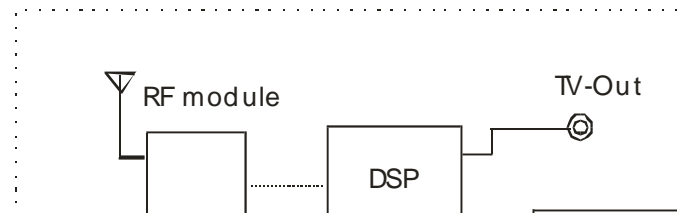


Circuit description

1. USB TV Box Receiver



RF module –

Is a 2.4GHz transceiver (A7121) with power amplifier and LNA is employed. On Rx cycle, data packet received from the camera side, then feed to the DSP for decoding. . On Rx cycle, acknowledge signal with send back to the camera side by 2.4GHz carrier and GFSK modulation.

Use L shape on PCB board, no need extra antenna.

built-in PCB antenna, F-type, < 0dB, Omni-directional

The A7121 use 18MHz Crystal.

DSP (SN93330) –

is a single chip processor, which video Codec, RF baseband controller and video DAC built-in.

Video signal feed from the RF module with be decoded using MJPEG algorithm. At TV out mode, video signal will convert to composite video signal by the video DAC, then output to the TV-out port. At USB mode, video signal will convert to UVC standard data , then feed to the USB interface.

The unit will automatically switch to USB mode when a standard USB port is connected.

The DSP use 12MHz Crystal.

USB port –

An USB1.1 interface also built in the DSP. When the USB port connect to a PC, it acted as a UVC compliant device. Video data stream with feed to the PC.

Power regulator –

The unit is power from the USB port.

At TV-out mode operation, a ac adaptor should connected to the USB port to supply a +5V to the unit. At USB (UVC) mode, the USB port should connected to a PC, a +5V will be feed from the PC.