**Power Regulator:** 5 -> 3.3V

**Peripherals Power:**

**MicroSD Card:**

### ESP32-WRVER/ESP32-724-WROVER/ESP32-S3-WROVER:

**ESP Module Pin Configuration:**

- BT_ARRAY_ADC
- ESP_USB_DP
- ESP0_Boot_EN
- ES7210_SDOUT
- ES7210_LRCK
- ES7210_SCLK
- Codec_I2S0_DSDIN
- Codec_I2S0_SCLK
- Camera_VSYNC
- Camera_PCLK
- Camera_XCLK
- Camera_SIOC
- ES_I2C_SDA
- ES_I2C_CLK
- Camera_D[2:9]
- PA_CTRL
- ESP32-WRVER/ESP32-724-WROVER/ESP32-S3-WROVER:

### ESP Module Pin Configuration:

- ESP32-WRVER/ESP32-724-WROVER/ESP32-S3-WROVER:

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**Note:**

- `GND` indicates ground connections.
- `VCC_3V3` represents the 3.3V power supply for the ESP module.
- `R15` is a resistor with a value of 100K (1%).
- `C239` is a capacitor with a value of 22pF/50V (5%).
- `R407` is a resistor with a value of 51K (1%).
- `C240` is a capacitor with a value of 10uF/25V (20%).

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**MicroSD Card:**

- `ESP32-WRVER/ESP32-724-WROVER/ESP32-S3-WROVER:

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**Peripherals Power:**

- `VCC_3V3` represents the 3.3V power supply for peripherals.
- `R14` is a resistor with a value of 680K (1%).
- `R12` is a resistor with a value of 100K (1%).
- `C241` is a capacitor with a value of 22pF/50V (5%).

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**Note:**

- The diagram includes various connections and components relevant to the ESP module, including power supply, ground, and data lines.
- The ESP module pin configuration is detailed with specific pin designations for different functionalities.
- The MicroSD card section outlines connections specific to the card's data and power lines.

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**Power Regulator:**

- Converts 5V input to 3.3V output.
- Important for powering the ESP module and peripherals.

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**Peripheral Power:**

- A comprehensive layout of power connections for various peripherals.
- Includes components like resistors, capacitors, and ground connections.

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**MicroSD Card:**

- Connection details for interfacing with a MicroSD card.
- VCC and GND connections for proper card operation.

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**ESP Module Pin Configuration:**

- Details of pin assignments for the ESP module, essential for proper module operation.
- Includes pins for power, data, and control signals.

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**Notes:**

- Resistor and capacitor values are specified for accurate component selection.
- Ground connections are indicated for proper electrical grounding.

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**Date:**

- Friday, September 17, 2021

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**Document Number:**

- Details on the document's version and revision.

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**Title:**

- The title includes references to ESP32-WRVER/ESP32-724-WROVER/ESP32-S3-WROVER:

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**Sheet 2 of 6**

- Indicates the page number in the document.
Power for Codec:

Notes:
1. Vos=1.20*(1+R1/R2)=3.25V
R1=52.36, R2=30.18 are recommended for better performance.

AEC:

PA & Speaker:

AMICx2:

ADC:

Codec:
Button Array:

2.41V 1.98V 1.65V 1.11V 0.82V 0.38V
REC MUTE PLAY SET VOL- VOL+