INGENIC

RD4780_GRUS_BOARD
Schematic Revision 1.0

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INGENIC SEMICONDUCTOR CO.,LTD		
Title: RD4780_GRUS		
Size: B	Document Number: COVER	Rev: V1.0
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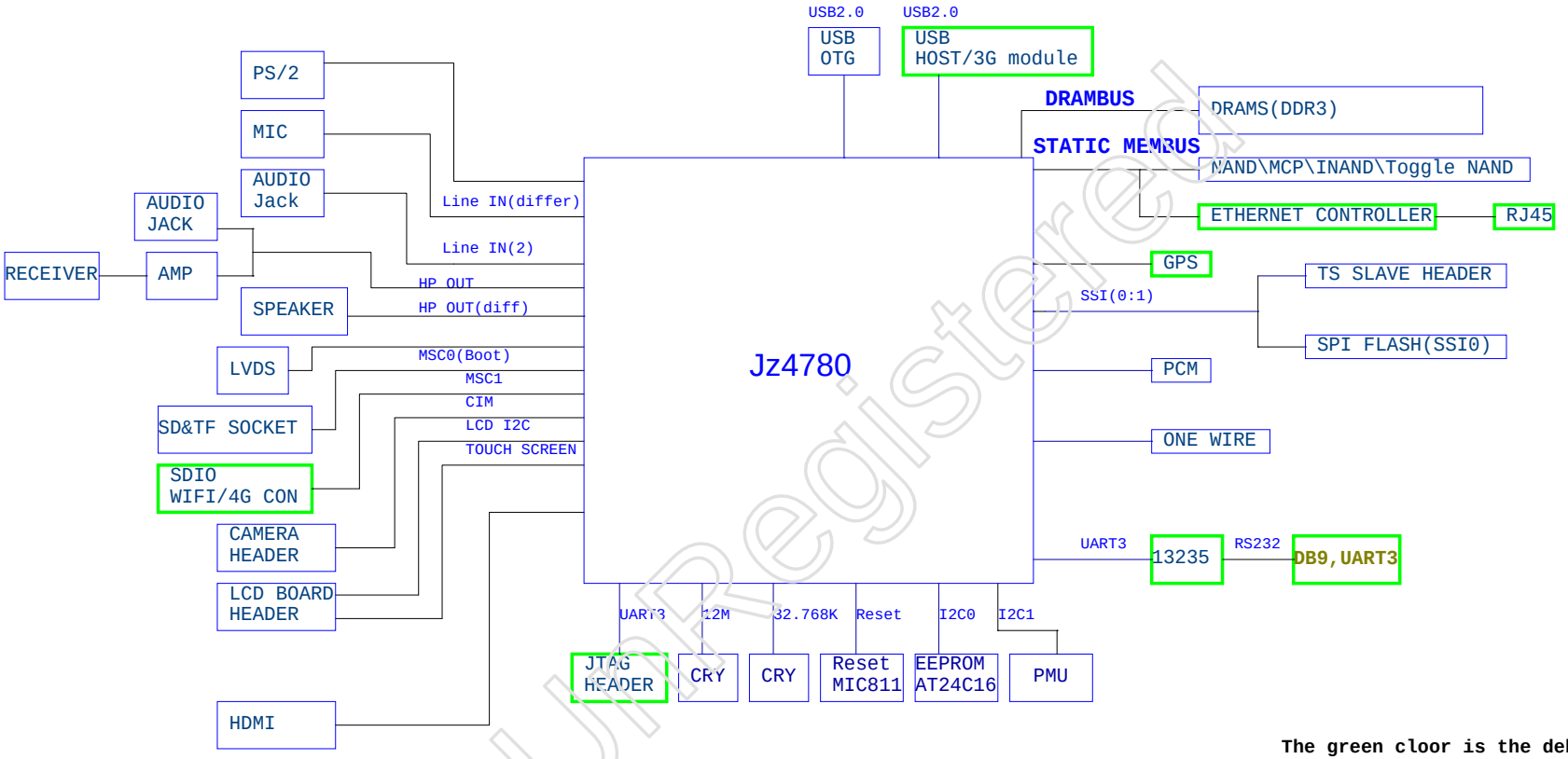

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The green cloor is the debug board

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Title: RD4780_GRUS		
Size: A3	Document Number: SYSTEM ARCHITECURE	Rev: V1.0
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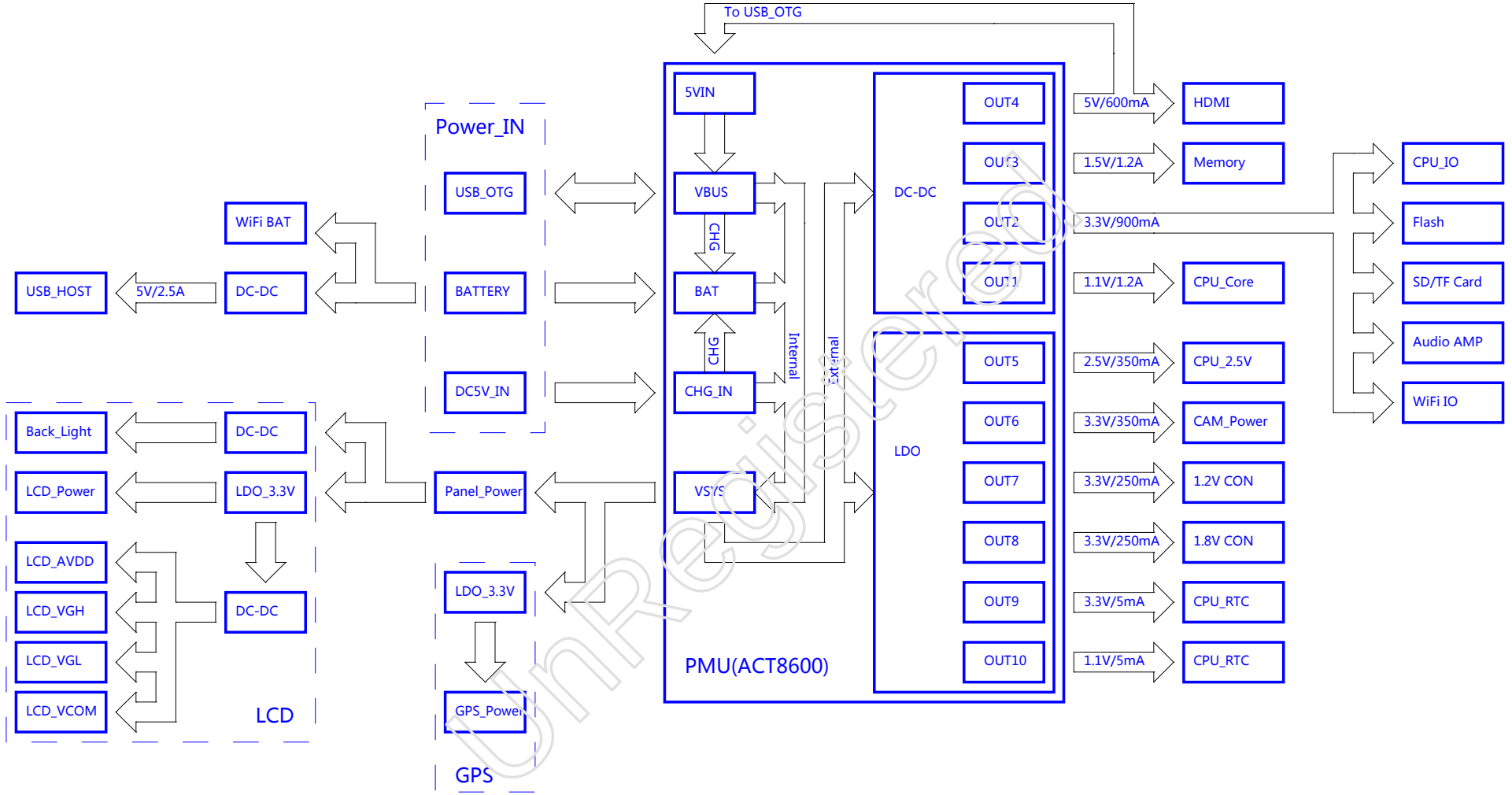

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INGENIC SEMICONDUCTOR CO.,LTD		
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Size: A3	Document Number: POWER ARCHITECURE	Rev: 1.0
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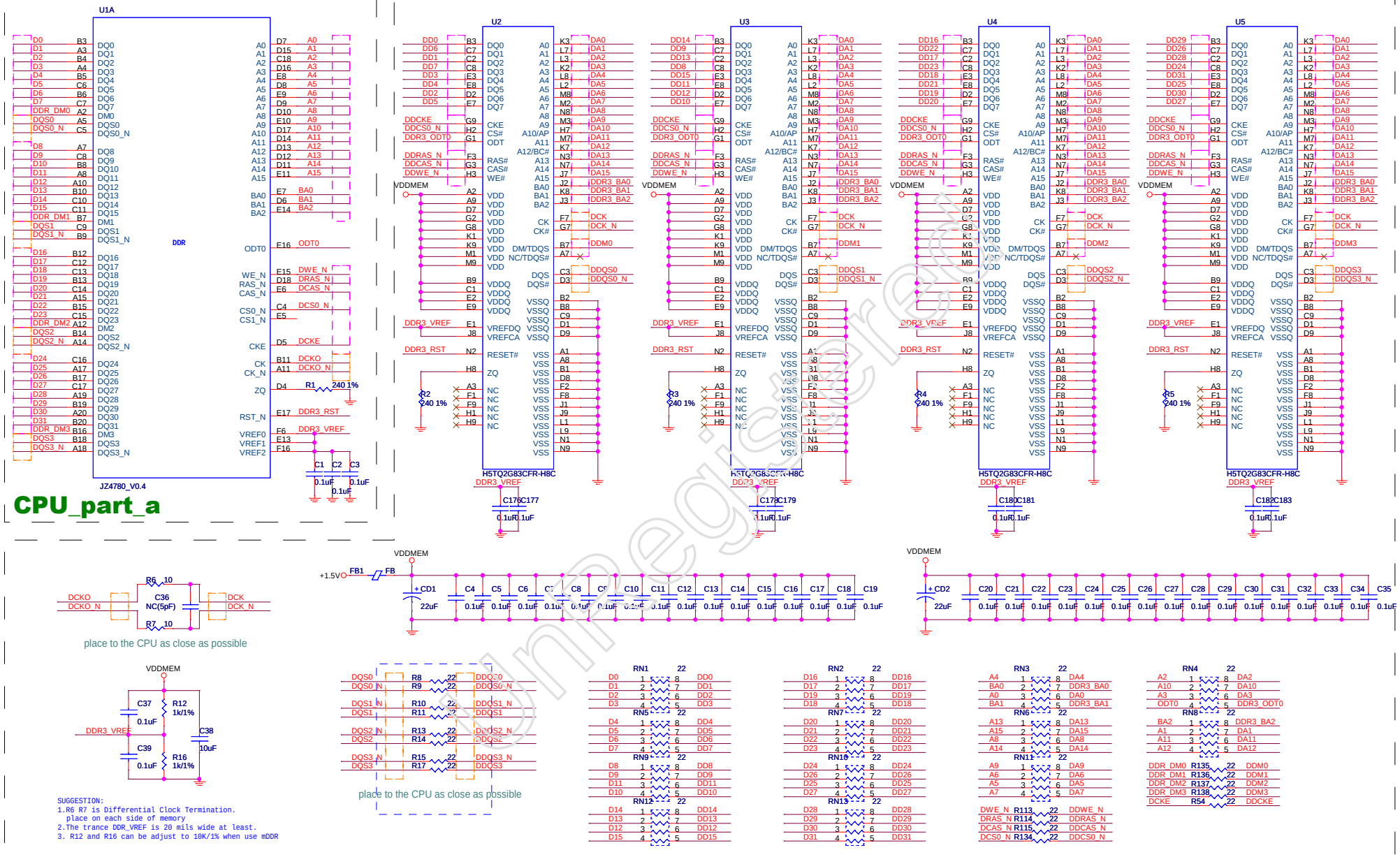

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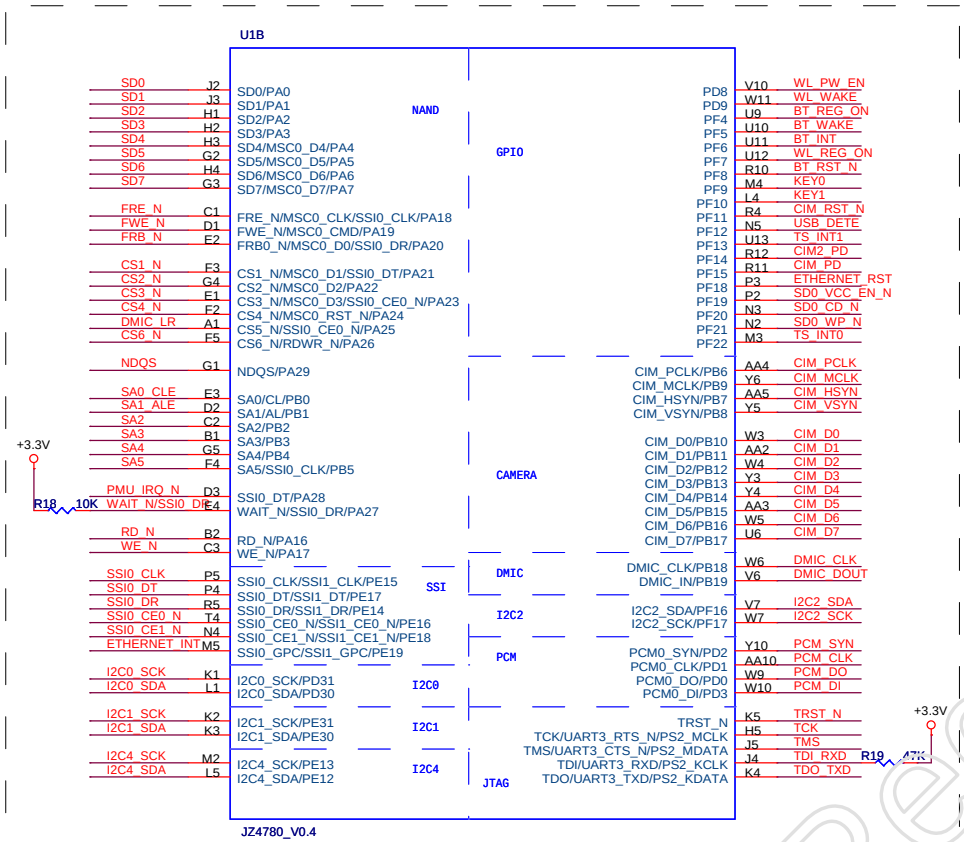
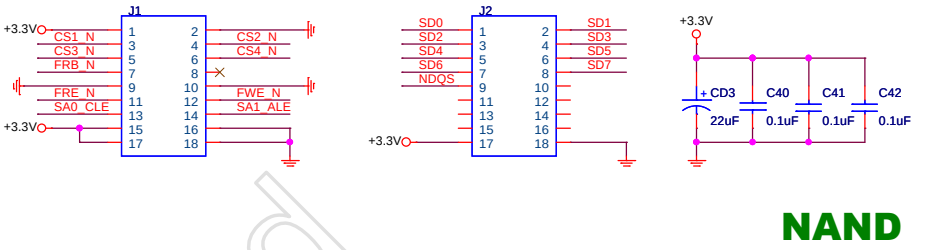
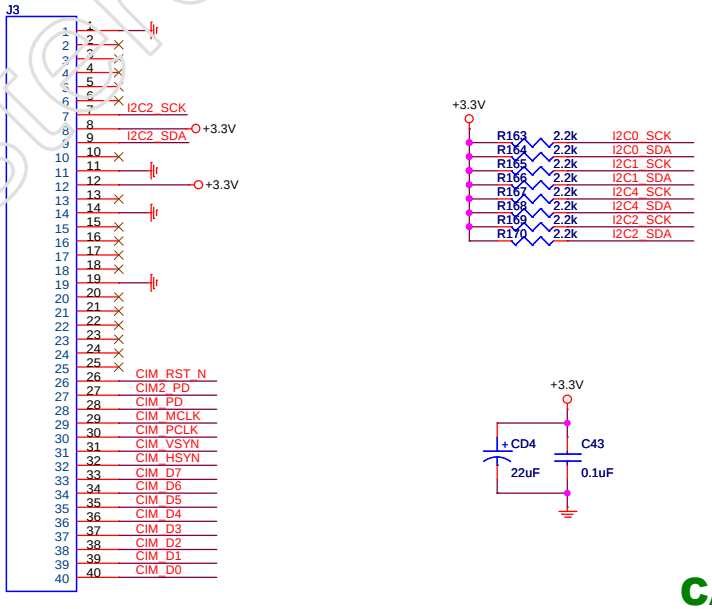


CPU_part_b

BT_RST_N 10
WL_REG_ON 10
BT_INT 10
WL_PW_EN 10
WL_WAKE 10
BT_REG_ON 10
BT_WAKE 10
PCM_CLK 10
PCM_SYN 10
PCM_DI 10
PCM_DO 10
TDO_TXD 10
TRST_N 10
TCK 10
TMS 10
TDI_RXD 10
USB_DETE 11
PMU_IRQ_N 7
KEY0 9
KEY1 9
TS_INT0 10
TS_INT1 10
I2C0_SCK 8
I2C0_SDA 8
I2C1_SCK 7
I2C1_SDA 7
I2C2_SCK 10
I2C2_SDA 10
I2C4_SCK 9,10
I2C4_SDA 9,10
SSI0_CE1_N 10
SSI0_CLK 10
SSI0_DT 10
SSI0_DR 10
SSI0_CE0_N 10
SA0_CLE 10
SA1_ALE 10
SA2 10
SA3 10
SA4 10
SA5 10
ETHERNET_INT 10
ETHERNET_RST 10
RD_N 10
WE_N 10
CS6_N 10
SD[0:7] 10
SD0_CD_N 8
SD0_WP_N 8
SD0_VCC_EN_N 8
DMIC_CLK 11
DMIC_DOUT 11
DMIC_LR 11



NAND



CAMERA

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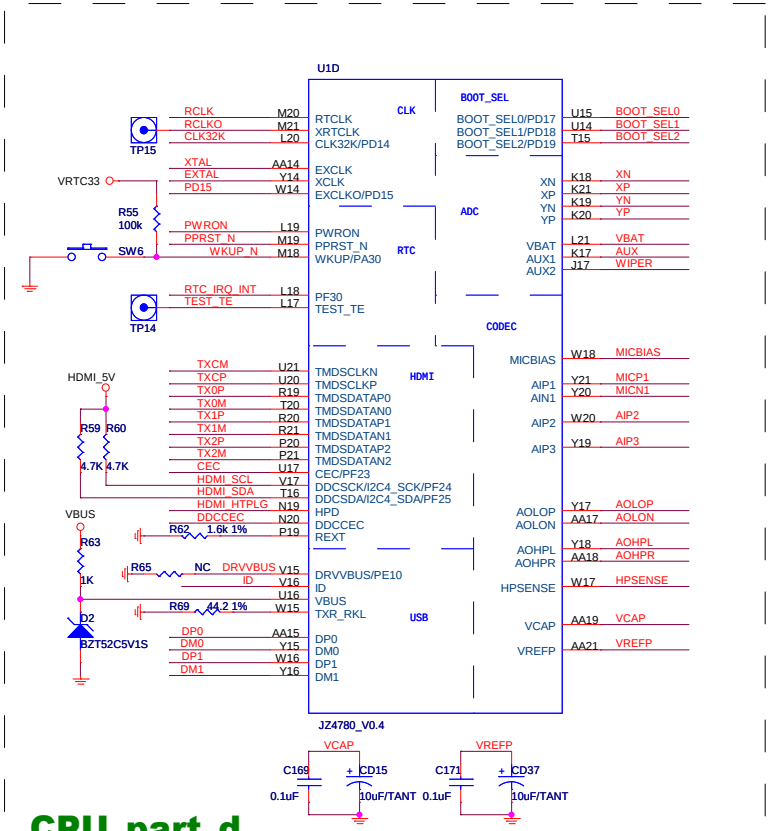
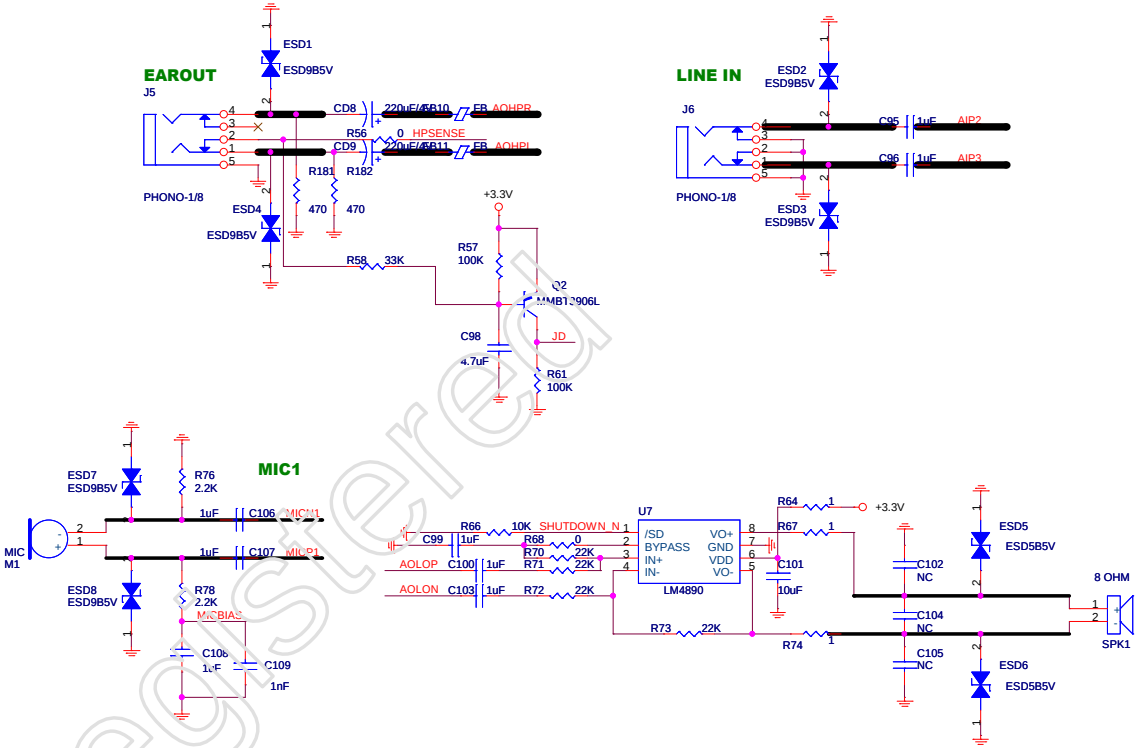
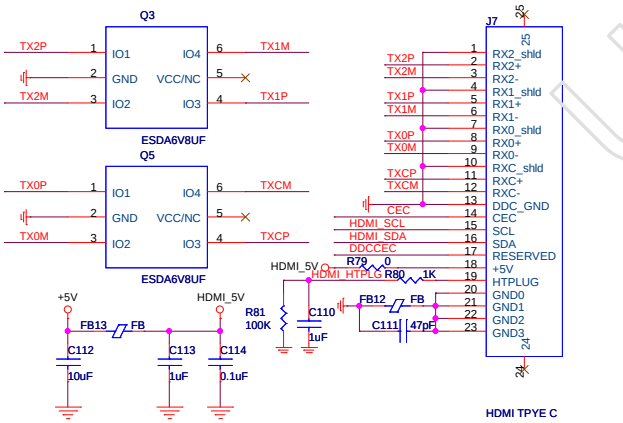


CPU_part_d

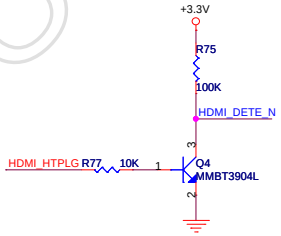
put to CPU pins as close as possible

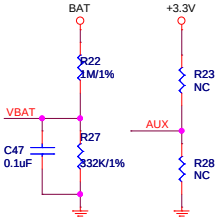


AUDIO

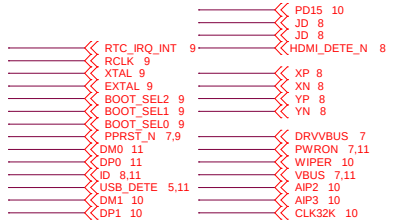


HDMI





ADC DETECTION



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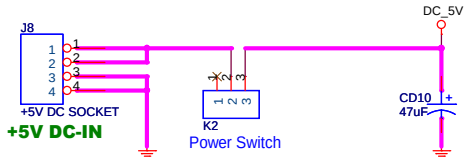
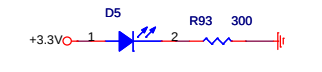
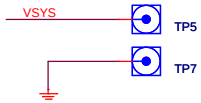
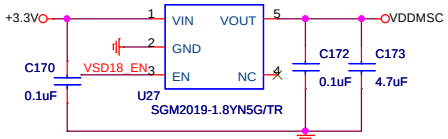
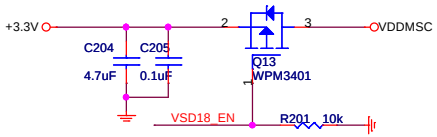




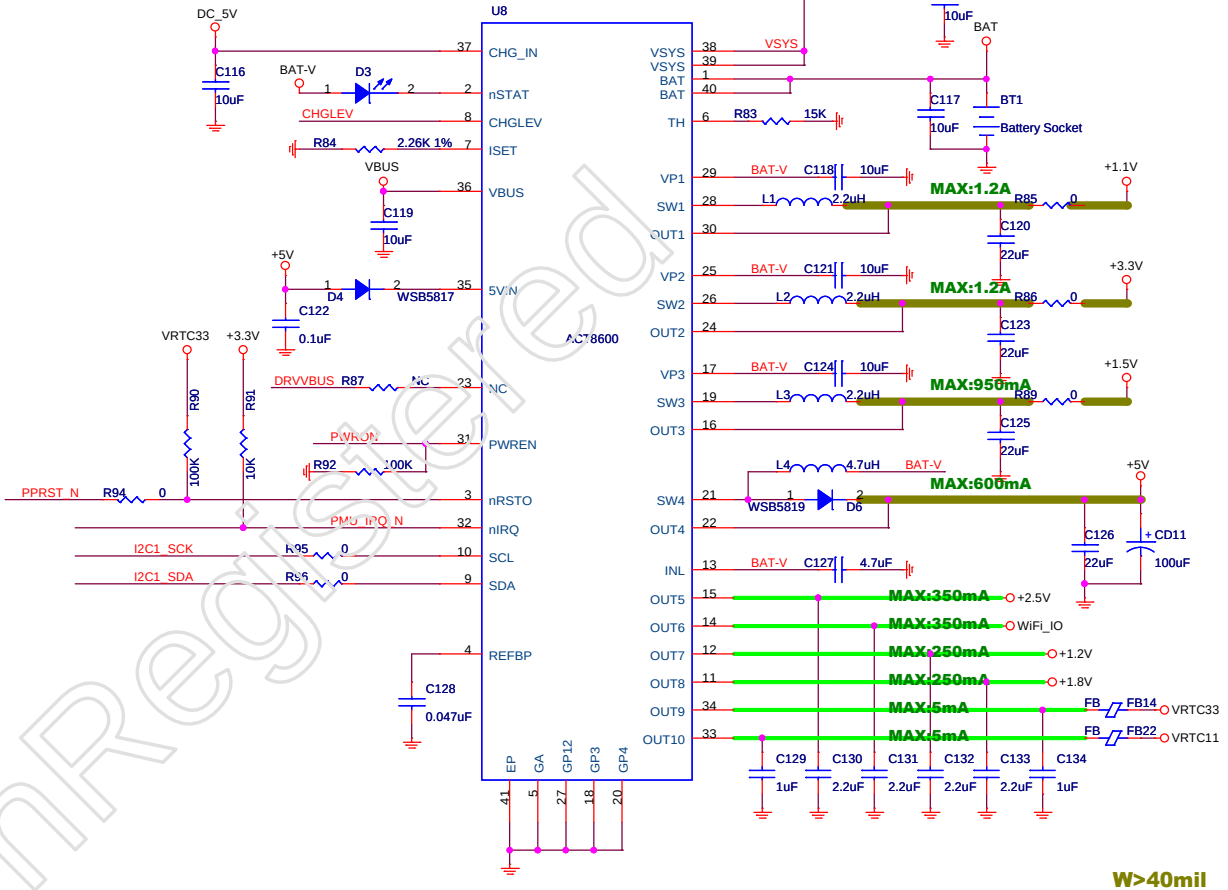


POWER ADAPTER





MSC POWER



PMU

W>40mil

W>20mil

VDDMSC 8,9
VSD18_EN 8

I2C1_SCK 5
I2C1_SDA 5
VBUS 6,11

VRTC11 9
DRVVBUS 6
PWRON 6,11
PMU_IRQ_N 5
PPRST_N 6,9

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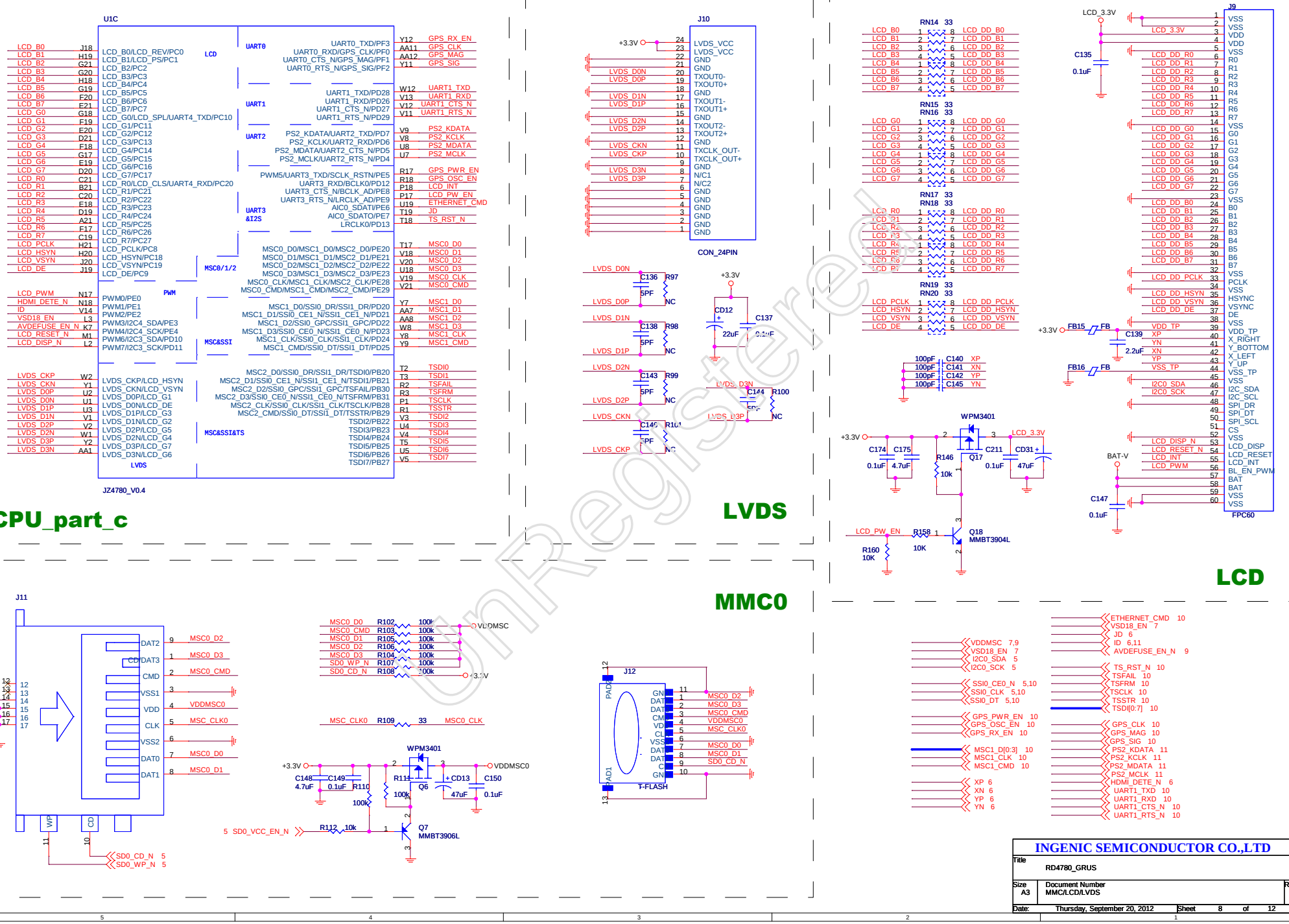
CPU_part_c
LVDS
LCD
MMC0
U1C
JZ4780_V0.4
J10
CON_24PIN
J9
FPC60
J11
J12
T-FLASH
WPM3401
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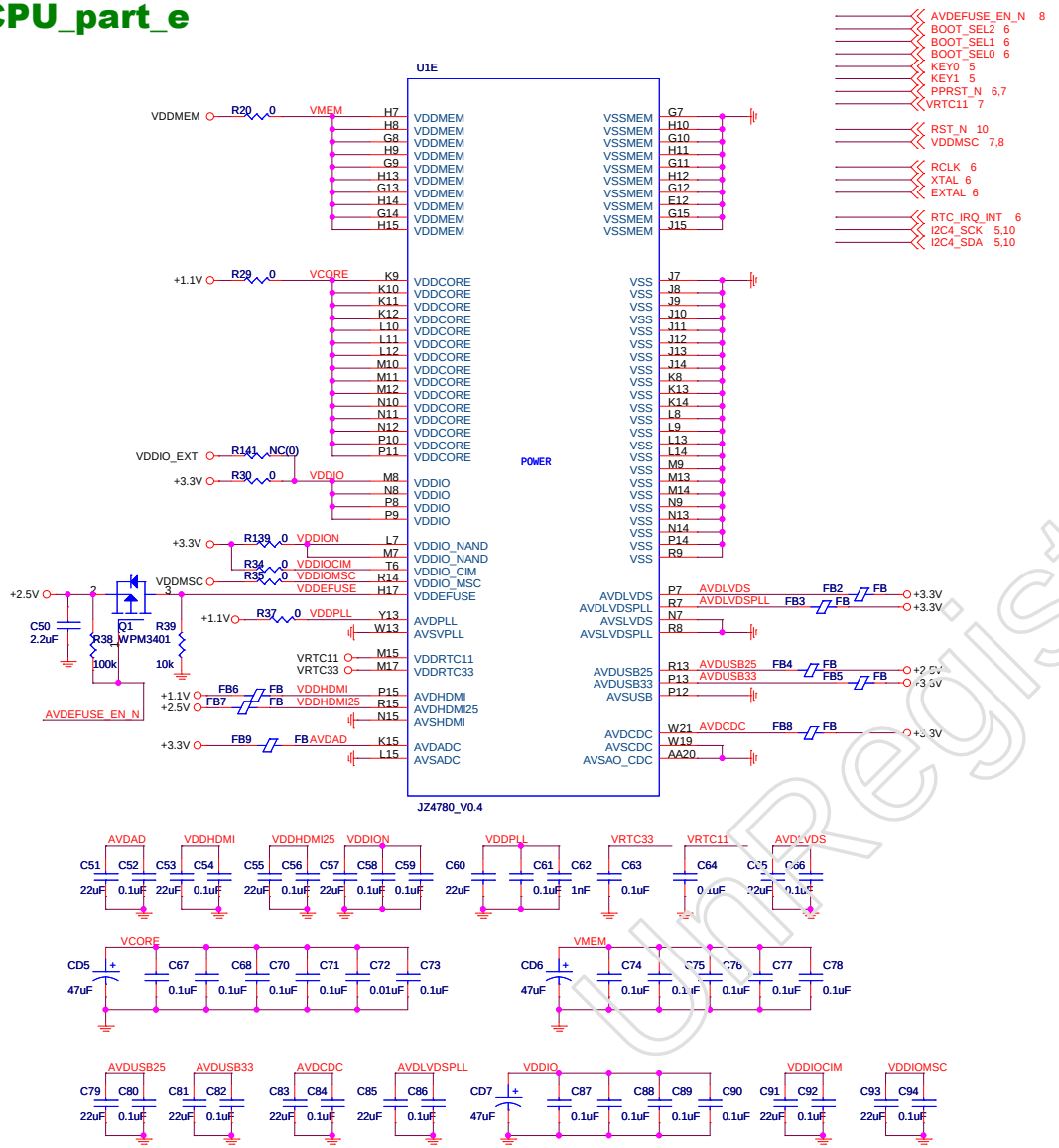
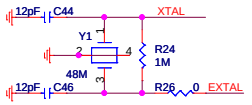
CPU_part_e



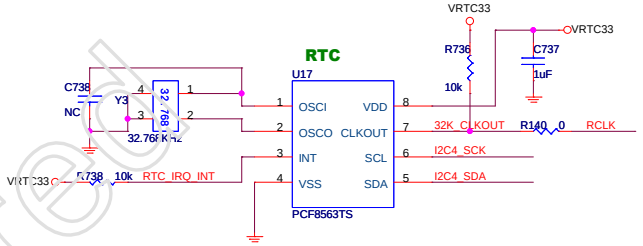
MAIN CLOCK



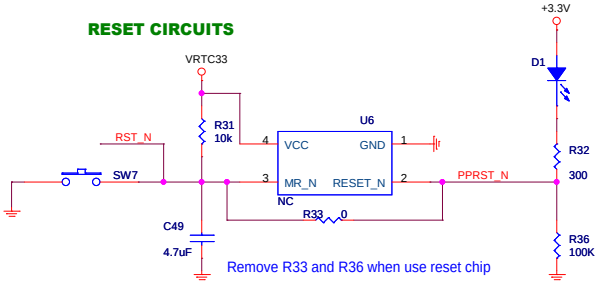
Boot Mode Select

BOOT_SEL[2:1:0]	
111	USB Boot
110	NAND Boot
101	MSC0 Boot
000	SPI Boot
100	MSC1 Boot
011	eMMC Boot
010	NOR Boot(CS2)

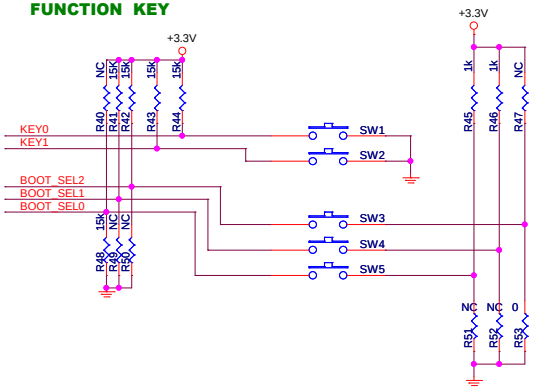
RTC



RESET CIRCUITS



FUNCTION KEY



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INGENIC SEMICONDUCTOR CO.,LTD		
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WL_REG_ON 5
BT_INT 5
WL_PW_EN 5
WL_WAKE 5
BT_REG_ON 5
BT_WAKE 5

TDO_TXD 5
TRST_N 5
TCK 5
TMS 5
TDI_RXD 5

RD_N 5
WE_N 5
CS6_N 5

SD[0:7] 5
ETHERNET_INT 5
ETHERNET_RST 5
ETHERNET_CMD 8
CS6_N 5

DM1 6
DP1 6

PCM_CLK 5
PCM_SYN 5
PCM_DI 5
PCM_DO 5

AIP2 6
AIP3 6

BT_RST_N 5
RST_N 9
GPS_PWR_EN 8
GPS_OSC_EN 8
GPS_RX_EN 8
GPS_CLK 8
GPS_MAG 8
GPS_SIG 8

MSC1_D[0:3] 8
MSC1_CLK 8
MSC1_CMD 8

PMU_IRQ_N 5,7
CS6_N 5

UART1_TXD 8
UART1_RXD 8
UART1_CTS_N 8
UART1_RTS_N 8

SSI0_CE0_N 5
SSI0_CE1_N 5
SSI0_CLK 5
SSI0_DT 5
SSI0_DR 5

TS_RST_N 8
PD15 6

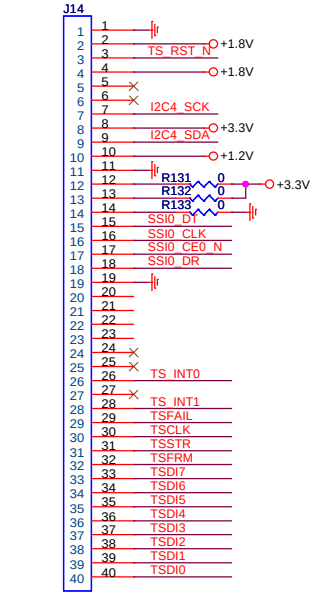
TS_INT0 5
TS_INT1 5
TSFAIL 8
TSFRM 8
TSCLK 8
TSSTR 8
TSDI[0:7] 8
WIPER 6

I2C4_SCK 5,9
I2C4_SDA 5,9
I2C2_SCK 5
I2C2_SDA 5
I2C1_SCK 5,7
I2C1_SDA 5,7

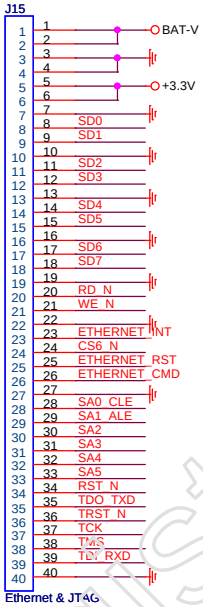
SA0_CLE 5
SA1_ALE 5
SA2 5
SA3 5
SA4 5
SA5 5

CLK32K 6

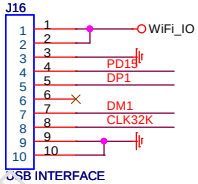
TS Interface Connector



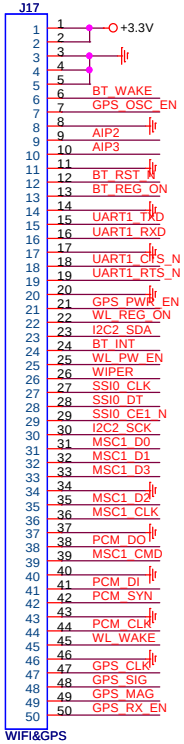
Ethernet & JTAG Interface

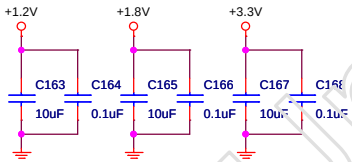


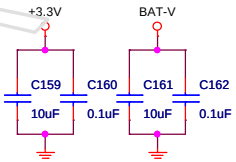
USB Interface

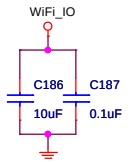


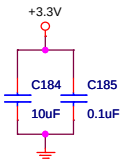
WiFi & GPS Interface











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INGENIC SEMICONDUCTOR CO.,LTD		
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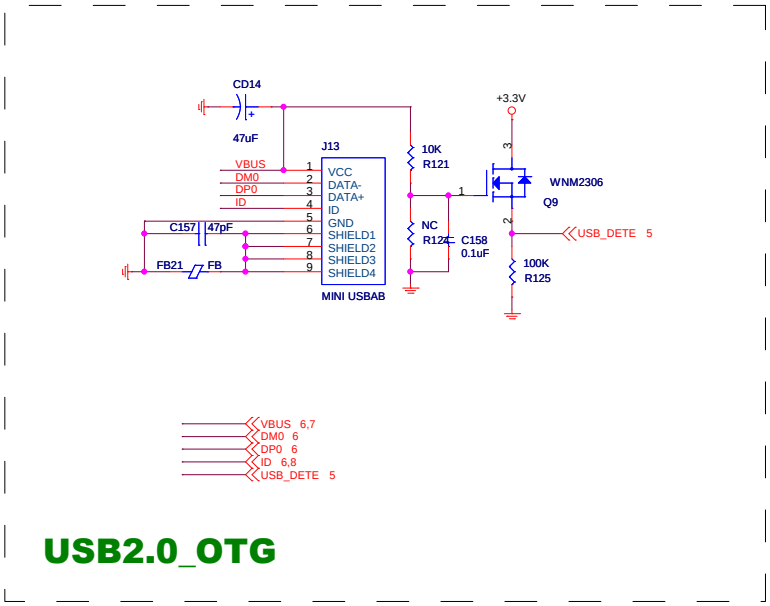

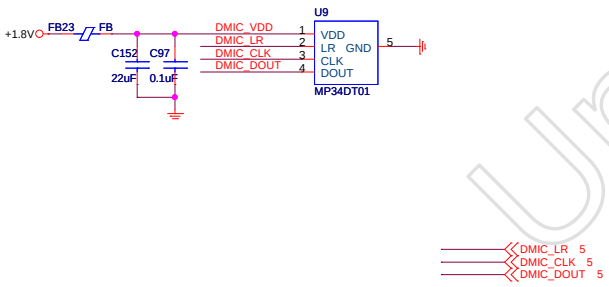

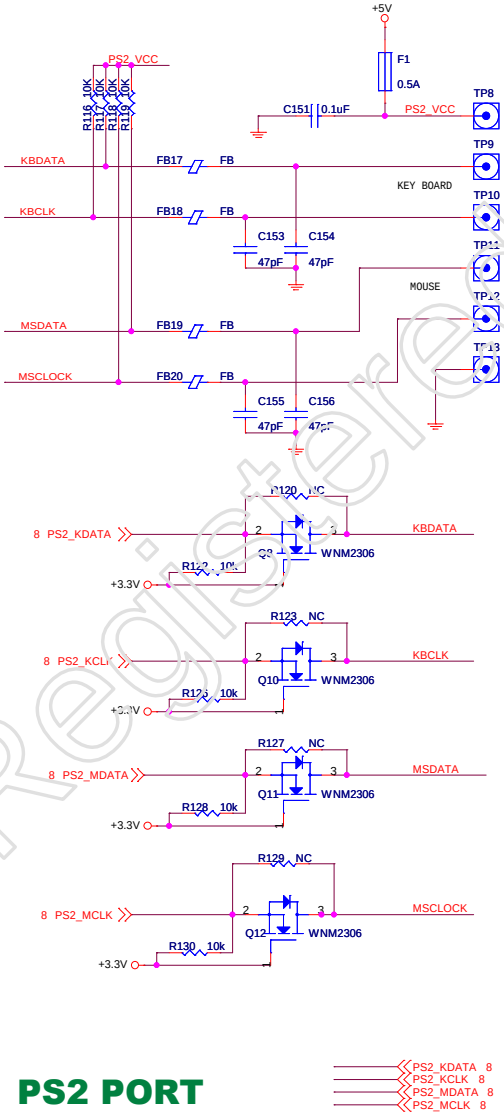

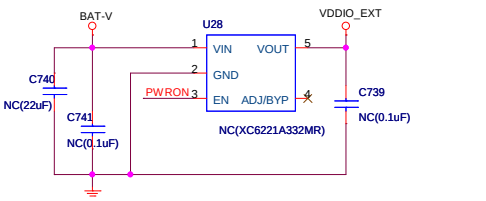

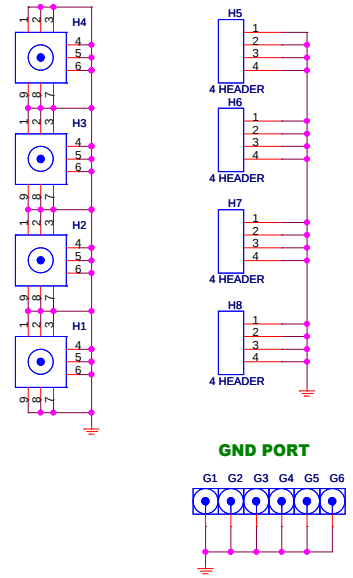

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Data	Revision	Change
Aug 28 2012	Rev1.0	1. First Revision

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