

Circuit Description

The transmitter is made up of two parts: Audio & Video unit and RF unit.

The audio signal from MIC is amplified, then modulates the audio carry frequency oscillator (17.7344MHz), the modulated carry frequency is added in the VT of voltage controlled oscillator VCO (2.4GHz, D1, Q2). The video signal from CMOS camera passes through the sharp network (R22、 C24, R7、 C23), also is added in the VT of VCO another signal is added in the VCO is the error. Voltage output of loop filter , of PLL(IC1) which is programmed by CPU (IC2) the channel data is decided by the encodes switch (SW1) of CPU peripherals. The feed back signal (R16、 R6, C16) form Voltage controlled oscillator. VCO is compared with reference crystal oscillator the error frequency of oscillator VCO can be corrected. The carry frequency to be modulated by audio & video has been power amplified by Q3 filtered through the band pass filter (C17、C18 microstrip) which the higher harmonica of signal reduced to lower level. The purer signal is emitted by antenna (RF OUT).