

ADC

The diagram shows an LMV321 op-amp configured as a voltage follower. The non-inverting input (+) is connected to a 3V3 supply through a 1k resistor (R15) and a 3k resistor (R17). The inverting input (-) is connected to the output. The output is connected to a 3V3 supply through a 1k resistor (R12) and a 20k resistor (R1). The op-amp is powered by a 3V3 supply through a 1k resistor (R12) and a 20k resistor (R1). The op-amp is also connected to ground through a 3k resistor (R17) and a 20k resistor (R1). The op-amp is labeled U2.

3V3 GENERATION

DISPLAY

Circuit diagram for the DISPLAY module. The diagram shows a 3V3 power supply connected to pin 9. A 560K resistor (R2) is connected between pin 21 and ground. Two capacitors, C2 and C3, are connected between pins 30 and 28 to ground. The display pins are labeled: 30 (VCC), 29 (GND), 28 (VCC), 27 (GND), 26 (VCC), 25 (GND), 24 (VCC), 23 (GND), 22 (VCC), 21 (GND), 20 (VCC), 19 (OLED_MOSI), 18 (OLED_CLK), 17 (GND), 16 (VCC), 15 (GND), 14 (OLED_DS), 13 (GND), 12 (VCC), 11 (GND), 10 (VCC), 9 (3V3), 8 (GND), 7 (VCC), 6 (GND), 5 (VCC), 4 (GND), 3 (VCC), 2 (GND), 1 (VCC). The diagram shows connections for pins 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.

ENCODER

BUZZER

The diagram shows a buzzer circuit. A 3V3 supply is connected to pin 1 of a BZ2 buzzer. Pin 2 of the buzzer is connected to the collector of an S8050 NPN transistor. The base of the transistor is connected to a BOOT input through a 4K7 resistor (R16). The emitter of the transistor is connected to ground.

RTC

The diagram shows the internal circuit of the RTC module. It features a DS1302Z+ U3 chip. The VCC3 pin is connected to the 3.3V supply. The GND pin is connected to ground. The SCLK pin is connected to the 3.3V supply through a 10k resistor (Y1) and a 100nF capacitor (C5). The CE pin is connected to ground through a 100nF capacitor (C4). The I/O pin is connected to the 3.3V supply through a 10k resistor (D1) and a 1N4148 diode (BT1) in series with a 1N4148 diode (CR1220W) to ground.

HEADERS

TEMP SENSE

The circuit diagram, titled "TEMP SENSE", shows a temperature sensing circuit. A 3V3 supply is connected to a 10M resistor (R22) and a 4K7 resistor (R20). The 4K7 resistor is connected to the non-inverting input (pin 1) of the P1541A op-amp. The inverting input (pin 2) is connected to a 200K resistor (R10) and a 1K resistor (R23) to ground. The output (pin 3) is connected to a 1N4148 diode (D3) to ground. A 1K resistor (R18) is connected between the output and a TIP_TEMP input. A 10M capacitor (C16) is connected to the output. A 10M capacitor (C12) is connected to the 3V3 supply. A HEATER is connected to the 3V3 supply.

HANDLE