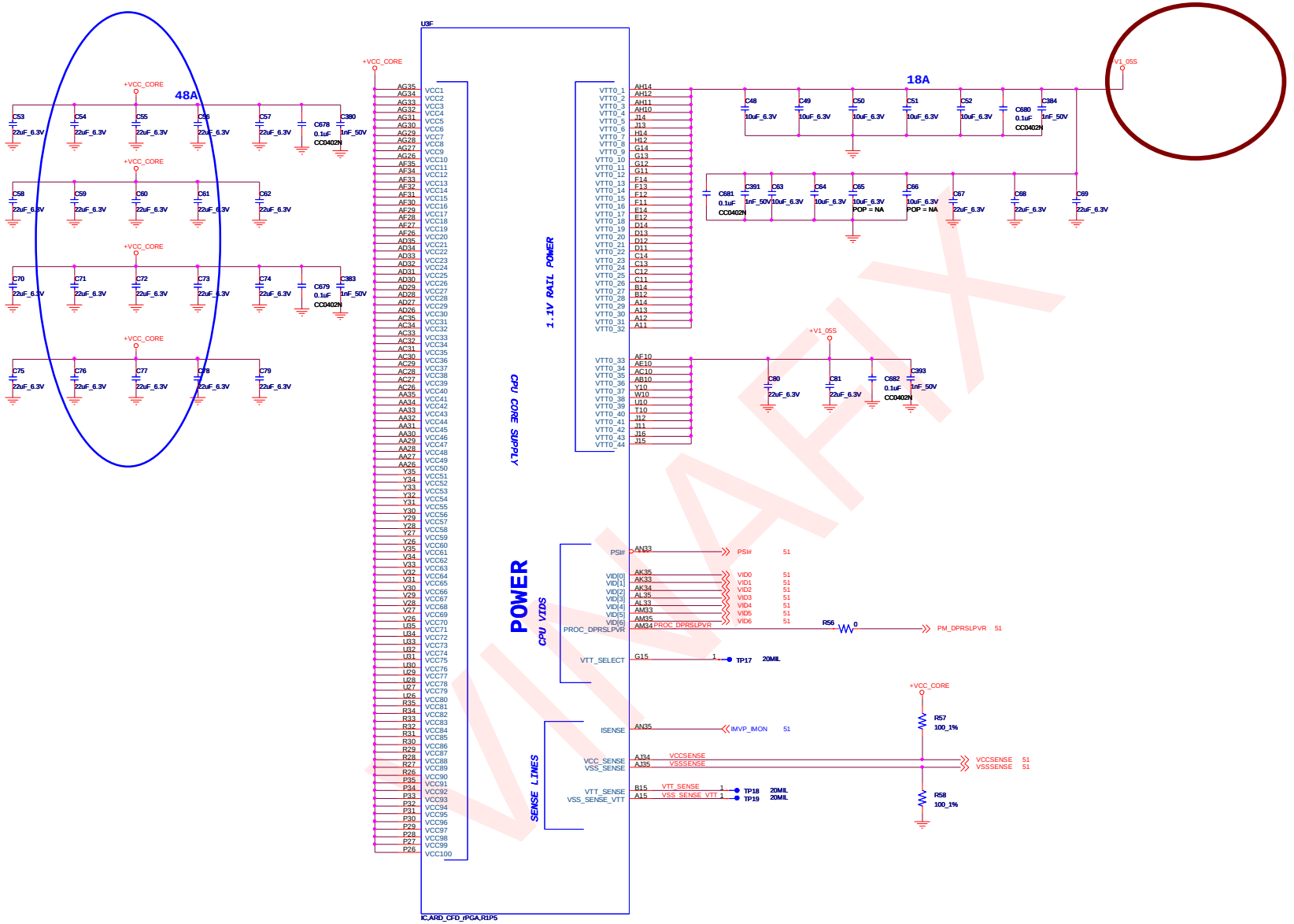

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CPU(POWER1)
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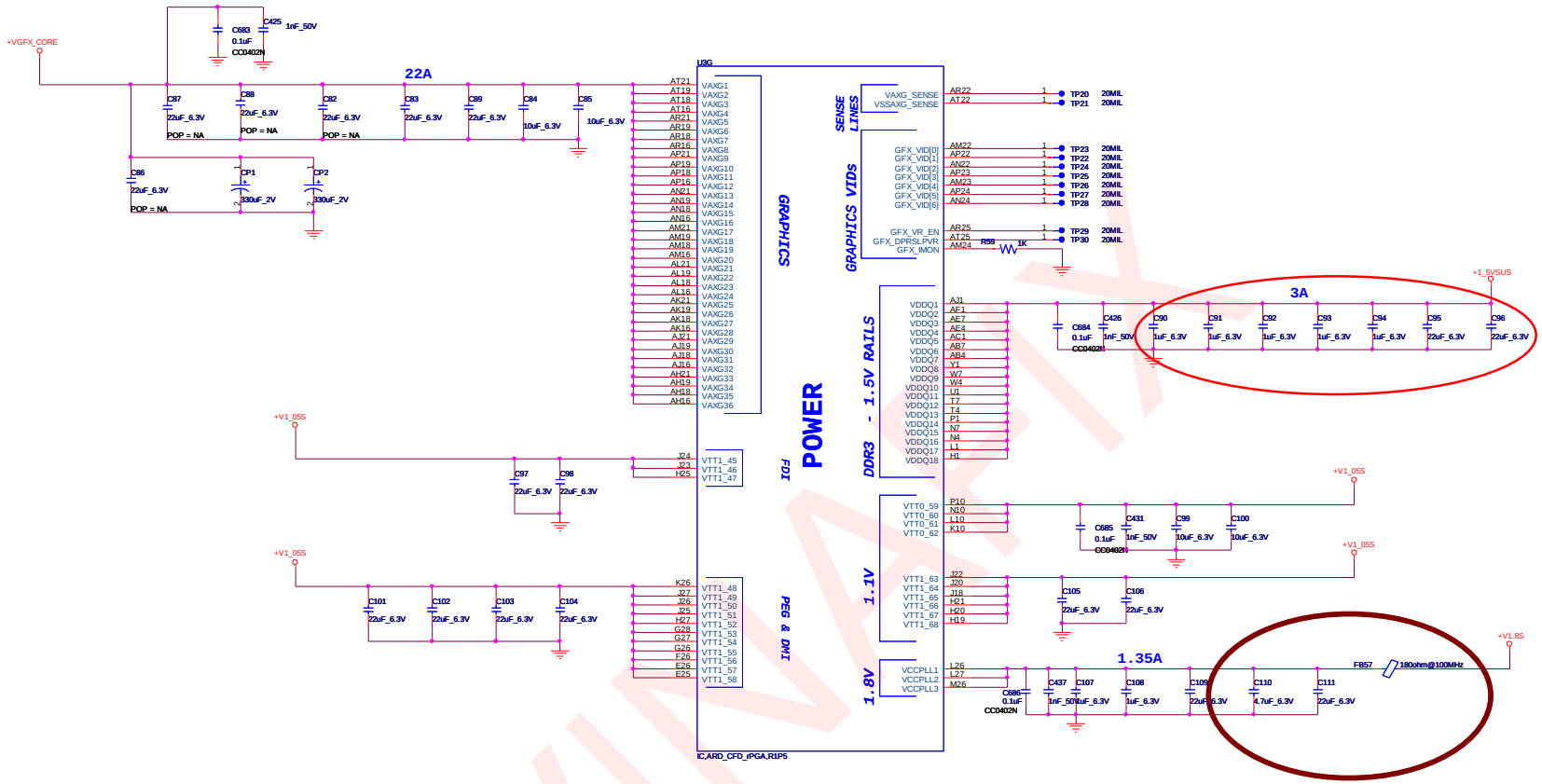

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CPU(POWER2)
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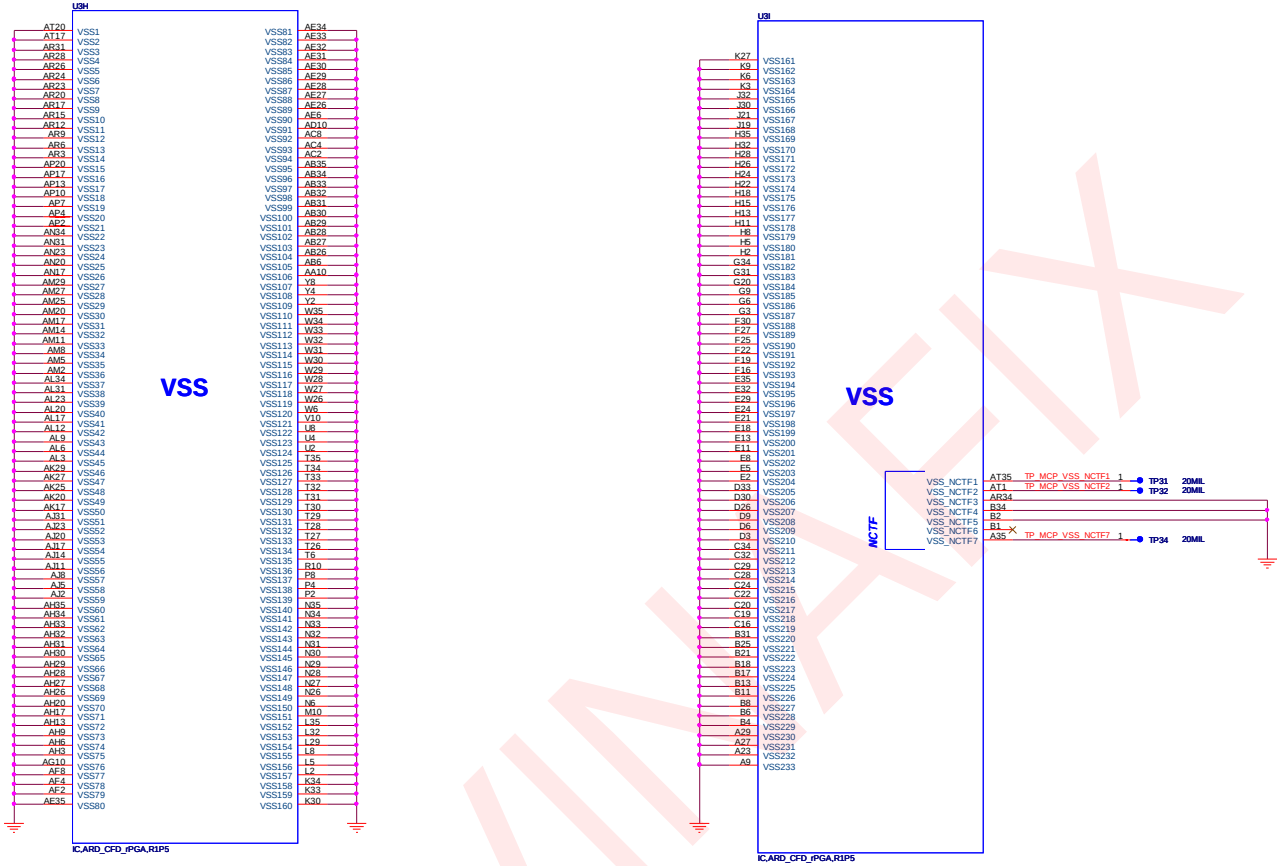

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CPU(GND)
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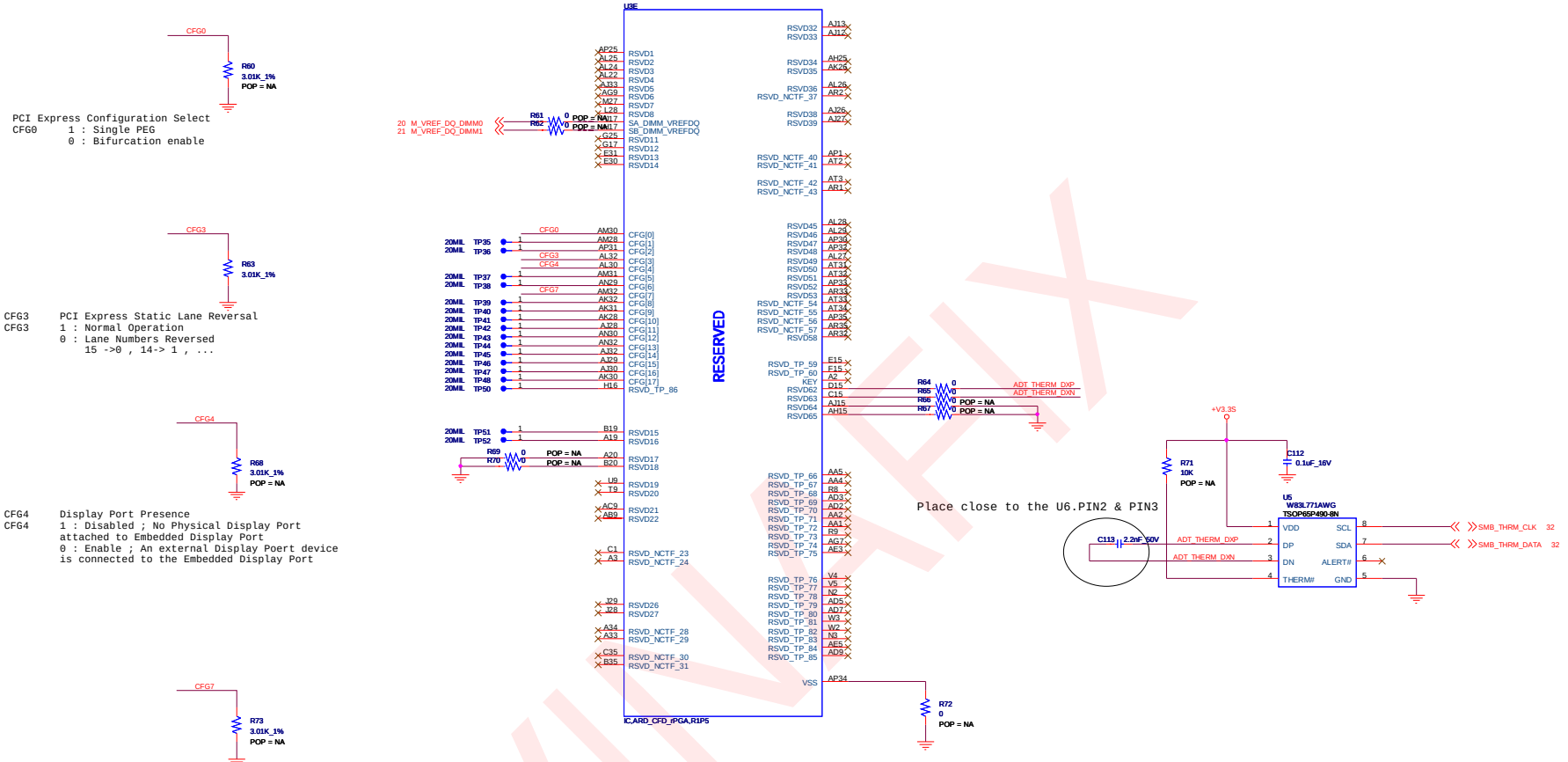

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	CPU(RESERVED)
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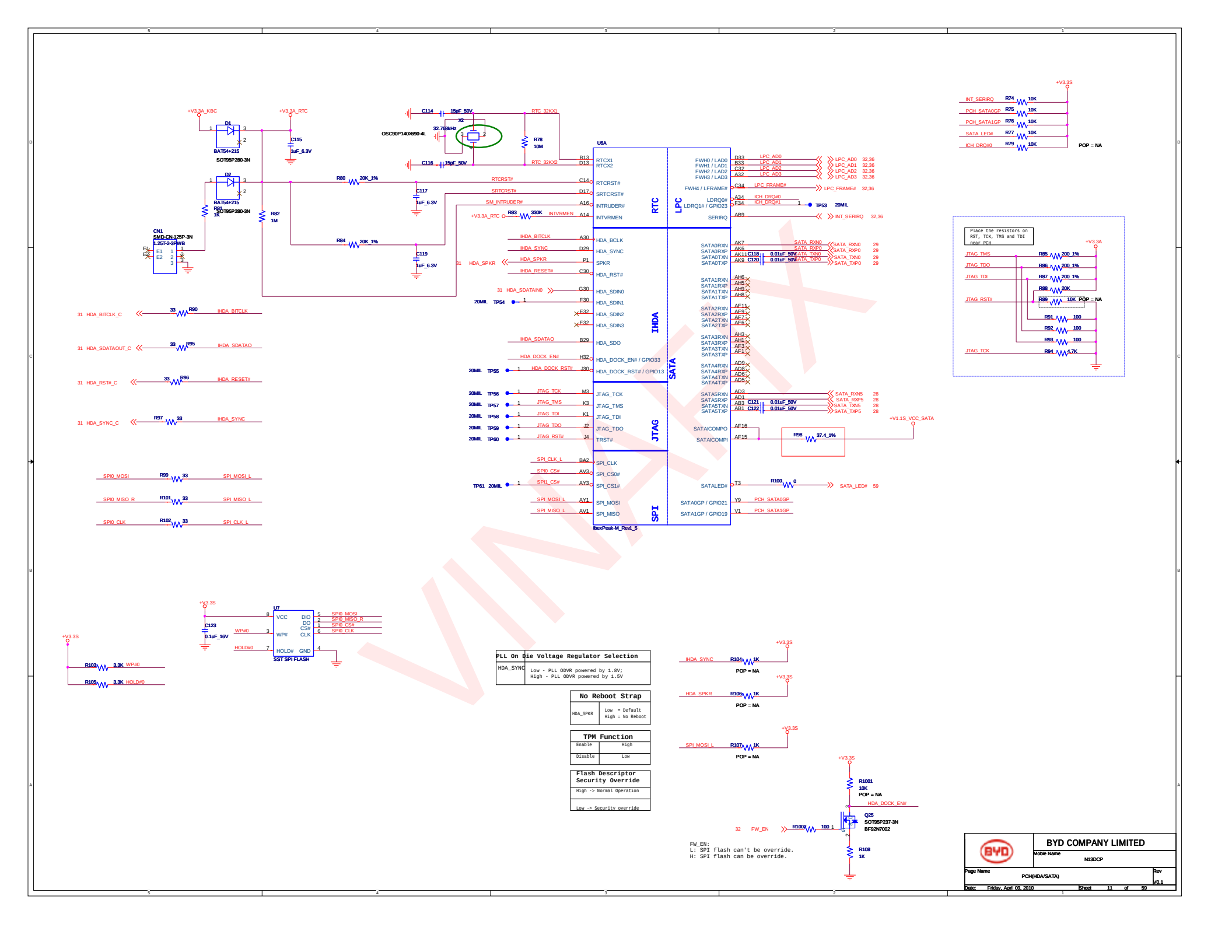
U6A
RTC
LPC
IHDA
SATA
JTAG
SPI
IbexPeak-M_Rev1_5
RTCX1
RTCX2
RTCRST#
SRTCRST#
INTRUDER#
INTVRMEN
HDA_BCLK
HDA_SYNC
SPKR
HDA_RST#
HDA_SDIN0
HDA_SDIN1
HDA_SDIN2
HDA_SDIN3
HDA_SDO
HDA_DOCK_EN# / GPIO33
HDA_DOCK_RST# / GPIO13
JTAG_TCK
JTAG_TMS
JTAG_TDI
JTAG_TDO
TRST#
SPI_CLK
SPI_CS0#
SPI_CS1#
SPI_MOSI
SPI_MISO
FWH0 / LAD0
FWH1 / LAD1
FWH2 / LAD2
FWH3 / LAD3
FWH4 / LFRAME#
LDRQ0#
LDRQ1# / GPIO23
SERIRQ
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA1RXN
SATA1RXP
SATA1TXN
SATA1TXP
SATA2RXN
SATA2RXP
SATA2TXN
SATA2TXP
SATA3RXN
SATA3RXP
SATA3TXN
SATA3TXP
SATA4RXN
SATA4RXP
SATA4TXN
SATA4TXP
SATA5RXN
SATA5RXP
SATA5TXN
SATA5TXP
SATAICOMPO
SATAICOMPI
SATALED#
SATA0GP / GPIO21
SATA1GP / GPIO19
C114 15pF 50V
C116 15pF 50V
X2
32.768kHz
OSC90P140X690-4L
R78 10M
RTC_32KX1
RTC_32KX2
C115 1uF_6.3V
C117 1uF_6.3V
C119 1uF_6.3V
R80 20K_1%
R84 20K_1%
R82 1M
R81 1K
R83 330K
D1 BAT54+215
D2 BAT54+215
SOT95P280-3N
CN1
SMD-CN-125P-3N
1.25T-2-3PWB
+V3.3A_KBC
+V3.3A_RTC
+V3.3A_RTC
+V3.3A
+V3.3S
+V1.1S_VCC_SATA
R98 37.4_1%
R100 0
SATA_LED# 59
TP53 20MIL
TP54 20MIL
TP55 20MIL
TP56 20MIL
TP57 20MIL
TP58 20MIL
TP59 20MIL
TP60 20MIL
TP61 20MIL
C118 0.01uF_50V
C120 0.01uF_50V
C121 0.01uF_50V
C122 0.01uF_50V
INT_SERIRQ R74 10K
PCH_SATA0GP R75 10K
PCH_SATA1GP R76 10K
SATA_LED# R77 10K
ICH_DRQ#0 R79 10K
POP = NA
Place the resistors on RST, TCK, TMS and TDI near PCH
JTAG_TMS R85 200_1%
JTAG_TDO R86 200_1%
JTAG_TDI R87 200_1%
R88 20K
JTAG_RST# R89 10K POP = NA
R91 100
R92 100
R93 100
JTAG_TCK R94 4.7K
HDA_BITCLK_C R90 33 HDA_BITCLK
HDA_SDATAOUT_C R95 33 HDA_SDATAO
HDA_RST#_C R96 33 HDA_RESET#
HDA_SYNC_C R97 33 HDA_SYNC
SPI0_MOSI R99 33 SPI_MOSI_L
SPI0_MISO_R R101 33 SPI_MISO_L
SPI0_CLK R102 33 SPI_CLK_L
U7
SST SPI FLASH
VCC
WP#
HOLD#
GND
DIO
DO
CS#
CLK
C123 0.1uF_16V
WP#0
HOLD#0
SPI0_MOSI
SPI0_MISO_R
SPI0_CS#
SPI0_CLK
R103 3.3K WP#0
R105 3.3K HOLD#0
IHDA_SYNC R104 1K POP = NA
HDA_SPKR R106 1K POP = NA
SPI_MOSI_L R107 1K POP = NA
R1001 10K POP = NA
HDA_DOCK_EN#
Q25 SOT95P237-3N BF92N7002
R1002 100
FW_EN
R108 1K
FW_EN:
L: SPI flash can't be override.
H: SPI flash can be override.
PLL On Die Voltage Regulator Selection
HDA_SYNC
Low - PLL ODVR powered by 1.8V;
High - PLL ODVR powered by 1.5V
No Reboot Strap
HDA_SPKR
Low = Default
High = No Reboot
TPM Function
Enable High
Disable Low
Flash Descriptor Security Override
High -> Normal Operation
Low -> Security override
BYD COMPANY LIMITED
Mobile Name N13DCP
Page Name PCH(HDA/SATA)
Rev V0.1
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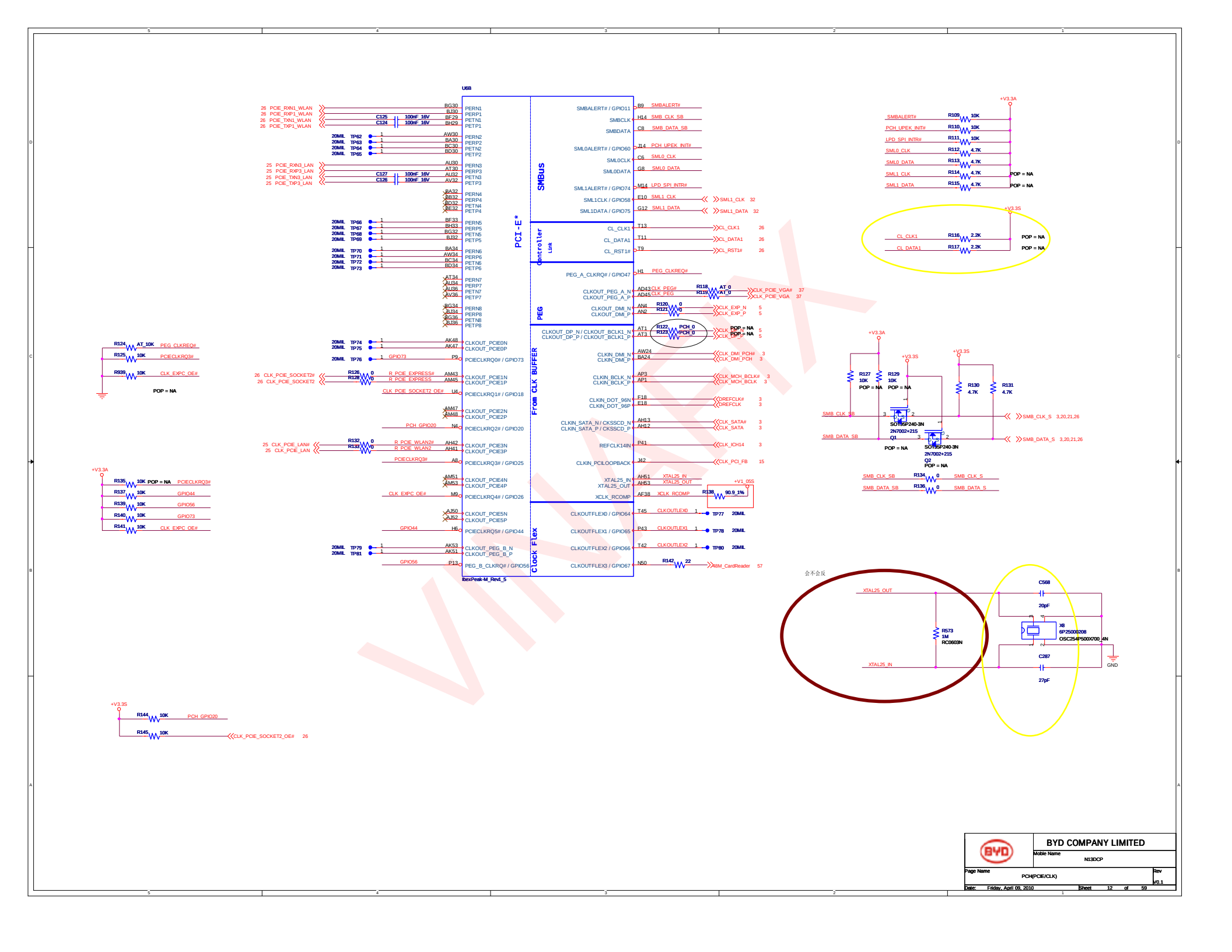
U6B
PCI-E*
SMBus
Controller Link
PEG
From CLK BUFFER
Clock Flex
IbexPeak-M_Rev1_5
SMBALERT# / GPIO11
SMBCLK
SMBDATA
SML0ALERT# / GPIO60
SML0CLK
SML0DATA
SML1ALERT# / GPIO74
SML1CLK / GPIO58
SML1DATA / GPIO75
CL_CLK1
CL_DATA1
CL_RST1#
PEG_A_CLKRQ# / GPIO47
CLKOUT_PEG_A_N
CLKOUT_PEG_A_P
CLKOUT_DMI_N
CLKOUT_DMI_P
CLKOUT_DP_N / CLKOUT_BCLK1_N
CLKOUT_DP_P / CLKOUT_BCLK1_P
CLKIN_DMI_N
CLKIN_DMI_P
CLKIN_BCLK_N
CLKIN_BCLK_P
CLKIN_DOT_96N
CLKIN_DOT_96P
CLKIN_SATA_N / CKSSCD_N
CLKIN_SATA_P / CKSSCD_P
REFCLK14IN
CLKIN_PCILOOPBACK
XTAL25_IN
XTAL25_OUT
XCLK_RCOMP
CLKOUTFLEX0 / GPIO64
CLKOUTFLEX1 / GPIO65
CLKOUTFLEX2 / GPIO66
CLKOUTFLEX3 / GPIO67
PCH_UPEK_INIT#
LPD_SPI_INTR#
SMB_CLK_SB
SMB_DATA_SB
SMB_DATA_SOCKET
PCH_GPIO20
GPIO56
GPIO44
GPIO73
CLK_EXPC_OE#
CLK_PCIE_SOCKET2_OE#
R109 10K
R110 10K
R111 10K
R112 4.7K
R113 4.7K
R114 4.7K
R115 4.7K
R116 2.2K
R117 2.2K
R118 AT_0
R119 AT_0
R120 0
R121 0
R122 PCH_0
R123 PCH_0
R124 AT_10K
R125 10K
R939 10K
R126 0
R128 0
R132 0
R133 0
R135 10K
R137 10K
R139 10K
R140 10K
R141 10K
R144 10K
R145 10K
R127 10K
R129 10K
R130 4.7K
R131 4.7K
R134 0
R136 0
R138 90.9_1%
R142 22
Q1 SOT95P240-3N 2N7002+215
Q2 SOT95P240-3N 2N7002+215
POP = NA
+V3.3A
+V3.3S
+V1.05S
C568 20pF
C287 27pF
X8 6P25000208 OSC254P500X700_4N
R573 1M RC0603N
GND
会不会反
BYD COMPANY LIMITED
Mobile Name N13DCP
Page Name PCH(PCIE/CLK)
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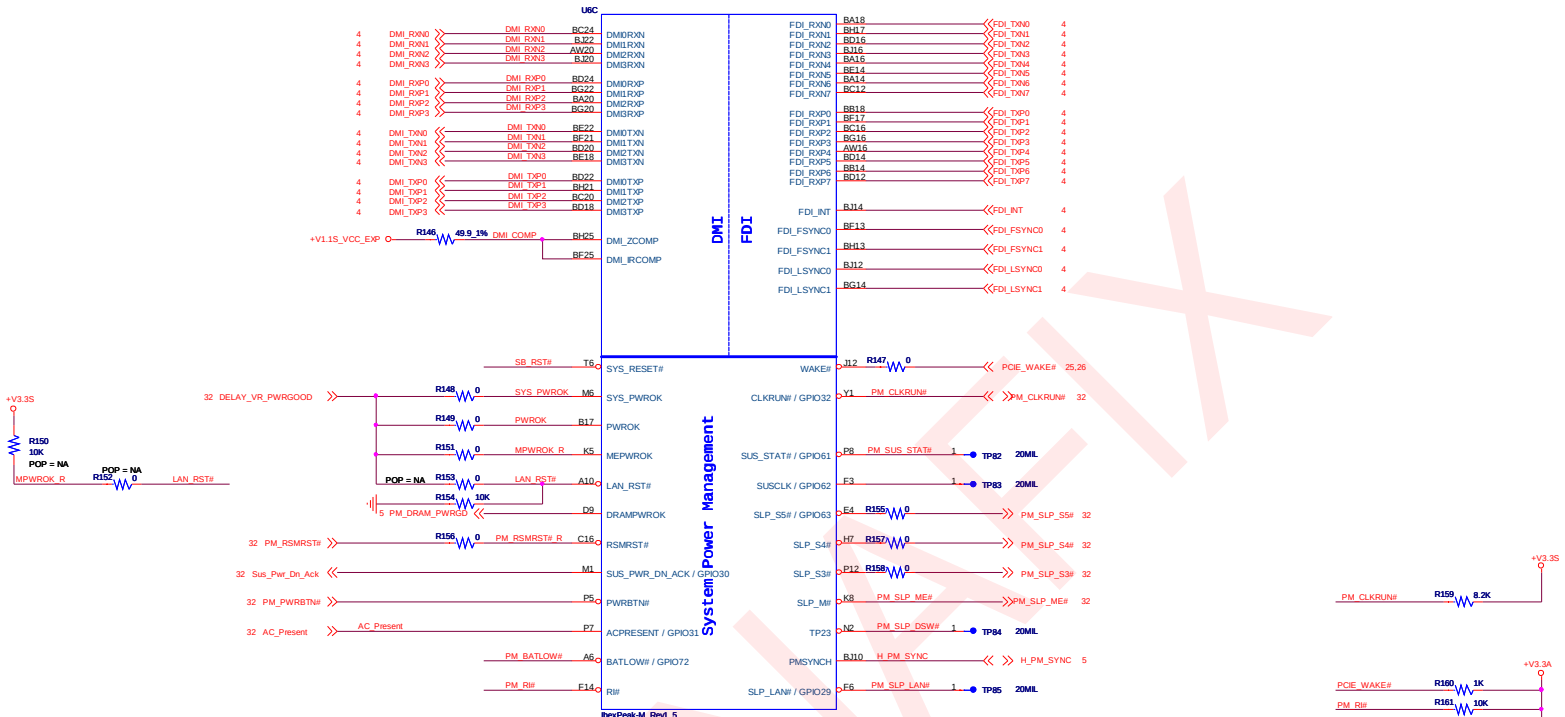

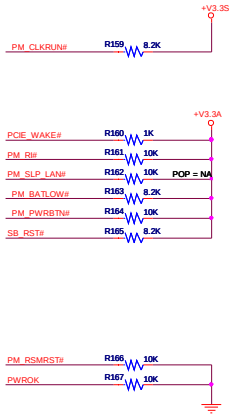

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	PCH(DMI/FDI/PM)
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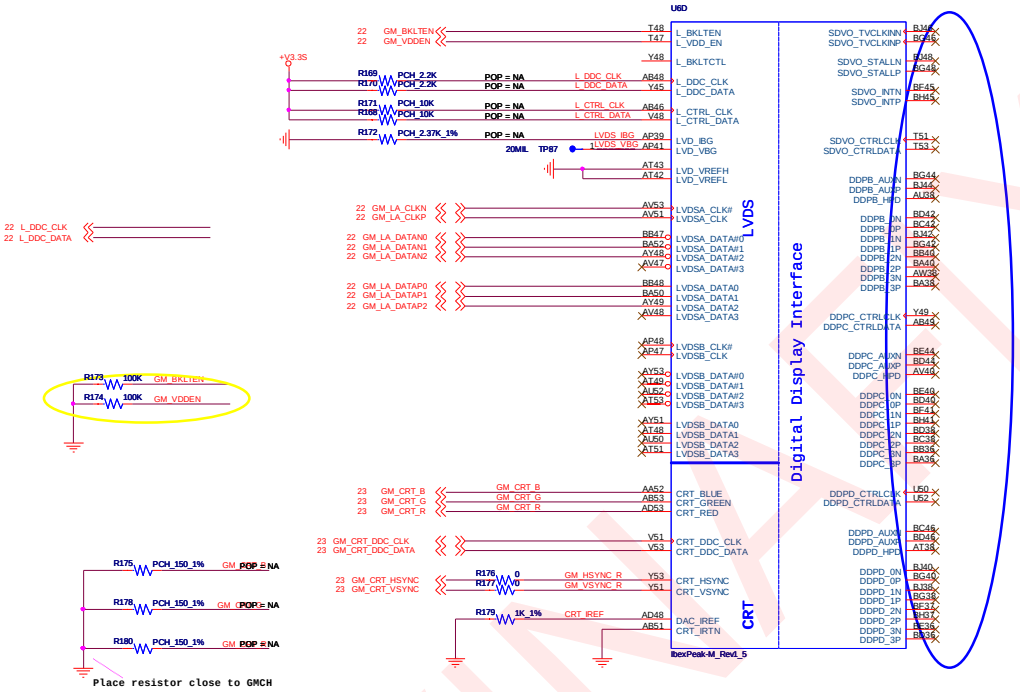

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	PCH(LVDS/CRT/HDMI)
Rev	V0.1
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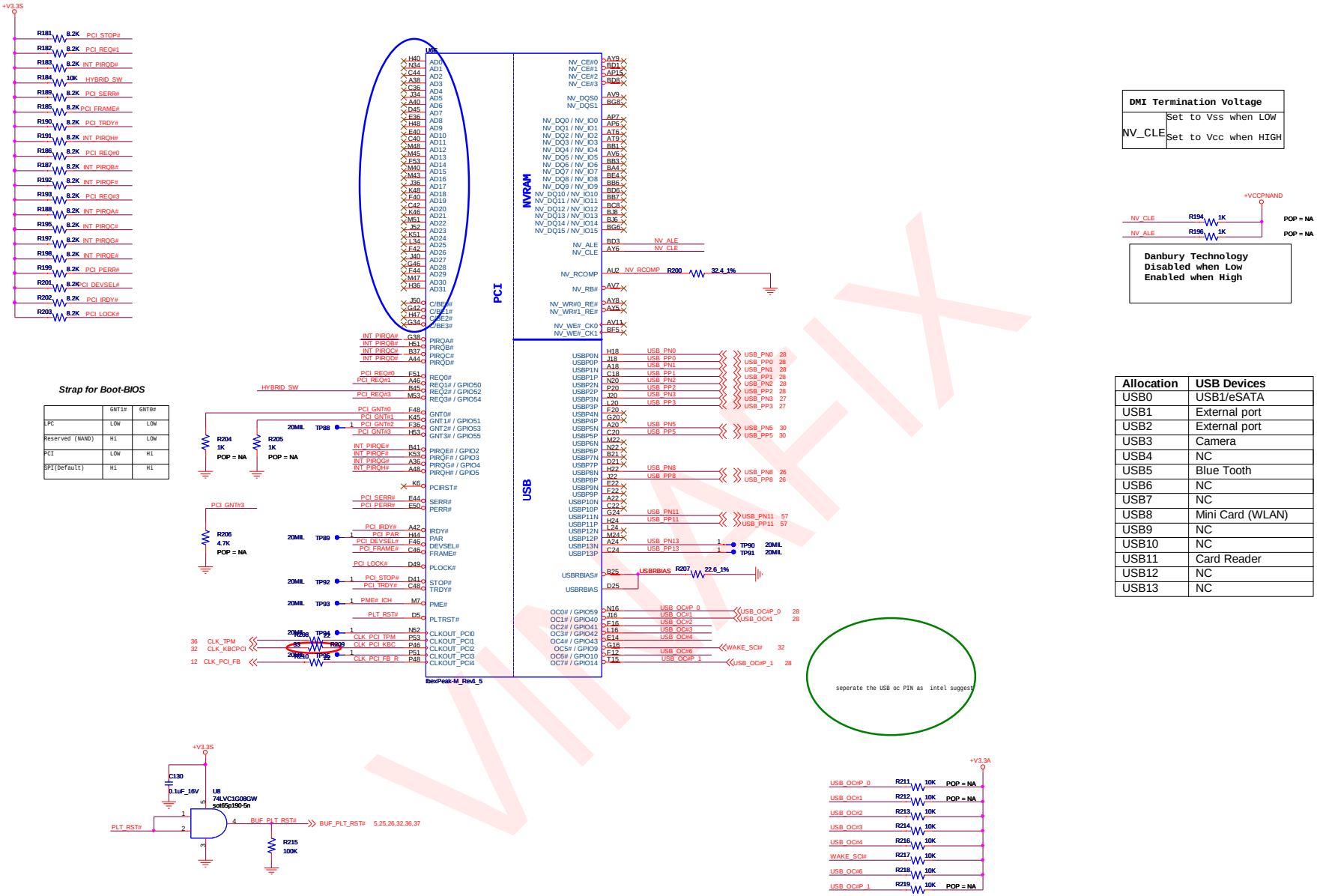

Allocation	USB Devices
USB0	USB1/eSATA
USB1	External port
USB2	External port
USB3	Camera
USB4	NC
USB5	Blue Tooth
USB6	NC
USB7	NC
USB8	Mini Card (WLAN)
USB9	NC
USB10	NC
USB11	Card Reader
USB12	NC
USB13	NC

BYD COMPANY LIMITED

Mobile Name N13DCP

Page Name PCH(USB/PCI)

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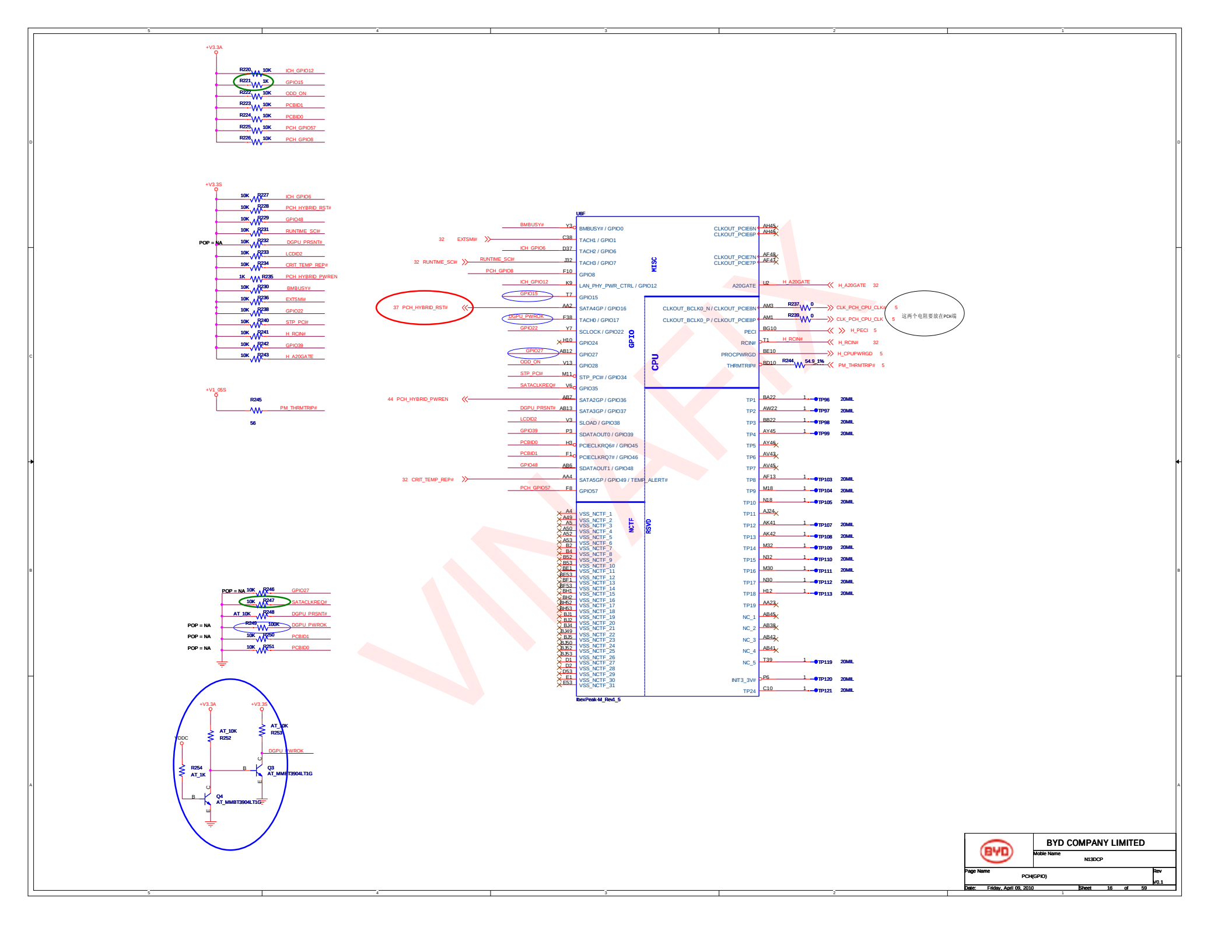
+V3.3A
R220 10K ICH_GPIO12
R221 1K GPIO15
R222 10K ODD_ON
R223 10K PCBID1
R224 10K PCBID0
R225 10K PCH_GPIO57
R226 10K PCH_GPIO8
+V3.3S
POP = NA
R227 10K ICH_GPIO6
R228 10K PCH_HYBRID_RST#
R229 10K GPIO48
R231 10K RUNTIME_SCI#
R232 10K DGPU_PRSNT#
R233 10K LCDID2
R234 10K CRIT_TEMP_REP#
R235 1K PCH_HYBRID_PWREN
R230 10K BMBUSY#
R236 10K EXTSMI#
R238 10K GPIO22
R240 10K STP_PCI#
R241 10K H_RCIN#
R242 10K GPIO39
R243 10K H_A20GATE
+V1_05S
R245 56 PM_THRMTRIP#
POP = NA
AT_10K
R246 10K GPIO27
R247 10K SATACLKREQ#
R248 AT_10K DGPU_PRSNT#
R249 100K DGPU_PWROK
R250 10K PCBID1
R251 10K PCBID0
+V3.3A
+V3.3S
DDC
R252 AT_10K
R253 AT_10K
DGPU_PWROK
R254 AT_1K
Q3 AT_MMBT3904LT1G
Q4 AT_MMBT3904LT1G
U6F
BMBUSY# / GPIO0
TACH1 / GPIO1
TACH2 / GPIO6
TACH3 / GPIO7
GPIO8
LAN_PHY_PWR_CTRL / GPIO12
GPIO15
SATA4GP / GPIO16
TACH0 / GPIO17
SCLOCK / GPIO22
GPIO24
GPIO27
GPIO28
STP_PCI# / GPIO34
GPIO35
SATA2GP / GPIO36
SATA3GP / GPIO37
SLOAD / GPIO38
SDATAOUT0 / GPIO39
PCIECLKRQ6# / GPIO45
PCIECLKRQ7# / GPIO46
SDATAOUT1 / GPIO48
SATA5GP / GPIO49 / TEMP_ALERT#
GPIO57
GPIO
MISC
CPU
NCTF
RSVD
CLKOUT_PCIE6N
CLKOUT_PCIE6P
CLKOUT_PCIE7N
CLKOUT_PCIE7P
A20GATE
CLKOUT_BCLK0_N / CLKOUT_PCIE8N
CLKOUT_BCLK0_P / CLKOUT_PCIE8P
PECI
RCIN#
PROCPWRGD
THRMTRIP#
R237 0 CLK_PCH_CPU_CLK#
R239 0 CLK_PCH_CPU_CLK
这两个电阻要放在PCH端
H_A20GATE 32
H_PECI 5
H_RCIN# 32
H_CPUPWRGD 5
R244 54.9_1% PM_THRMTRIP# 5
37 PCH_HYBRID_RST#
44 PCH_HYBRID_PWREN
32 EXTSMI#
32 RUNTIME_SCI#
32 CRIT_TEMP_REP#
VSS_NCTF_1 ... VSS_NCTF_31
NC_1
NC_2
NC_3
NC_4
NC_5
INIT3_3V#
TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP24
TP96 TP97 TP98 TP99 TP103 TP104 TP105 TP107 TP108 TP109 TP110 TP111 TP112 TP113 TP119 TP120 TP121
20MIL
IbexPeak-M_Rev1_5
BYD COMPANY LIMITED
Mobile Name N13DCP
Page Name PCH(GPIO)
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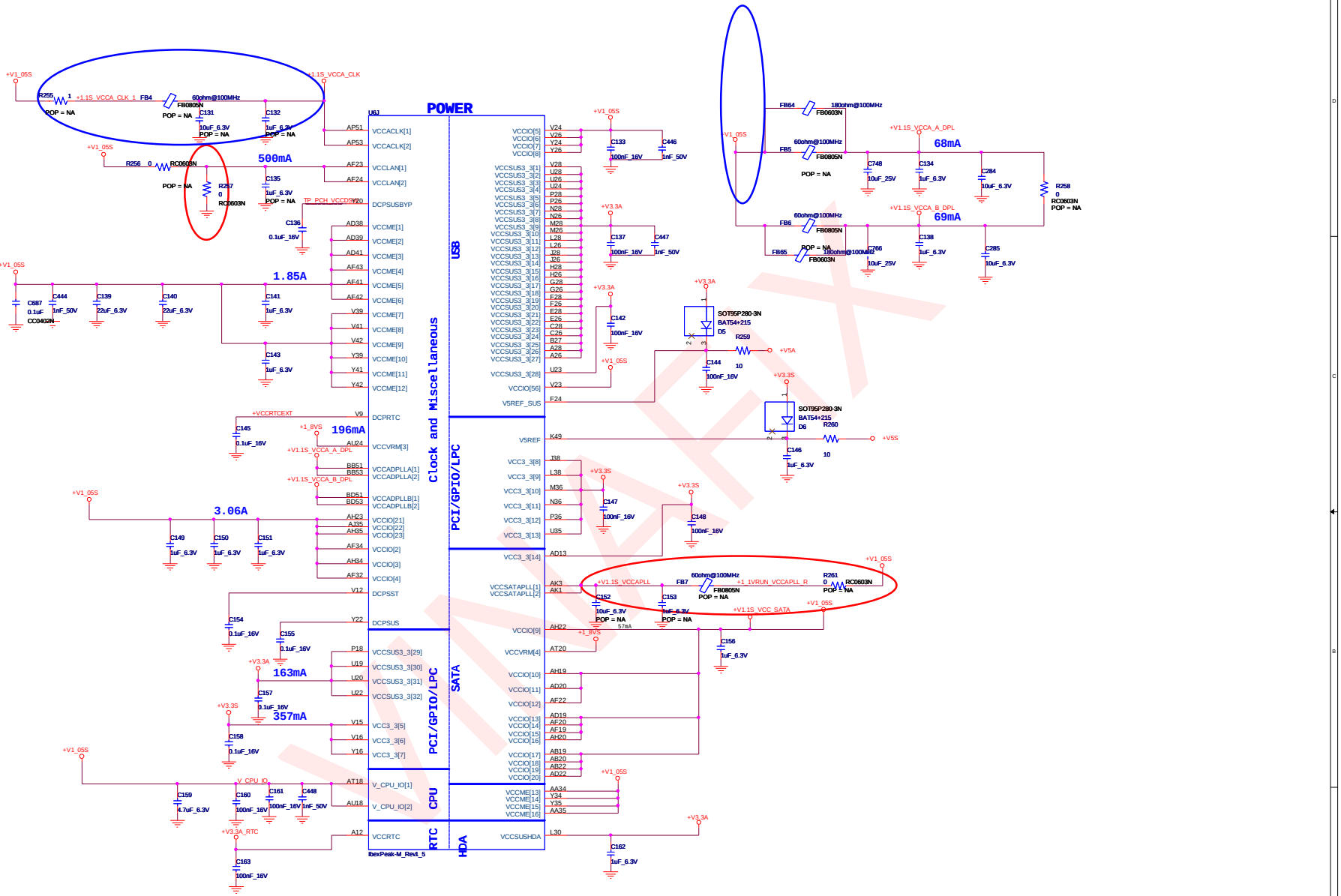
POWER
Clock and Miscellaneous
USB
PCI/GPIO/LPC
SATA
PCI/GPIO/LPC
CPU
RTC
HDA
IbexPeak-M_Rev1_5
500mA
1.85A
196mA
3.06A
163mA
357mA
68mA
69mA
SOT95P280-3N
BAT54+215
D5
D6
R259
R260
+V5A
+V5S
+V3.3A
+V3.3S
+V1_05S
+1.1S_VCCA_CLK
+1.1S_VCCA_A_DPL
+1.1S_VCCA_B_DPL
+1.1S_VCCAPLL
+1.1S_VCC_SATA
+1_1VRUN_VCCAPLL_R
+1_8VS
+VCCRTCEXT
+V3.3A_RTC
V_CPU_IO
TP_PCH_VCCDSW
BYD COMPANY LIMITED
Mobile Name
N13DCP
Page Name
PCH(POWER1)
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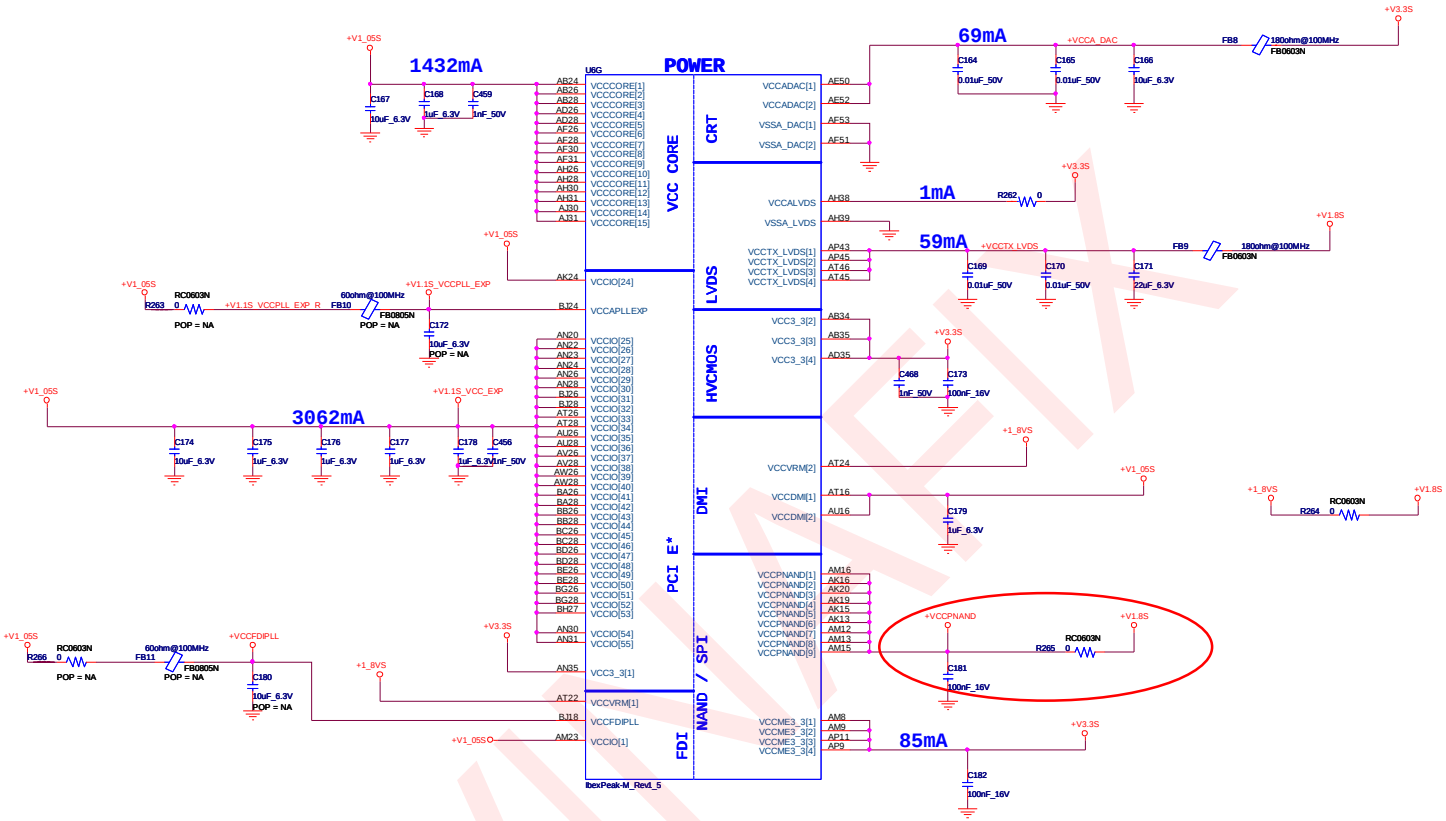

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	PCH(POWER2)
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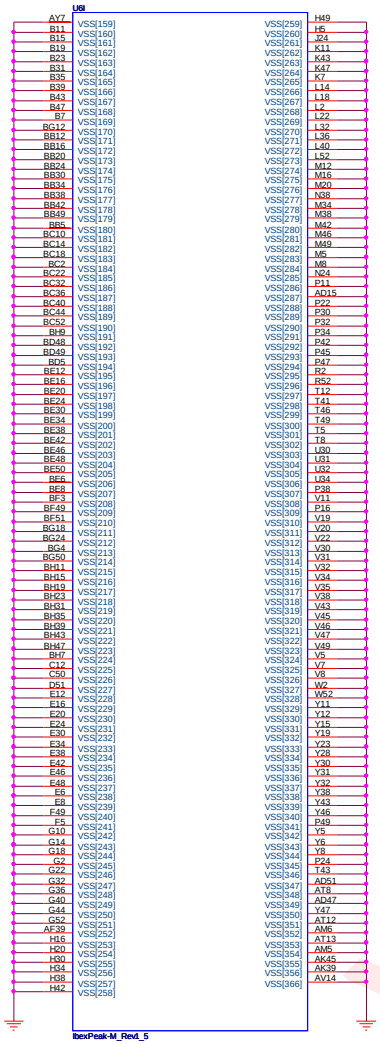

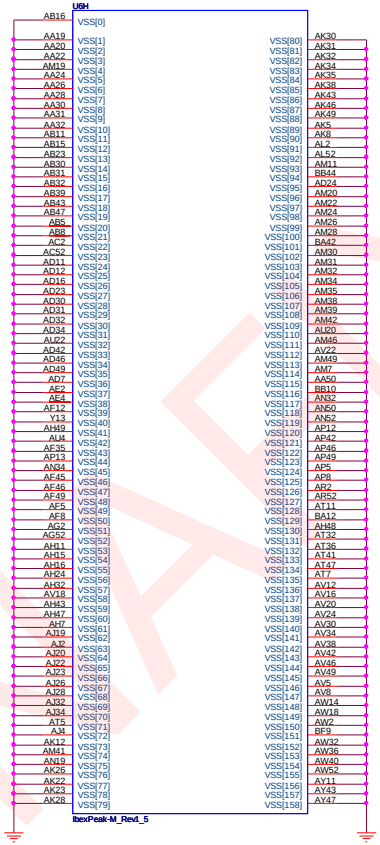

BYD COMPANY LIMITED

Mobile Name: N13DCP

Page Name: PCH(GND)

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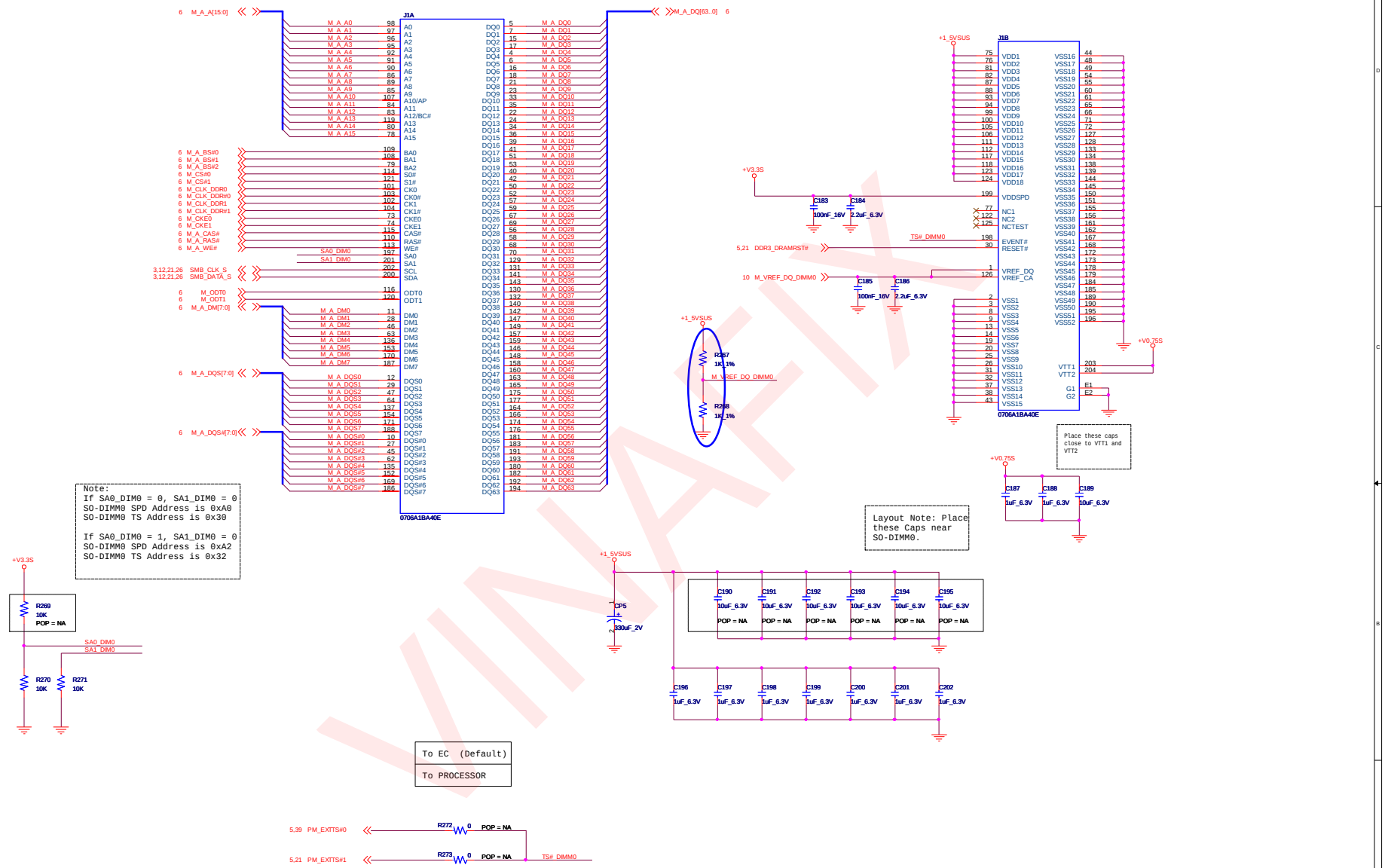

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	DDR3_DODIMM0
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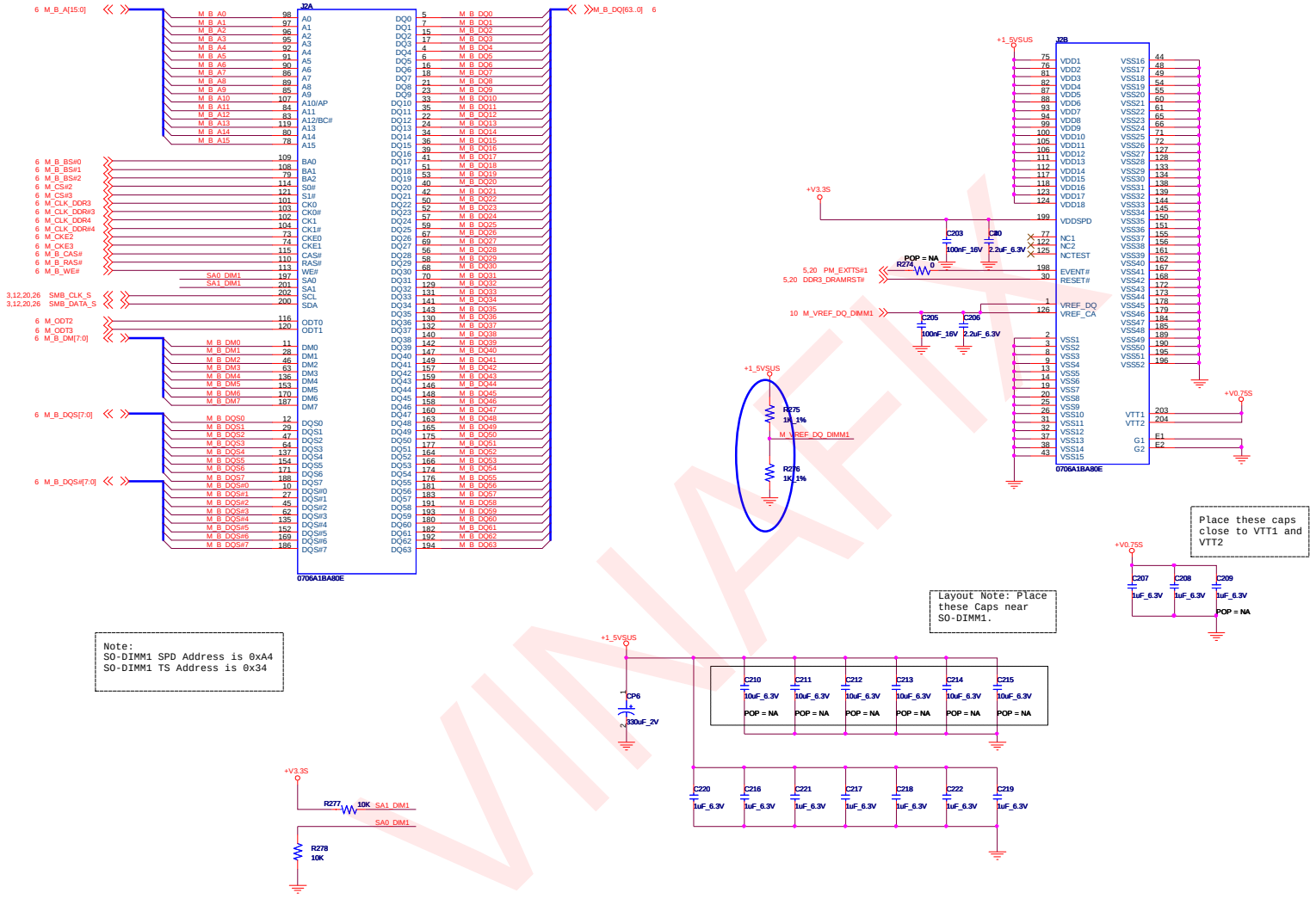

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	DDR3_DODIMM1
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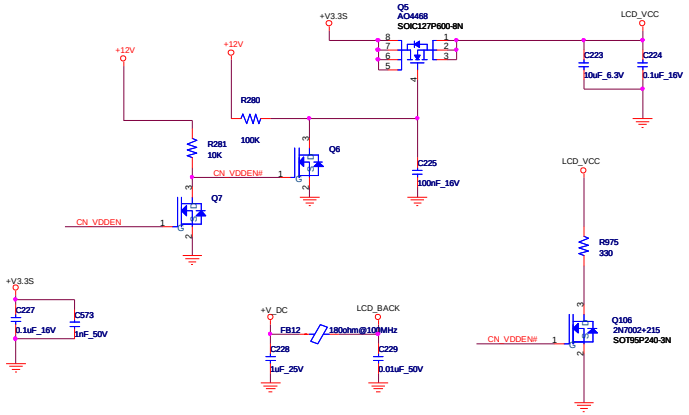
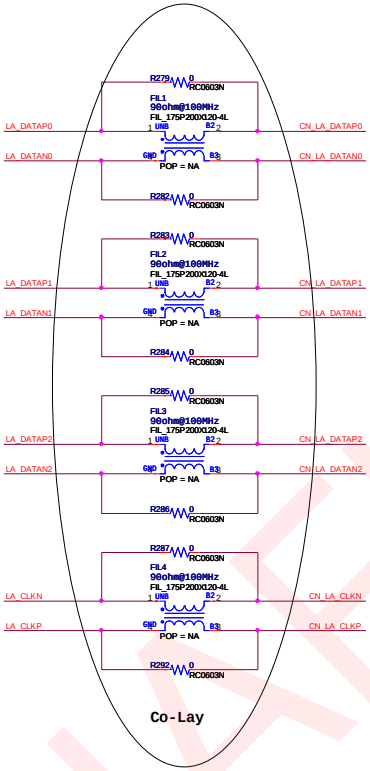
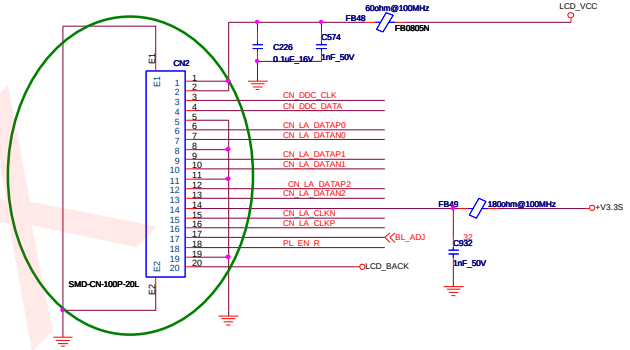
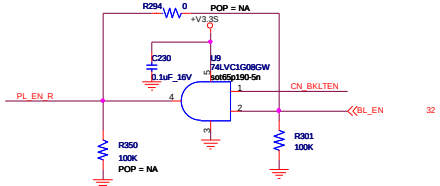


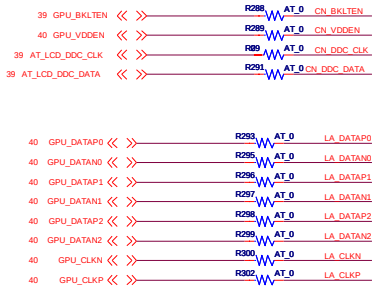


BLON=CN_BKLTEN*(~LID)*DELAY_VR_PWRGOOD
BLCTL=(~LID)*DELAY_VR_PWRGOOD

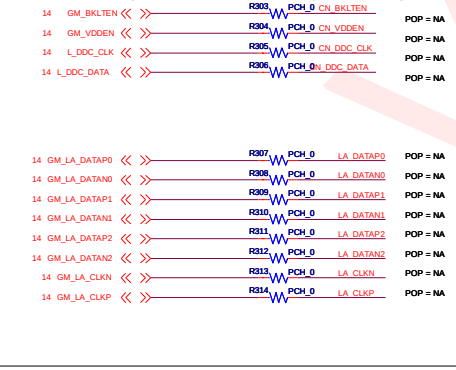




Stuff these parts while use discrete Graphics.



Stuff these parts while use integrated Graphics.



BYD COMPANY LIMITED	
Mobile Name	N13DCP
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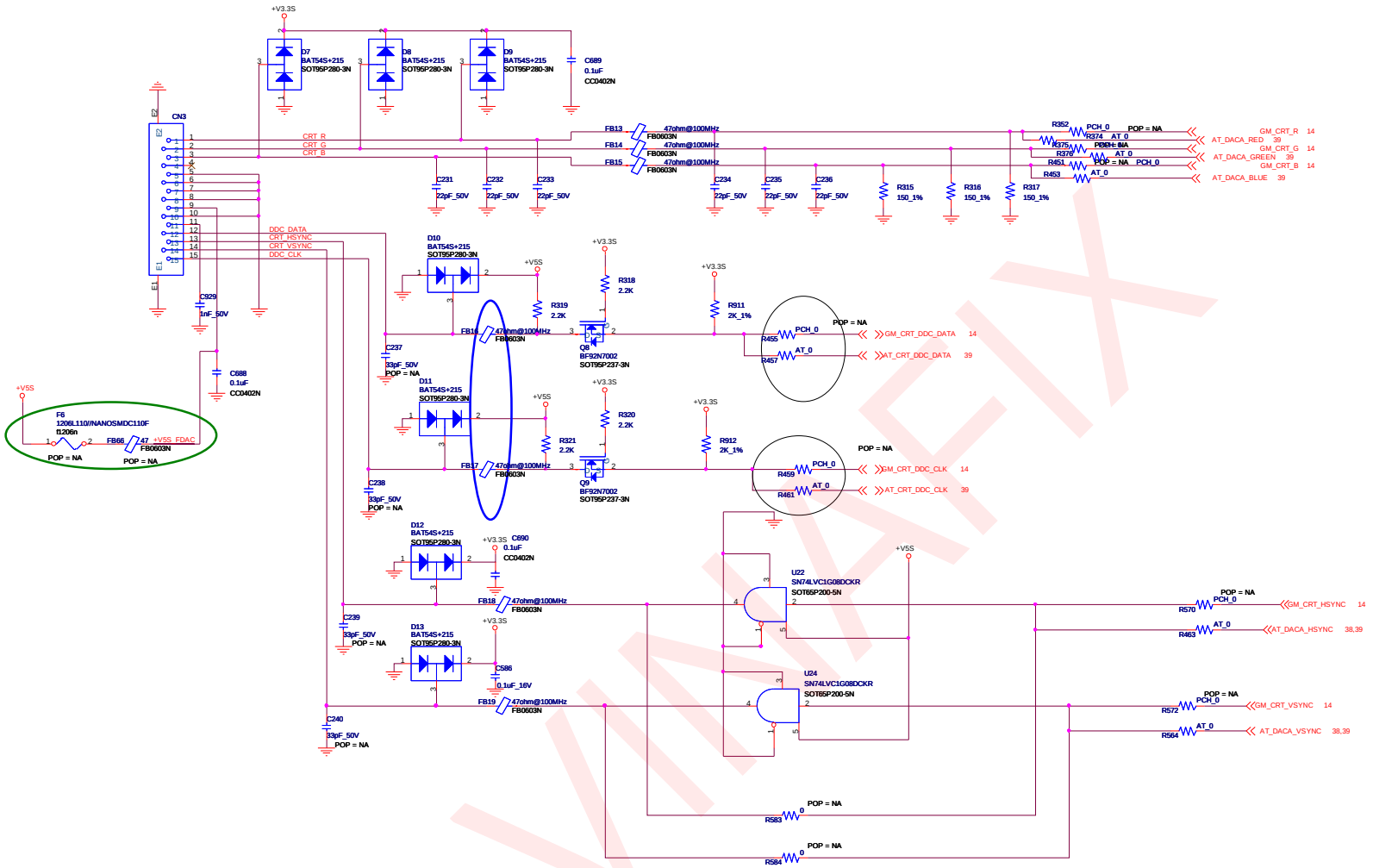

BYD COMPANY LIMITED	
Mobile Name	N13DCP
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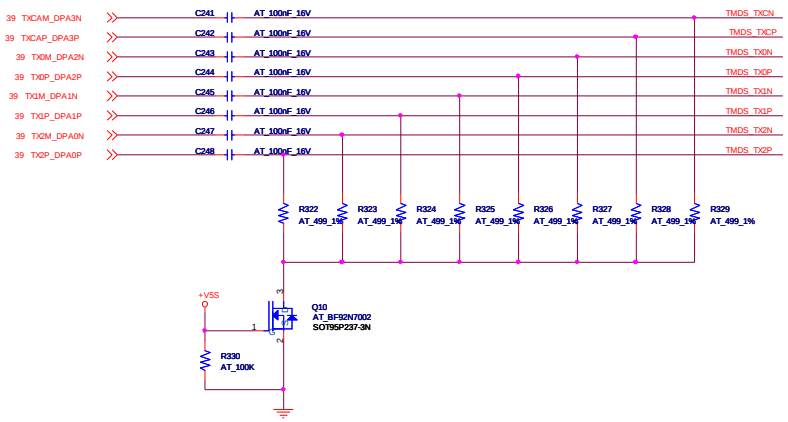

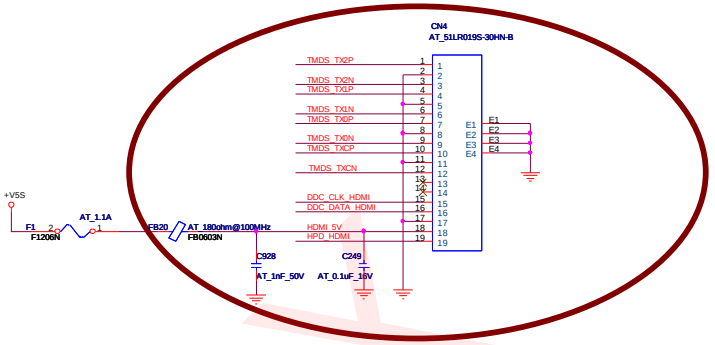

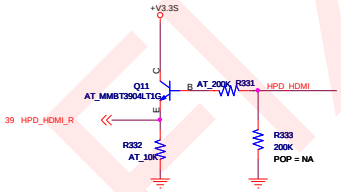

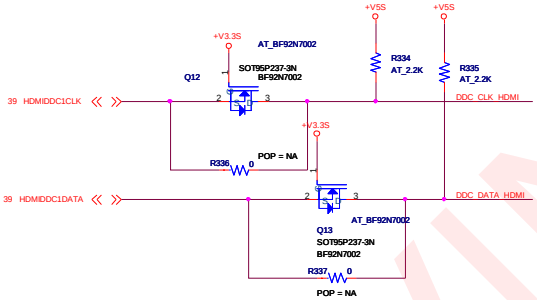

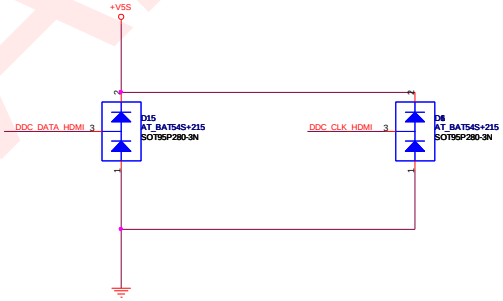

BYD COMPANY LIMITED	
Mobile Name	N13DCP
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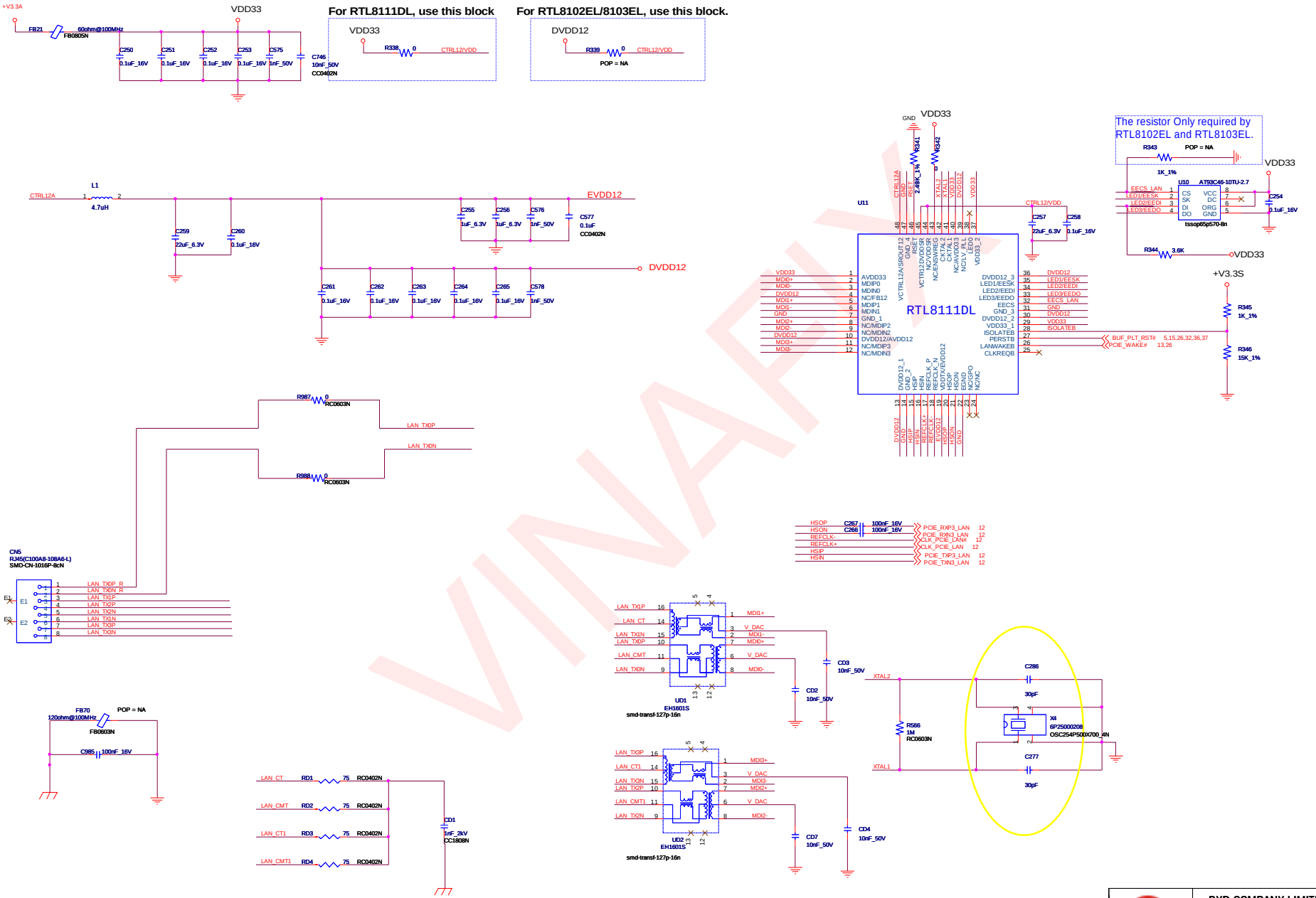
For RTL8111DL, use this block
For RTL8102EL/8103EL, use this block.
VDD33
DVDD12
CTRL12/VDD
POP = NA
RTL8111DL
U11
The resistor Only required by RTL8102EL and RTL8103EL.
AT93C46-10TU-2.7
tssop65p570-8n
+V3.3S
EVDD12
LAN_TXDP
LAN_TXDN
RJ45(C100A8-108A6-L)
SMD-CN-1016P-8cN
EH1801S
smd-transf-127p-16n
BYD COMPANY LIMITED
Mobile Name
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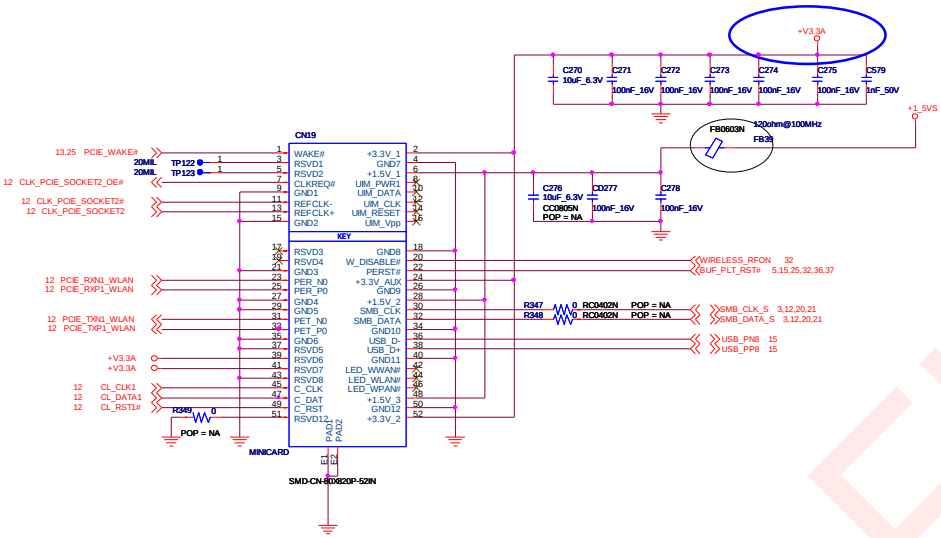

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	WLAN
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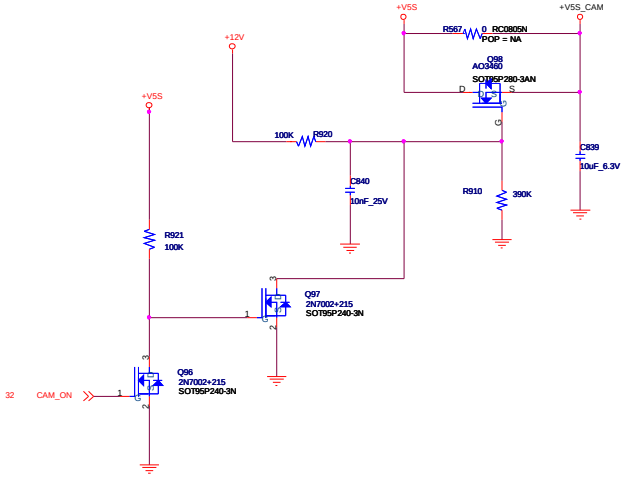

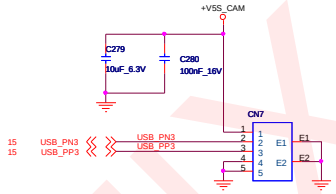

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	Camera
Rev	V0.1
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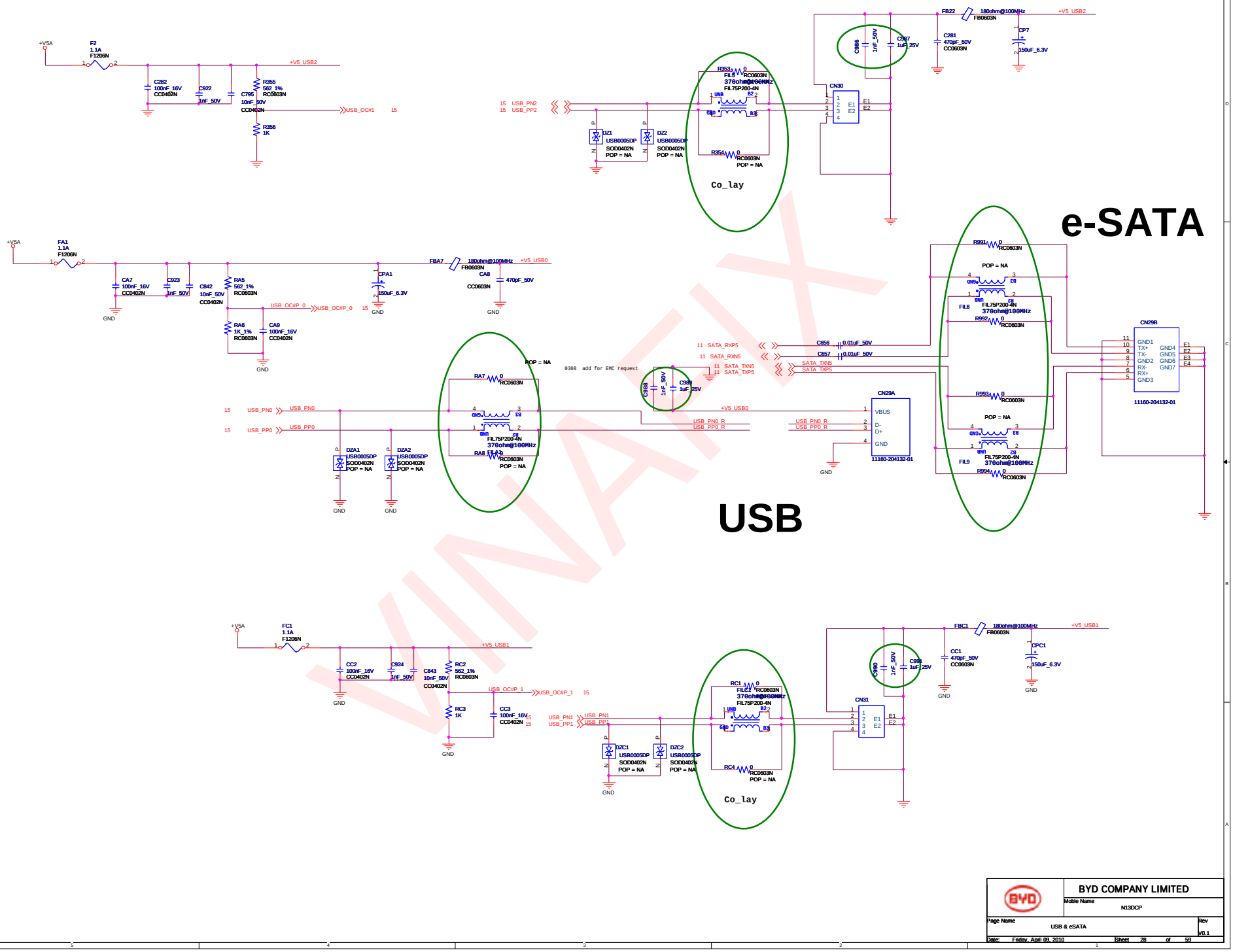

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	USB & eSATA
Rev	V0.1
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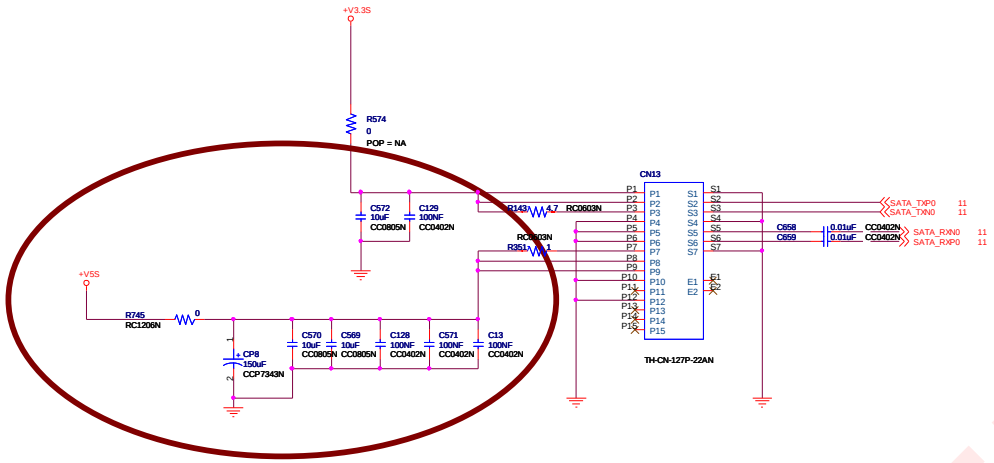

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	HDD CONN
Rev	V0.1
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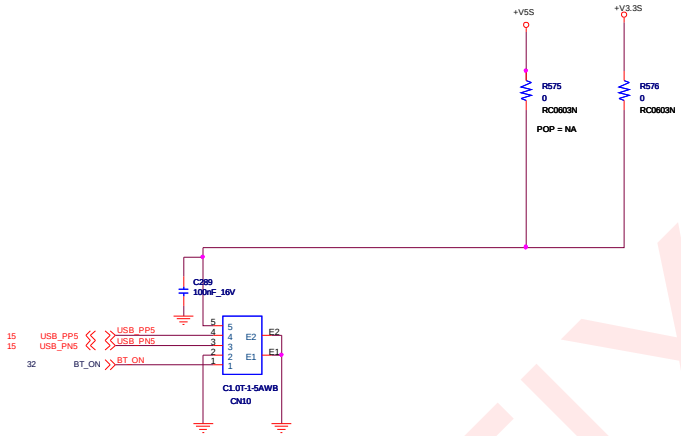

BYD COMPANY LIMITED	
Mobile Name	N13DCP
Page Name	BT CONN
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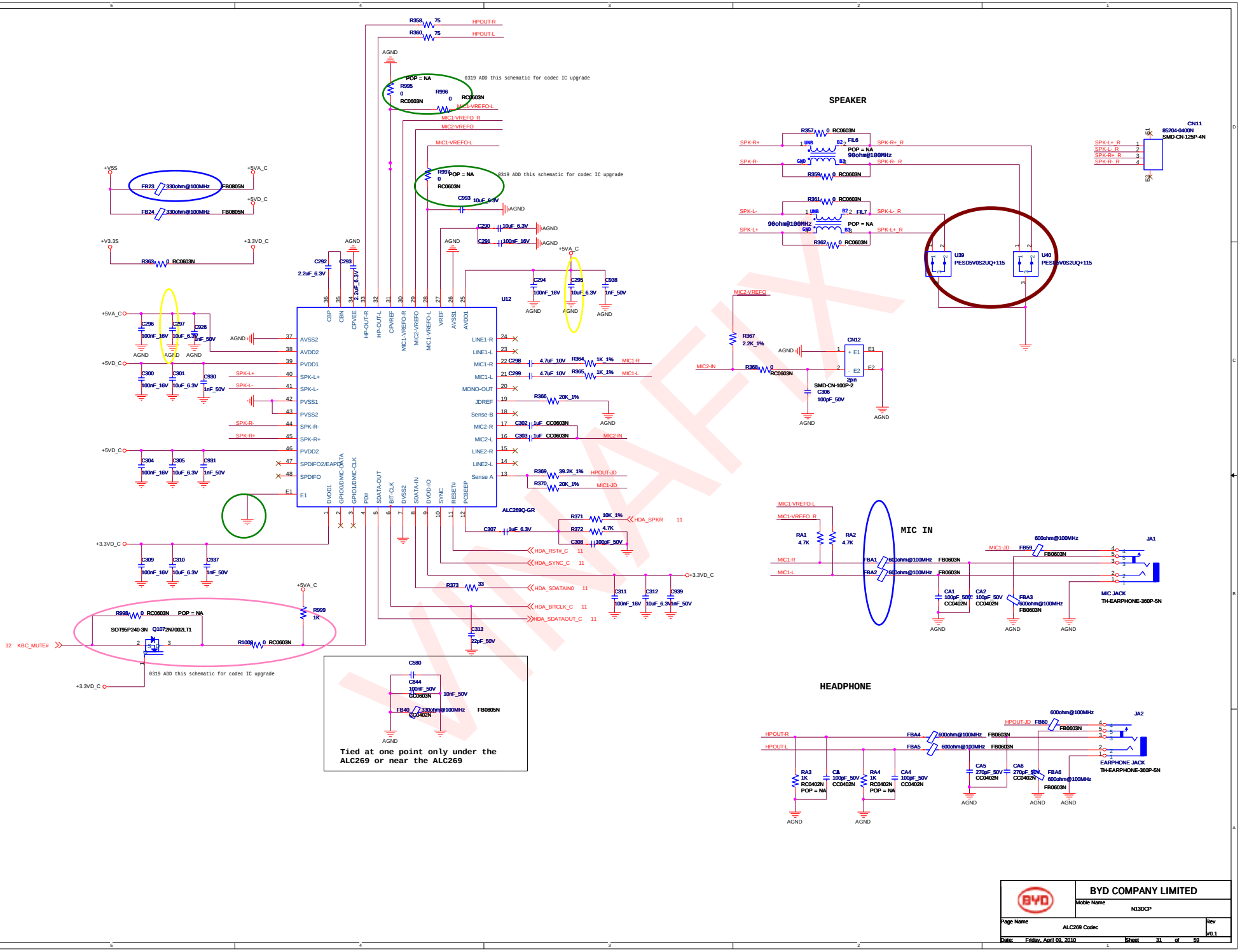
SPEAKER
HEADPHONE
MIC IN
ALC269Q-GR
U12
U39 PESD5V0S2UQ+115
U40 PESD5V0S2UQ+115
CN11 85204-0400N SMD-CN-125P-4N
CN12 SMD-CN-100P-2
JA1 MIC JACK TH-EARPHONE-360P-5N
JA2 EARPHONE JACK TH-EARPHONE-360P-5N
POP = NA
0319 ADD this schematic for codec IC upgrade
Tied at one point only under the ALC269 or near the ALC269
BYD COMPANY LIMITED
Mobile Name N13DCP
Page Name ALC269 Codec
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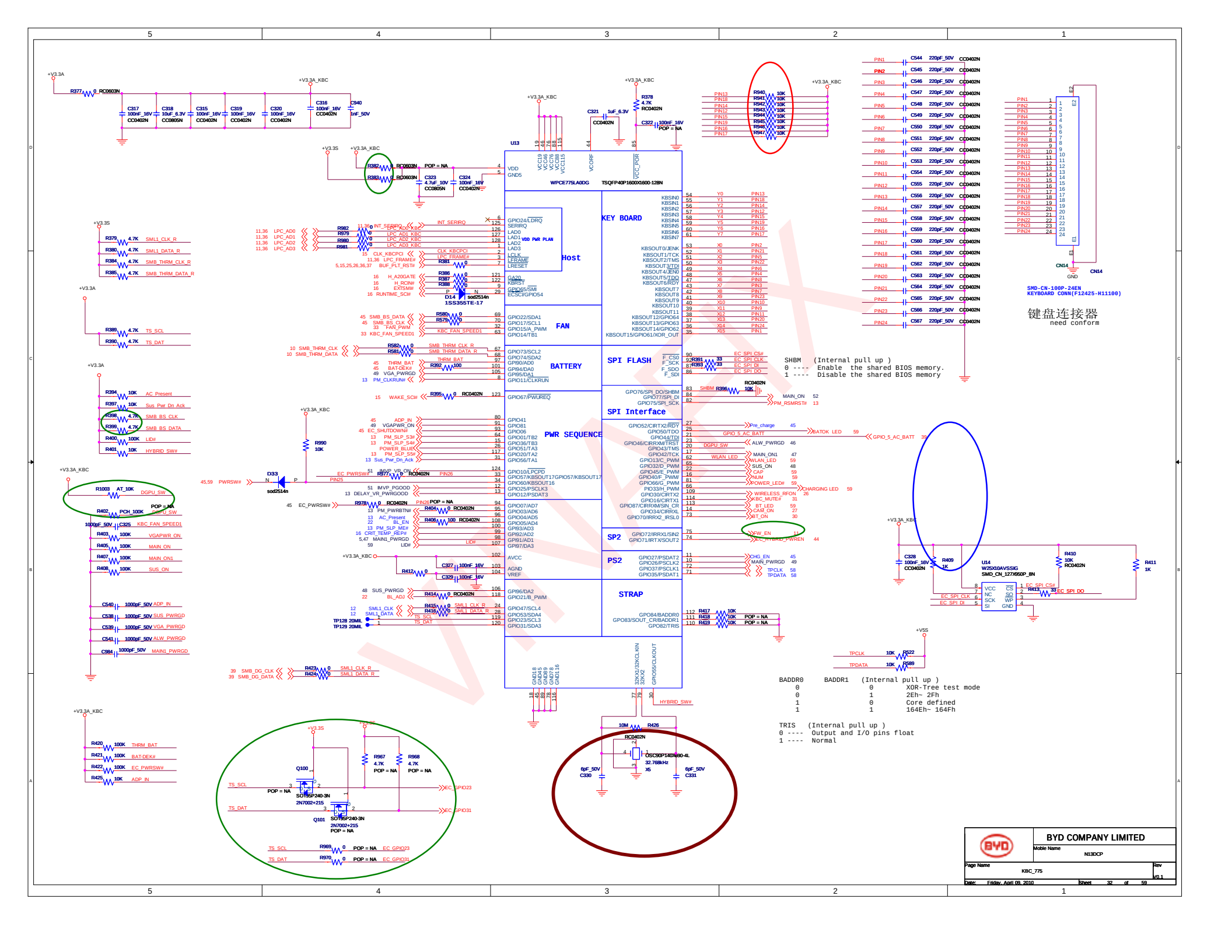
U13
WPCE775LA0DG
TSQFP40P1600X1600-128N
Host
KEY BOARD
FAN
BATTERY
SPI FLASH
SPI Interface
PWR SEQUENCE
SP2
PS2
STRAP
键盘连接器
need conform
SMD-CN-100P-24EN
KEYBOARD CONN(F12425-H11100)
SHBM (Internal pull up)
0 ---- Enable the shared BIOS memory.
1 ---- Disable the shared BIOS memory
BADDR0 BADDR1 (Internal pull up)
0 0 XOR-Tree test mode
0 1 2Eh~ 2Fh
1 0 Core defined
1 1 164Eh~ 164Fh
TRIS (Internal pull up)
0 ---- Output and I/O pins float
1 ---- Normal
BYD COMPANY LIMITED
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KBC_775
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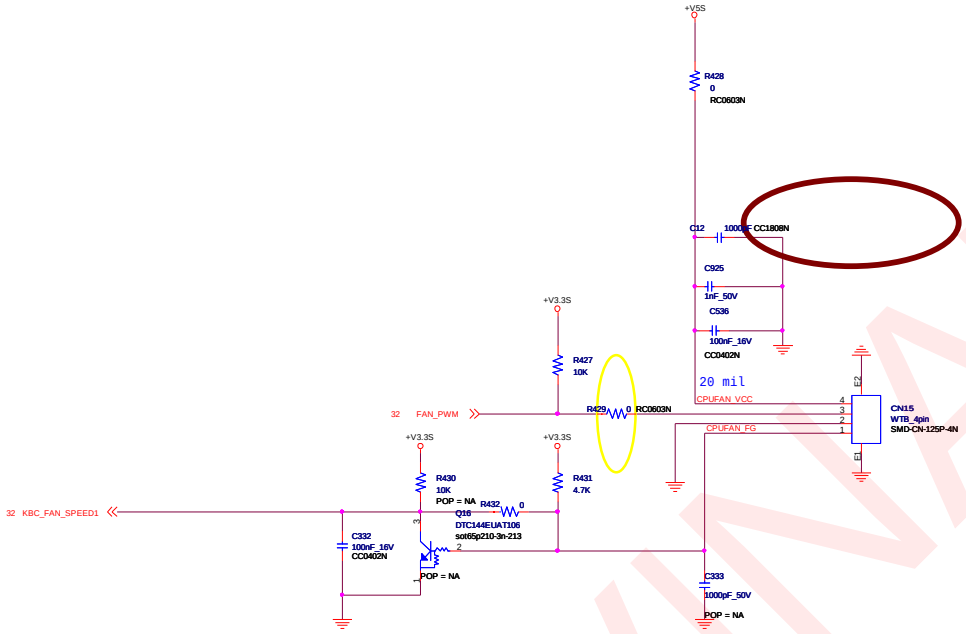

BYD COMPANY LIMITED	
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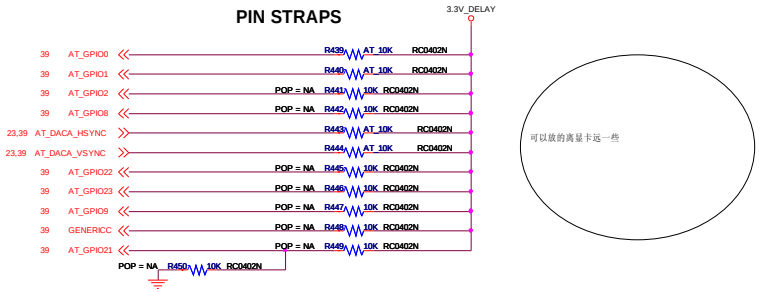
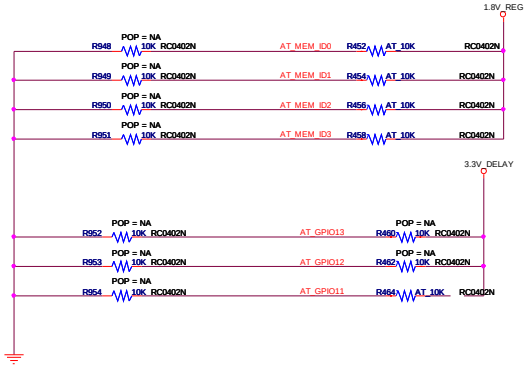
PIN STRAPS



可以放的离显卡近一些

Need Confirm



CONFIG(2:0)
controls the memory aperture size.
128MB(default) 000
256MB 001
64MB 010

CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESET

RECOMMENDED SETTINGS
0= DO NOT INSTALL RESISTOR
1 = INSTALL 10K RESISTOR
X = DESIGN DEPENDANT
NA = NOT APPLICABLE

STRAPS	PIN	DESCRIPTION OF DEFAULT SETTINGS	
TX_PWRS_ENB	GPIO0	PCIE FULL TX OUTPUT SWING	X
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLED	X
BIF_GEN2_EN_A	GPIO2	PCIE GEN2 ENABLED	X
RSVD	GPIO8		0
BIF_VGA_DIS	GPIO9	VGA ENABLED	0
RSVD	GPIO21		0
BIOS_ROM_EN	GPIO_22_ROMCSB	ENABLE EXTERNAL BIOS ROM	X
ROMIDCFG(2:0)	GPIO[13:11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	X X X
VIP_DEVICE_STRAP_ENA	V2SYNC	IGNORE VIP DEVICE STRAPS	X
RSVD	GENERICC		0
AUD[1]	HSYNC		0
AUD[0]	VSYNC	AUD[1] AUD[0] 0 0 No audio function 0 1 Audio for DisplayPort and HDMI if dongle is detected 1 0 Audio for DisplayPort only 1 1 Audio for both DisplayPort and HDMI	XX

BYD COMPANY LIMITED

Mobile Name: N13DCP

Page Name: VGA (STRAP)

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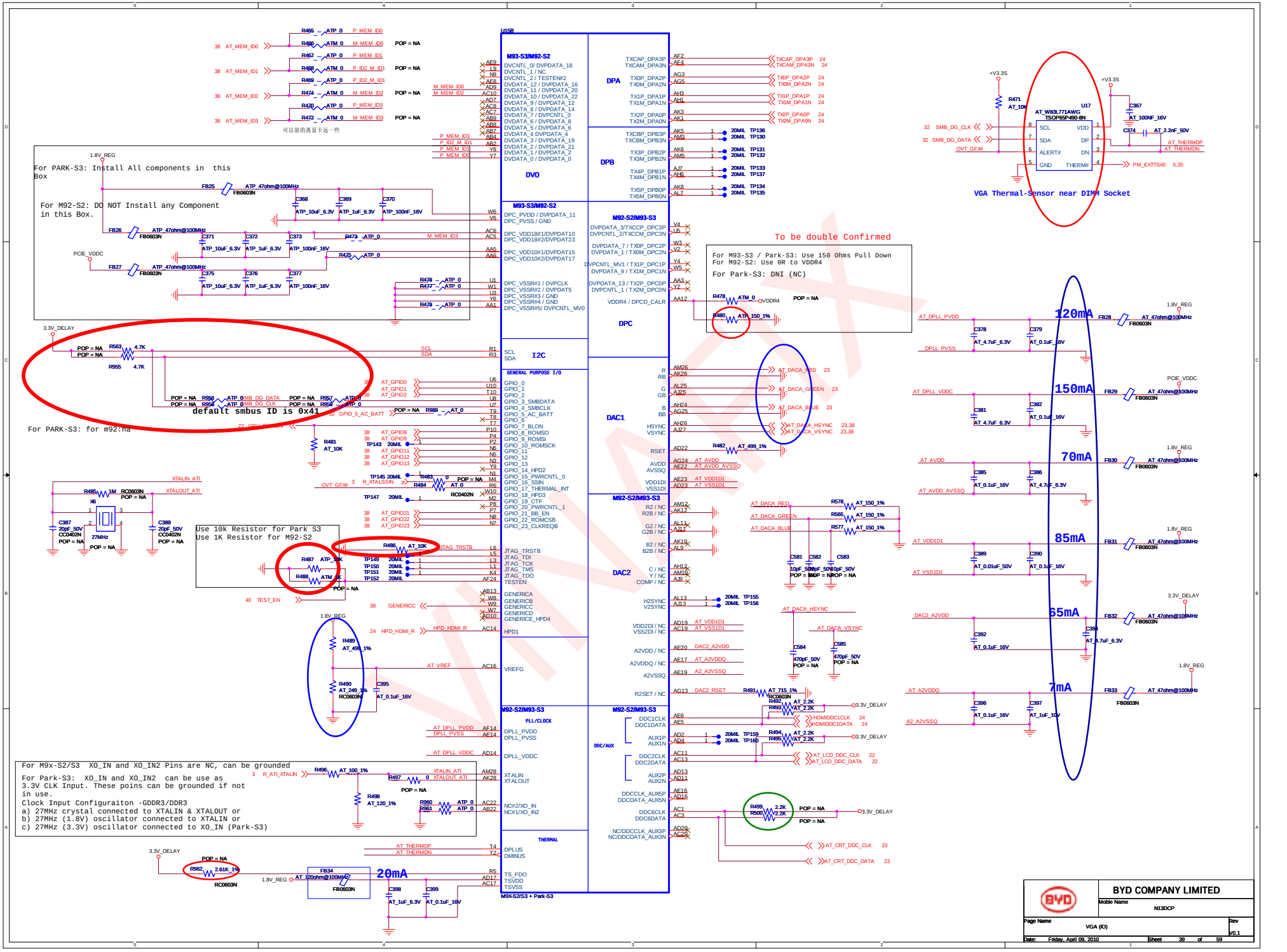
U15B
M93-S3/M92-S2
DVDATA_0 / DVPDATA_0
DVDATA_1 / DVPDATA_2
DVDATA_2 / DVPDATA_21
DVDATA_3 / DVPDATA_19
DVDATA_4 / DVPDATA_4
DVDATA_5 / DVPDATA_6
DVDATA_6 / DVPDATA_8
DVDATA_7 / DVPCNTL_0
DVDATA_8 / DVPDATA_14
DVDATA_9 / DVPDATA_12
DVDATA_10 / DVPDATA_22
DVDATA_11 / DVPDATA_20
DVDATA_12 / DVPDATA_16
DVCNTL_1 / NC
DVCNTL_2 / TESTEN#2
DVCNTL_0/ DVPDATA_18
DVO
DPA
DPB
DPC
DAC1
DAC2
DDC/AUX
I2C
GENERAL PURPOSE I/O
PLL/CLOCK
THERMAL
M92-S2/M93-S3
M93-S3/M92-S2
M9X-S2/S3 + Park-S3
For PARK-S3: Install All components in this Box
For M92-S2: DO NOT Install any Component in this Box.
For PARK-S3: for m92:na
default smbus ID is 0x41
For M93-S3 / Park-S3: Use 150 Ohms Pull Down
For M92-S2: Use 0R to VDDR4
For Park-S3: DNI (NC)
To be double Confirmed
Use 10k Resistor for Park S3
Use 1K Resistor for M92-S2
For M9x-S2/S3 XO_IN and XO_IN2 Pins are NC, can be grounded
For Park-S3: XO_IN and XO_IN2 can be use as 3.3V CLK Input. These poins can be grounded if not in use.
Clock Input Configuraiton -GDDR3/DDR3
a) 27MHz crystal connected to XTALIN & XTALOUT or
b) 27MHz (1.8V) oscillator connected to XTALIN or
c) 27MHz (3.3V) oscillator connected to XO_IN (Park-S3)
VGA Thermal-Sensor near DIMM Socket
U17
AT_W83L771AWG TSOP65P490-8N
120mA
150mA
70mA
85mA
65mA
7mA
20mA
BYD COMPANY LIMITED
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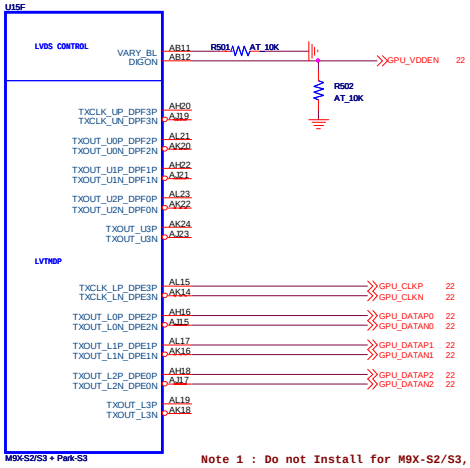
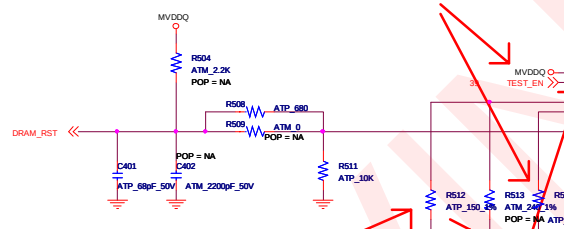
LCD PWM (Pulse Width Modulated)
output to adjust LCD brightness
Backlight adjust is through KBC



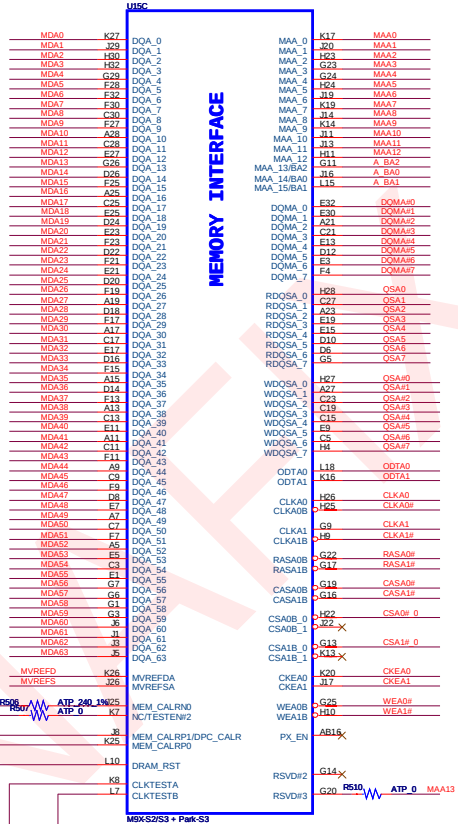
Note 1 : Do not Install for M9X-S2/S3, Install 240 Ohms 0.5% Resistor for PARK-S3.

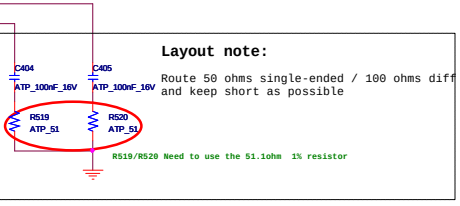
Designator	For M9X-S2 and M93-S3	For Park-S3
R_MEM_1	DNI	10K
R_MEM_2	0R/Short	680R
R_MEM_3	2.2K	DNI
C_MEM	2.2nF	68pF

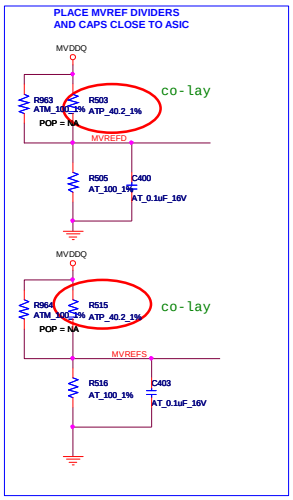


Note 2 :For M9X-S2/S3,J8 Pin Connect to VSS through 240 Ohms(0.5%) resistor
For Park-S3,J8 Pin Connect to VSS through 150 Ohms(1%) resistor for DPC_CALR

Note 3 :For M9X-92/93, K7 Pin (NC_MEM_CALRP1) is Not connected.
For PARK-S3, K7 Pin (TESTEN#2) connect to TEST_EN Signal At AF24







DIVIDER RESISTORS	DDR2/DDR3	GDDR3
MVREF TO 1.8V (Ra)	100R	40.2R
MVREF TO GND (Rb)	100R	100R

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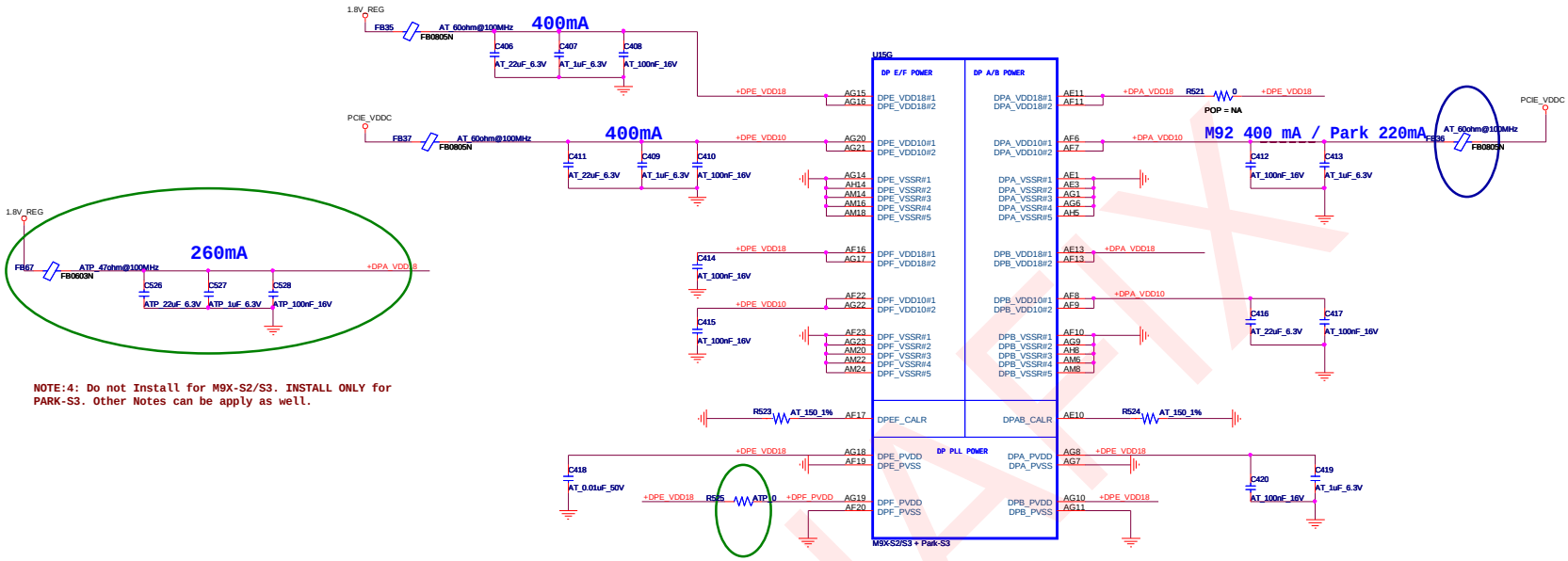

NOTE:4: Do not Install for M9X-S2/S3. INSTALL ONLY for PARK-S3. Other Notes can be apply as well.

BYD COMPANY LIMITED	
Mobile Name	N13DCP
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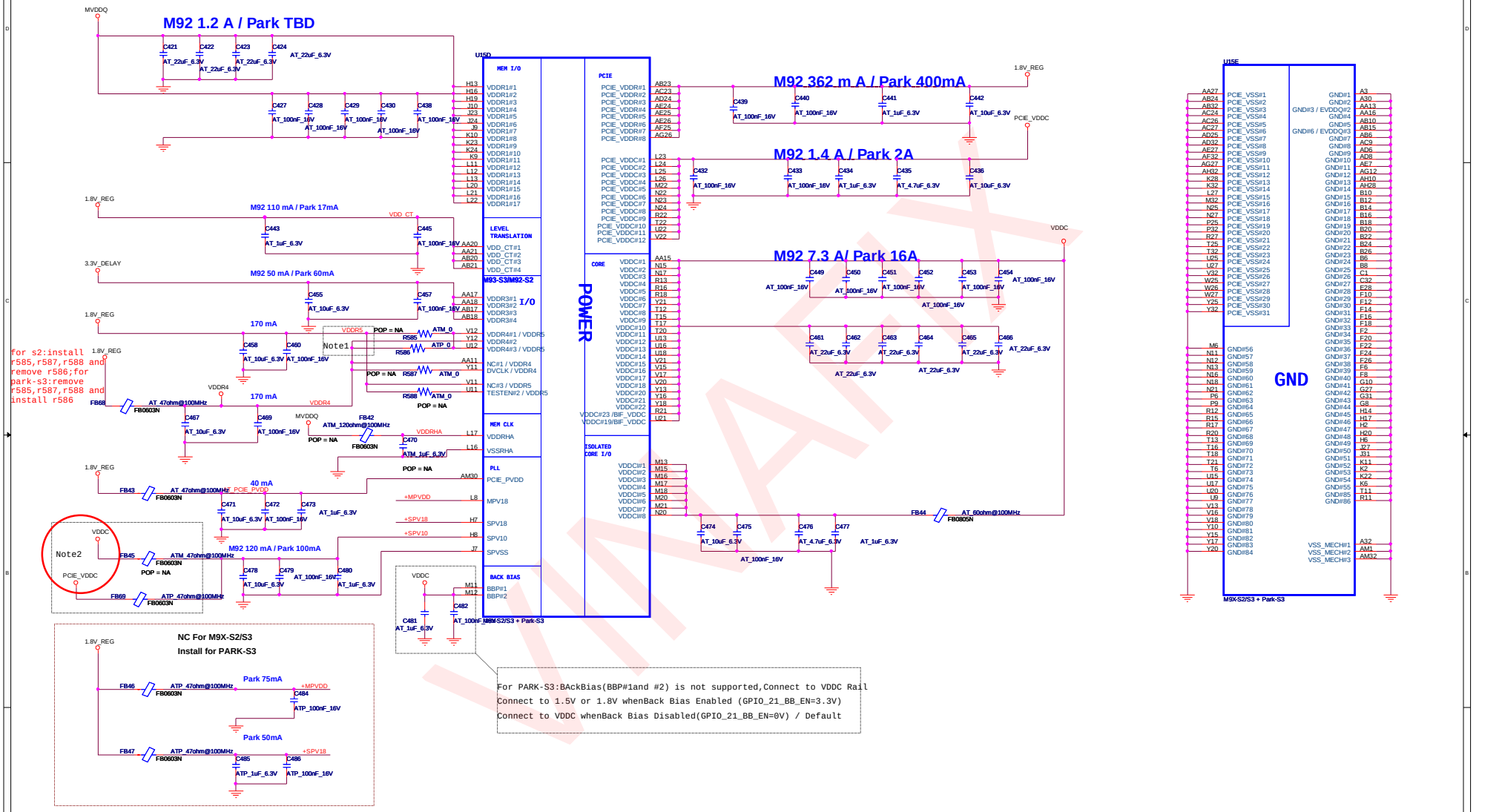
M92 1.2 A / Park TBD
M92 362 m A / Park 400mA
M92 1.4 A / Park 2A
M92 7.3 A/ Park 16A
M92 110 mA / Park 17mA
M92 50 mA / Park 60mA
170 mA
170 mA
40 mA
M92 120 mA / Park 100mA
NC For M9X-S2/S3
Install for PARK-S3
Park 75mA
Park 50mA
POWER
GND
U15D
U15E
M9X-S2/S3 + Park-S3
for s2:install r585,r587,r588 and remove r586;for park-s3:remove r585,r587,r588 and install r586
For PARK-S3:BAckBias(BBP#1and #2) is not supported,Connect to VDDC Rail
Connect to 1.5V or 1.8V whenBack Bias Enabled (GPIO_21_BB_EN=3.3V)
Connect to VDDC whenBack Bias Disabled(GPIO_21_BB_EN=0V) / Default
Note1:
VDD5 for DVP control pins (DVPCNTL_[0-2] and DVPCLK) and DVPDATA_[11:0] - external TMDS or GPIO; corresponds to DVO_LSB_VMODE register bit; '1' - 3.3 V(default); '0' - 1.8 V;
Note2:
For Park-S3: Connect 1.1V 1.0V_PWR to SPV10 ONLY (1.0V @100mA)
M9X-S2/S3: Connect VDDC to SPV10 ONLY (VDDC @120mA)
BYD COMPANY LIMITED
Mobile Name N13DCP
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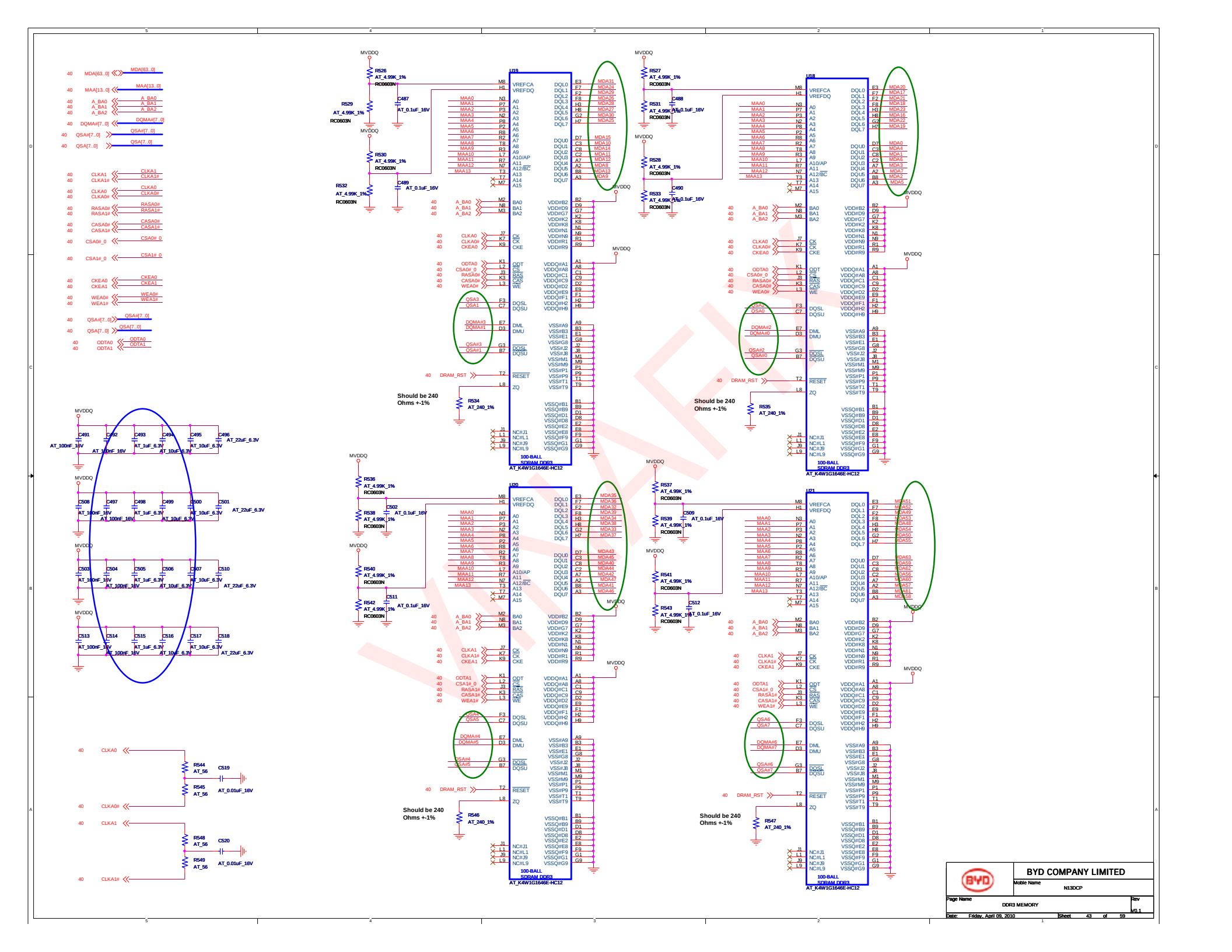
MDA[63..0]
MAA[13..0]
A_BA0
A_BA1
A_BA2
DQMA#[7..0]
QSA#[7..0]
QSA[7..0]
CLKA1
CLKA1#
CLKA0
CLKA0#
RASA0#
RASA1#
CASA0#
CASA1#
CSA0#_0
CSA1#_0
CKEA0
CKEA1
WEA0#
WEA1#
ODTA0
ODTA1
MVDDQ
R526 AT_4.99K_1% RC0603N
R529 AT_4.99K_1% RC0603N
R530 AT_4.99K_1% RC0603N
R532 AT_4.99K_1% RC0603N
C487 AT_0.1uF_16V
C489 AT_0.1uF_16V
U19
R534 AT_240_1%
Should be 240 Ohms +-1%
100-BALL SDRAM DDR3
AT_K4W1G1646E-HC12
R527 AT_4.99K_1% RC0603N
R531 AT_4.99K_1% RC0603N
R528 AT_4.99K_1% RC0603N
R533 AT_4.99K_1% RC0603N
C488 AT_0.1uF_16V
C490 AT_0.1uF_16V
U18
R535 AT_240_1%
Should be 240 Ohms +-1%
C491 C492 C493 C494 C495 C496 AT_22uF_6.3V
AT_100nF_16V AT_1uF_6.3V AT_10uF_6.3V
C508 C497 C498 C499 C500 C501 AT_22uF_6.3V
C503 C504 C505 C506 C507 C510 AT_22uF_6.3V
C513 C514 C515 C516 C517 C518 AT_22uF_6.3V
R536 AT_4.99K_1% RC0603N
R538 AT_4.99K_1% RC0603N
R540 AT_4.99K_1% RC0603N
R542 AT_4.99K_1% RC0603N
C502 AT_0.1uF_16V
C511 AT_0.1uF_16V
U20
R546 AT_240_1%
Should be 240 Ohms +-1%
R537 AT_4.99K_1% RC0603N
R539 AT_4.99K_1% RC0603N
R541 AT_4.99K_1% RC0603N
R543 AT_4.99K_1% RC0603N
C509 AT_0.1uF_16V
C512 AT_0.1uF_16V
U21
R547 AT_240_1%
Should be 240 Ohms +-1%
R544 AT_56
R545 AT_56
R548 AT_56
R549 AT_56
C519 AT_0.01uF_16V
C520 AT_0.01uF_16V
BYD COMPANY LIMITED
Mobile Name N13DCP
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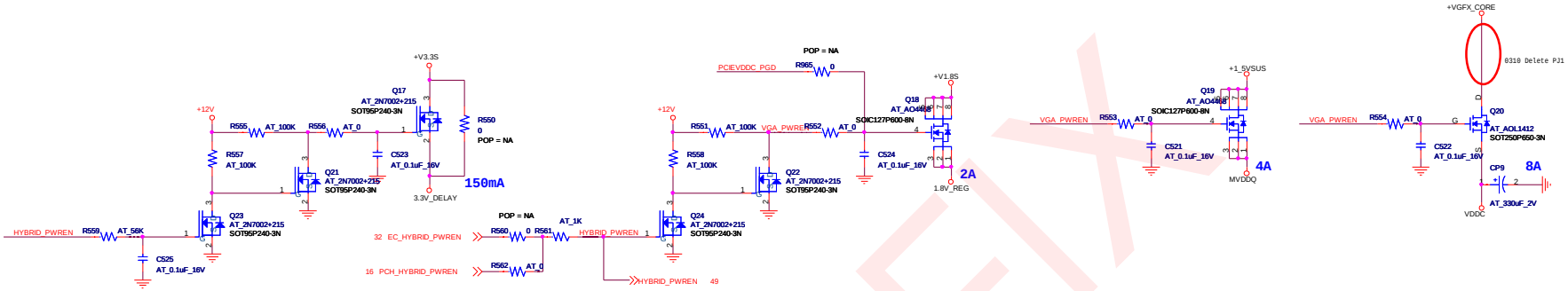
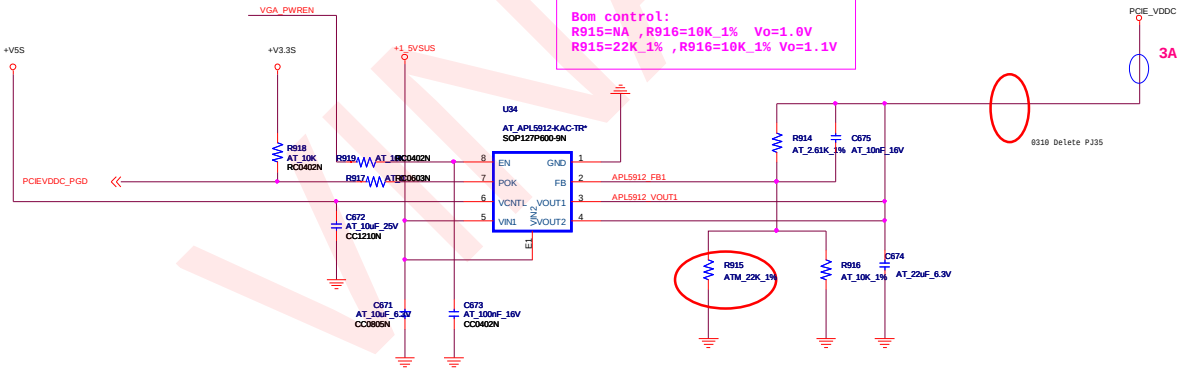


PCIE_VDDC 1.0V to 1.1V

Bom control:
R915=NA ,R916=10K_1% Vo=1.0V
R915=22K_1% ,R916=10K_1% Vo=1.1V



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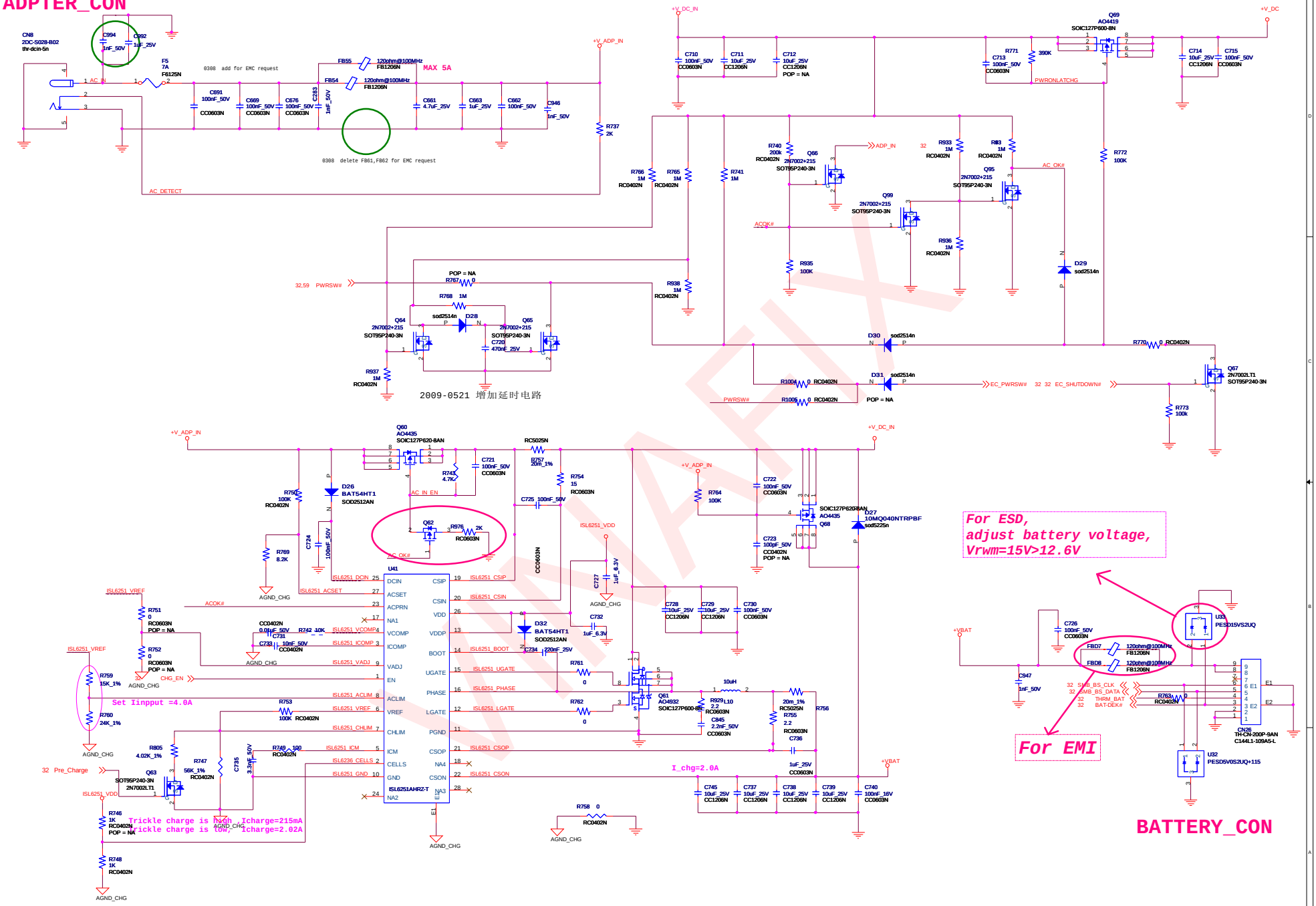
ADPTER_CON



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Size C	Document Number <Doc>	Rev <RevCode>
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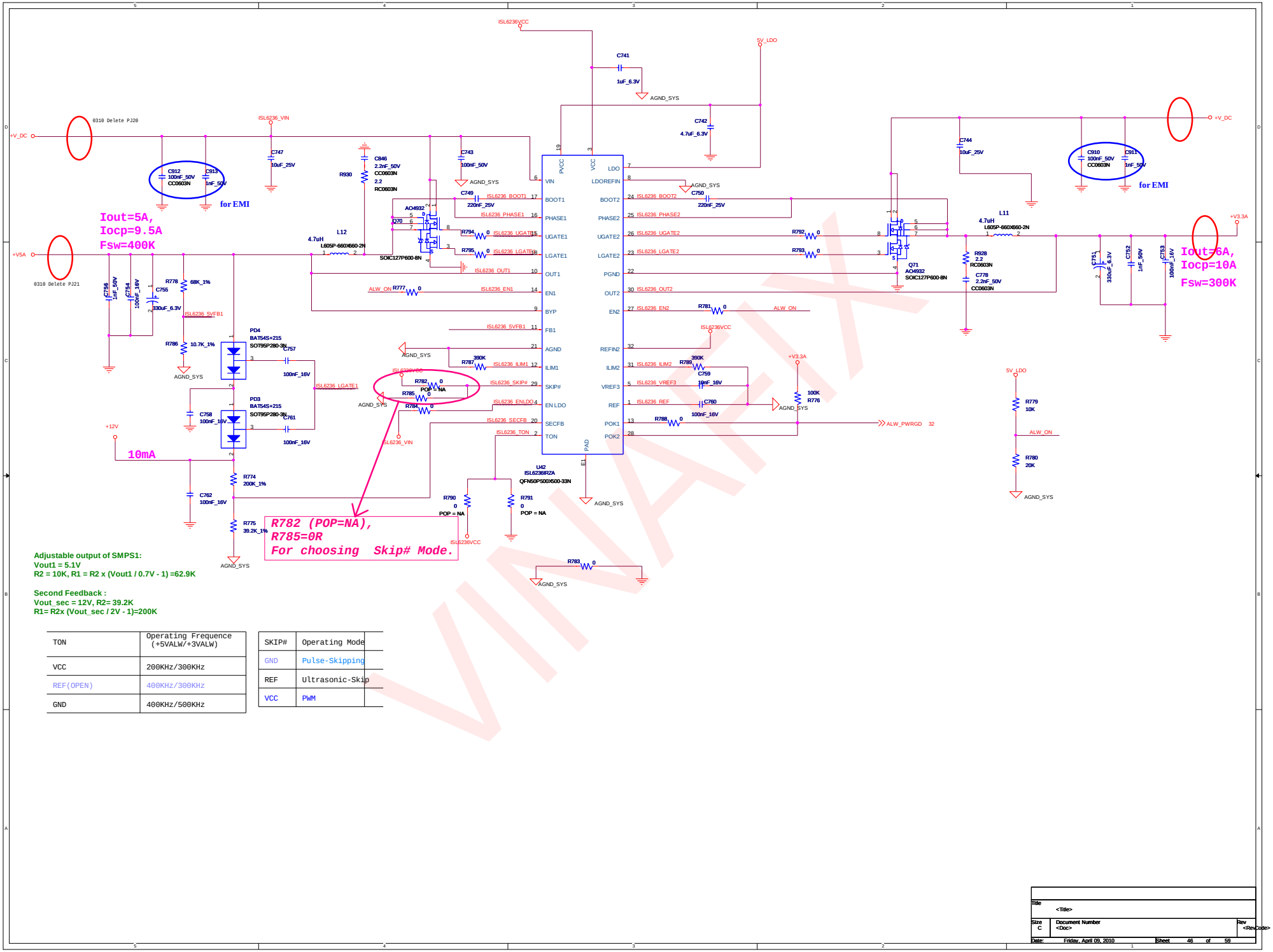

TON	Operating Frequence (+5VALW/+3VALW)
VCC	200KHz/300KHz
REF(OPEN)	400KHz/300KHz
GND	400KHz/500KHz

SKIP#	Operating Mode
GND	Pulse-Skipping
REF	Ultrasonic-Skip
VCC	PWM

Title: <Title>		
Size: C	Document Number: <Doc>	Rev: <RevCode>
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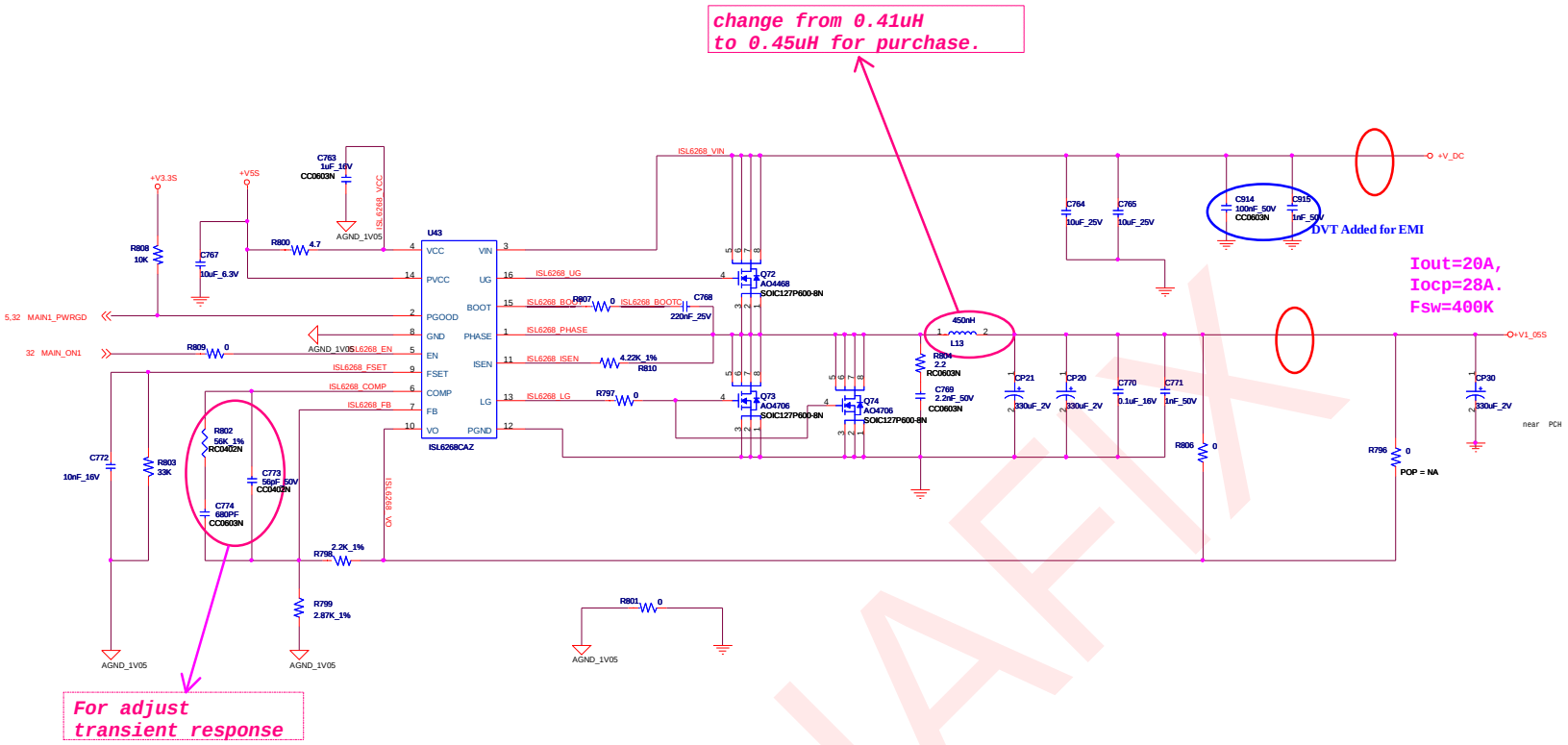

Adjustable output
Vout1 = 1.06V
R2 = 2.87K, R1 = R2 x (Vout1 / 0.6V - 1) =2.2K

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Size C	Document Number <Doc>	Rev <RevCode>
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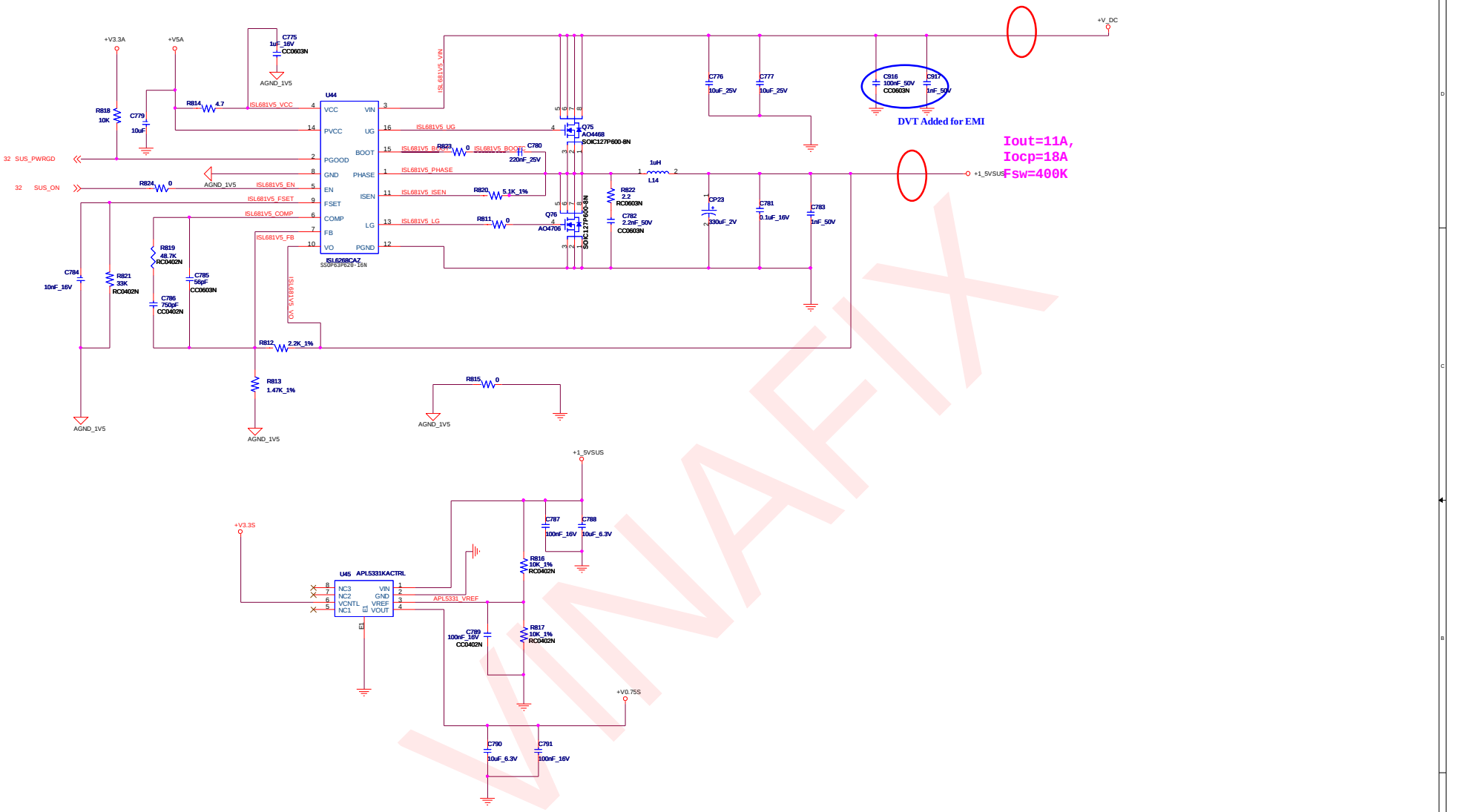

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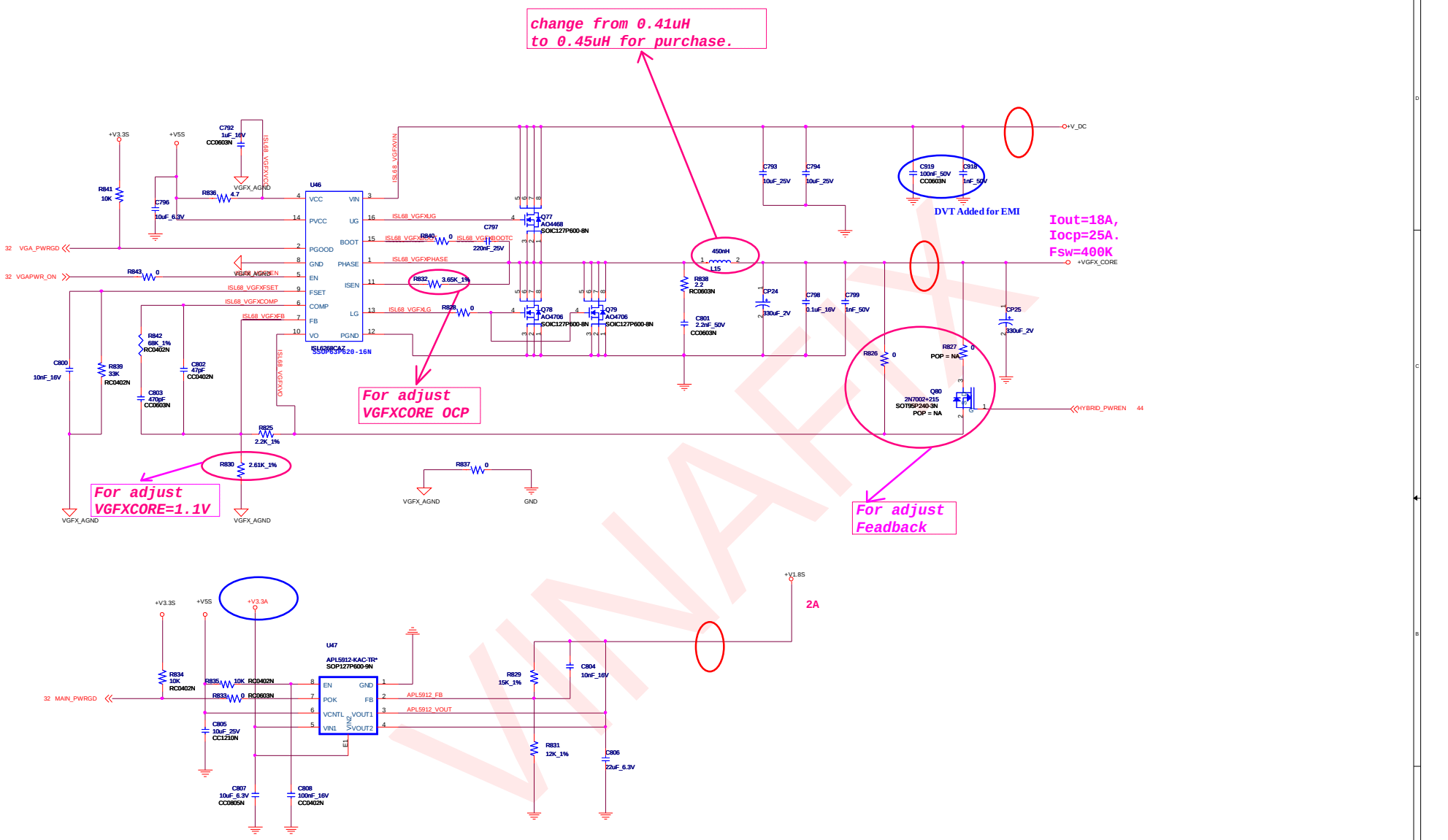

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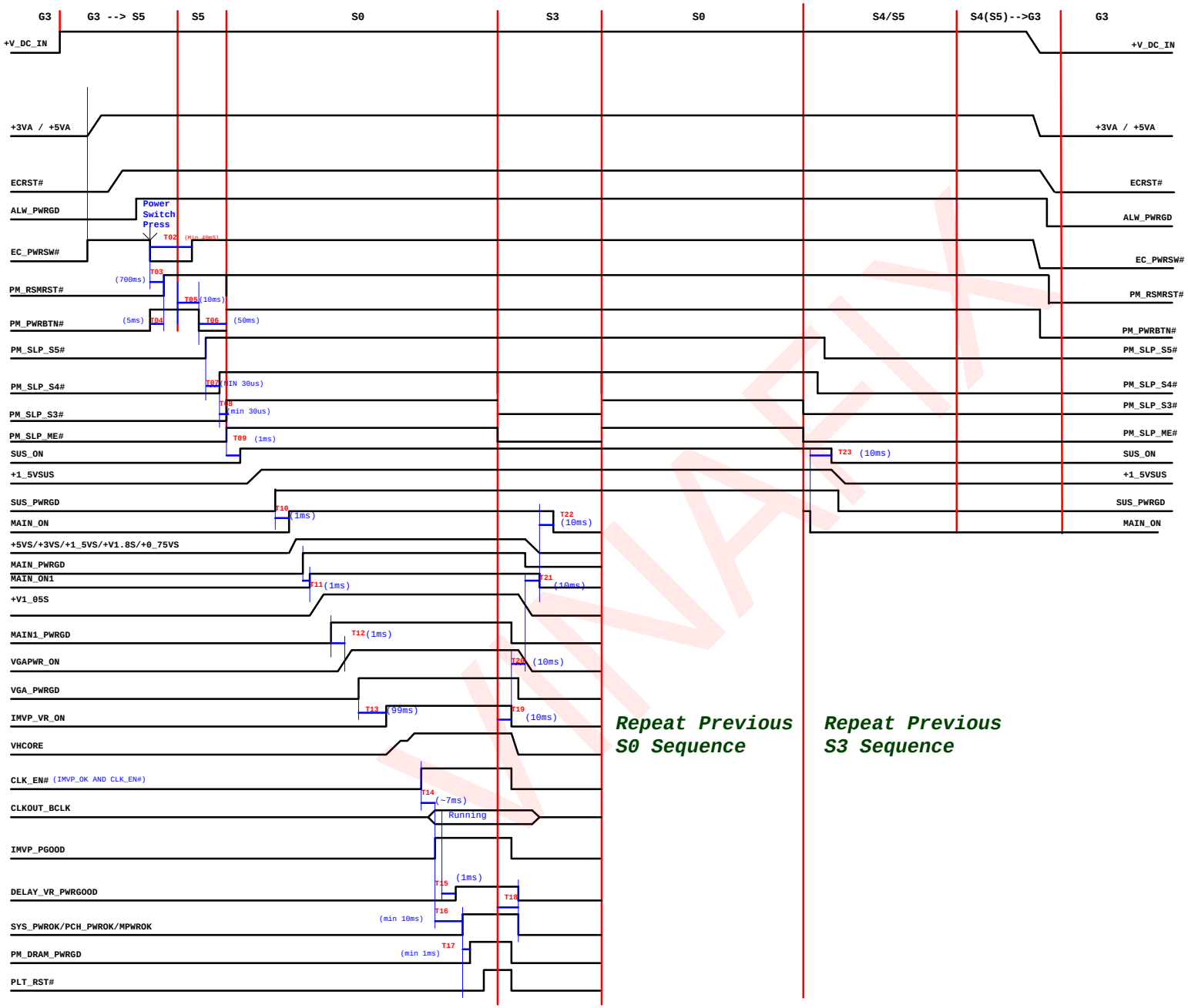
N13DCP Power Sequence Specification



BYD	BYD COMPANY LIMITED
Page Name	Power sequence
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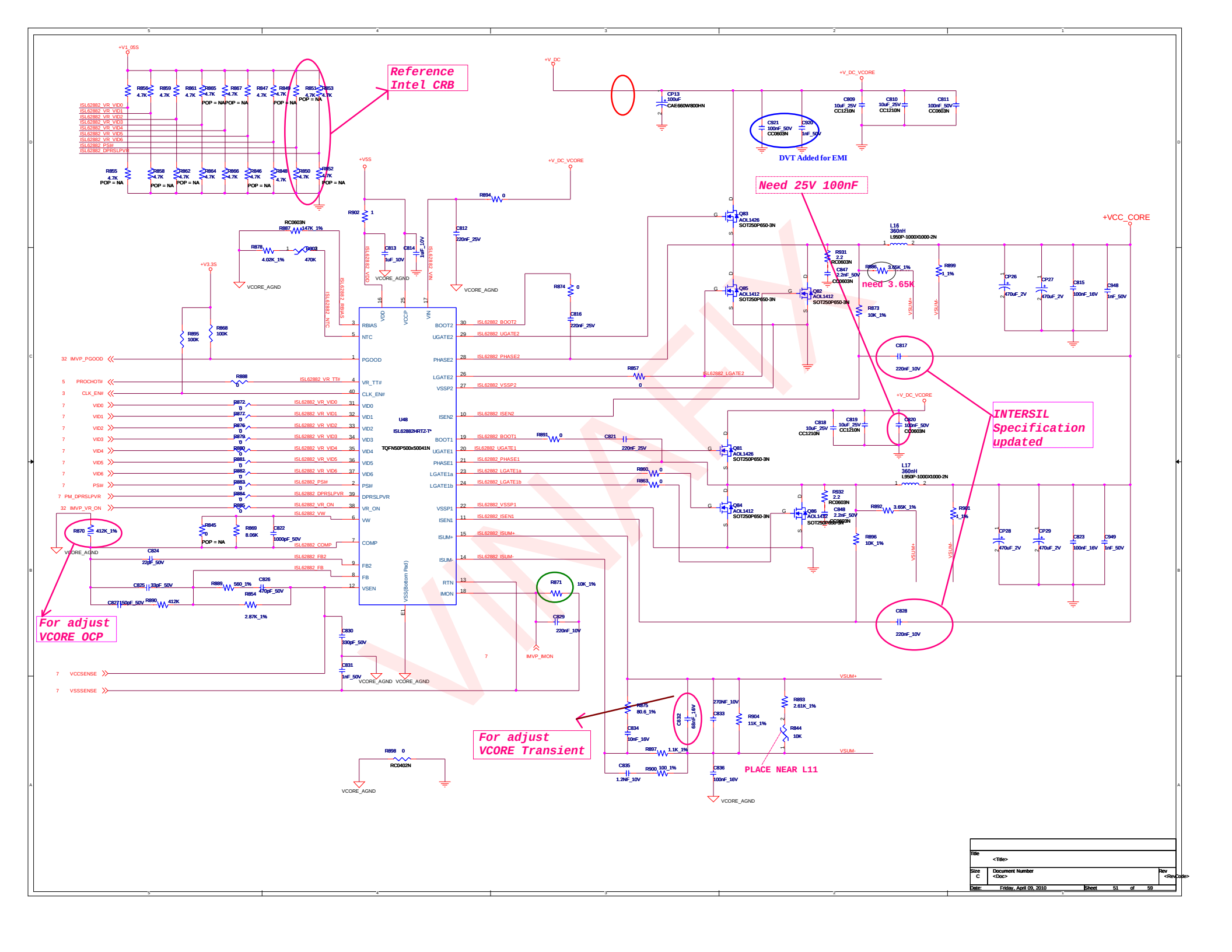
Reference Intel CRB
DVT Added for EMI
Need 25V 100nF
need 3.65K
INTERSIL Specification updated
For adjust VCORE OCP
For adjust VCORE Transient
PLACE NEAR L11
+VCC_CORE
+V1.05S
+V3.3S
+V5S
+V_DC
+V_DC_VCORE
VCORE_AGND
U48
ISL62882HRTZ-T*
TQFN50P500x50041N
Title
<Title>
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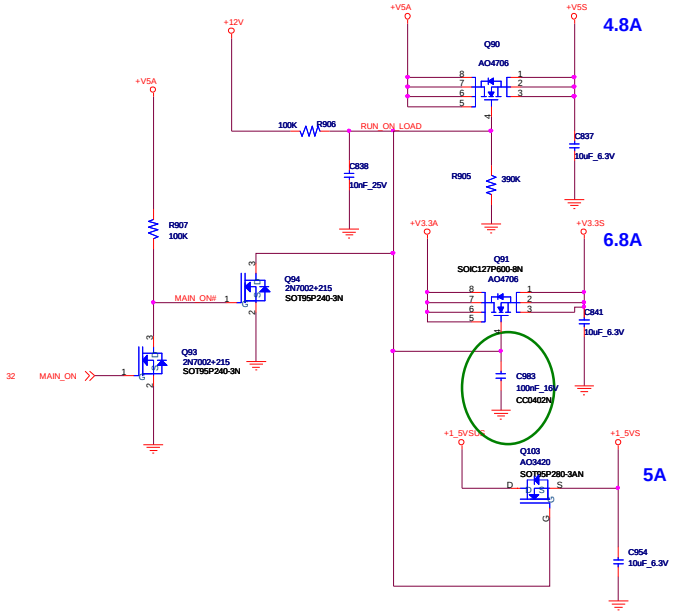
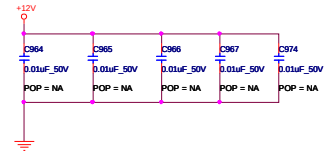
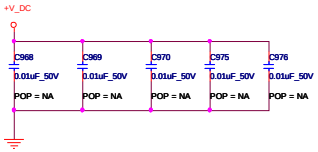
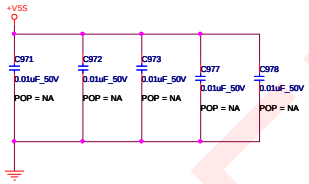
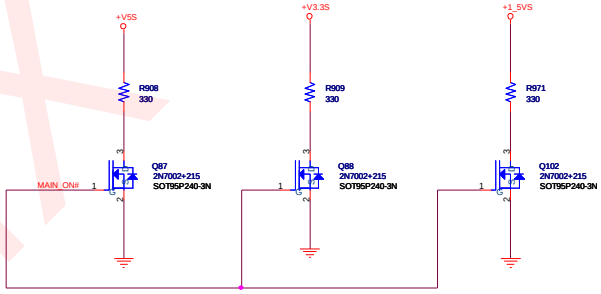








ADD FOR EMI and debug back up



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Size C	Document Number <Doc>		Rev <RevCode>
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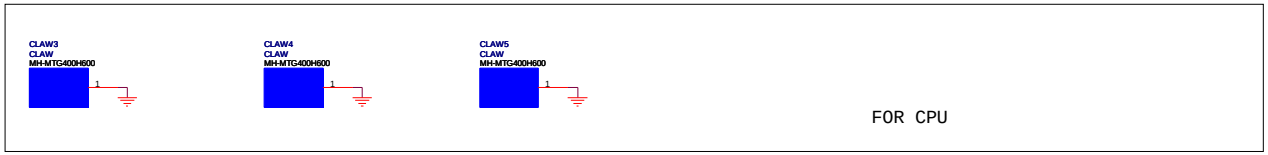

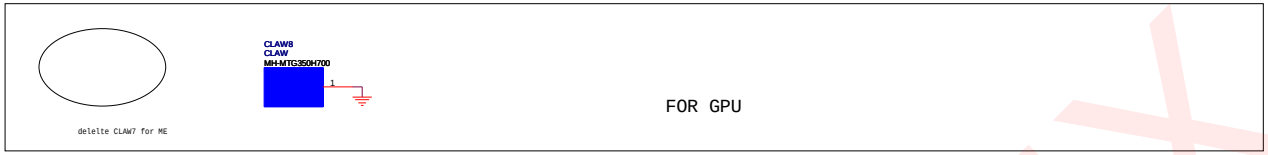

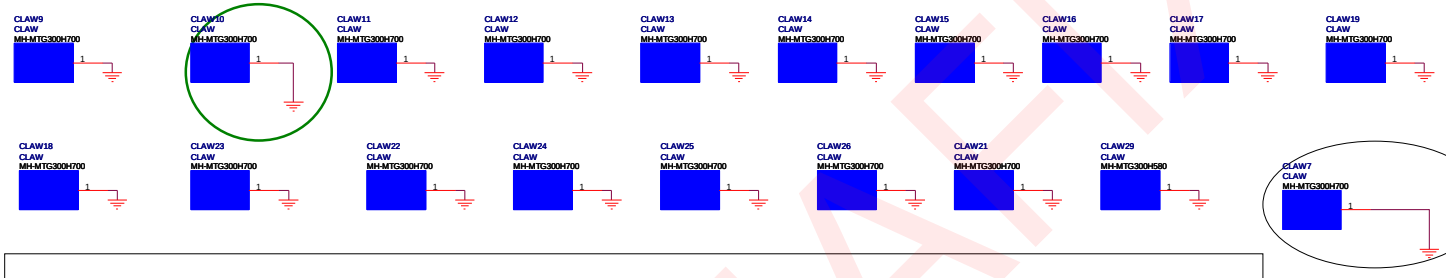

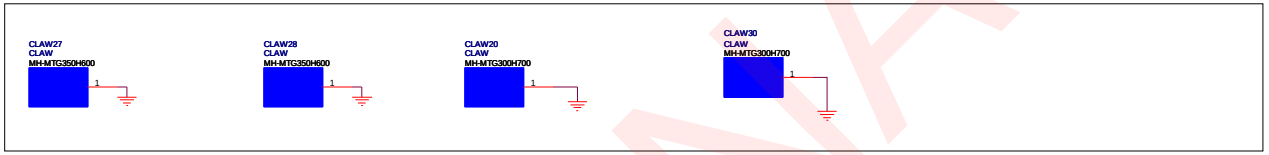

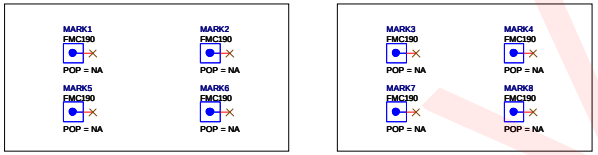

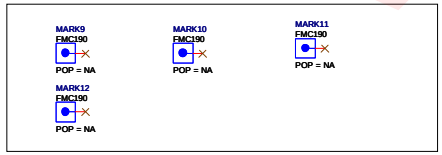

BYD COMPANY LIMITED	
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Change list

(2009/09/23)

P.32 VDD of U18 connected to +V3.3A_KBC from +V3.3S

(2009/11/18)

P.32 ADD the EC_GPIO23 &EC_GPIO31 relational schematic for customer request, reserve for the new panel power save mode function.

P.22 change the LVDS CON from 20pin to 22pin for customer request , reserve 2 GPIO for new panel power save mode function

P.23 connect +V5S to CRT CON pin9 for compatible with the old CRT monitor

(2010/01/10)-----DVT

P.11 Change X2 from EPSON to SEIKO for match test

P.12 Change C568 from 27pf to 20pf for crystal match test result

P.15 Change R209 from 22ohm to 33ohm for si test result

P.22 Change R280 from 10k to 100k for LCD_VCC rise time issue

P.22 Add R975 Q106 for LCD_VCC discharge issue

P.24 Change HDMI Connector from 51LR019S-30RN-B to 51LR019S-30HN-B for ME request

P.28 Change USB connector CN30 CN31

P.32 Add D33 for hard to boot issue after 4s shut down

P.32 Change EC_PWRSW# from GPIO07 to GPIO57 for pluse issue

P.32 Add C984 for noise issue

P.32 Add R979----R986 for LPC SI test issue

P.32 Change c330,c331 from 8pf to 6pf

P.45 Add Q62,R976

P.59 change SW3 part number

P.25 DELETE FB69,C979,C981,C980,C982
ADD R987,CH1,R988,R989,CH2,R990

(2010/03/10)-----PVT

P.28 Add C986,C987,C988,C989,C990,C991,FIL5,FILA1,FILC1

P.28 Delete R353,R354,RA7,RA8,RC1,RC4

P.28 Add R991,R992,R993,R994

P.45 Add C992, delete FB61,FB62

P.41 Add Q107,R1000,R999,R996,C993 for audio codec upgrade

P.11 Add 'FW_EN' control schematic for update ME

P.32 Add R1003 for EC detect discrete GPU and internal GPU

P.53 change CLAW10 connect to GND

P.51 change R871 from 11k to 10k

P.45 add C994 for EMC request

P.45 add R1004

BYD	BYD COMPANY LIMITED
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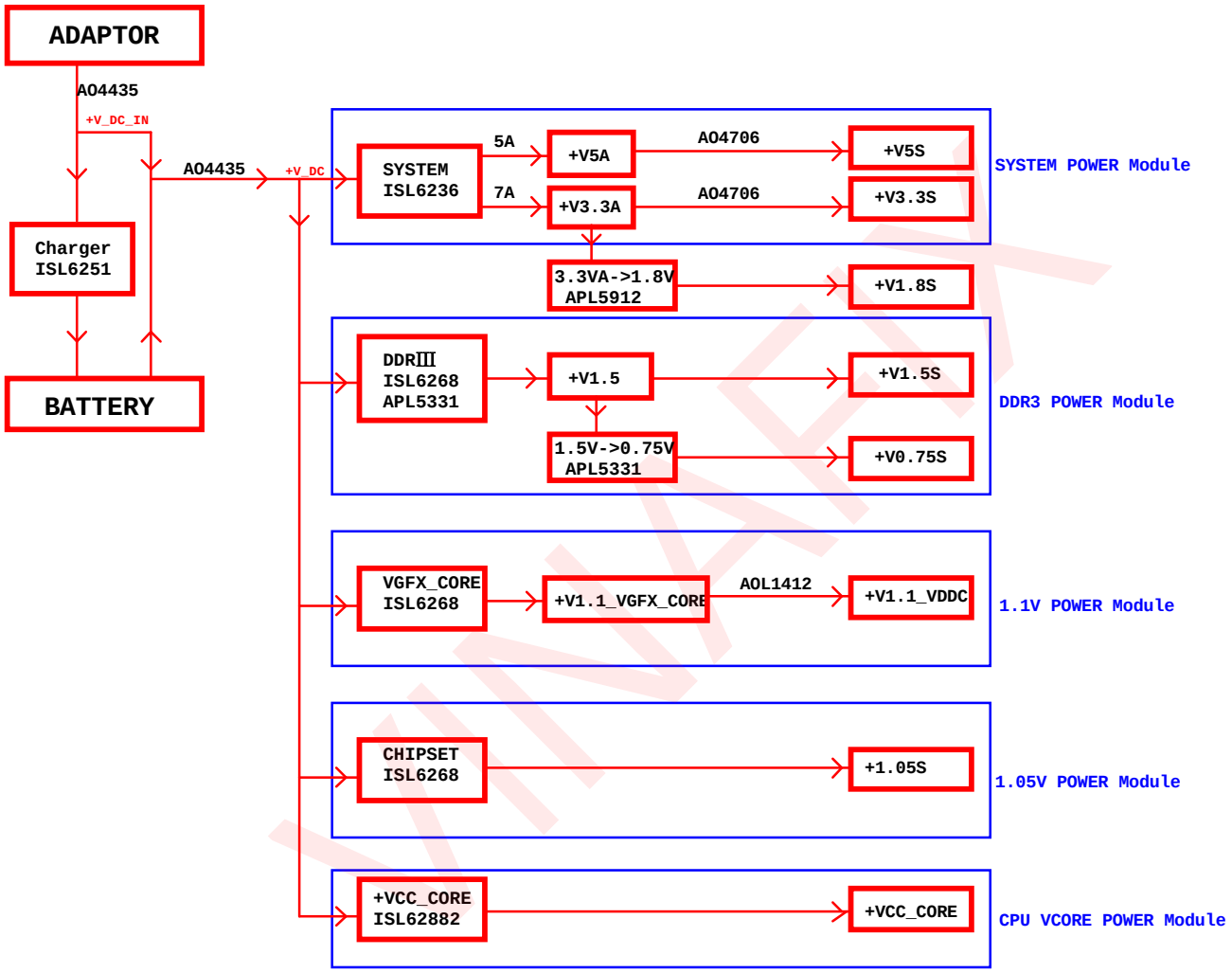
POWER Delivery Architectural Block Diagram



BYD COMPANY LIMITED	
Mobie Name	N13DCP
Page Name	Audio/ eSATA & USB Board
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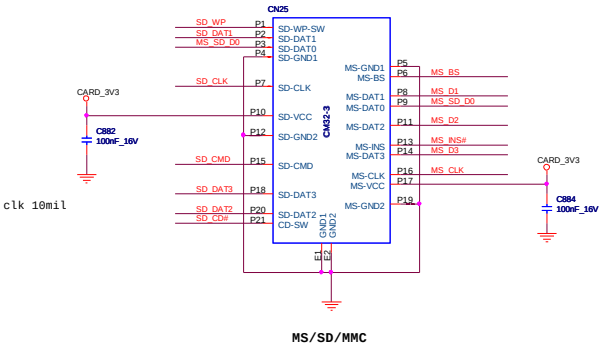
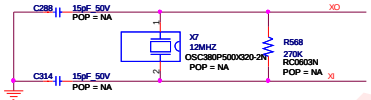
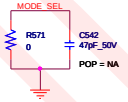
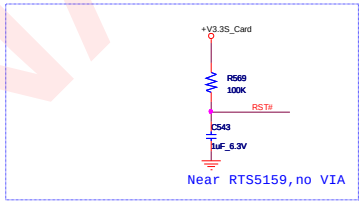
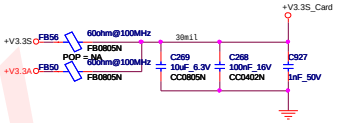


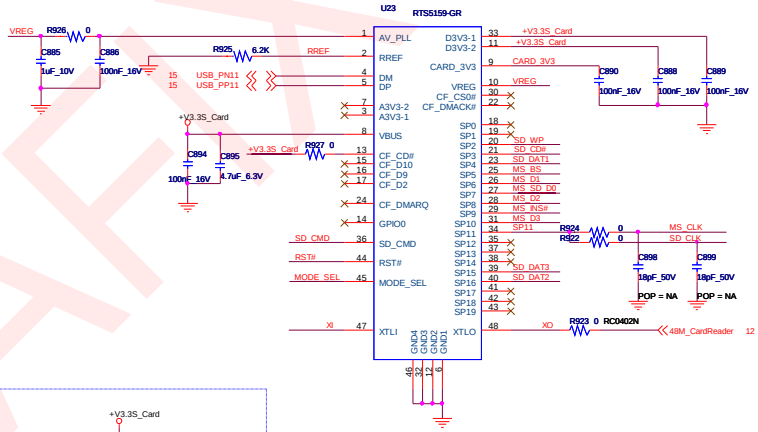
MS/SD/MMC











BYD COMPANY LIMITED	
Mobile Name	N13DCP
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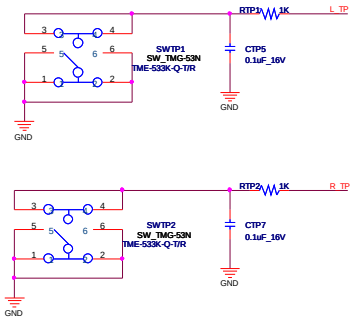

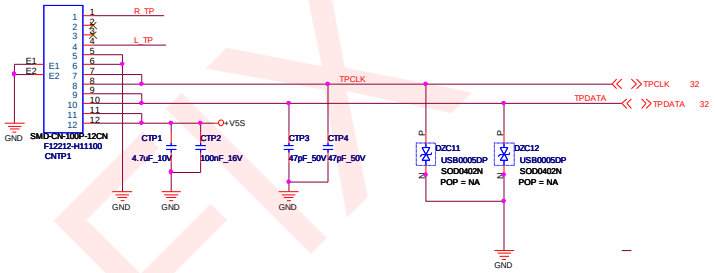

Touch Pad CONN

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