

LOONA Operating description

Product Name: LOONA MODEL: RC133N1, RC133N1S, RC133N2, RC133N2S

Circuit works:

1. Power supply 12V DC voltage input to the motherboard power supply, through the ACT88 46QM489 power chip, SYR827, SYR828 DC-DC chip to the main chip RK3288 support ports (USB / TP / AUDIO / LIGHT / PANEL) power supply.
2. Motherboard function for the main chip RK3288 modulation signal to drive the load to adjust the various channels (light band / USB / color temperature / APP, etc.) switch.
3. When the main chip RK3288 receives the AP330 wireless transmission module to receive the 2.4G wireless signal, the main chip RK3288 modulation signal to drive the motherboard internal APP control unit.
4. Products for external power supply, USB and support USB OTG function
5. Product hardware version: V1.3, Software version: V1.0.
Product support wireless WiFi. Its function is equivalent to a flat, you can touch, support USB playback, OTG connection, and install other support APP. USB can not be charged, only data transmission. WIFI antenna only one.
6. Motherboard key components:
 - 1) Function Chip:
 - FPGA (XC6SLX9 - 2FTG256G): Master chip for use.
 - ADV7611: HDMI Digital to RGB
 - AXP818: Power management of the machine
 - TM8G1603CDCP (H5TC8G63CMR): DDR3
 - KLMAG2GEND - B301: EMMC for flash storage
 - 2) Crystal:
 - 24MHz Crystal provide Starting frequency for RK3288 module
 - 26MHz Crystal provide clock for wireless module AP6330
 - 25MHz Crystal provide clock for RTL8211E-VB-CG module
 - 28MHz Crystal provide System frequency for ADV7611 module
 - 12MHz Crystal provide System frequency for GL850G module
 - 32.768kHz Crystal provide clock for 8846 module
 - 3) WIFI+BT Module: AP6330, Including:

a) 2.4G WIFI:

Frequency Range: IEEE 802.11b/g/n HT 20 : 2412MHz~2472MHz

Channel Spacing: 5MHz, 20MHz

Number of Channels: 13 Channels

Type of Modulation:

IEEE 802.11b: DSSS (CCK)

IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)

IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK)

b) 5G WIFI:

Frequency Range:

IEEE 802.11a: 5180 - 5240MHz

IEEE 802.11n HT20: 5180 - 5240MHz

IEEE 802.11a: 5745~5825MHz

IEEE 802.11n HT20: 5745~5825MHz

Channel Spacing:

IEEE 802.11a: 20MHz

IEEE 802.11n HT20: 20MHz

Number of Channels:

IEEE 802.11a: 4 Channels

IEEE 802.11n HT20: 4 Channels

Type of Modulation:

IEEE 802.11a: OFDM /64 - QAM, 16 - QAM, QPSK, BPSK

IEEE 802.11n HT20: OFDM /64 - QAM, 16 - QAM, QPSK, BPSK

c) BT 3.0

Frequency Range: 2402 ~ 2480 MHz

Channel Spacing: 1MHz

Number of Channels: 79 Channels

Type of Modulation: GFSK, Pi/4 DQPSK, 8 - DPSK

4) Bluetooth and WiFi both use an antenna. They transmit separately when the Bluetooth work, WIFI stop working, when the WIFI work, Bluetooth stops transmission.