Description of EUT

The EUT is a transmitter that allows transmission of Video signals to a remote receiver for viewing. The unit accepts a standard NTSC video input of 1 volt P-P for its modulation input. The unit employs FM modulation (Emission Type 16MOF3F) at either of two user selectable frequencies.

Frequencies: 2458 mHz and 2474 mHz.

Emission type: 16MOF3F

Power Supply: 8.5 – 13.8 Vdc @ <350 Ma.

RF Suppression Features: Output Low Pass Filter.

Circuit Description

The EUT consists of a PLL VCO driving a buffer amplifier and output stage, capable of a maximum power output of +24.5 dBm. The power output is limited by the RF output stage gain and by the previous oscillator stage power saturation level. The RF output passes through a Low Pass filter to reduce spurious output. Frequency stability is achieved by a 50ppm 4 mHz Quart Crystal serving as the PLL reference oscillator. The Voltage Controlled Oscillator (VCO) is divided in frequency and compared to the reference oscillator, an error voltage is produced by the PLL and used to correct the VCO to the proper frequency. The video input passes through a deviation control used to set the proper bandwidth and then through a video Low Pass filter to insure the high frequency noise will not cause over deviation or out of bandwidth operation.