

Operation Description

MODEL NAME: SOLJAM

1. Power circuit

The LM2665 is a DC to DC converter and convert voltage from 3.7V to 7.4V. It supply to headphone amplifier (PT2308).

2. Bluetooth module

It is integrated with 2.4GHz radio, DSP, Stereo Codec.

It support the Bluetooth 4.0 standard and range up to 10 Meters.

The supported Bluetooth profiles are A2DP, AVRCP, HFP and HSP.

BT module handle 7 keys(play&pause&HF,batt,skip+, skip-, pairing, vol+, vol-) and pairing led. U7 of Bluetooth Module, U1 CSR8615 acts as bluetooth chip, It is powered by DC 3.3V and controlled by MCU. X1 is a 26MHz oscillator for Bluetooth chip.

3. MCU

The MC81F4104S is control power led,power key,U6 of BD3490FV, amp_shdn,etc.

4 Audio

The audio signal from BT module goes to the PT2308 to convert from differential to single ended. The single ended audio signal goes to the FT2820. The FT2820 is G-class audio amplifier. The amplified audio signal supply to the 10W speaker

And the audio signal from the Aux Input goes to the FT2820.

The BD3490FV is control treble & base.

5. Charging

The IC BQ24295 is a DC 5V USB output for phone charging and charger for lithium-ion battery. This IC connected from 5V USB adaptor and have switch mode battery charging and USB output. Charge current and USB output current is 1000mA both.

6. Solar panel & solar controller

The solar controller is provided power of 5V 200mA from Solar panel,.And direct charge to 3.7V battery. Also indicate battery level with 5 step green led.

7. Others

- Buttons : power / pairing /volume up / volume down/ skip+/skip-/play&pause&HF/batt.
- LEDs : power (red)/ pairing(blue)/ charging(green, red)/ battery (5green)

Technical Specifications:

Number of channel:	79 for BT 2.1+EDR 40 for BLE
Modulation:	GFSK, π 4-DQPSK, 8DPSK for BT 2.1+EDR GFSK for BLE
Channel space:	1MHz for BT 2.1+EDR 2MHz for BLE
Antenna type:	PCB Antenna
Antenna Gain:	0
Hardware version:	SOLJAM_MAIN_A1,SOLJAM_KEY_0,MICRO&SWITCH_SOLJAM_0,AUX&USB_SOLJAM_0
Software version:	SOLJAM_V1.0

Note: USB port just for play audio signal, it can not connect to PC for data exchange.