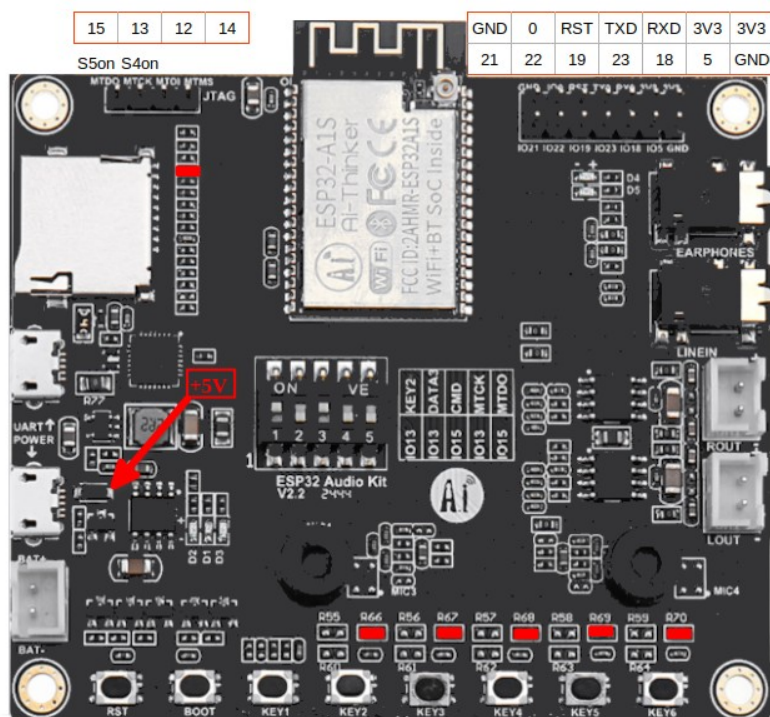
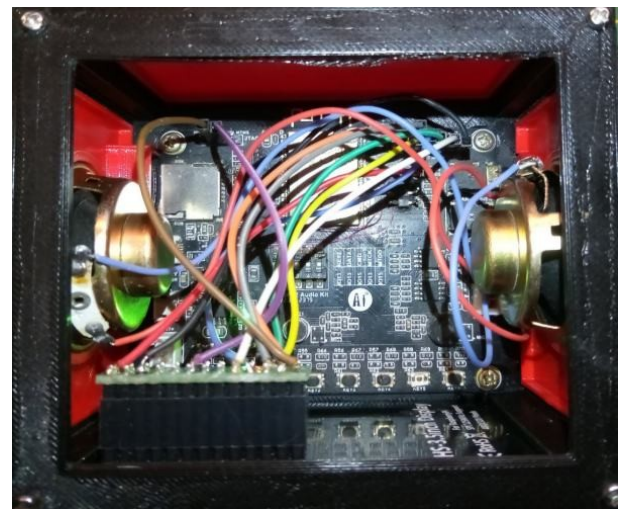


MWR-V2 / AI Thinker A1S Board



GPIO		SD_MMC	SD_SPI		KEYS
0				At boot high	
1	TX0				
2		DATA0	MISO	At boot high	
3	RX0				
4		DATA1			
5					
12		DATA2		MTDI At boot low	
13		DATA3 S2 on	CS	MTCK S4 on	KEY2 S1 on
14		CLK	SCK	MTMS LED4 red	
15		CMD S3 on	MOSI	MTDO S5 on	
18					KEY5
19				LED5 red	KEY3
21	Amplifier ShutDown				
22					
23					KEY4
34	SD Detect			Input only	
36				SENSOR VP Input only	KEY1
39	Headphones Detect			SENSOR VN Input only	

Remove R66(IO13) R67(IO19) R68(IO23) R69(IO18) R70(IO5) and R32(IO2)

Schematic:

<https://github.com/schreibfaul1/ESP32-audioI2S/blob/master/examples/ESP32-A1S/A1S.pdf>

```

#ifdef CONFIG_IDF_TARGET_ESP32
    // Digital I/O used
    #define TFT_CS                22
    #define TFT_DC                 5
    #define TFT_BL                -1
    #define TP_IRQ                12
    #define TP_CS                 13
    #define SD_MMC_D0              2 // cannot be changed
    #define SD_MMC_CLK            14 // cannot be changed
    #define SD_MMC_CMD            15 // cannot be changed
    #define IR_PIN                -1
    #define TFT_MOSI              23 // TFT and TP (VSPI)
    #define TFT_MISO              19 // TFT and TP (VSPI)
    #define TFT_SCK               18 // TFT and TP (VSPI)
    #define I2S_DOUT              25 // pin 25 AC101, pin 26 ES8388
    #define I2S_DIN               35 // pin not used
    #define I2S_BCLK              27
    #define I2S_LRC               26 // pin 26 AC101, pin 25 ES8388
    #define I2S_MCLK              0
    #define I2C_DAC_SDA           33 // some DACs are controlled via I2C
    #define I2C_DAC_SCL           32
    #define SD_DETECT             34 // some pins on special boards: Olimex, A1S ...
    #define HP_DETECT             39
    #define AMP_ENABLED           21
    #define BT_EMITTER_RX         -1 // TX pin - KCX Bluetooth Transmitter
    #define BT_EMITTER_TX         -1 // RX pin - KCX Bluetooth Transmitter
    #define BT_EMITTER_LINK       -1 // high if connected
    #define BT_EMITTER_MODE       -1 // high transmit - low receive
    #define BT_EMITTER_CONNECT   -1 // awake after shutdown
#endif

```