

## **Working Principle**

The Digital Photo Frame consists RF transceiver/receiver and digital photo processing circuits.

1. The RF transceiver/reciever circuit is composed of RF modul AL2230S and its accessory components .

AL2230S is a highly integrated RF transceiver IC for 2.4GHz band 802.11b/g applications , and combines all functions of the transceiver in a single chip. AL2230S also integrates on-chip PA and PLL to help you to minimize the use of external components to design an RF subsystem.

The receive path implements a direct down-conversion architecture to eliminate additional IF filters. It includes a single-ended input Low Noise Amplifier (LNA), a direct down-conversion mixer with DC-offset cancellation , and a variable gain amplifier with a baseband low-pass filter.

The transmitter consists of a direct up-conversion quadrature modulator with a baseband low pass filter,a variable gain amplifier , a power amplifier and a power detector to complete the whole transmit path function.

A power-on calibration procedure is established to corret the TX DC offset and filters mismatch .

These functions are housed in a 48-pin QFN package.

2. The digital photo processing circuit is composed of CPU JZ4730 and its accessory components .

JZ4730 is the CPU in Digital Photo Frame of mainboard.It'll be processed theAudio and Video signals through the connector J2.

J2 is the connector which connects RF and photo processing circuit .