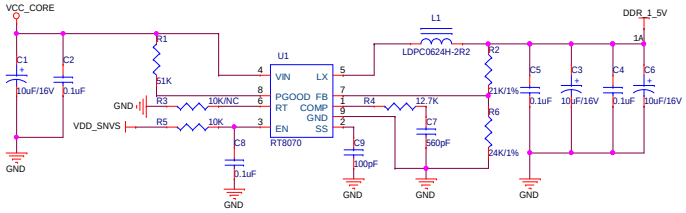
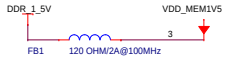
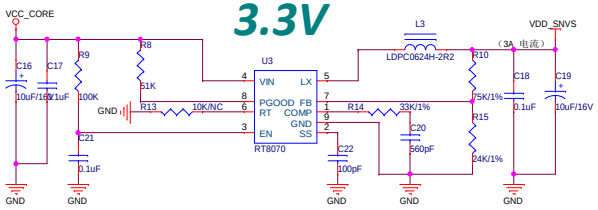
DDR 1.5V

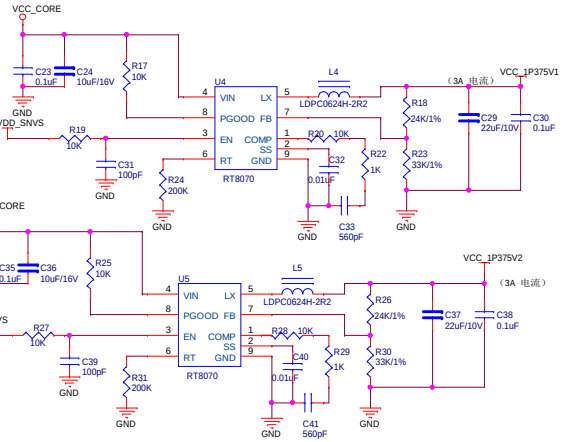


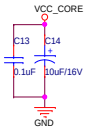
Enable Thread = 1.2v



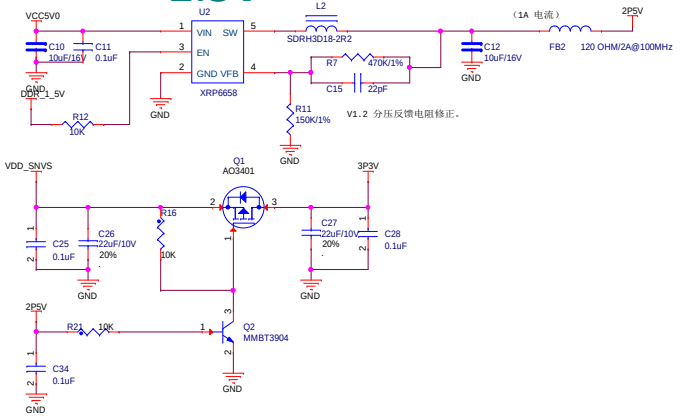
3.3V



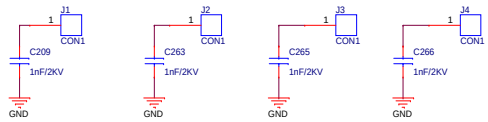


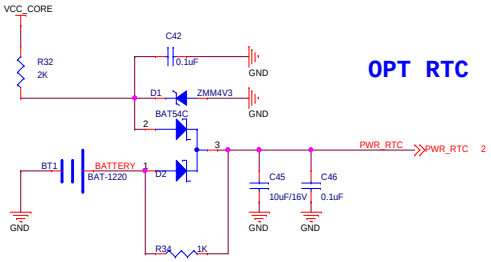


2.5V



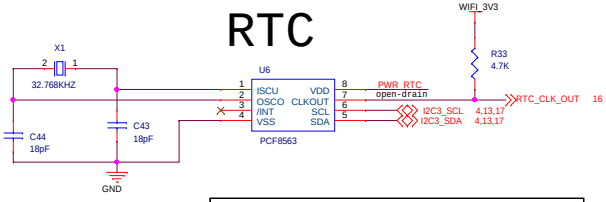
上电顺序 VDD_SNVS- VCC_1P375V-(DDR_1_5V 2P5V)- 3P3V





OPT RTC

RTC



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NOTE:# The MX6x LDO output 22uF CAP must place as close as possible to the MX6 PWR PAD!!!

i.MX6Q - POWER

U8E
MCIMX6D5EYM10AD

VCC_1P375V1
VCC_1P375V2
VDD_SNVS
VDD_SNVSIN
VDD_SNVS_IN Turned ON before any other power supply
1 PWR_RTC
D3 1N5819
D4 1N5819/NC
FB3 120 OHM/2A@100MHz/NC
R36 0R/NC 5%
R37 0R 5%
1.05~1.5V 2352mA
1.05~1.5V 1568mA
1.15~1.3V 1890mA
2.8~3.3V 125mA
2.8~3.3V
275uA
VDDARM_IN_1 VDDARM_IN_2 VDDARM_IN_3 VDDARM_IN_4 VDDARM_IN_5 VDDARM_IN_6 VDDARM_IN_7 VDDARM_IN_8
VDDARM23_IN_1 VDDARM23_IN_2 VDDARM23_IN_3 VDDARM23_IN_4 VDDARM23_IN_5 VDDARM23_IN_6 VDDARM23_IN_7 VDDARM23_IN_8
VDDSOC_IN_1 VDDSOC_IN_2 VDDSOC_IN_3 VDDSOC_IN_4 VDDSOC_IN_5 VDDSOC_IN_6 VDDSOC_IN_7 VDDSOC_IN_8 VDDSOC_IN_9 VDDSOC_IN_10
VDDHIGH_IN_1 VDDHIGH_IN_2
VDD_SNVS_IN
GND_1 GND_2 GND_3 GND_4 GND_5 GND_6 GND_7 GND_8 GND_9 GND_10 GND_11 GND_12 GND_13 GND_14 GND_15 GND_16 GND_17 GND_18 GND_19 GND_20 GND_21 GND_22 GND_23 GND_24 GND_25 GND_26 GND_27 GND_28 GND_29 GND_30 GND_31 GND_32 GND_33 GND_34 GND_35 GND_36 GND_37 GND_38 GND_39 GND_40 GND_41 GND_42 GND_43 GND_44 GND_45 GND_46 GND_47 GND_48 GND_49 GND_50 GND_51 GND_52 GND_53 GND_54 GND_55 GND_56 GND_57 GND_58 GND_59 GND_60 GND_61 GND_62 GND_63 GND_64 GND_65 GND_66 GND_67 GND_68 GND_69 GND_70 GND_71 GND_72 GND_73 GND_74 GND_75 GND_76 GND_77 GND_78 GND_79

VDDARM_CAP_1 VDDARM_CAP_2 VDDARM_CAP_3 VDDARM_CAP_4 VDDARM_CAP_5 VDDARM_CAP_6 VDDARM_CAP_7 VDDARM_CAP_8
VDDARM23_CAP_1 VDDARM23_CAP_2 VDDARM23_CAP_3 VDDARM23_CAP_4 VDDARM23_CAP_5 VDDARM23_CAP_6 VDDARM23_CAP_7 VDDARM23_CAP_8
VDDSOC_CAP_1 VDDSOC_CAP_2 VDDSOC_CAP_3 VDDSOC_CAP_4 VDDSOC_CAP_5 VDDSOC_CAP_6 VDDSOC_CAP_7
VDDPU_CAP_1 VDDPU_CAP_2 VDDPU_CAP_3 VDDPU_CAP_4 VDDPU_CAP_5 VDDPU_CAP_6 VDDPU_CAP_7
VDD_CACHE_CAP
VDDHIGH_CAP_1 VDDHIGH_CAP_2
VDD_SNVS_CAP
NVCC_LCD NVCC_CSI NVCC_MIPI NVCC_EIM0 NVCC_EIM1 NVCC_EIM2 NVCC_ENET NVCC_GPIO NVCC_PLL_OUT NVCC_RGMII NVCC_SD1 NVCC_SD2 NVCC_SD3 NVCC_NANDF NVCC_JTAG
GPANAIO FA_ANA VDD_FA
GND_80 GND_81 GND_82 GND_83 GND_84 GND_85 GND_86 GND_87 GND_88 GND_89 GND_90 GND_91 GND_92 GND_93 GND_94 GND_95 GND_96 GND_97 GND_98 GND_99 GND_100 GND_101 GND_102 GND_103 GND_104 GND_105 GND_106 GND_107

R35 0R/NC 5%
0.95~1.225V
LDO_SOC
VDDSOC_CAP
GPU_VPU
VDD_CACHE
CACHE_SUPPLY_INPUT
FB4 120 OHM/2A@100MHz
FB5120 OHM/2A@100MHz
2.25~2.75V
2P5V
3P3V
GPIO supplies
LDO_1P1
R38 0R
R39 0R
R40 0R
MARK

350mA
The LDO_2P5 module implements a programmable linear-regulator function from VDD_HIGH_IN . Typical Programming Operating Range is 2.25 V to 2.75 V with the nominal default setting as 2.5 V. The LDO_2P5 supplies the SATA Phy, USB Phy, LVDS Phy, HDMI Phy, MIPI Phy, E-fuse module and PLLs.

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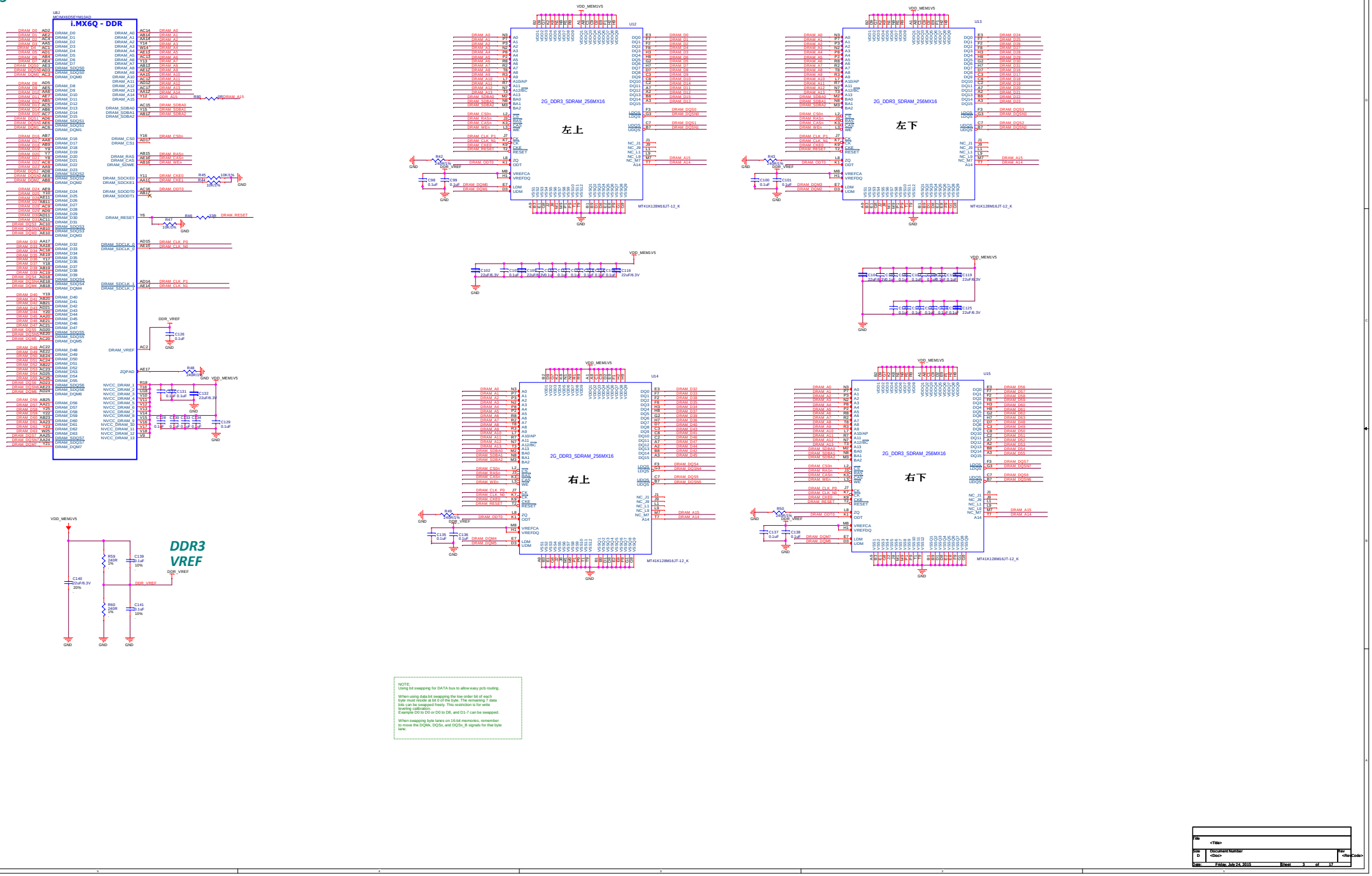
4xDDR3



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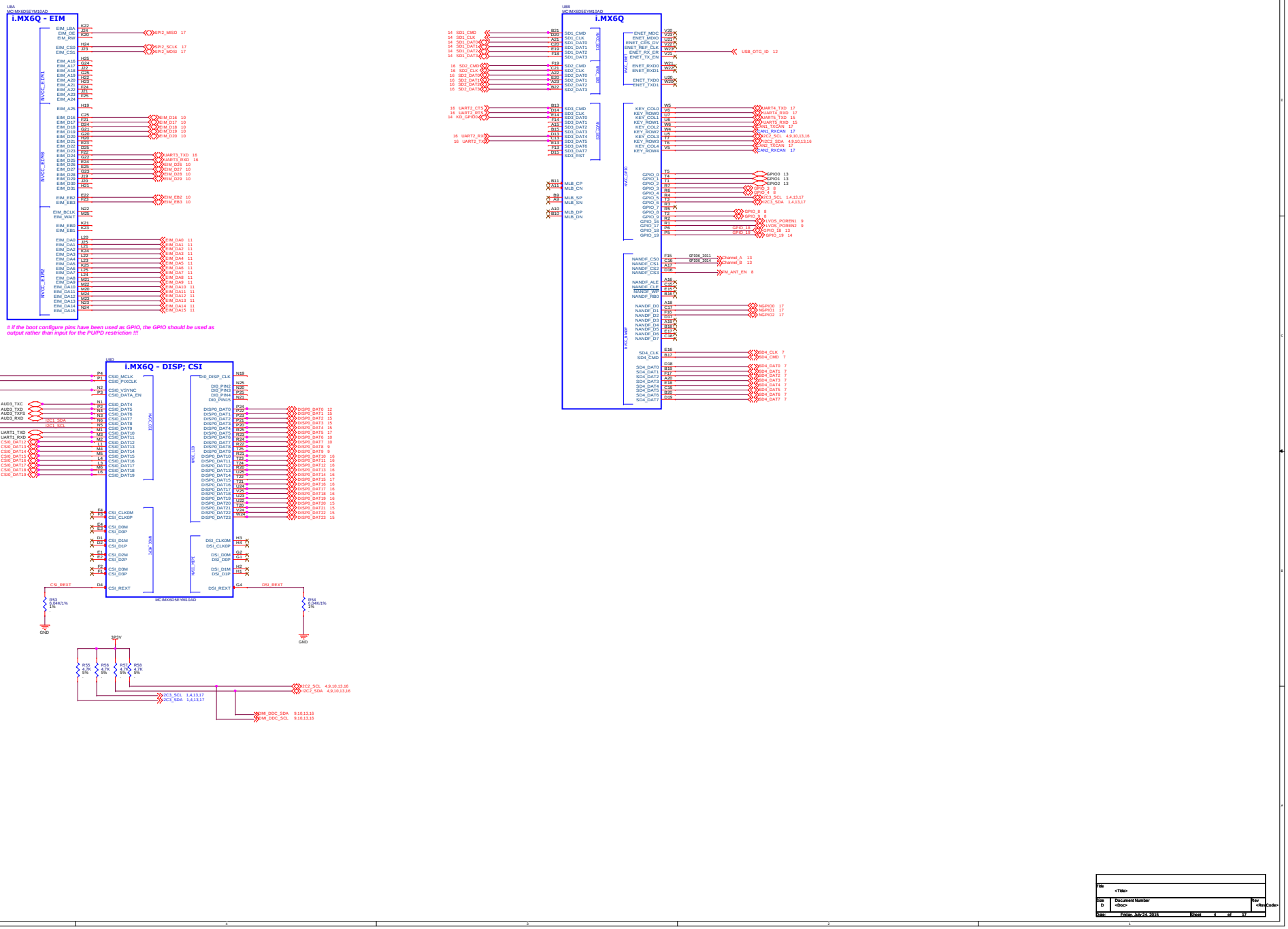
U8A
MCIMX6D5EYM10AD
i.MX6Q - EIM
NVCC_EIM1
NVCC_EIM2
NVCC_EIM2
EIM_LBA
EIM_OE
EIM_RW
EIM_CS0
EIM_CS1
EIM_A16
EIM_A17
EIM_A18
EIM_A19
EIM_A20
EIM_A21
EIM_A22
EIM_A23
EIM_A24
EIM_A25
EIM_D16
EIM_D17
EIM_D18
EIM_D19
EIM_D20
EIM_D21
EIM_D22
EIM_D23
EIM_D24
EIM_D25
EIM_D26
EIM_D27
EIM_D28
EIM_D29
EIM_D30
EIM_D31
EIM_EB2
EIM_EB3
EIM_BCLK
EIM_WAIT
EIM_EB0
EIM_EB1
EIM_DA0
EIM_DA1
EIM_DA2
EIM_DA3
EIM_DA4
EIM_DA5
EIM_DA6
EIM_DA7
EIM_DA8
EIM_DA9
EIM_DA10
EIM_DA11
EIM_DA12
EIM_DA13
EIM_DA14
EIM_DA15
SPI2_MISO 17
SPI2_SCLK 17
SPI2_MOSI 17
UART3_TXD 16
UART3_RXD 16
if the boot configure pins have been used as GPIO, the GPIO should be used as output rather than input for the PU/PD restriction !!!
U8B
MCIMX6D5EYM10AD
i.MX6Q - DISP; CSI
MISC_CSI
MISC_DI0
MISC_REXT
MISC_DSI
CSI_REXT
DSI_REXT
R53 6.24K/1% 1%
R54 6.24K/1% 1%
GND
3P3V
R55 4.7K 5%
R56 4.7K 5%
R57 4.7K 5%
R58 4.7K 5%
I2C3_SCL 1,4,13,17
I2C3_SDA 1,4,13,17
I2C2_SCL 4,9,10,13,16
I2C2_SDA 4,9,10,13,16
HDMI_DDC_SDA 9,10,13,16
HDMI_DDC_SCL 9,10,13,16
U8B
MCIMX6D5EYM10AD
i.MX6Q
MISC_SD1
MISC_SD2
MISC_SD3
MISC_GPIO1
MISC_GPIO2
MISC_NAND
SD1_CMD
SD1_CLK
SD1_DAT0
SD1_DAT1
SD1_DAT2
SD1_DAT3
SD2_CMD
SD2_CLK
SD2_DAT0
SD2_DAT1
SD2_DAT2
SD2_DAT3
SD3_CMD
SD3_CLK
SD3_DAT0
SD3_DAT1
SD3_DAT2
SD3_DAT3
SD3_DAT4
SD3_DAT5
SD3_DAT6
SD3_DAT7
SD3_RST
MLB_CP
MLB_CN
MLB_SP
MLB_SN
MLB_DP
MLB_DN
ENET_MDC
ENET_MDIO
ENET_CRS_DV
ENET_REF_CLK
ENET_RX_ER
ENET_TX_EN
ENET_RXD0
ENET_RXD1
ENET_TXD0
ENET_TXD1
USB_OTG_ID 12
KEY_COL0
KEY_ROW0
KEY_COL1
KEY_ROW1
KEY_COL2
KEY_ROW2
KEY_COL3
KEY_ROW3
KEY_COL4
KEY_ROW4
UART4_TXD 17
UART4_RXD 17
UART5_TXD 15
UART5_RXD 15
CAN1_TXCAN 17
CAN1_RXCAN 17
CAN2_TXCAN 17
CAN2_RXCAN 17
GPIO_0
GPIO_1
GPIO_2
GPIO_3
GPIO_4
GPIO_5
GPIO_6
GPIO_7
GPIO_8
GPIO_9
GPIO_16
GPIO_17
GPIO_18
GPIO_19
LVDS_POREN1 9
LVDS_POREN2 9
NANDF_CS0
NANDF_CS1
NANDF_CS2
NANDF_CS3
NANDF_ALE
NANDF_CLE
NANDF_WP
NANDF_RB0
NANDF_D0
NANDF_D1
NANDF_D2
NANDF_D3
NANDF_D4
NANDF_D5
NANDF_D6
NANDF_D7
Channel_A 13
Channel_B 13
FM_ANT_EN 8
SD4_CLK 7
SD4_CMD 7
SD4_DAT0
SD4_DAT1
SD4_DAT2
SD4_DAT3
SD4_DAT4
SD4_DAT5
SD4_DAT6
SD4_DAT7
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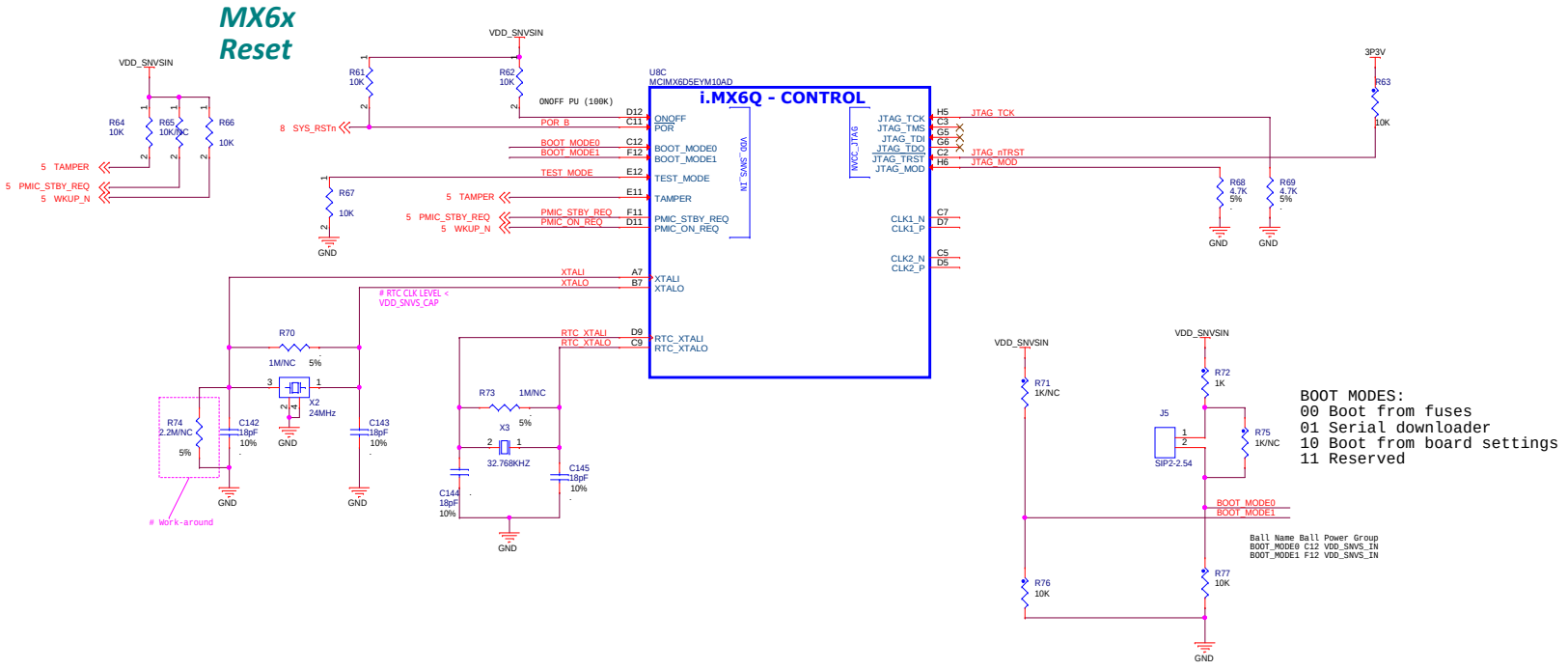

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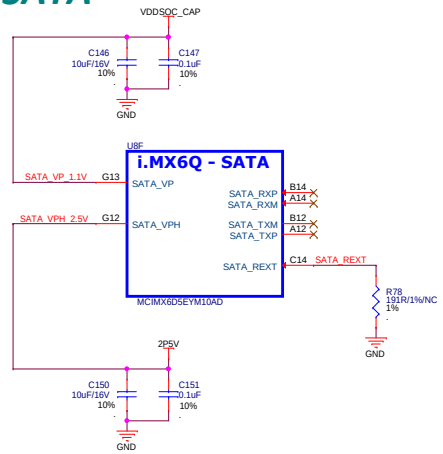
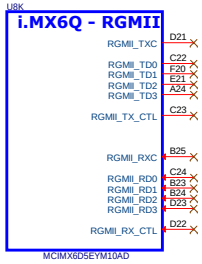
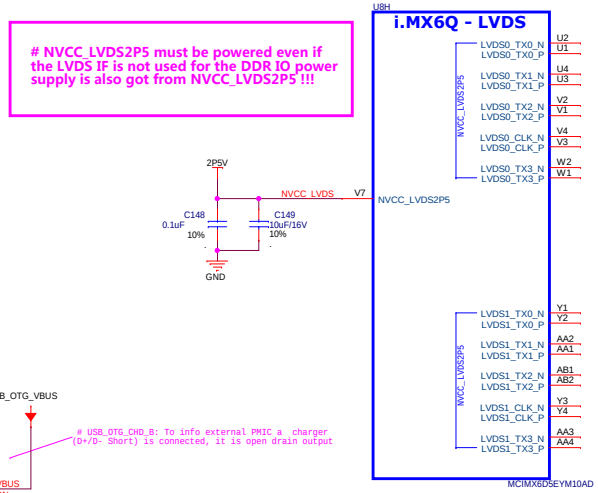
SATA



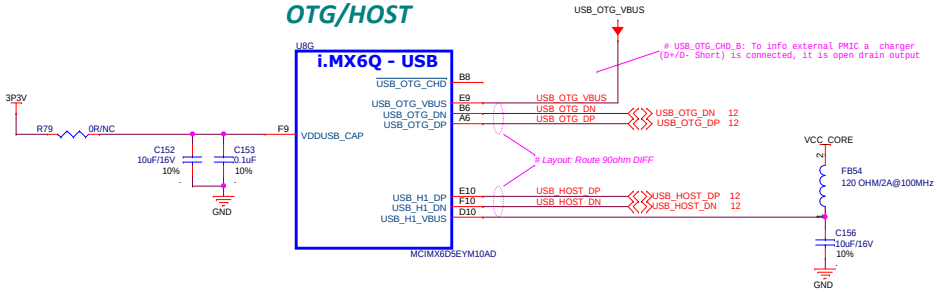
RGMII



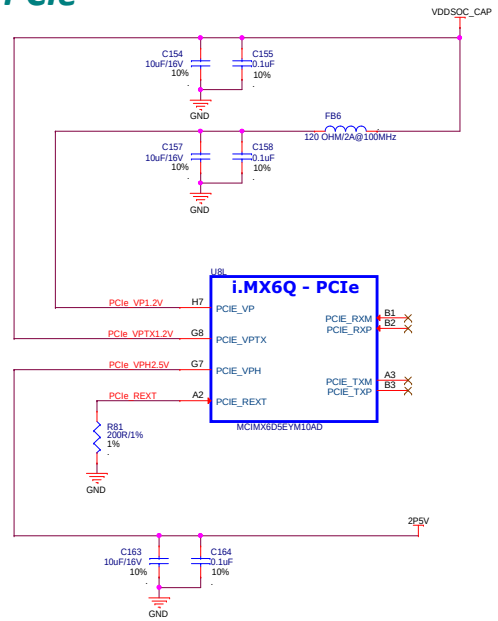
LVDS



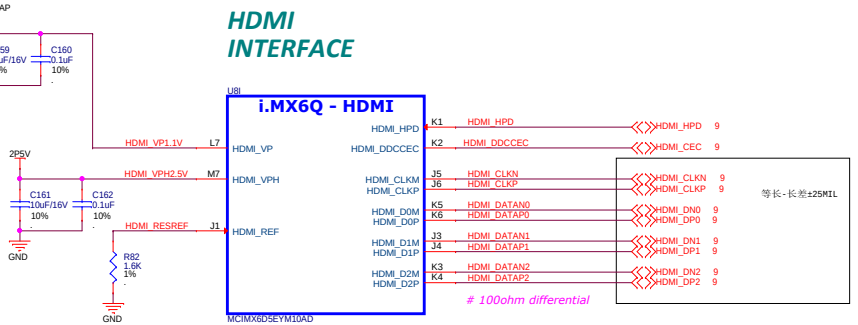
USB OTG/HOST



PCIe



HDMI INTERFACE



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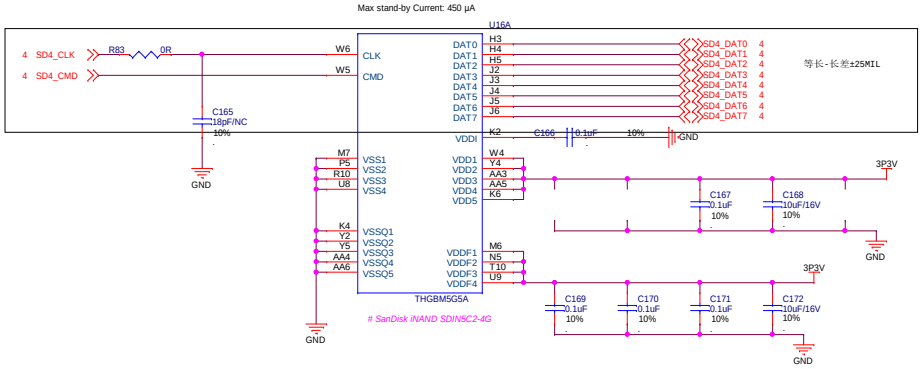
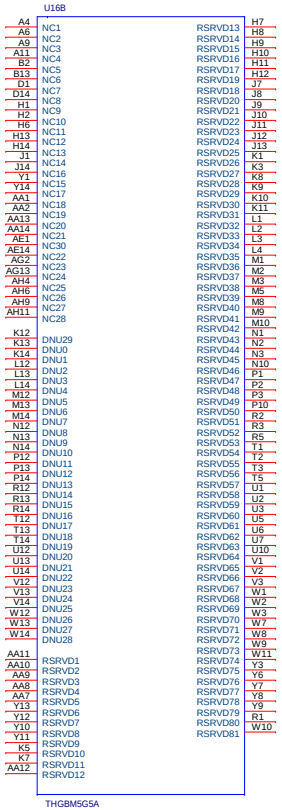
eMMC Storage



 # Layout: For 50MHz Perfermence, SD Singals(SD_DATAx, SD_CMD, SD_CLK) Length Equal



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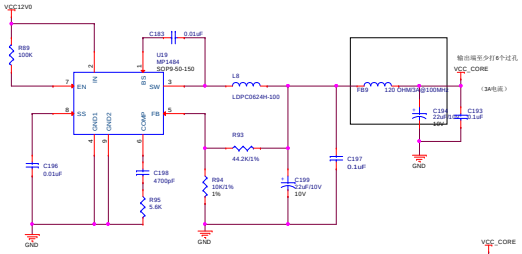
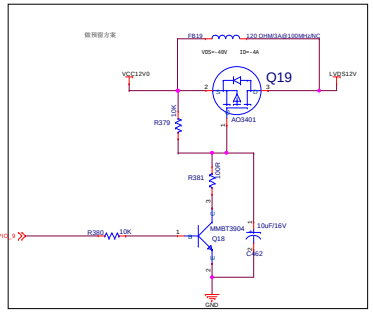
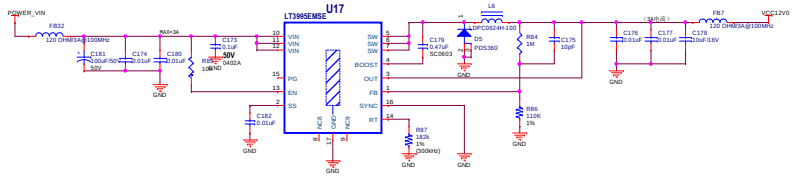
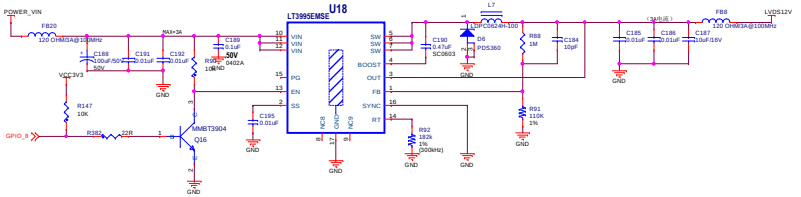
5.0V DC-DC

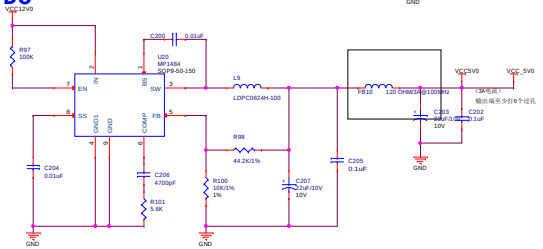


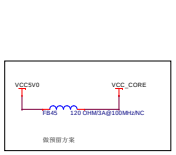




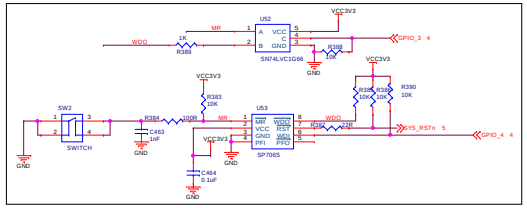


5.0V DC-DC

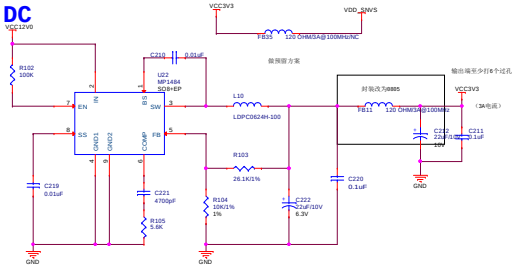


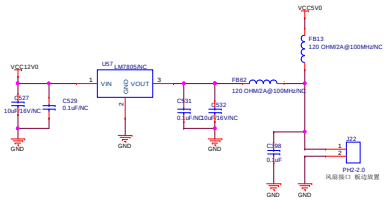


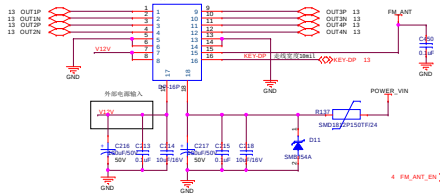
WATCH DOG

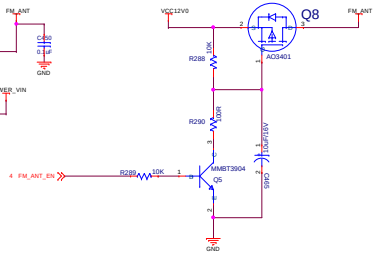


3.3V DC-DC









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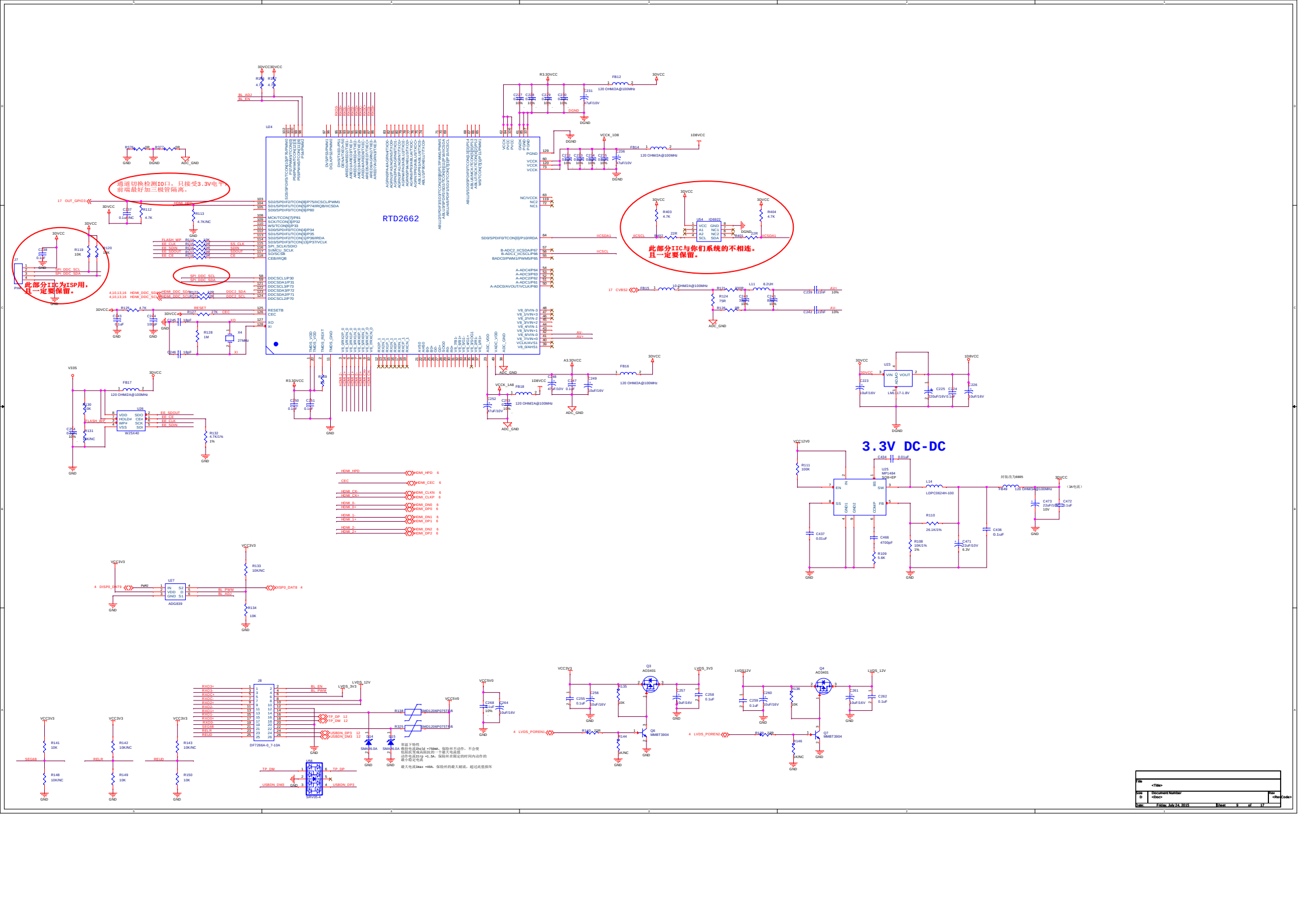
RTD2662
通道切换检测IO口，只接受3.3V电平，前端最好加三极管隔离。
此部分IIC为ISP用，且一定要保留。
此部分IIC与你们系统的不相连。且一定要保留。
3.3V DC-DC
HDMI_HPD
CEC
HDMI_CLKN
HDMI_CLKP
HDMI_DN0
HDMI_DP0
HDMI_DN1
HDMI_DP1
HDMI_DN2
HDMI_DP2
BL_EN
BL_PWM
LVDS_3V3
LVDS_12V
LVDS_POREN1
LVDS_PORENZ
TP_DM
TP_DP
USBDN_DM3
USBDN_DP3
SEG68
RELR
RELD
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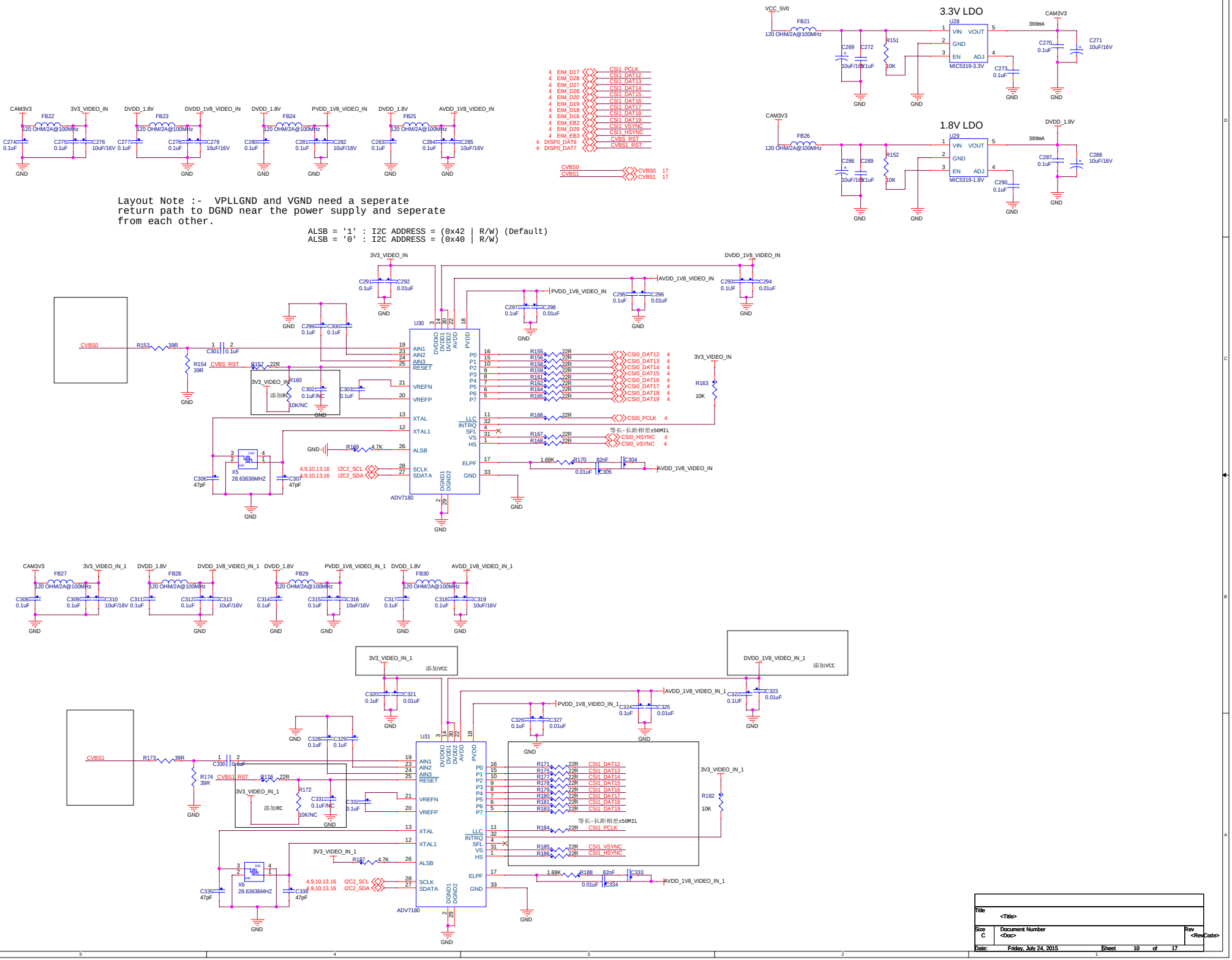

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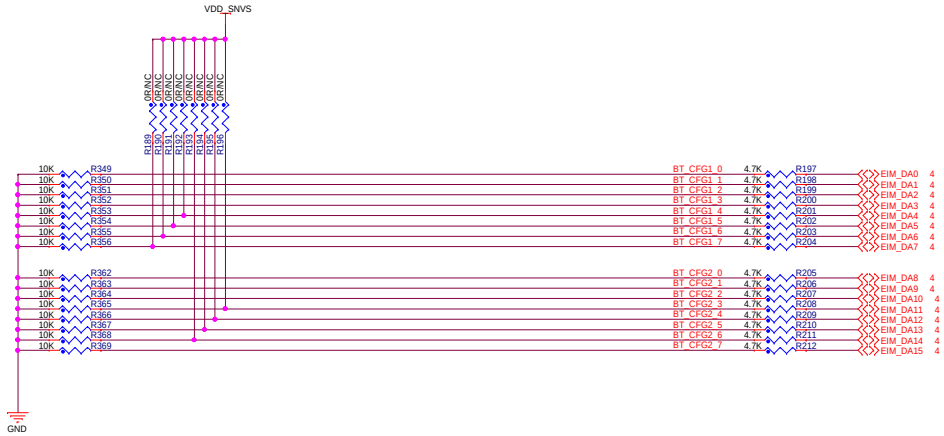
Boot Configuration Select



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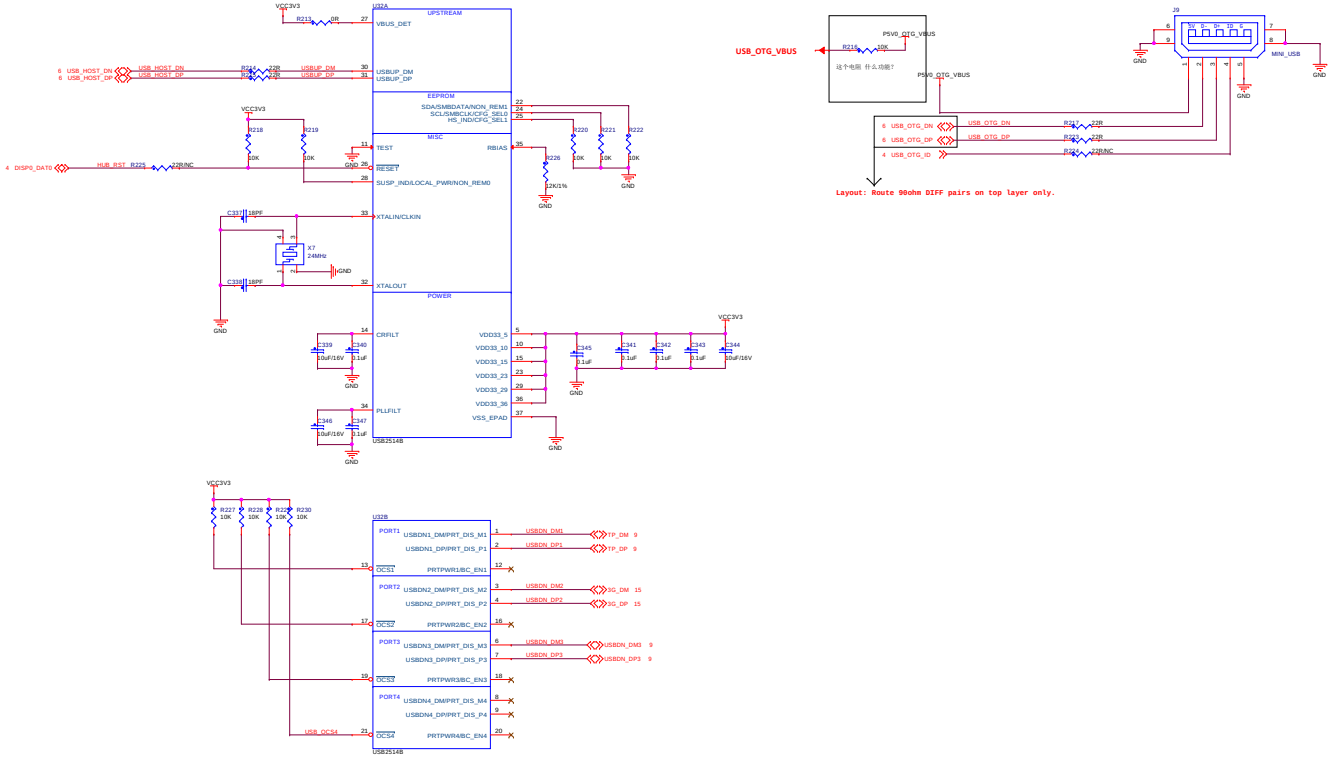

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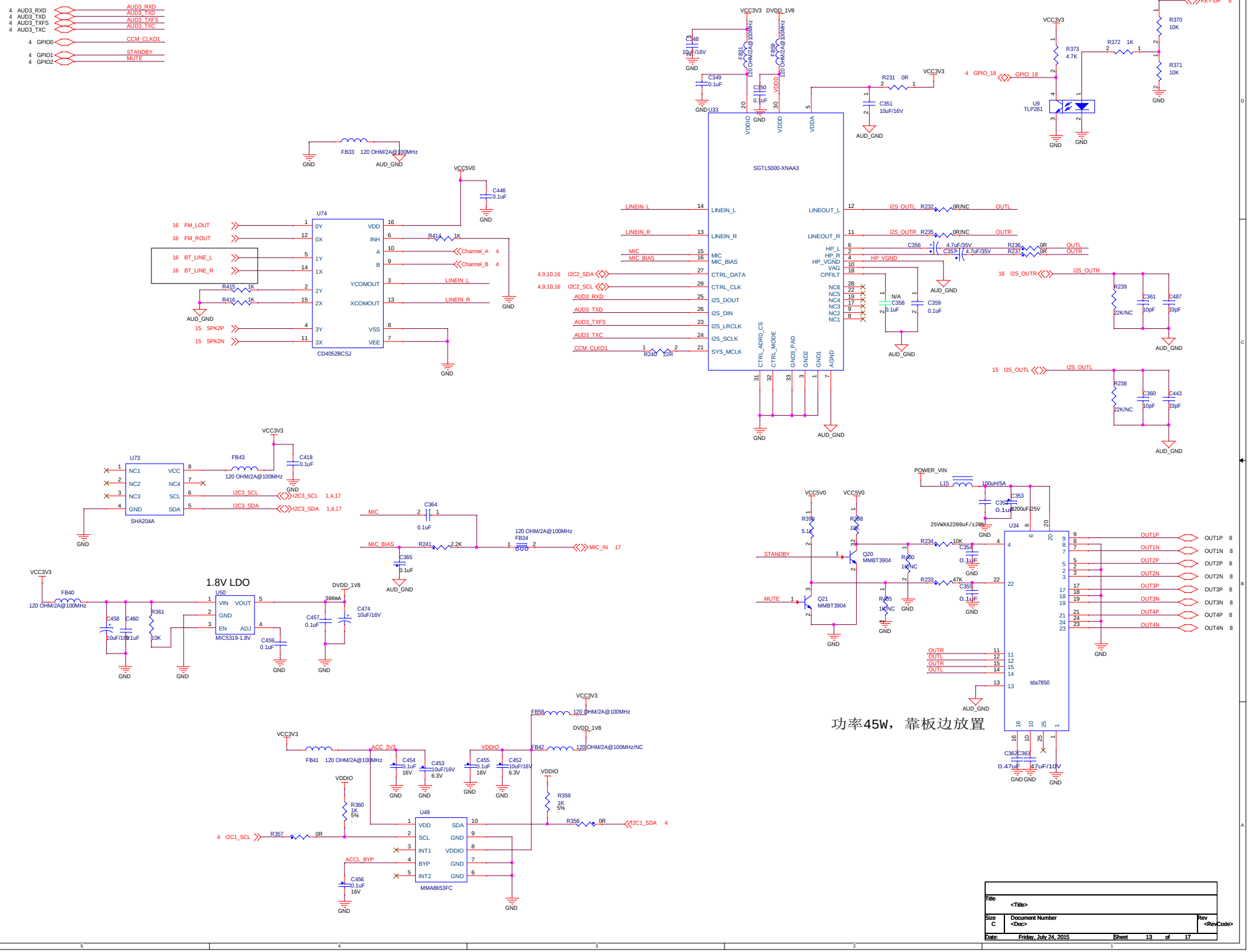
AUD3_RXD
AUD3_TXD
AUD3_TXFS
AUD3_TXC
CCM_CLKO1
STANDBY
MUTE
SGTL5000-XNAA3
CD4052BCSJ
SHA204A
1.8V LDO
MIC5319-1.8V
MMA8653FC
tda7850
功率45W，靠板边放置
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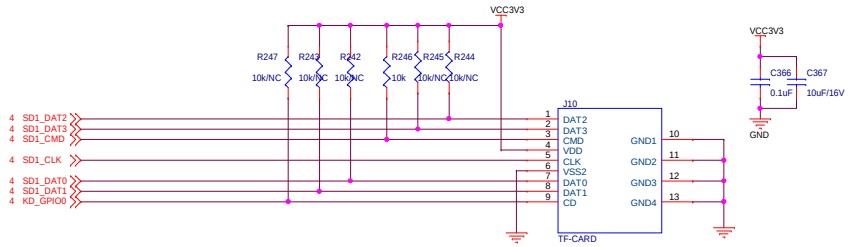

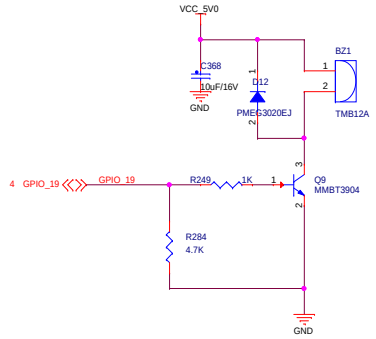

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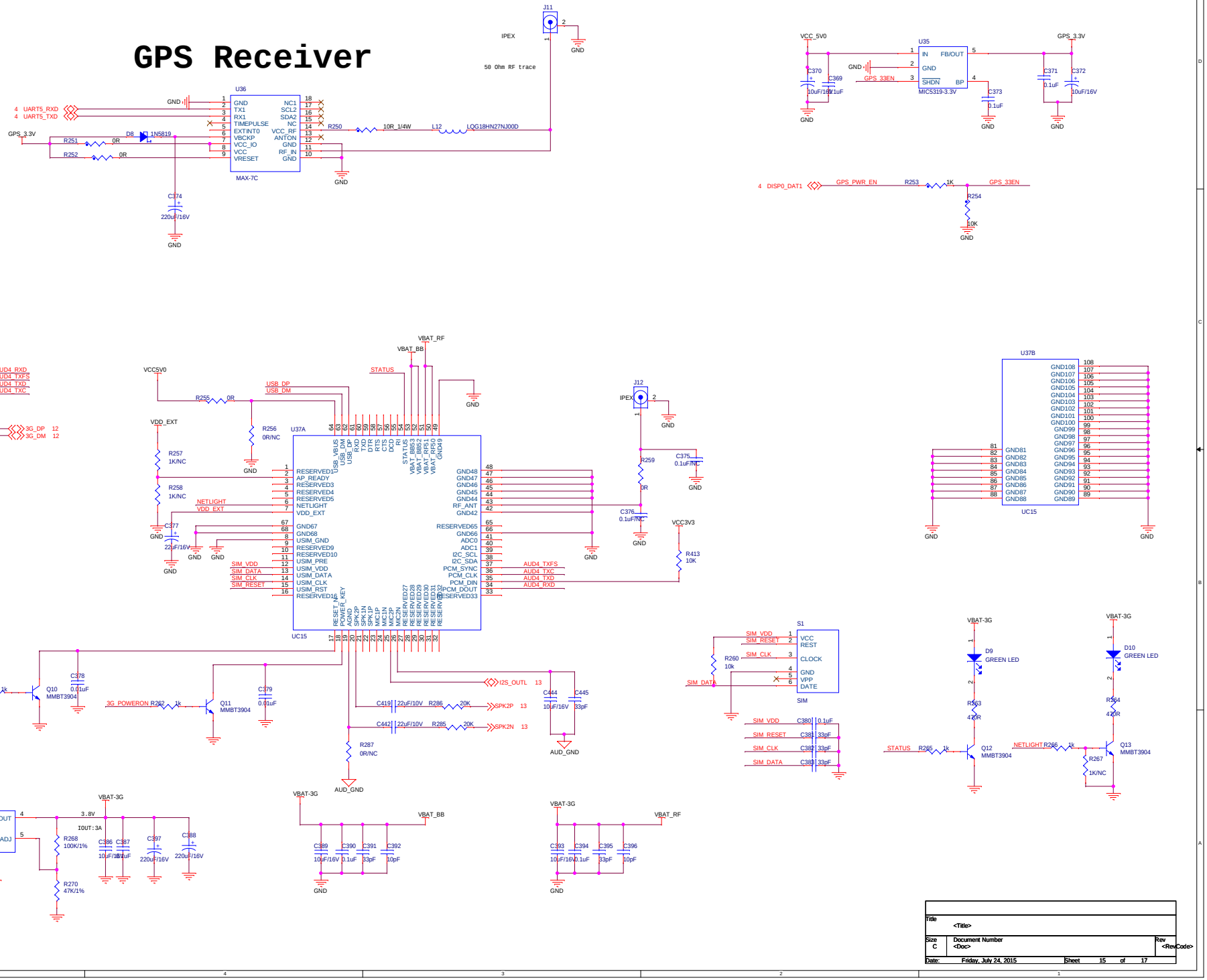
GPS Receiver



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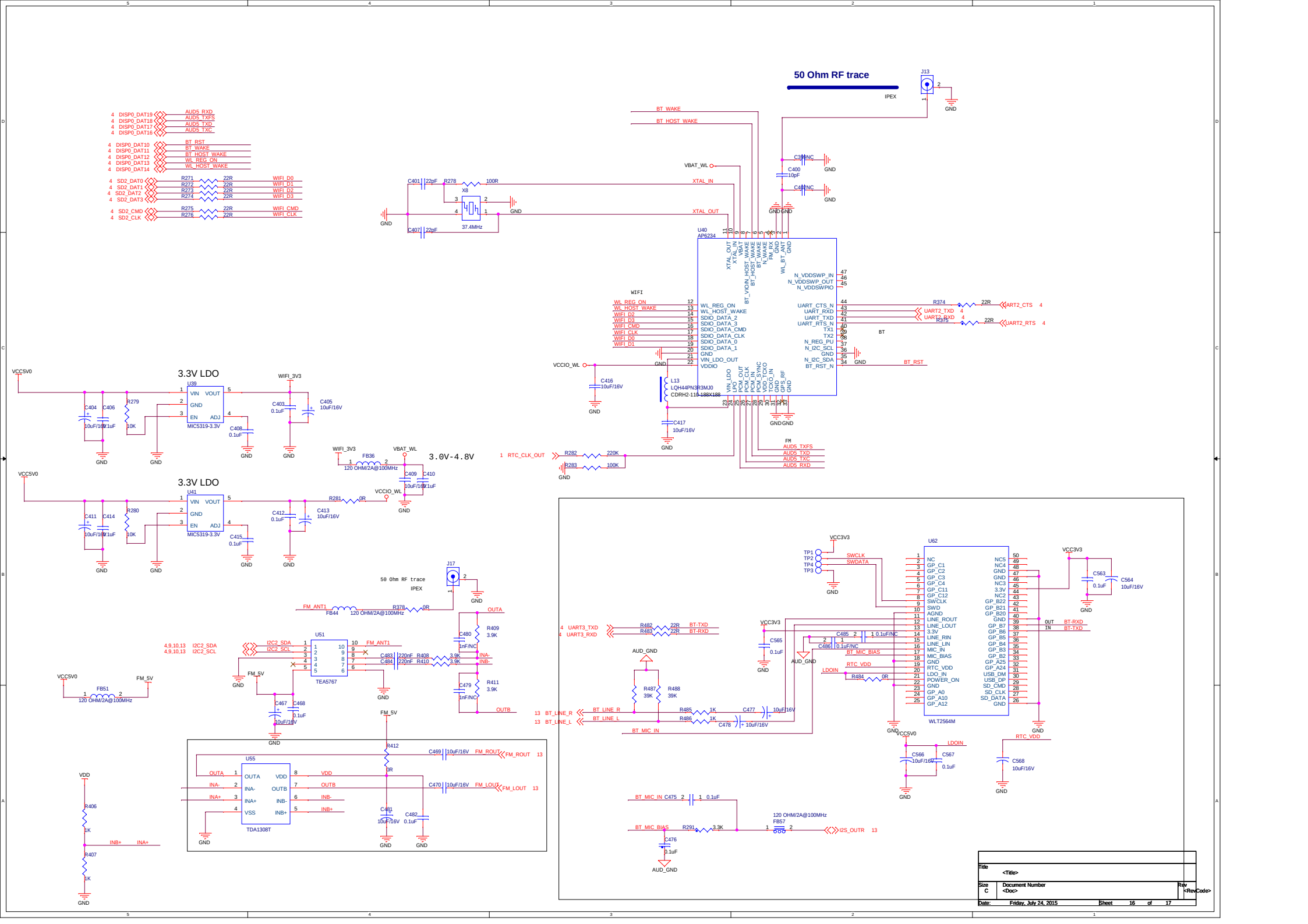
50 Ohm RF trace
IPEX
J13
GND
BT_WAKE
BT_HOST_WAKE
VBAT_WL
C399 NC
C400 10pF
C401 NC
GND GND
C401 22pF
R278 100R
X8
37.4MHz
C407 22pF
XTAL_IN
XTAL_OUT
U40
AP6234
XTAL_OUT
XTAL_IN
BT_VDDIN_HOST_WAKE
BT_HOST_WAKE
BT_WAKE
WL_WAKE
FM_RX
GND
WL_BT_ANT
GND
N_VDDSWP_IN
N_VDDSWP_OUT
N_VDDSWPIO
WIFI
WL_REG_ON
WL_HOST_WAKE
WIFI_D2
WIFI_D3
WIFI_CMD
WIFI_CLK
WIFI_D0
WIFI_D1
WL_REG_ON
WL_HOST_WAKE
SDIO_DATA_2
SDIO_DATA_3
SDIO_DATA_CMD
SDIO_DATA_CLK
SDIO_DATA_0
SDIO_DATA_1
GND
VIN_LDO_OUT
VDDIO
UART_CTS_N
UART_RXD
UART_TXD
UART_RTS_N
TX1
TX2
N_REG_PU
N_I2C_SCL
GND
N_I2C_SDA
BT_RST_N
BT
R374 22R
R375 22R
UART2_CTS
UART2_TXD
UART2_RXD
UART2_RTS
BT_RST
VCCIO_WL
C416 10uF/16V
L13
LQH44PN3R3MJ0
CDRH2-110-188X188
C417 10uF/16V
VIN_LDO
LPO_OUT
PCM_CLK
PCM_SYNC
PCM_IN
PCM_OUT
VDD_TCXO
TCXO_IN
GND
GND_RF
GND
FM
AUD5_TXFS
AUD5_TXD
AUD5_TXC
AUD5_RXD
1 RTC_CLK_OUT
R282 220K
R283 100K
3.0V-4.8V
VCC5V0
3.3V LDO
U39
VIN VOUT
GND
EN ADJ
MIC5319-3.3V
C404 10uF/16V
C406 1uF
R279 10K
C408 0.1uF
WIFI_3V3
C403 0.1uF
C405 10uF/16V
FB36
120 OHM/2A@100MHz
C409 10uF/16V
C410 1uF
VCC5V0
3.3V LDO
U41
C411 10uF/16V
C414 1uF
R280 10K
C415 0.1uF
C412 0.1uF
C413 10uF/16V
R281 0R
VCCIO_WL
J17
50 Ohm RF trace
IPEX
FM_ANT1
FB44
120 OHM/2A@100MHz
R378 0R
OUTA
OUTB
R409 3.9K
R411 3.9K
C480 1nF/NC
C479 1nF/NC
4,9,10,13 I2C2_SDA
4,9,10,13 I2C2_SCL
U51
TEA5767
C483 220nF
C484 220nF
R408 3.9K
R410 3.9K
INA-
INB-
FM_5V
VCC5V0
FB51
120 OHM/2A@100MHz
C467 10uF/16V
C468 0.1uF
U55
TDA1308T
OUTA
INA-
INA+
VSS
VDD
OUTB
INB-
INB+
R412 0R
C469 10uF/16V
C470 10uF/16V
FM_ROUT
FM_LOUT
C481 10uF/16V
C482 0.1uF
VDD
R406 1K
R407 1K
INB+
INA+
U62
WLT2564M
TP1
TP2
TP3
TP4
SWCLK
SWDATA
NC
GP_C1
GP_C2
GP_C3
GP_C4
GP_C11
GP_C12
SWCLK
SWD
AGND
LINE_ROUT
LINE_LOUT
3.3V
LINE_RIN
LINE_LIN
MIC_IN
MIC_BIAS
GND
RTC_VDD
LDO_IN
POWER_ON
GND
GP_A0
GP_A10
GP_A12
NC5
NC4
GND
GND
NC3
3.3V
NC2
GP_B22
GP_B21
GP_B20
GND
GP_B7
GP_B6
GP_B5
GP_B4
GP_B3
GP_B2
GP_A25
GP_A24
USB_DM
USB_DP
SD_CMD
SD_CLK
SD_DATA
GND
OUT BT-RXD
IN BT-TXD
C563 0.1uF
C564 10uF/16V
4 UART3_TXD
4 UART3_RXD
R482 22R BT-TXD
R483 22R BT-RXD
C565 0.1uF
C485 0.1uF/NC
C486 0.1uF/NC
BT_MIC_BIAS
RTC_VDD
LDOIN
R484 0R
AUD_GND
R487 39K
R488 39K
13 BT_LINE_R
13 BT_LINE_L
BT_LINE_R
BT_LINE_L
R485 1K
R486 1K
C477 10uF/16V
C478 10uF/16V
BT_MIC_IN
C566 10uF/16V
C567 0.1uF
C568 10uF/16V
BT_MIC_IN C475 0.1uF
BT_MIC_BIAS
R291 3.3K
FB57
120 OHM/2A@100MHz
I2S_OUTR 13
C476 0.1uF
AUD_GND
50 Ohm RF trace
WIFI
BT
3.3V LDO
FM
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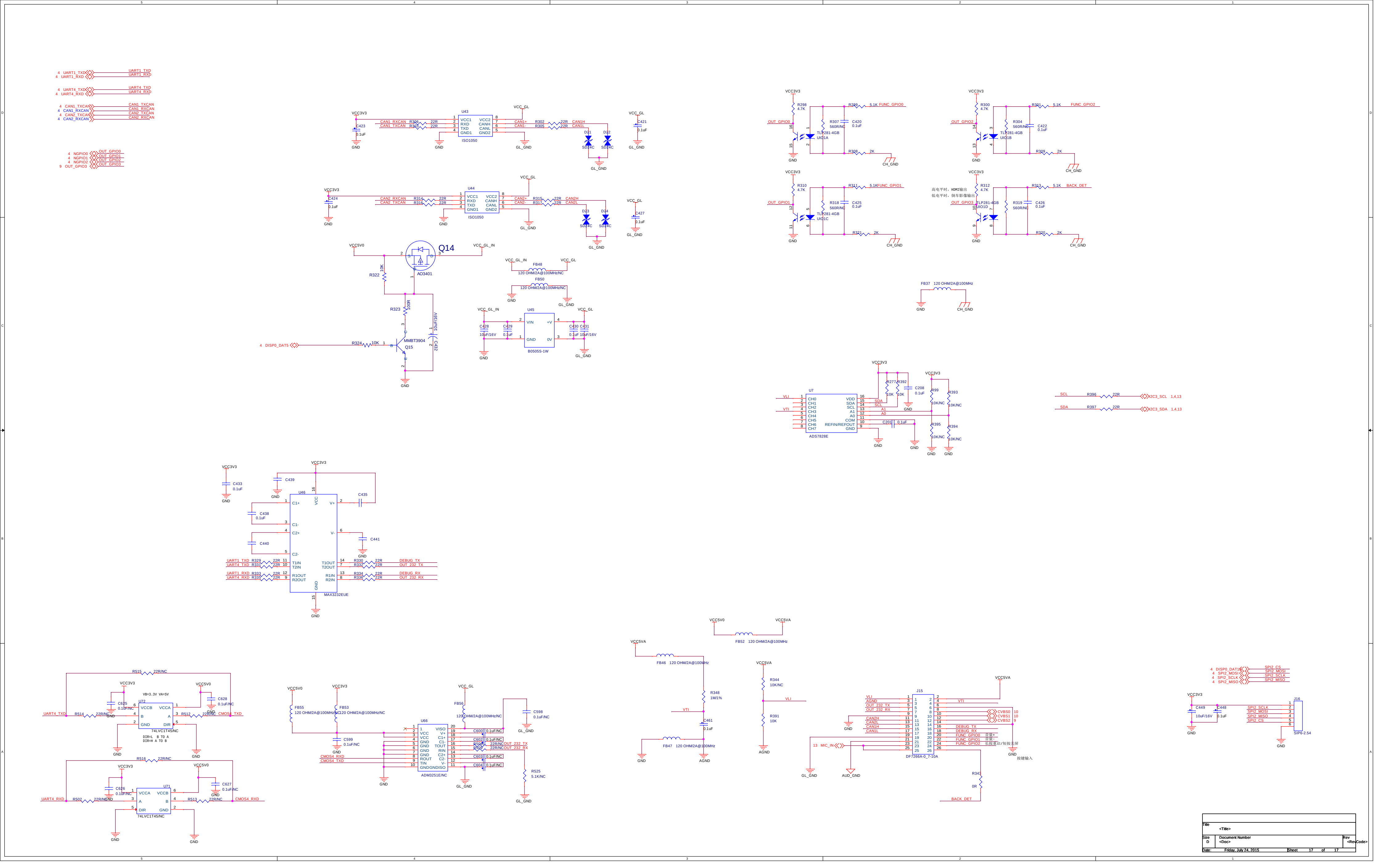

UART1_TXD
UART1_RXD
UART4_TXD
UART4_RXD
CAN1_TXCAN
CAN1_RXCAN
CAN2_TXCAN
CAN2_RXCAN
NGPIO0
NGPIO1
NGPIO2
OUT_GPIO3
U43
ISO1050
U44
ISO1050
CAN1H
CAN1L
CAN2H
CAN2L
SD24C
VCC3V3
VCC_GL
GL_GND
GND
Q14
AO3401
VCC5V0
VCC_GL_IN
R322 10K
R323 100R
R324 10K
MMBT3904
Q15
DISP0_DAT5
C432 10uF/16V
FB48 120 OHM/2A@100MHz/NC
FB50 120 OHM/2A@100MHz/NC
U45
B0505S-1W
VIN
+V
0V
U46
MAX3232EUE
DEBUG_TX
OUT_232_TX
DEBUG_RX
OUT_232_RX
TLP281-4GB
UIO1A
UIO1B
UIO1C
UIO1D
OUT_GPIO0
OUT_GPIO1
OUT_GPIO2
OUT_GPIO3
FUNC_GPIO0
FUNC_GPIO1
FUNC_GPIO2
BACK_DET
CH_GND
高电平时，HDMI输出
低电平时，倒车影像输出
FB37 120 OHM/2A@100MHz
U7
ADS7828E
SCL
SDA
I2C3_SCL 1,4,13
I2C3_SDA 1,4,13
U72
74LVC1T45/NC
VB=3.3V VA=5V
DIR=L B TO A
DIR=H A TO B
U71
74LVC1T45/NC
CMOS4_TXD
CMOS4_RXD
U66
ADM3251E/NC
FB55
FB53
FB56
FB52 120 OHM/2A@100MHz
FB46 120 OHM/2A@100MHz
FB47 120 OHM/2A@100MHz
VCC5VA
AGND
AUD_GND
MIC_IN
VLI
VTI
J15
DF7266A-0_7-10A
CVBS0
CVBS1
CVBS2
按键输入
J16
SIP6-2.54
SPI2_CS
SPI2_MOSI
SPI2_SCLK
SPI2_MISO
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