



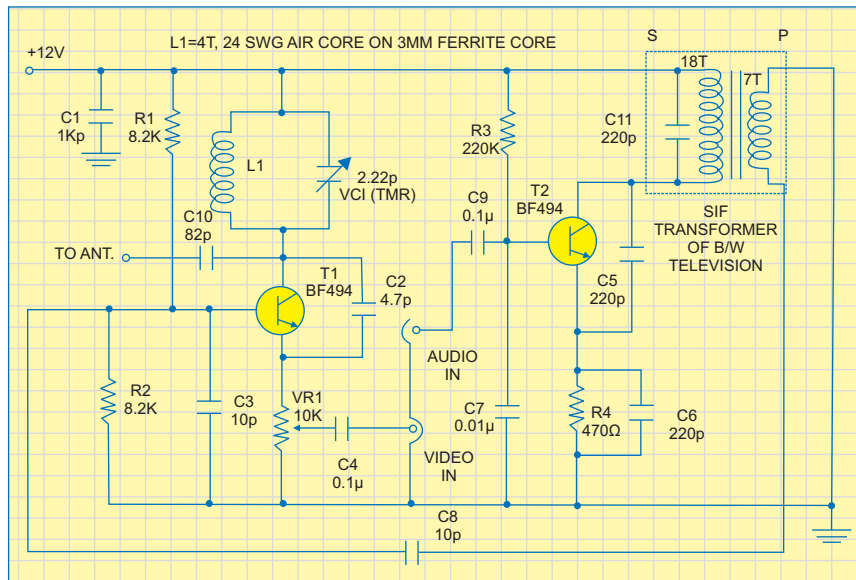
# VHF Audio/Video Transmitter

The circuit presented here is a simple audio/video transmitter with a range of 3 to 5 metres. The A/V signal source for the circuit may be a VCR, a satellite receiver or a video game etc.

The circuit uses inexpensive components which are easily available in the market. A block diagram showing the principle of its operational and complete circuit diagram is shown in the figure. A mixer

The circuit consists of transistor T1 with its resonant tuned tank circuit formed by inductor L1 and trimmer capacitor VC1, oscillating at VHF (H) channel 5 frequency. Transistor T2 with its tuned circuit formed using SIF coil and inbuilt capacitor forms a 5.5MHz oscillator. The audio signal applied at the input to T2 results into frequency modulated of 5.5MHz oscillator signal.

The output of 5.5 MHz FM stage is coupled to the mixer stage through capacitor C8 while the video signal is coupled to the emitter of T1 via capacitor C4 and variable resistor VR1. Finally, the AM video and FM audio carrier frequencies corresponding to VHF (H) ch.5 are transmitted via the antenna. Inductor L1 can be wound on a 3mm core using 24SWG enameled wire by just giving 4 turns, Calibration/adjustment of the circuit is also not very difficult. After providing 12 V DC power supply to the circuit and tuning your TV set for VHF (H) channel 5



Which also operates as an oscillator at VHF (H) channel 5TV frequency is amplitude modulated by video signal and mixed with frequency modulated audio signal. The resultant modulated signal which is radiated through signal, which is radiated through the antenna, contains video carrier frequency of 180.75 MHz.

reception, tune trimmer VC1 until you see plain raster on TV screen. Tuning of 5.5 MHz oscillation to exact frequency can be done using either a frequency counter or a properly calibrated radio receiver on SW1. Adjust the core of SIF coil for the best results.

