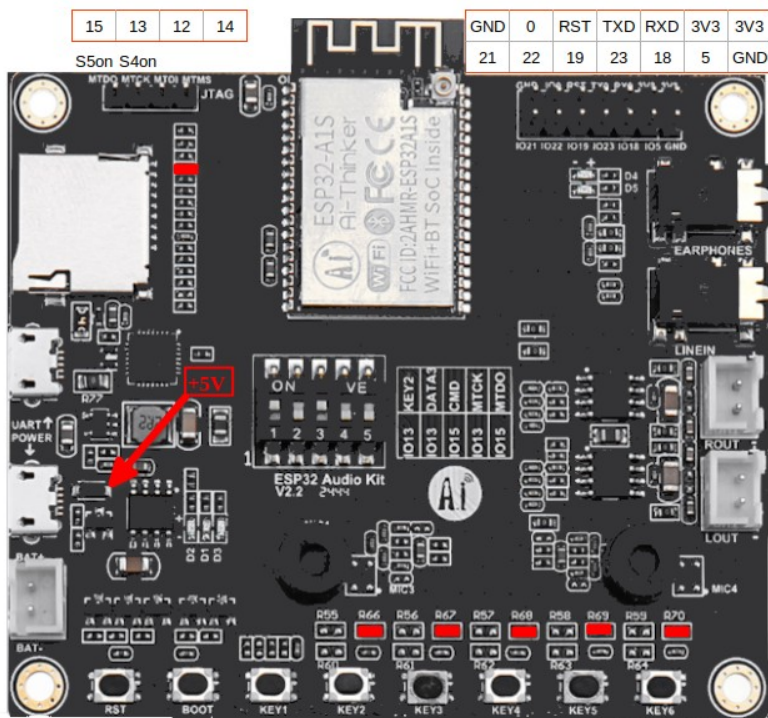
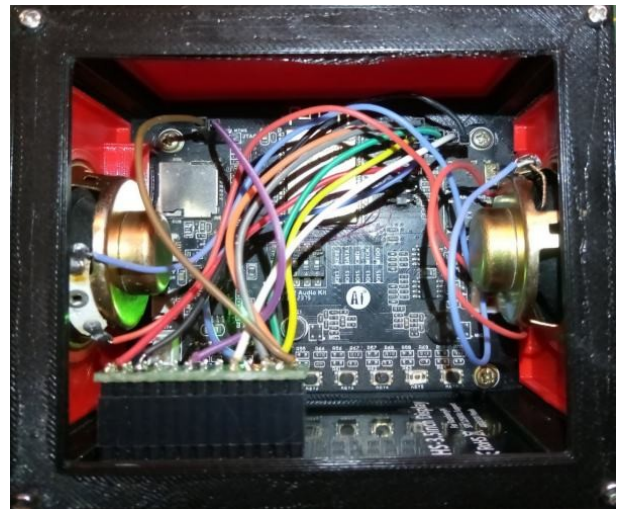


MWR-V2 / AI Thinker A1S Board



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(I013) R67(I019) R68(I023) R69(I018) R70(I05) and R32

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 // at -1 the brightness menu is not displayed
#define TP_IRQ          13
#define TP_CS           12 // I012 is bootstrap on Ai-Thinker AudioKit ESP32 A1S board. When
                          // connected to PEN-pin of the display it causes these boot-errors:
                          // "rst:0x10 (RTCWDT_RTC_RESET),boot:0x3b (SPI_FAST_FLASH_BOOT)
                          // #CR# invalid header: 0xffffffff"

#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        26 // pin 25 AC101, pin 26 ES8388
#define I2S_DIN         35 // pin not used
#define I2S_BCLK        27
#define I2S_LRC         25 // 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
#define I2C_SDA         -1 // I2C, data line for additional HW
#define I2C_SCL         -1 // I2C, clock line for additional HW

#endif

```