

Circuit description for the inVoca 805 transmitter.

The transmitter section of the RF finder for the inVoca 805 remote control is located in the charging stand. It is powered from the charging circuit through a 3.3 volt voltage regulator (U1-LP2950).

When the "find" button is pressed, the RF transmitter chip (U2-RD2516) is enabled by placing a high on the PD (Power-Down) pin. The transmitter is modulated by a digital encoder chip (U3-HT12E). This chip generates a on On/Off digital signature which generates an RF signal at 315 MHz at a data rate of 1/3 the oscillator frequency. The encoder oscillator frequency is determined by the value of the timing resistor R11 and works out to about 612 bits/sec. The data word is 12 bits long and is sent a minimum of 4 times but will send the message as long as the button is held down. The data word itself is preset to a fixed code determined by the setting of the 12 pins A0-A11. The code is pre-wired to 000000000001.

The transmitter is a self-contained monolithic AM transmitter chip with a built-in PLL. The output frequency is determined by a 9.84375 MHz Crystal (Y1). It transmits no more than +10 dBm at 315 MHz into 50 ohms. It is designed to be compliant with FCC Part 15.231 regulations.

Data sheets for all relevant components are included.

