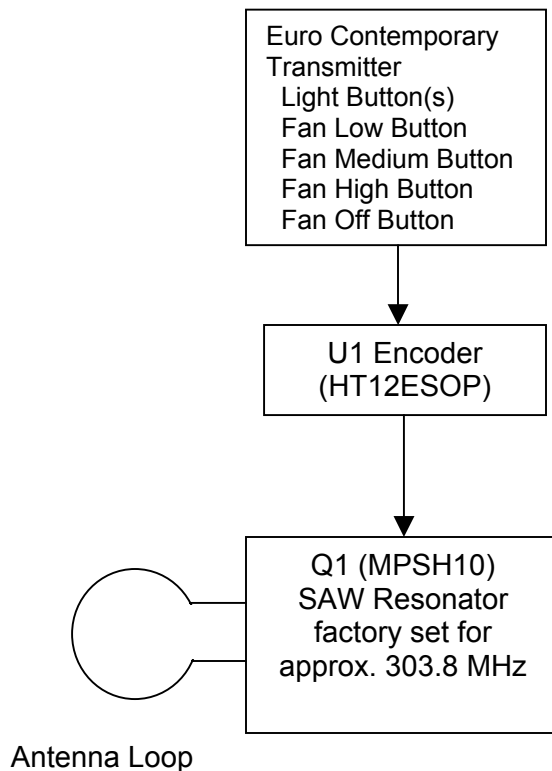# Hunter Fan & Light Remote Control Transmitter Block Diagram

Description:

The top box of the diagram below represents all of the potential keys that may be pressed for the Hunter Euro Contemporary transmitter. Pressing any key generates an encoded PCM code word which will modulate on at approximately 303.8 MHz RF carrier for transmission. The encoded PCM code word is obtained from encoder U1 and is modulated by the SAW resonator and transistor Q4. Encoder U1 also provides four selectable security bits which can be set by the user. The frequency is factory tuned to approximately 303.8 MHz, and is not user adjustable.

```
┌─────────────────────────┐
│ Euro Contemporary       │
│ Transmitter             │
│   Light Button(s)       │
│   Fan Low Button        │
│   Fan Medium Button     │
│   Fan High Button       │
│   Fan Off Button        │
└─────────────────────────┘
             │
             ▼
   ┌───────────────────┐
   │   U1 Encoder      │
   │   (HT12ESOP)      │
   └───────────────────┘
             │
             ▼
   ┌───────────────────┐
   │  Q1 (MPSH10)      │
 ◯─│  SAW Resonator    │
   │  factory set for  │
   │  approx. 303.8 MHz│
   └───────────────────┘
   Antenna Loop
```

The receiver decodes the received signal and compares the on/off pattern received to the pattern expected (including security bits). The receiver then performs the instructed action (fan on, lamp dim, etc).
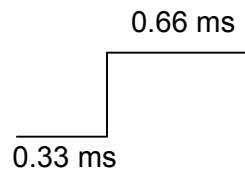
Hunter Fan & Light Remote Control RF Transmitter Coding

Description: The Euro Contemporary transmitter uses the following code words to modulate on a 303.8 MHz RF carrier by using ASK modulation.

Examples of code words for different commands:

       1xxxxx000101
       1xxxxx001001
       1xxxxx000110
       1xxxxx000111
       1xxxxx001000
       1xxxxx001101
       1xxxxx001110   (Where "x" can be set to "1" or "0" by the user with DIP switches.)

Code "0" is represented as:

           0.66 ms

      0.33 ms

Code "1" is represented as:

           0.33 ms

      0.66 ms