

# Operation Description

**Power:** The AC-DC circuit will convert the 100~240VAC to DC 5V which will provide power for the relay, and DC-DC will convert DC 5V to 3.3V and provide power for the circuit.

**Key:** Press the key, transfer the key signal to ESP32, and then perform the corresponding actions (such as opening relay, etc.) by ESP32.

**WIFI:** The ESP32 controls the relay to implement on/off action and offers WIFI networking solution, allowing us to get access into the server through network and reflect any status on board to our cellphone.

Technical Document	Details
Radio Frequency:	Wifi: <input checked="" type="checkbox"/> 2.412-2.462GHz BT: <input checked="" type="checkbox"/> 2.402-2.480GHz
Modulation Technique:	<input checked="" type="checkbox"/> 802.11b: DSSS <input checked="" type="checkbox"/> 802.11g: OFDM <input checked="" type="checkbox"/> 802.11n(20MHz): OFDM <input type="checkbox"/> 802.11n(40MHz): OFDM
Modulation Type:	<input checked="" type="checkbox"/> DSSS (CCK, DQPSK, DBPSK) <input checked="" type="checkbox"/> OFDM (64QAM, 16QAM, QPSK, BPSK) <input checked="" type="checkbox"/> BLE: <input checked="" type="checkbox"/> GFSK,
Transfer rate:	150Mbps (max)
Antenna Type:	<input checked="" type="checkbox"/> PCB antenna
Antenna Gain:	-1.04 dBi
Operating Temperature:	<input checked="" type="checkbox"/> Other: Min.: <u>-10</u> °C to Max.: <u>40</u> °C
Operating Voltage:	Nominal Voltage: <u>110/220</u> V <input type="checkbox"/> DC; <input checked="" type="checkbox"/> AC High Voltage: <u>240</u> V <input type="checkbox"/> DC; <input checked="" type="checkbox"/> AC Low Voltage: <u>100</u> V <input type="checkbox"/> DC; <input checked="" type="checkbox"/> AC