

## SHENZHEN BAICHUAN SECURITY TECHNOLOGY CO., LTD.

The theory of WIFI IP Camera (Model: NVW-470CAM):

1. MCU Module: Processor running the embedded software, it can deal with optical signal and then communication with WIFI or LAN module. MCU module's crystal oscillator frequency is 24 MHz.
2. Transmitter module: Transmit data by modulating on a 2412-2462MHz carrier. Wi-Fi module's crystal oscillator frequency is 40 MHz. The module used IEEE 802.11 b/g/n. IEEE 802.11b used DSSS technique, IEEE 802.11g/n used OFDM technique. IEEE 802.11b has maximum 11Mbps data rate and maximum target power  $8\text{dBm} \pm 2\text{dB}$ , IEEE 802.11g has maximum 54Mbps data rate and maximum target power  $8\text{dBm} \pm 2\text{dB}$ , IEEE 802.11n(20M) has maximum 65Mbps data rate and maximum target power  $8.5\text{dBm} \pm 2\text{dB}$ , IEEE 802.11n(40M) has maximum 135Mbps data rate and maximum target power  $11\text{dBm} \pm 2\text{dB}$ . RF chipset's part number is U3(RT3070-QFN), RF PA's part number is U11(SE2576L).
3. LAN Module: This is used to connect to the router to transmission data.
4. Antenna is used a reversed SMA antenna. The antenna gain is 2.0dBi.
5. Power supply: A wall-plug-in accessory that provides +13V at 1A.
6. DC/DC converter: Provide the power to MCU modular.
7. LED light: Provide the light when the equipment used in the evening.