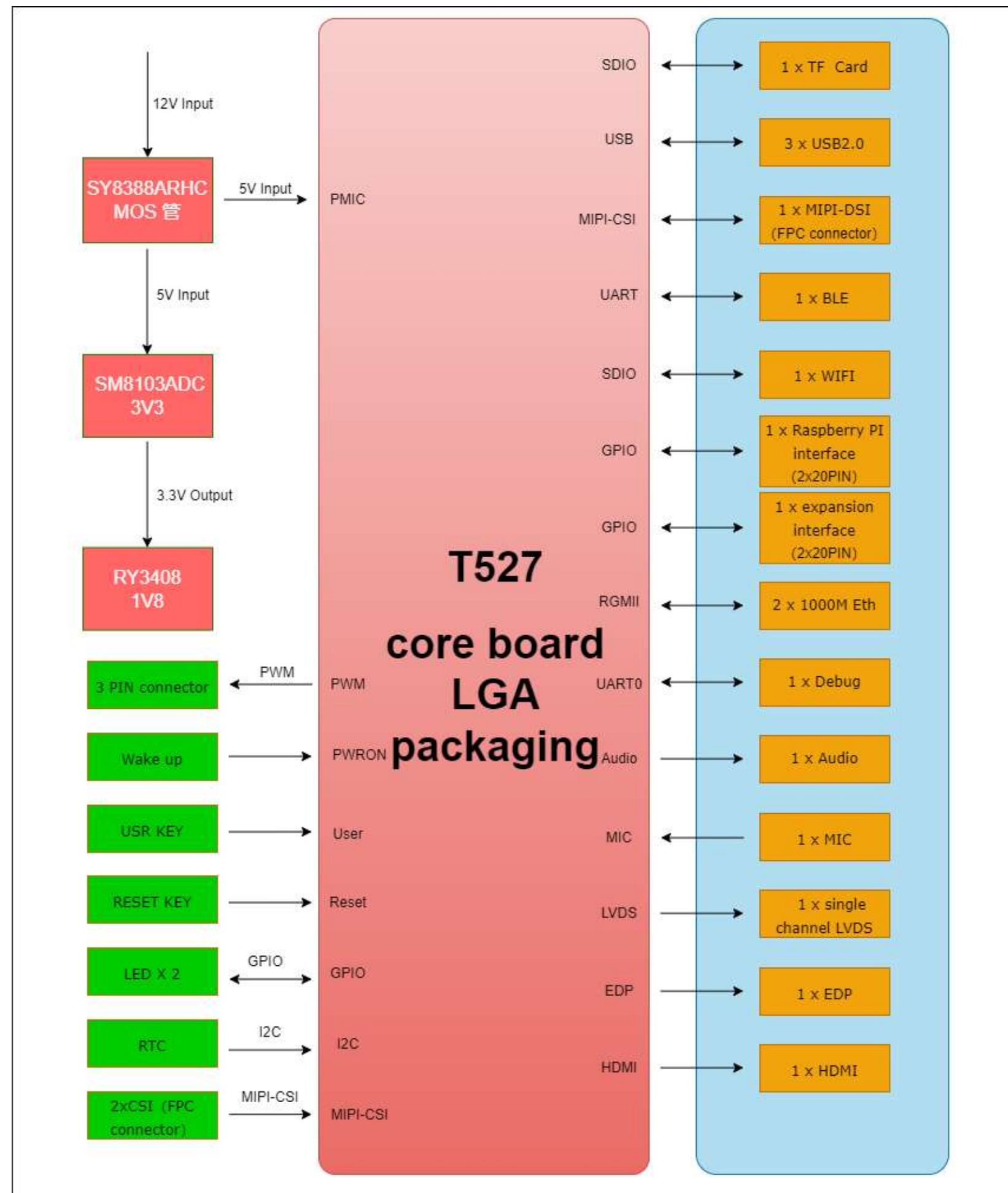


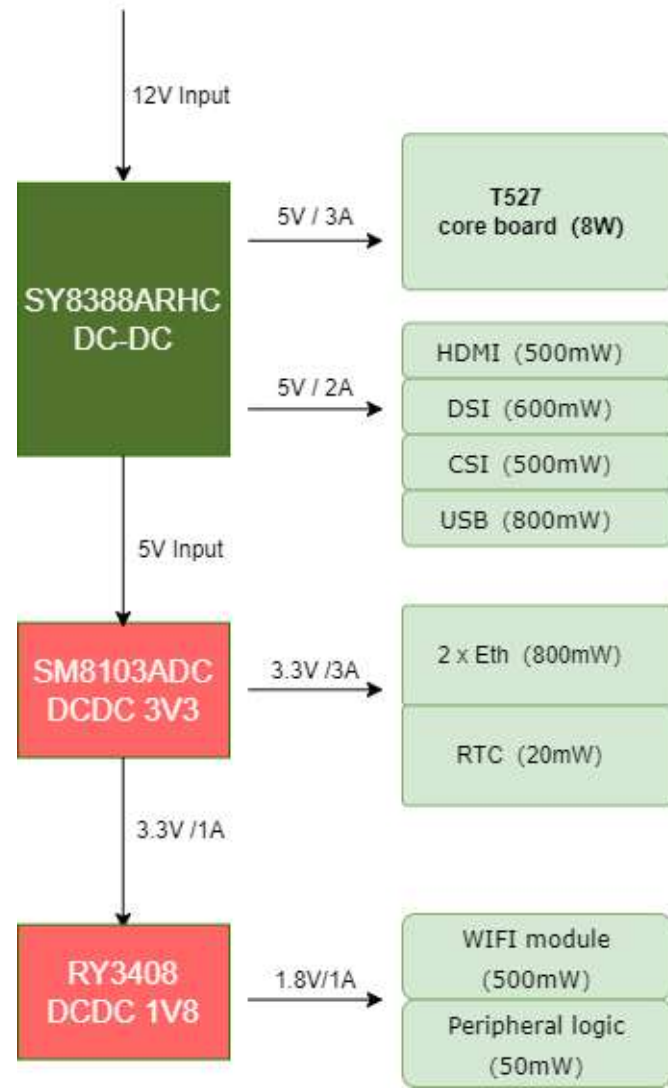
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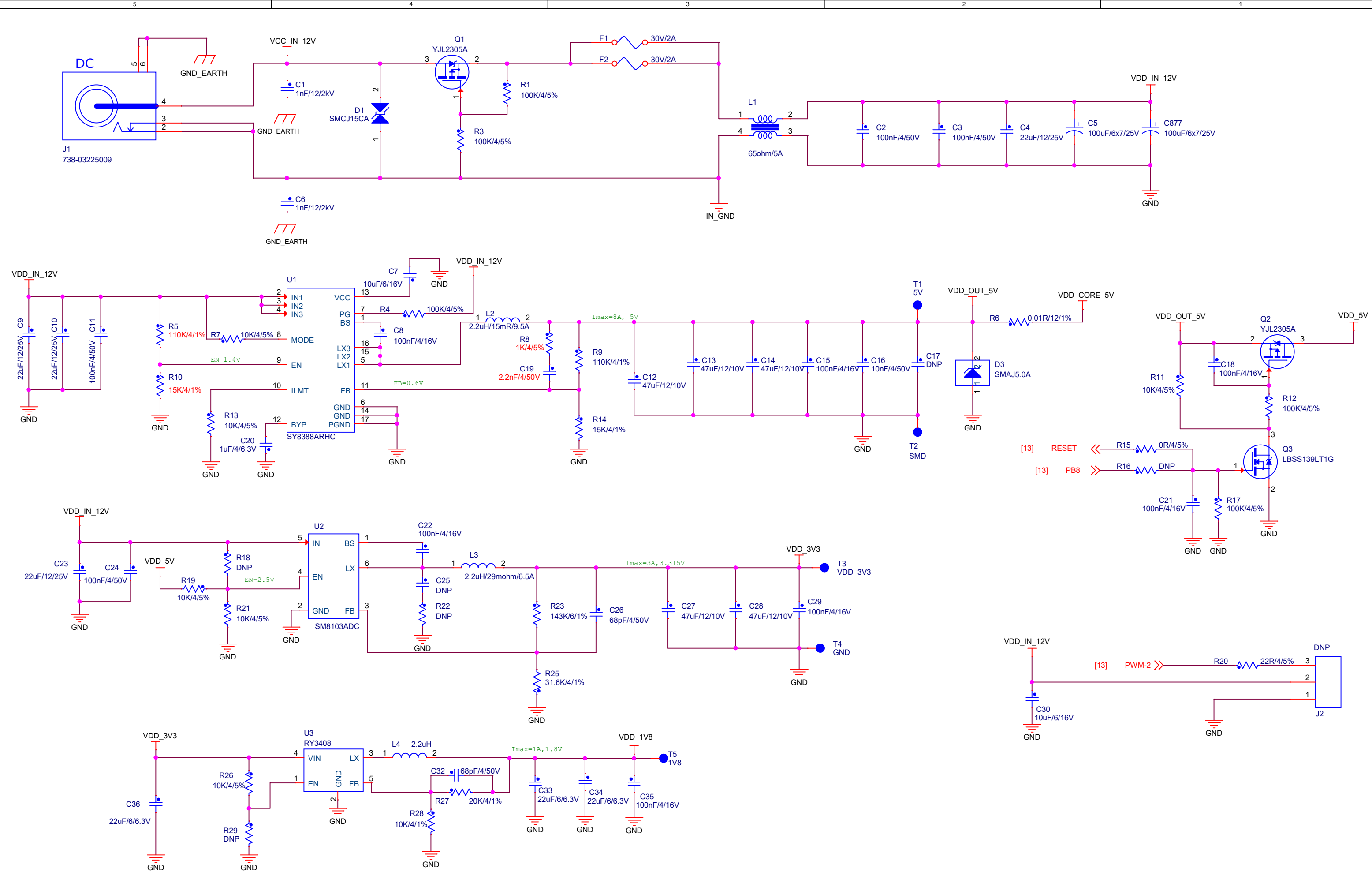
- 1. Cover
- 2. Block Diagram
- 3. Power Tree
- 4. Power
- 5. DSI1 & LVDS1
- 6. USB & TF Card
- 7. Key & Audio
- 8. CSI1 & CSI2
- 9. RGMII0 & RGMII1
- 10. PH1 & PH2
- 11. HDMI & DP
- 12. WIFI
- 13. Mechanical
- 14. MYC PIN

VERSION HISTORY

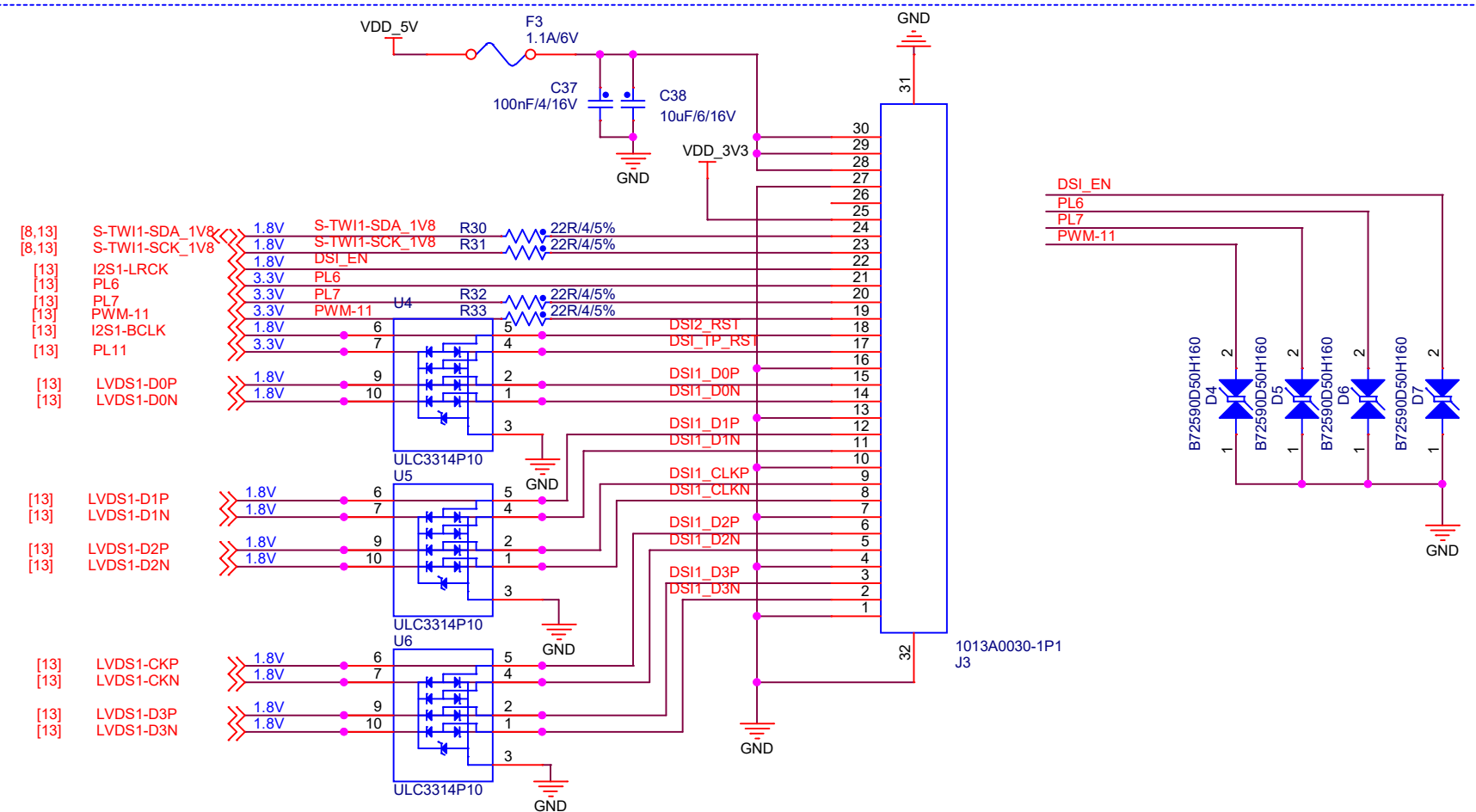
Revision	Description	Date	Drawn	Checked	Approved
V01	Initial Edition	2023-08-07	YANG		
V02	1.Power input electrolytic capacitor replacement small size 2.The network port indicator control logic is replaced 3,DP signal series common mode inductor 4,Recording adds RC circuit to filter out noise	2023-11-30	YANG		
V10	version upgrade	2023-12-13	YANG		



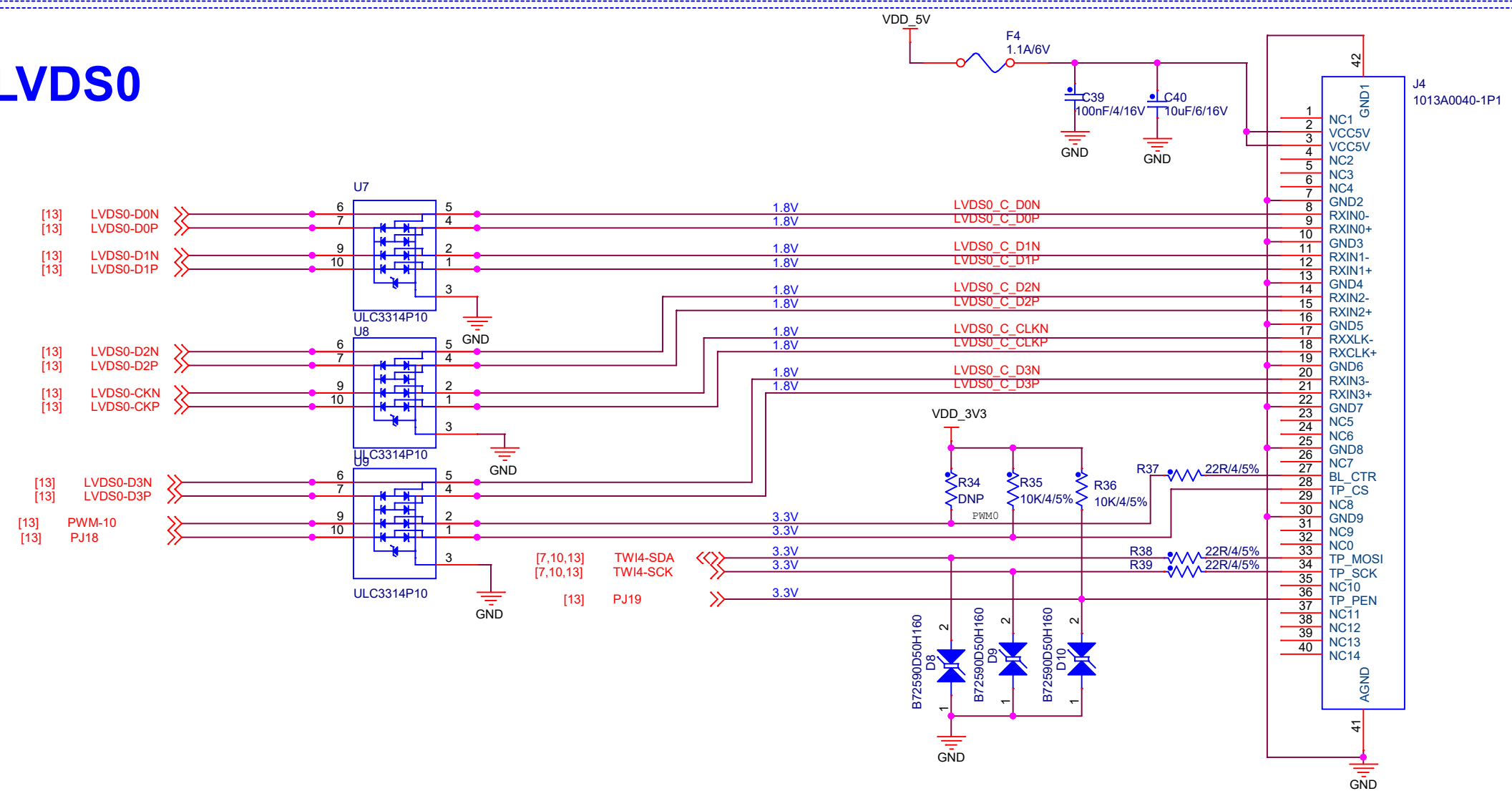




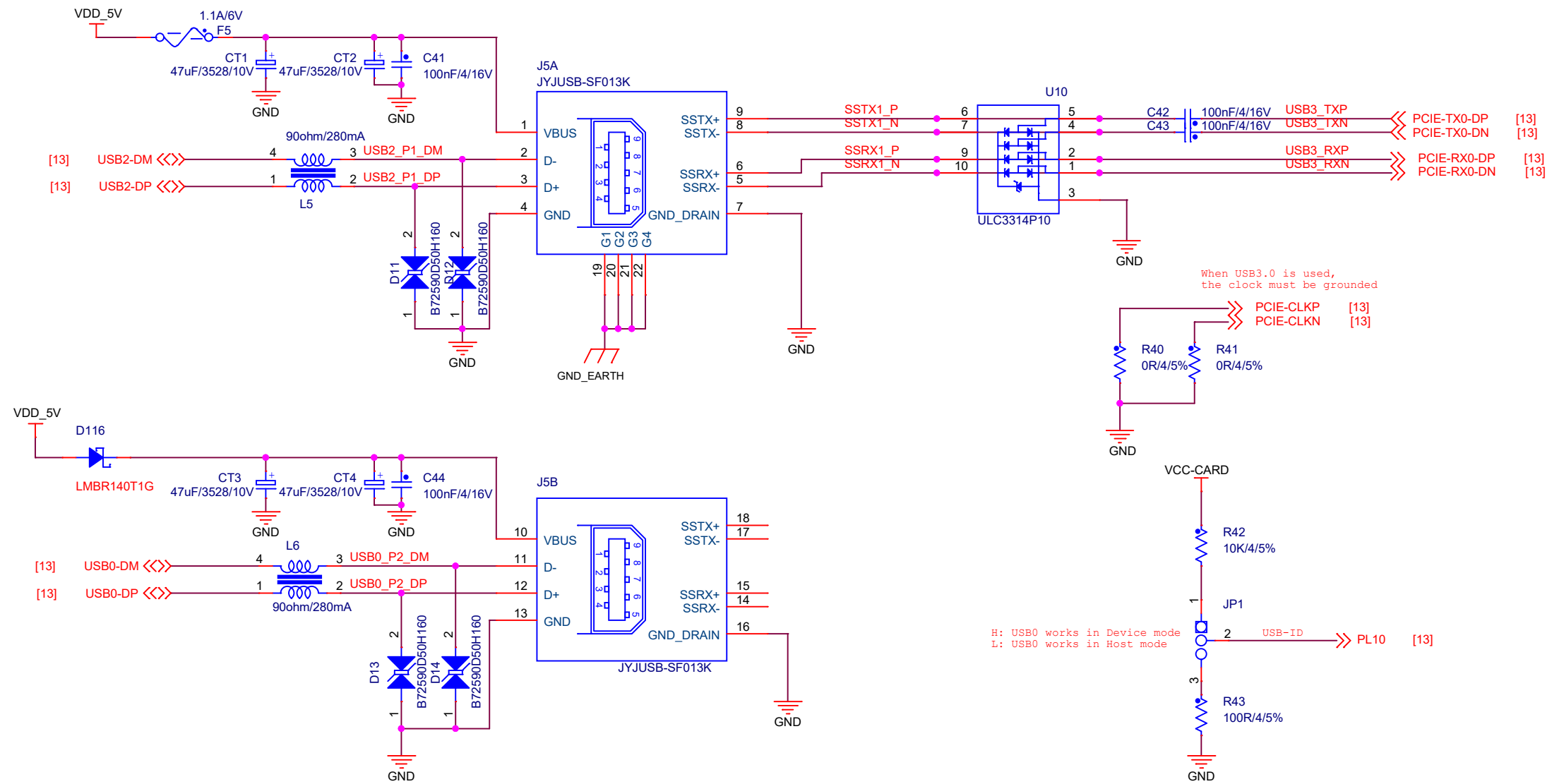
DSI



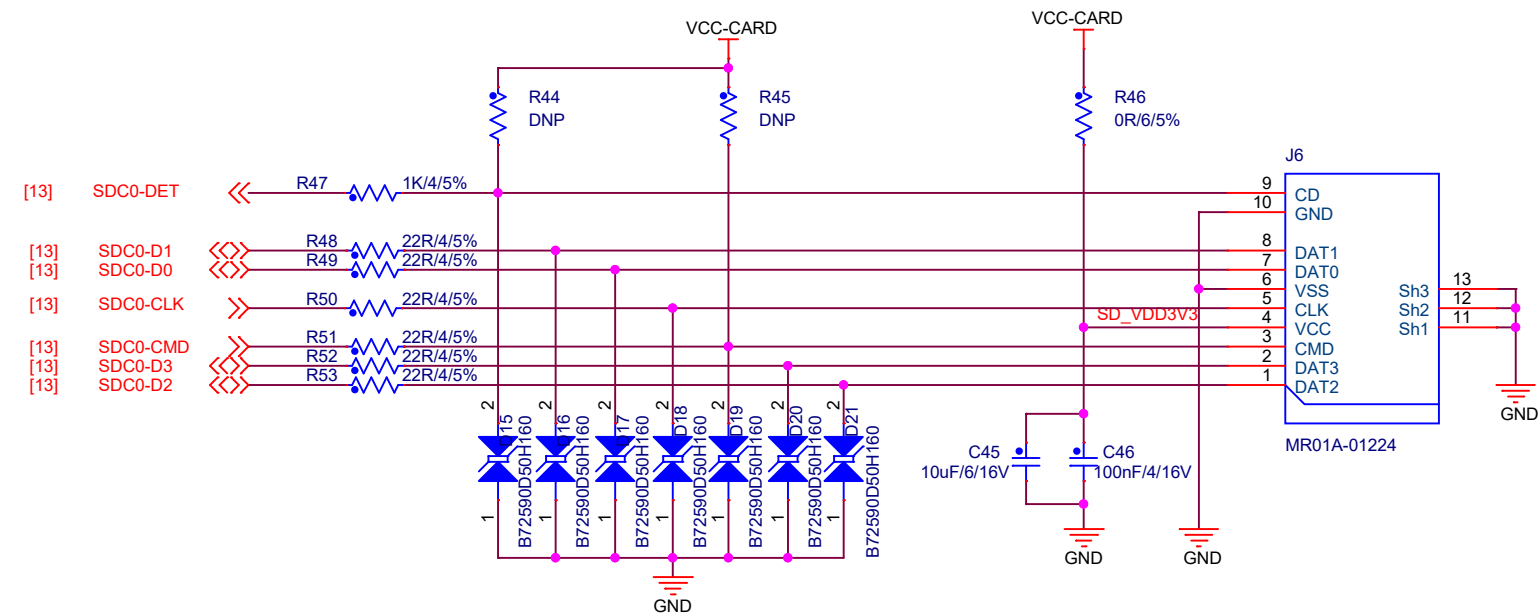
LVDS0



USB0 & USB3.0



TF Card



<http://www.myir-tech.com>

Title: USB & TF Card

LED & RESET

The schematic diagram illustrates the LED and Reset circuit for the STM32F103C8T6 microcontroller. It includes the following components and connections:

- LEDs:**
 - Red LED (D22):** Connected to **PWR** (VDD_OUT_5V) through resistor **R54** (1K/4/5%) to the anode. The cathode is connected to **GND**.
 - Green LED (D23):** Connected to **RUN** (VDD_3V3) through resistor **R56** (470R/4/5%) to the anode. The cathode is connected to **GND**.
 - Red LED (D24):** Connected to **User** (VDD_3V3) through resistor **R62** (470R/4/5%) to the anode. The cathode is connected to **GND**.
- Reset Key:** A push-button switch **S2** (TS-1185 3*3.54* 2.5 250g) is connected to **KEY_RESET** (PB6) [10,13]. The other terminal is connected to **VCC-CARD** through resistor **R55** (10K/4/5%).
- User Key:** A push-button switch **S3** (TS-1185 3*3.54* 2.5 250g) is connected to **PWM-12** (PB7) [10,13]. The other terminal is connected to **VCC-CARD** through resistor **R57** (10K/4/5%).
- Download:** A push-button switch **S4** (TS-1185 3*3.54* 2.5 250g) is connected to **FEL** [13]. The other terminal is connected to **GND** through diode **D26** (B72590D50H160).
- Wake up:** A push-button switch **S5** (TS-1185 3*3.54* 2.5 250g) is connected to **PWRON** [13]. The other terminal is connected to **GND** through diode **D27** (B72590D50H160).
- Additional Components:**
 - Resistor **R65** (10K/4/5%) is connected between **VCC-CARD** and **PWM-12**.
 - Diode **D28** (B72590D50H160) is connected between **GND** and **PWRON**.

RTC

The schematic diagram illustrates the connection of the LK8563T Real Time Clock (RTC) IC. The IC is powered by VDD_3V3 and VDD_BAT. The clock signal is provided by a 32.768KHz crystal (Y1) with 33pF/4/50V capacitors (C48, C49). The IC's I2C interface (SCL, SDA) is connected to the TWI4-SCK and TWI4-SDA pins of the microcontroller. The IC's output (CLKOUT) is connected to the nINT_RTC pin of the microcontroller. The IC's VDD and VSS pins are connected to the VDD_3V3 and GND pins of the microcontroller. The IC's I2C address is 0xA2 and 0xA3.

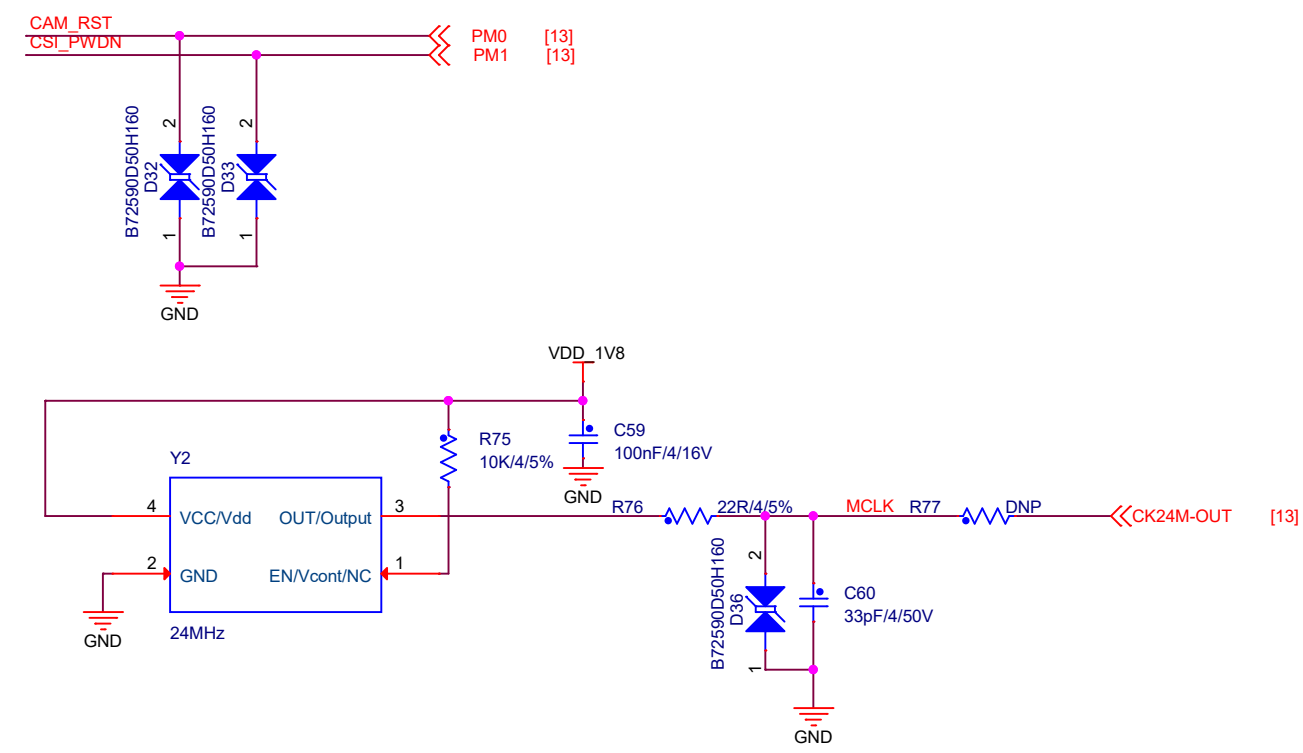
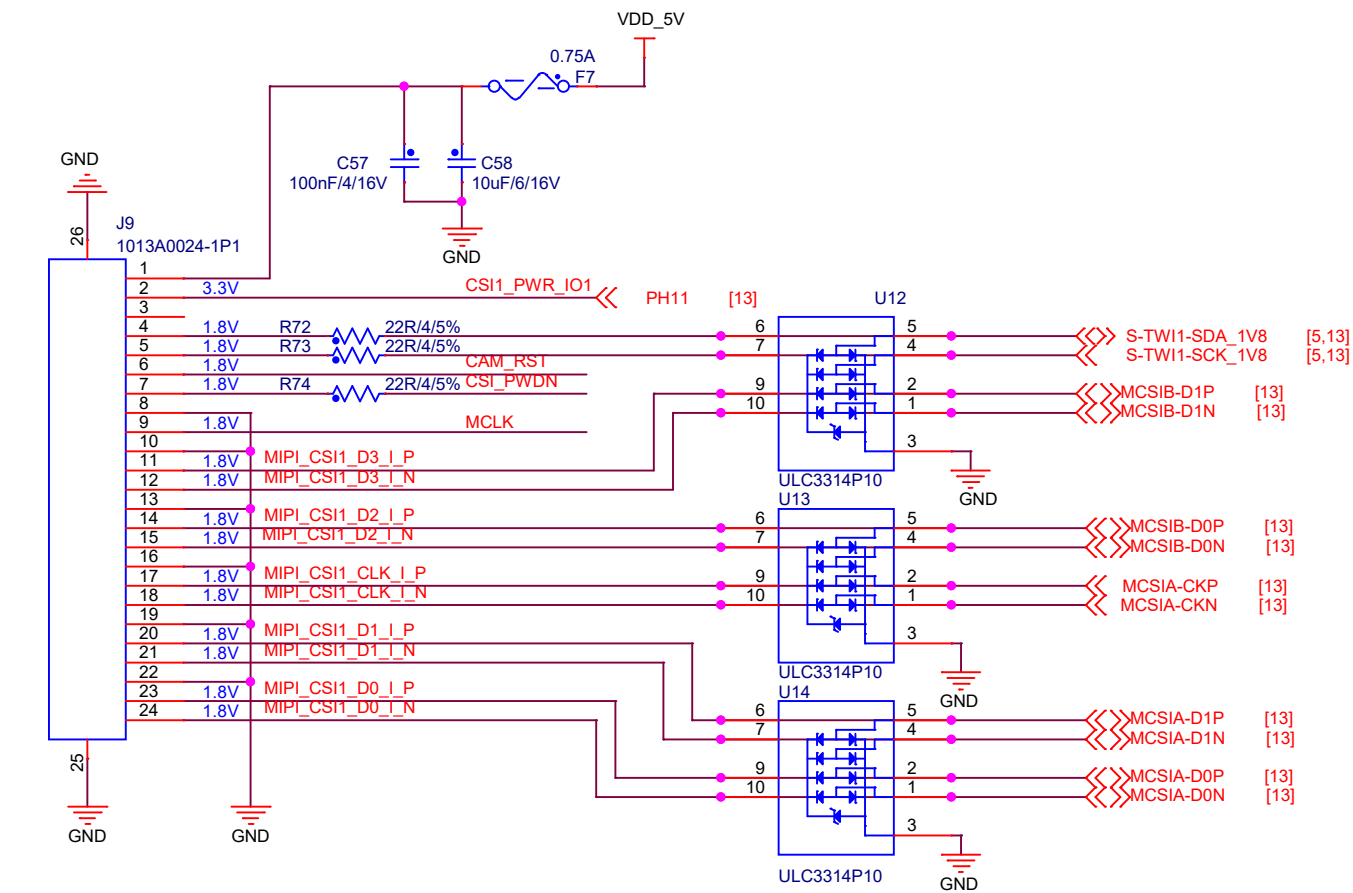
Key components and connections include:

- IC:** LK8563T
- Crystal:** Y1, 32.768KHz
- Capacitors:** C48, C49 (33pF/4/50V)
- Resistors:** R58, R59 (2.2K/4/5%), R60, R61 (10K/4/5%), R63, R64 (22R/4/5%)
- Microcontroller Pins:** TWI4-SCK, TWI4-SDA, nINT_RTC, VDD, VSS
- Power:** VDD_3V3, VDD_BAT
- Ground:** GND
- Address:** ADDRESS: 0xA2, ADDRESS: 0xA3

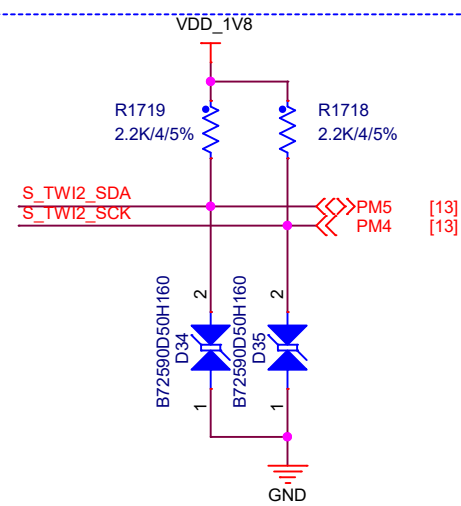
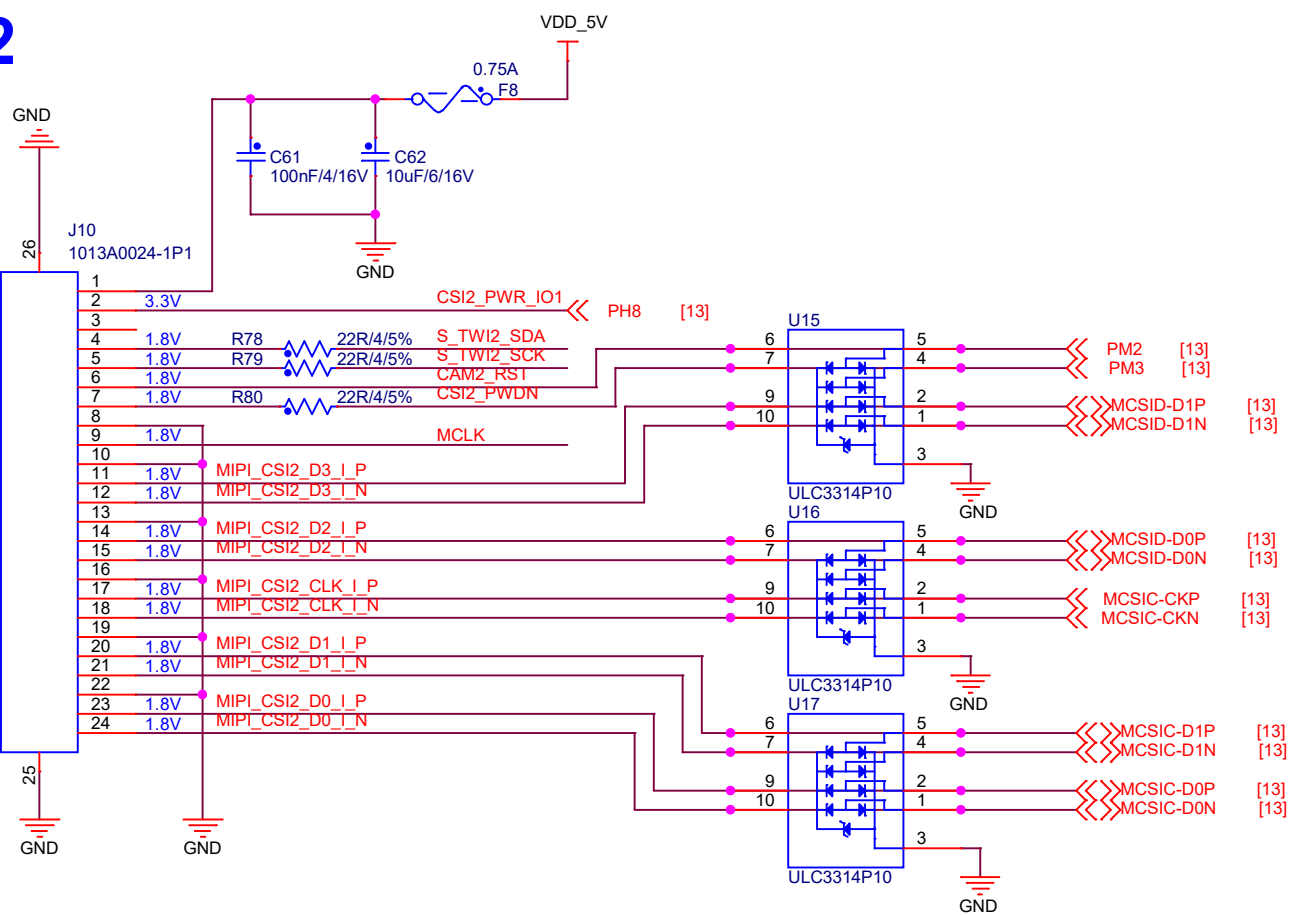
Audio

The schematic diagram illustrates the audio section of a PCB, showing the connection of a DAC to an audio amplifier and a microphone. The DAC outputs (HPOUTL, HPOUTR, HPOUTFB) are connected to the amplifier's inputs. The amplifier's outputs (AUDIO1_LOUT_L, AUDIO1_LOUT_R) are connected to the microphone's inputs (MICIN1P, MICIN1N, MBIAS). The schematic includes various components like capacitors (C50, C51, C52, C53, C54, C55, C56, C876, C878, C879), resistors (R66, R67, R68, R69, R70, R71, R1720, R1721), diodes (D29, D30, D31), and a transformer (704-06700003-A J8). Grounding is indicated by AUDIO_AGND and GND symbols.

MIPI-CSI1

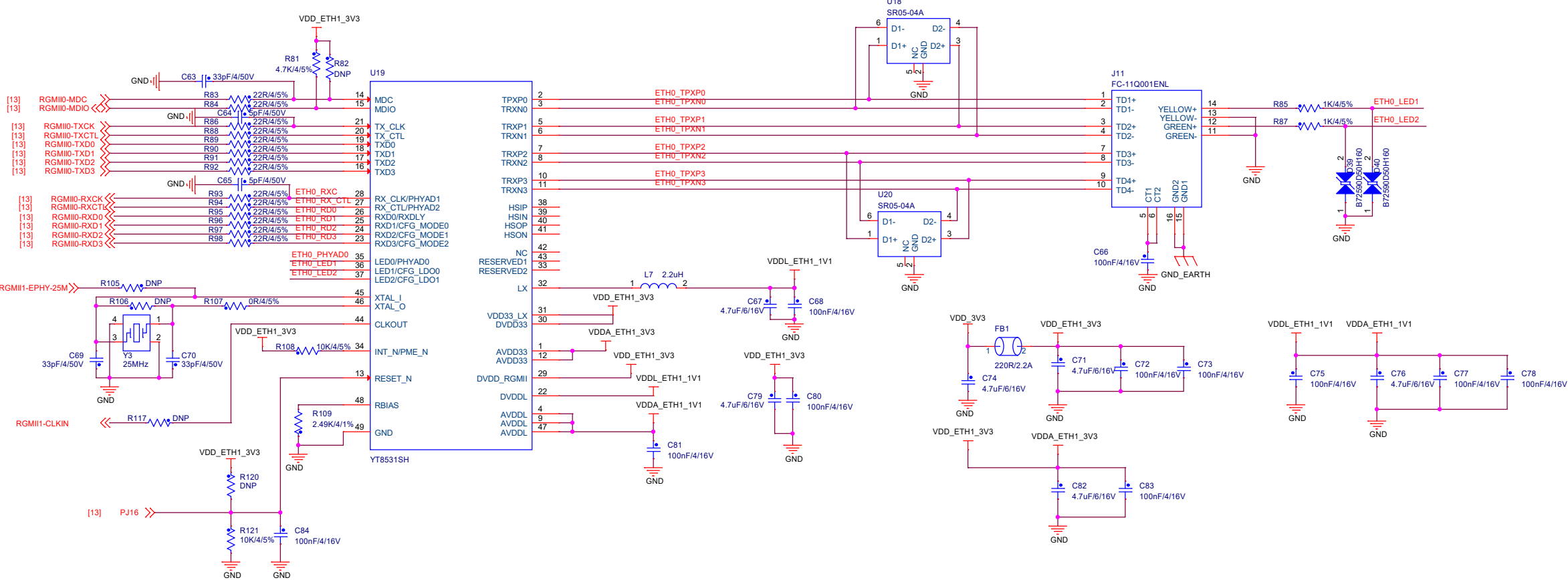
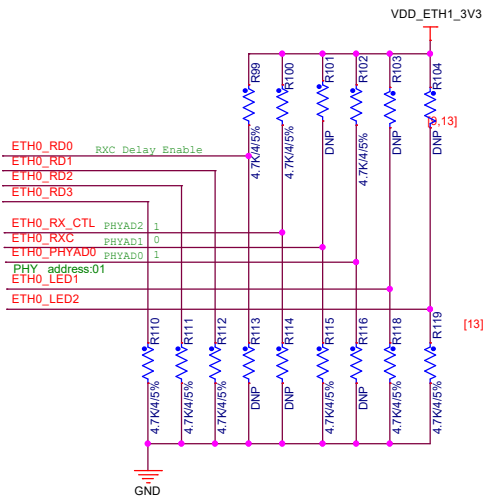


MIPI-CSI2



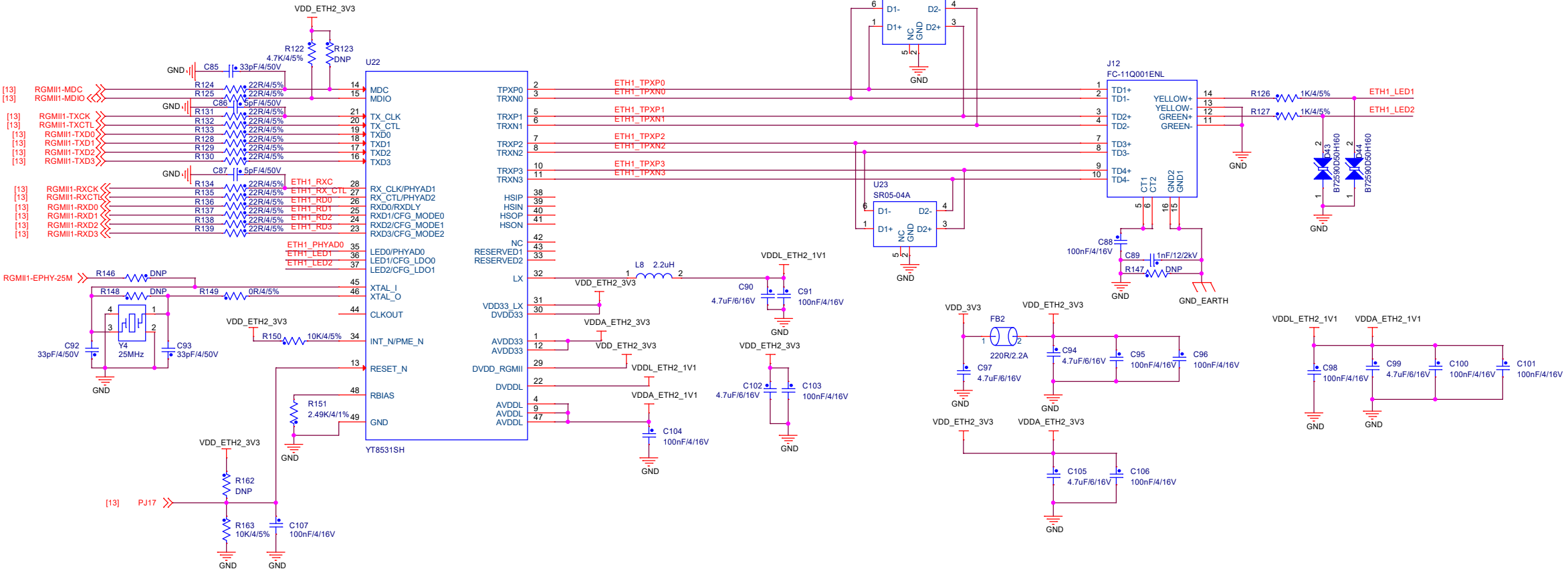
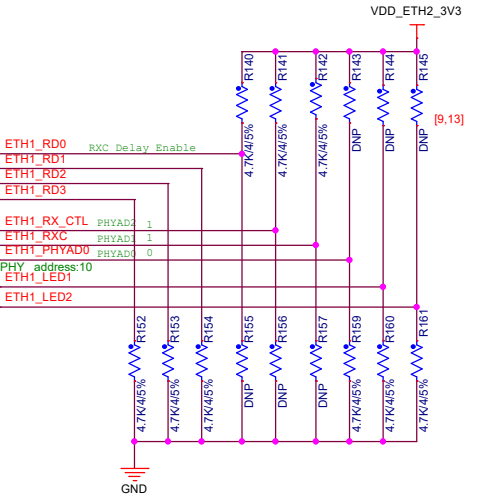
RGMII0

RXD[3:1] 3'b000 3'b001 3'b010 3'b011 3'b100 3'b101 3'b110 3'b111	Operation Mode UTP <=> RGMII FIBER <=> RGMII UTP/FIBER <=> RGMII UTP <=> SGMII SGMII (PHY) <=> RGMII SGMII (MAC) <=> RGMII UTP <=> FIBER (AUTO) UTP <=> FIBER (FORCE)
CFG_LDO[1:0] 2'b00 2'b01 2'b10 2'b11	Voltage Selection External 3.3V Internal 2.5V Internal 1.8V Not Available

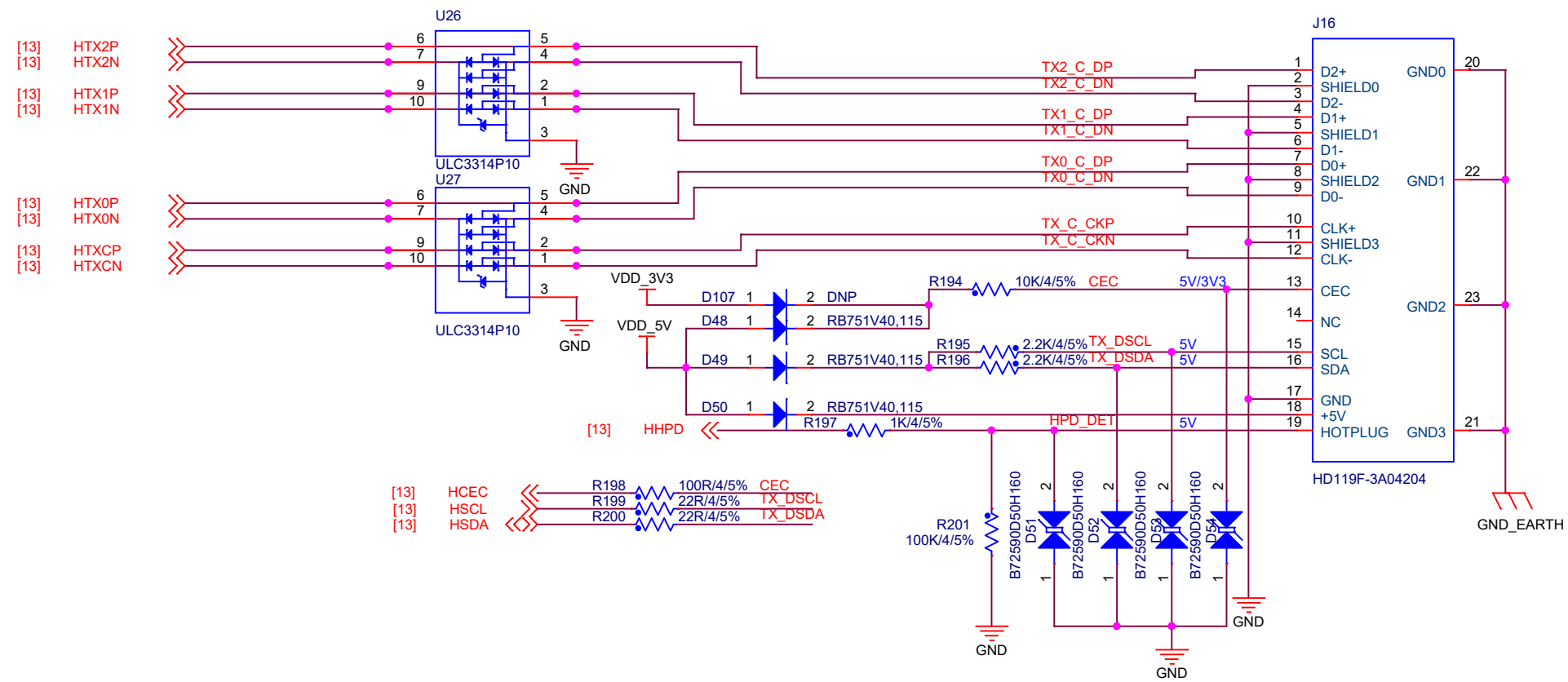


RGMII1

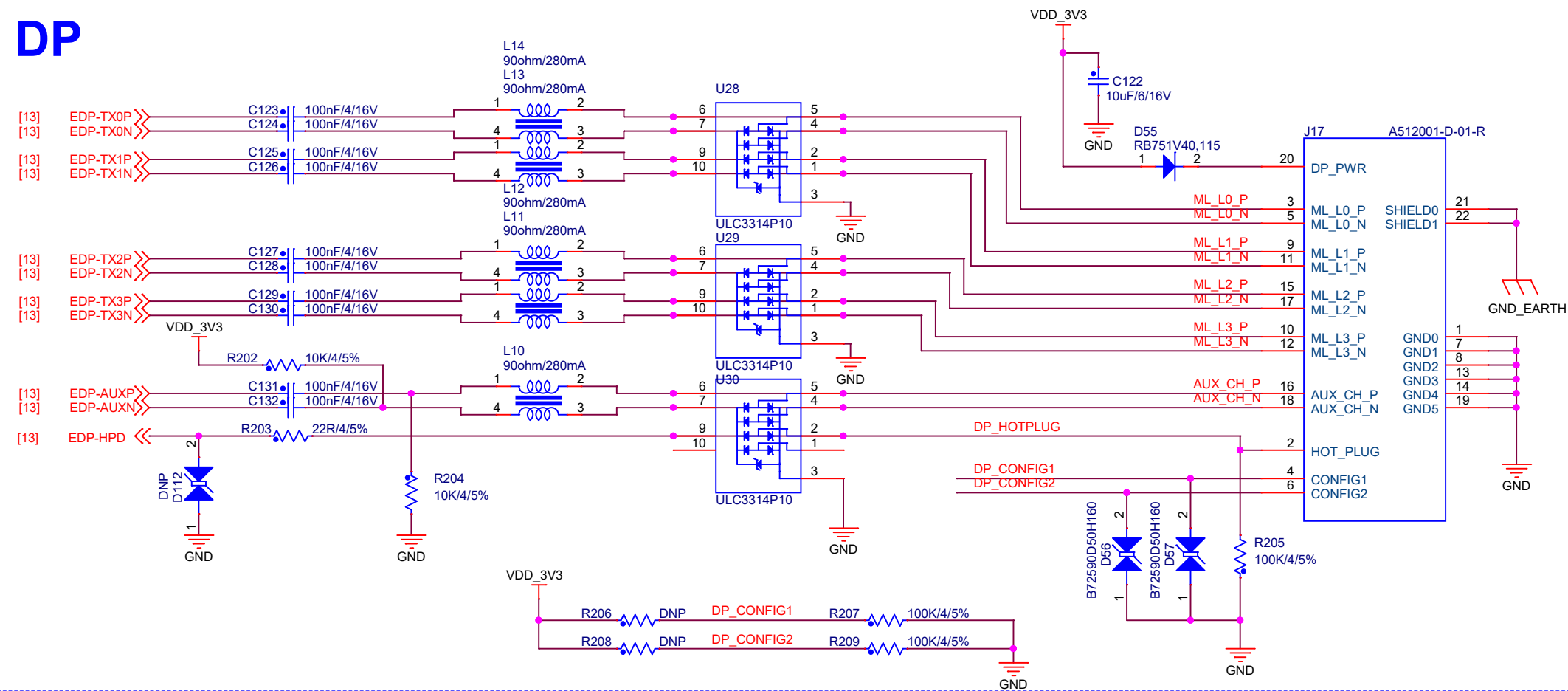
RXD[3:1] 3'b000 3'b001 3'b010 3'b011 3'b100 3'b101 3'b110 3'b111	Operation Mode UTP <=> RGMII FIBER <=> RGMII UTP/FIBER <=> RGMII UTP <=> SGMII SGMII (PHY) <=> RGMII SGMII (MAC) <=> RGMII UTP <=> FIBER (AUTO) UTP <=> FIBER (FORCE)
CFG_LDO[1:0] 2'b00 2'b01 2'b10 2'b11	Voltage Selection External 3.3V Internal 2.5V Internal 1.8V Not Available



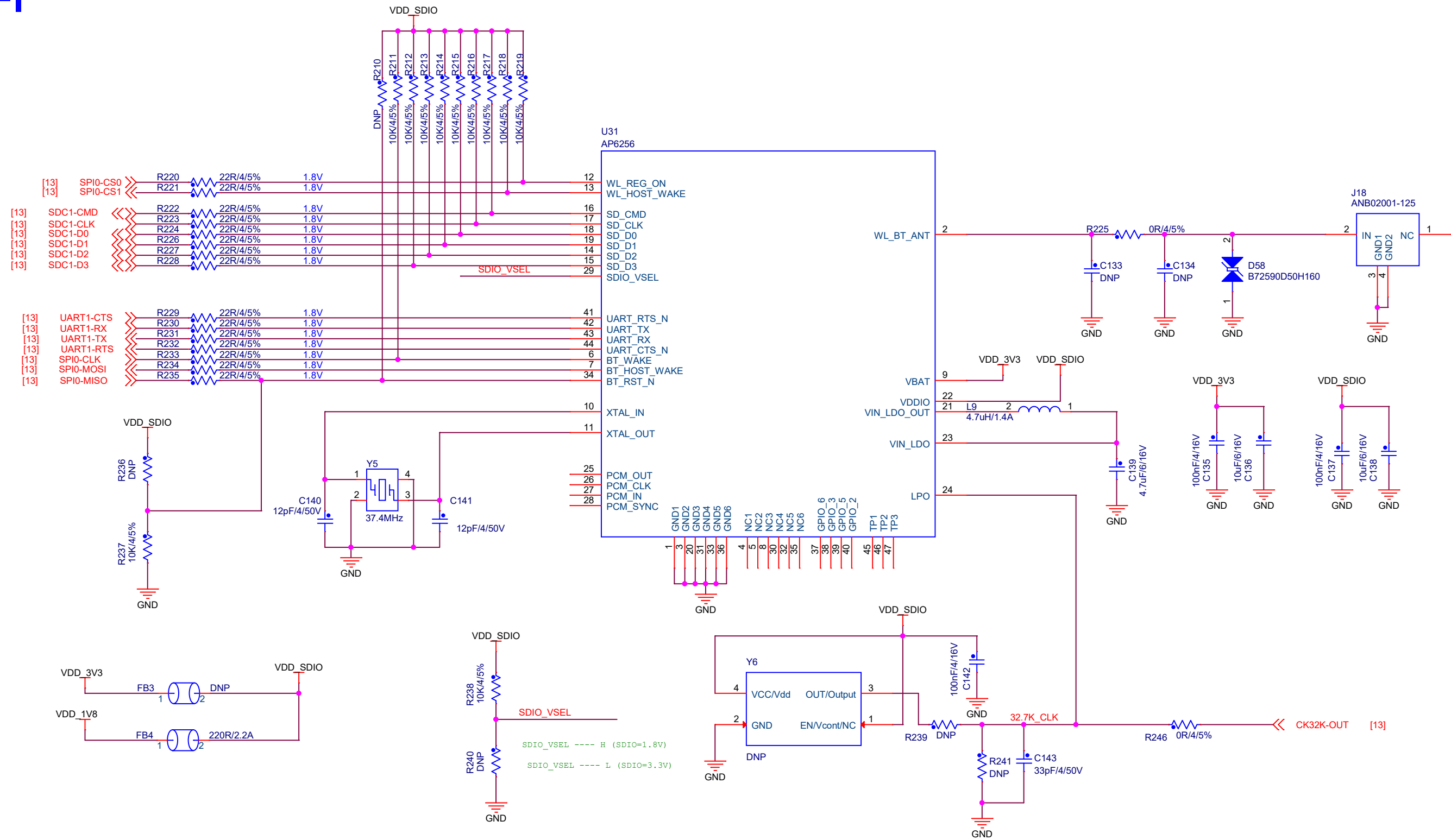
HDMI

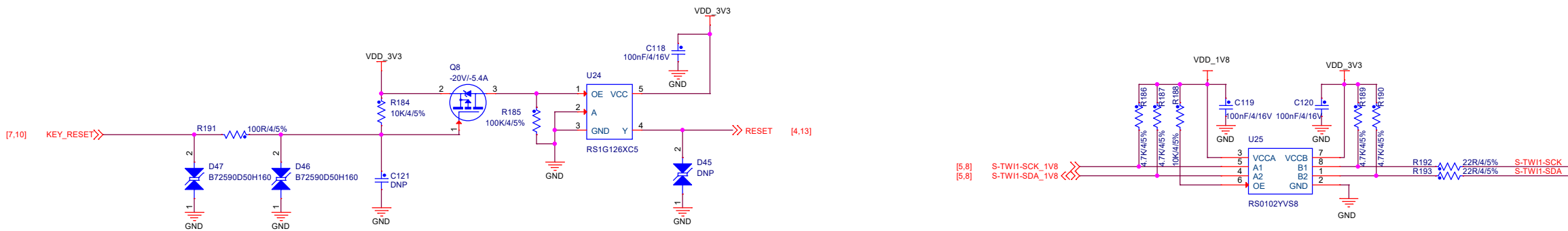


DP

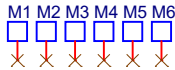
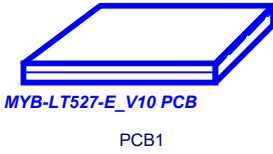


WIFI

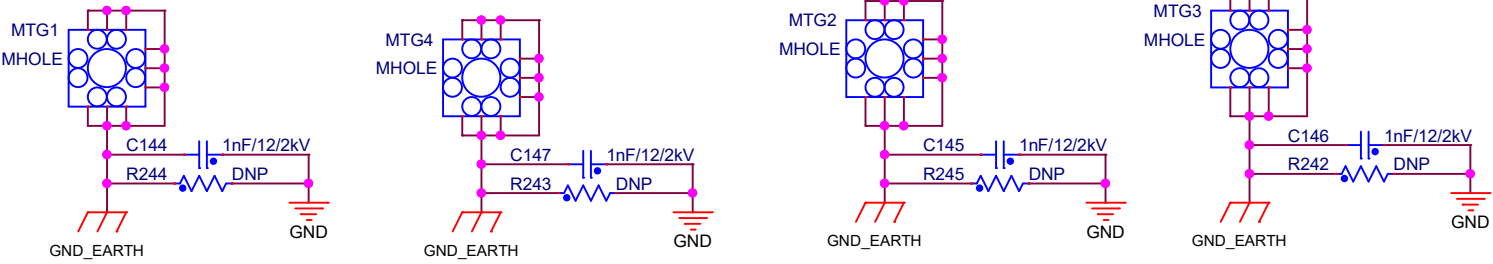




LB1
Lable-12*12



Mark Point



Board Mechanical Hole