

MCU

ESP32-P4

ESP32-P4 BOOT

MODE	GPIO35	GPIO36
SPI Boot (default)	1	x
Joint Download mode	0	1

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The diagram shows the internal circuitry of the CSI-15P module. The module's pins are connected to various components:

- Pin 1:** GND
- Pin 2:** CSI\_D0N
- Pin 3:** CSI\_D0P
- Pin 4:** GND
- Pin 5:** CSI\_D1N
- Pin 6:** CSI\_D1P
- Pin 7:** GND
- Pin 8:** CSI\_CLKN
- Pin 9:** CSI\_CLKP
- Pin 10:** GND
- Pin 11:** CSI\_RST
- Pin 12:** CSI\_PWDN
- Pin 13:** I2C\_SCL
- Pin 14:** I2C\_SDA
- Pin 15:** 3.3V

External components and connections include:

- Resistors:** R32 (10K), R33 (NC), R34 (2.2K), and R35 (2.2K) are connected to the 3.3V supply.
- Capacitors:** C45 (0.1uF) and C46 (10uF) are connected to the 3.3V supply and the I2C\_SDA line.
- Capacitor:** BLM18SG221TN1D is connected to the 3.3V supply and the I2C\_SDA line.
- Supply Connections:** The module is connected to a CSI\_3V3 supply and an ESP\_3V3 supply via a blue wire.

The diagram shows the pin configuration and connections for the BLM21PG331SN1D module. The module has 26 pins, numbered 1 to 26. The connections are as follows:

- DS1 (Pins 1-10):**
  - Pin 1: 5V
  - Pin 2: 5V
  - Pin 3: TP\_INT
  - Pin 4: CTP\_INT RTP-PEN
  - Pin 5: TP\_SCL
  - Pin 6: CTP\_SCL RTP-SCK
  - Pin 7: TP\_SDA
  - Pin 8: CTP\_SDA RTP-MOSI
  - Pin 9: TP\_RST
  - Pin 10: CTP\_RST RTP-CS
- DS1-26P (Pins 11-25):**
  - Pin 11: BL\_CTR
  - Pin 12: LCD\_ID
  - Pin 13: GND
  - Pin 14: DSI\_D1P
  - Pin 15: DSI\_D1N
  - Pin 16: GND
  - Pin 17: DSI\_CLKP
  - Pin 18: DSI\_CLKN
  - Pin 19: GND
  - Pin 20: DSI\_D0P
  - Pin 21: DSI\_D0N
  - Pin 22: GND
  - Pin 23: DSI\_D2P
  - Pin 24: DSI\_D2N
  - Pin 25: GND
- LCD\_RST (Pins 26 and 25):**
  - Pin 26: LCD\_RST
  - Pin 25: GND

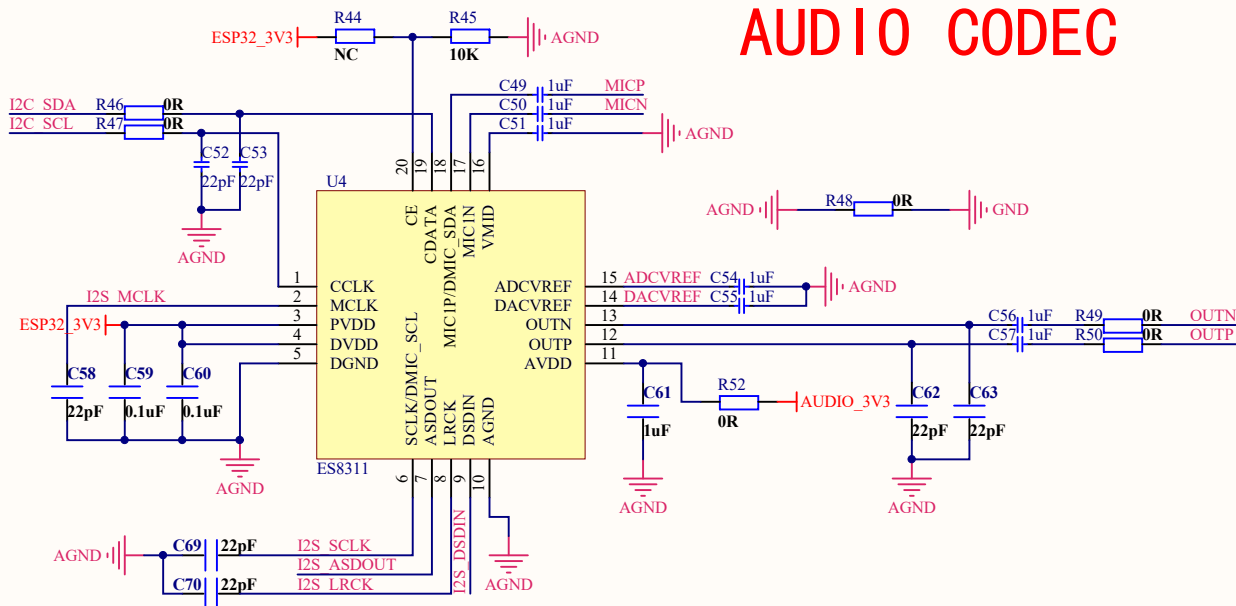
Power and ground connections are shown for DS1\_5V, DS1\_26P\_5V, and LCD\_RST. A 10uF capacitor (C43) is connected between DS1\_5V and GND. A 0.1uF capacitor (C44) is connected between DS1\_26P\_5V and GND. A 100R resistor (R36) is connected between LCD\_RST and DS1\_26P\_5V. A 120R resistor (R37) is connected between LCD\_RST and GND. The module is labeled FB3 and BLM21PG331SN1D.

The diagram illustrates the pin connections for an ESP8266 module. It features three power pins on the left: ESP\_3V3, ESP\_VBAT, and a common ground symbol. The ESP\_3V3 pin is connected to the KEY0 and BOOT pins through 10K resistors labeled R38 and R39, respectively. The ESP\_VBAT pin is connected to the ESP EN pin through a 10K resistor labeled R40. A 0.1uF capacitor, labeled C47, is connected between the BOOT pin and the RESET pin. The KEY0, BOOT, and RESET pins are shown as push-button switches. The ground symbol is labeled GND.

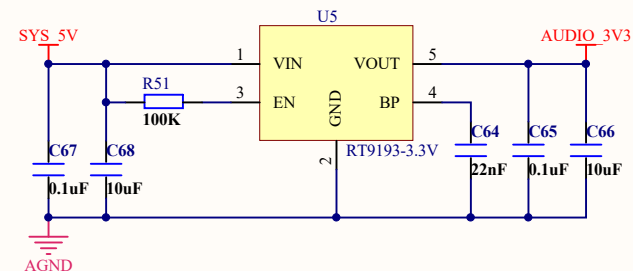
Pin connection diagram for the BLM21PG331SN1D module. The diagram shows a 20-pin connector with pins 1 through 20. Pins 1 and 2 are connected to SPI\_5V. Pins 3 and 4 are connected to GND. Pins 5 and 6 are connected to SPI\_CS. Pins 7 and 8 are connected to SPI\_SCK. Pins 9 and 10 are connected to LCD\_RST. Pins 11 and 12 are connected to CTP\_INT. Pins 13 and 14 are connected to CTP\_SDA. Pins 15 and 16 are connected to CTP\_SCL. Pins 17 and 18 are connected to LCD\_DC. Pins 19 and 20 are connected to BL\_CTR. The module is labeled BLM21PG331SN1D and has a SYS\_5V pin on the left and an SPI\_5V pin on the right.

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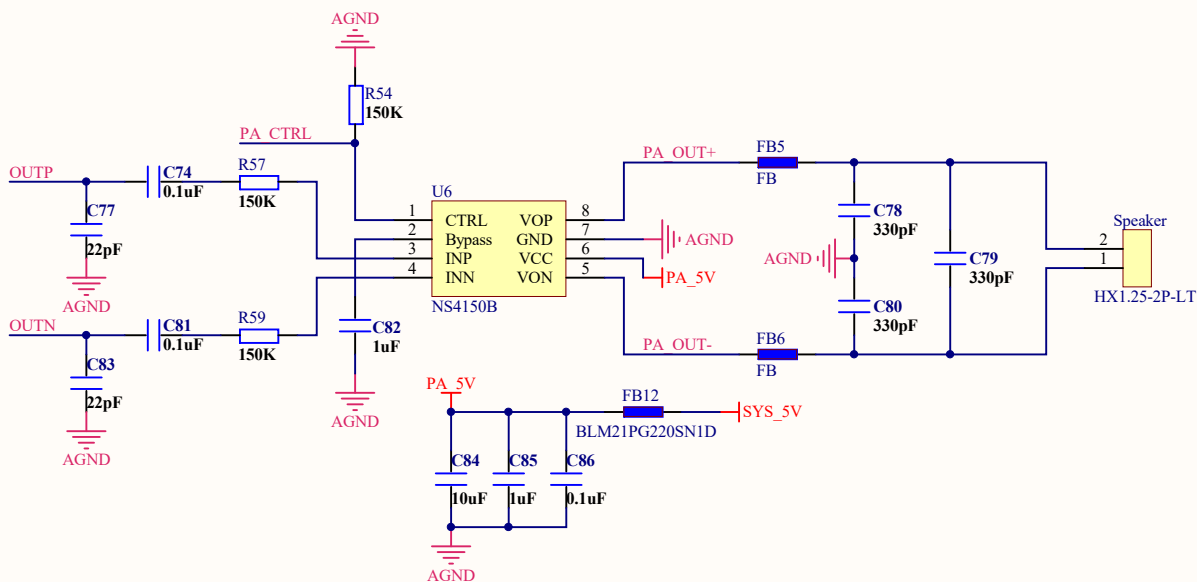
## AUDIO CODEC



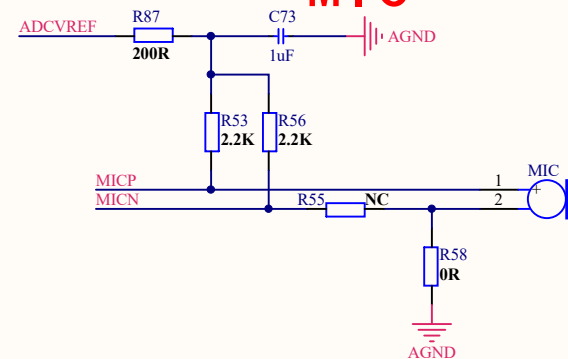
## AUDIO LDO



## PA & SPEAKER



## MIC



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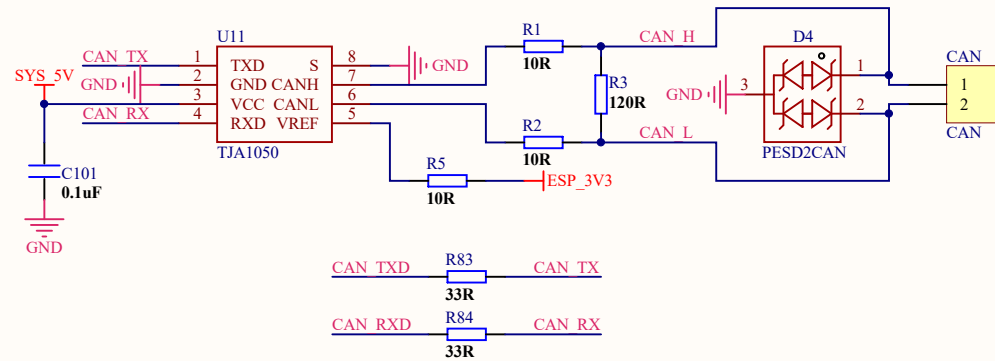
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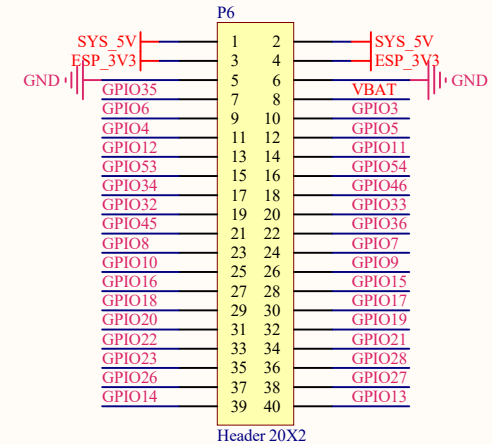
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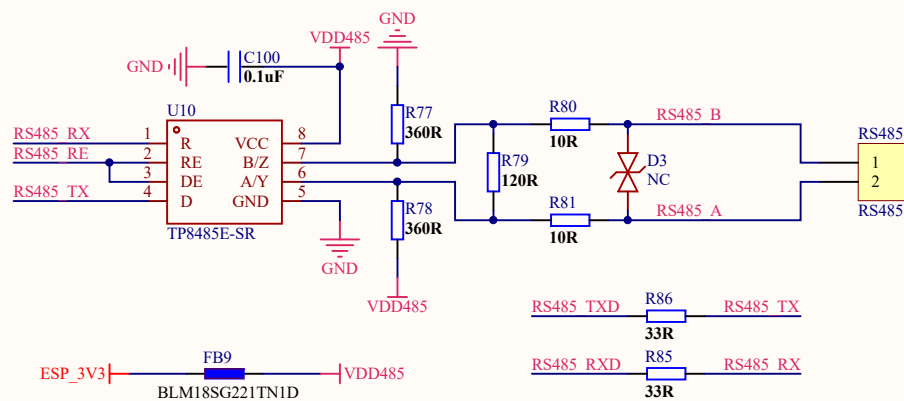
## CAN



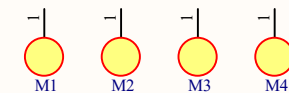
## GPIO



## RS485



## M3 HOLE



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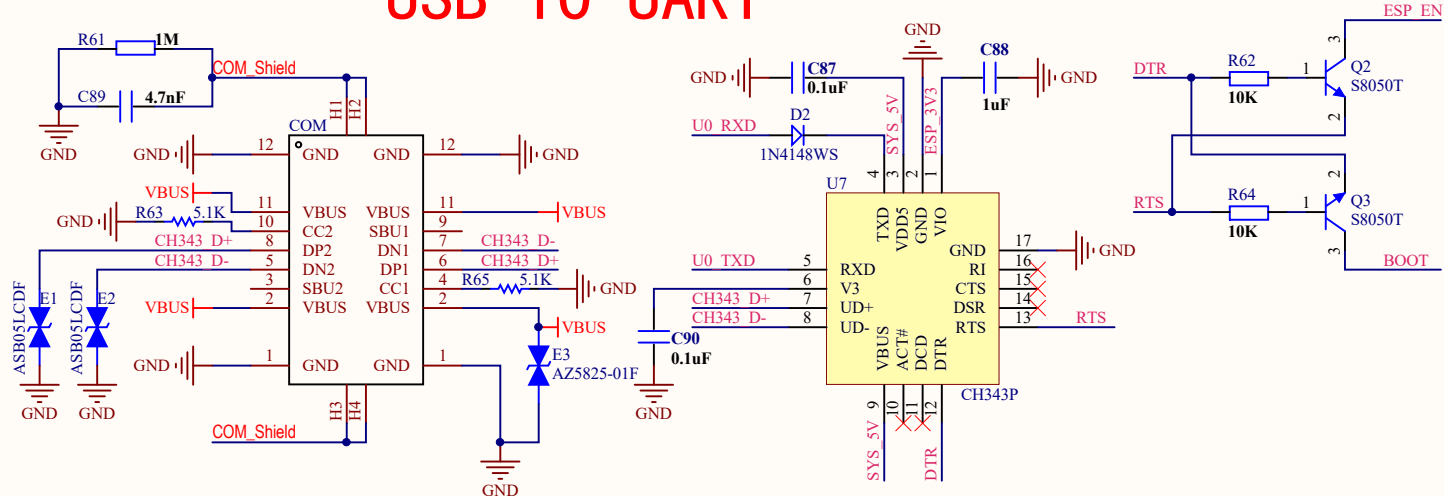
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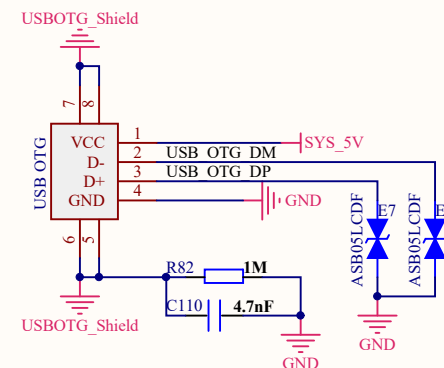
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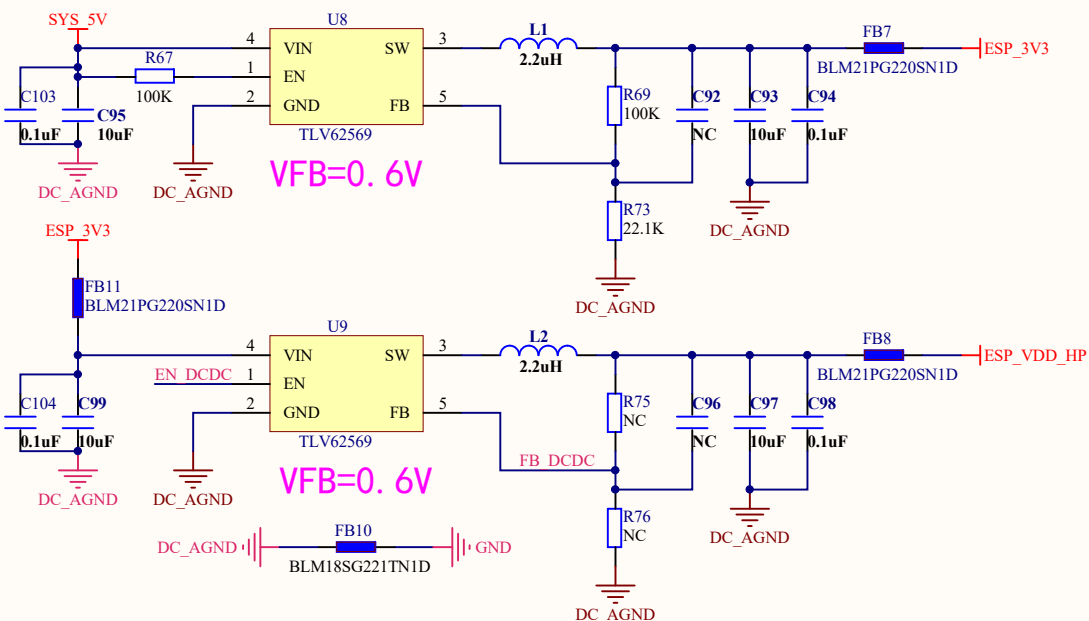
## USB TO UART



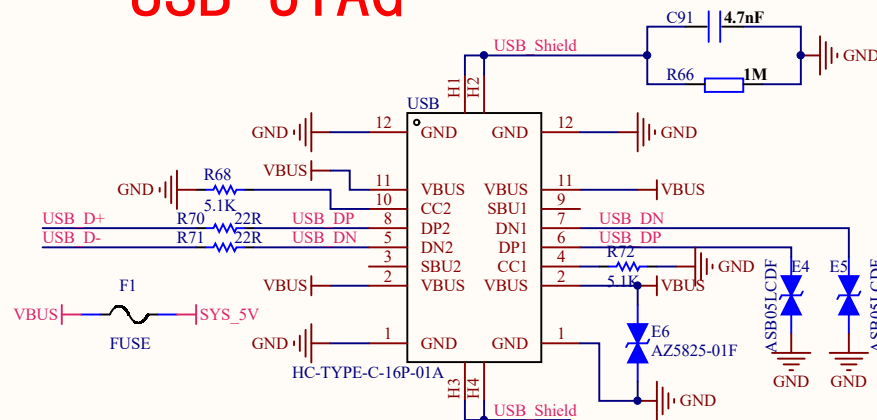
## USB OTG



## POWER



## USB JTAG



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