

Circuit description VIDEO Transmitter

Voltage Regulator:

An integrated voltage regulator provides 5 Volt DC for the complete transmitter.

A 1uF and a 100nF capacitor at the input and output terminal respectively ensure stable operation of the IC and short all RF to ground.

An additional 10uF tantal capacitor provides low frequency ground.

The VCC is farther decoupled at the oscillator and RF - amplifier with 100p and 1nF capacitors.

Modulator:

The Video Signal is terminated into an 82 Ohm resistor to provide a proper Load to the Video Source.

The Video Signal is amplified and inverted, to provide a varying DC Voltage to the transmitter.

Two trimm-potentiometers allow for Gain and Linearity adjustment of the modulating signal.

Transmitter:

The oscillator utilizes a SAW Resonator as frequency determining device.

The second transistor is loosely coupled and acts as Oscillator decoupling and final output stage.

This transistor is amplitude modulated with the video signal from the modulator.

A variable capacitor allows for final output matching of the transmitter.

The 5 element chebychef low-pass-filter filters unwanted harmonics of the transmitter.

A ¼ wave wire antenna is directly soldered to the PC-Board. The PC-board and connected wires act as groundplane and counterweight for the antenna.