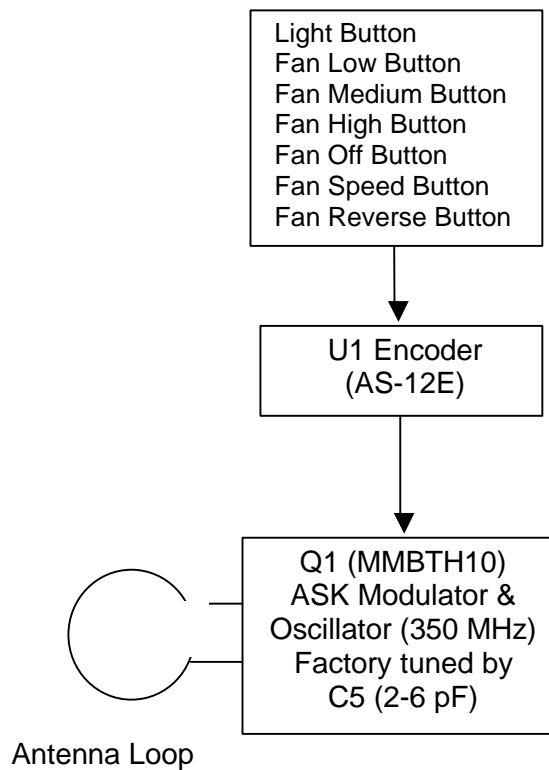


Hunter Fan & Light Remote Control Transmitter Block Diagram

Description:

The top box of the diagram below represents all of the potential keys that may be pressed for the Hunter 85094-## and 85095-## transmitters. Pressing any key generates an encoded PCM code word which will modulate on a 350 MHz RF carrier for transmission. The encoded PCM code word is obtained from encoder U1 and is ASK modulated by the RF oscillator formed by transistor Q1. Encoder U1 also provides four selectable security bits which can be set by the user. The frequency is factory tuned by capacitor C5 to 350 MHz.



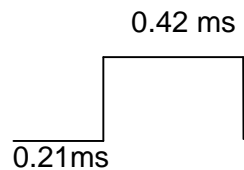
Hunter Fan & Light Remote Control RF Transmitter Coding

Description: The 85094-## and 85095-## transmitters use the following code words to modulate on a 350 MHz RF carrier by using ASK modulation.

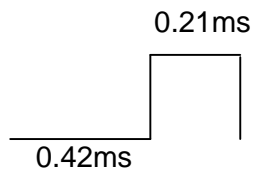
Code words for the different commands:

1xxx0000101
1xxx0001001
1xxx0000110
1xxx0000111
1xxx0001000
1xxx0001101
1xxx0001110 (Where "x" can be set to "1" or "0" by the user with DIP switches.)

Code "0" is represented as:



Code "1" is represented as:



The interval between two code words is about 7.56 ms.

Hunter Fan & Light Remote Control Receiver Block Diagram

Description:

Refer to the block diagram of the Hunter 85068-## and 85069-## receiver below. Power is supplied to the receiving and control circuits through a 5-Volt regulator U1, which is not shown in the diagram. Transistor Q1 is the front amplifier to amplify the signal received from the monopole antenna. Transistor Q2 is the super-regenerative receiving stage, whose frequency is tuned by coil L2 to 350 MHz. Op-Amp U1 is configured as the detector. Microcontroller U2 operates at 4MHz, converting the PCM data signal and determining the 4 data bits for the next stage of processing. Microcontroller U2 also provides four selectable security bits which can be set by the user and must match that of the hand-held remote transmitter to be a valid command. Finally, microcontroller U7 decodes the 4 data bits and performs the desired actions to control the fan speed and direction, and light bulb brightness.

