The theory of Chumby NeTV model CHU-NTLV by chumby industries

1. Mainboard module: Processor running embedded software, with a USB connection to a Wi-fi module interfacing with the 802.11g standard. Also, an FPGA with connections to and from HDMI devices, such that the processor can overlay video information on top of HDMI video feeds. Finally, an interface to an optional IR remote accessory module. Mainboard module's crystal oscillator frequency is 26.00MHz.
2. Wi-fi module: RF device receives control data via USB from mainboard module. Transmit data by modulating on a 2412-2462MHz carrier. Wi-fi module's crystal oscillator frequency is 40.00MHz.
3. Antenna is a flex-PCB module connected via a U.FL cable, the antenna gain is 1.5dBi.
4. Power supply: a wall-plug-in accessory that provides +5V at 1A.
5. Micro-USB port: It only can connect to AC/DC adapter, it can't connect to PC.
6. IR receiver module: Optical device receives 38 kHz modulated IR signals from remote controls and transmits demodulated data to the mainboard module through a 3.5mm jack.