

## **CIRCUIT DESCRIPTION**

**Device:** Narrow Band Transmitter

**Model:** WLS914NB

**ESI Identifier:**

**Schematic Diagram:**

**Description:**

The narrow band pet immune transmitter sends the sensor status information encoded appropriately to the control unit of the wireless security system. It features dual PIR sensors incorporating High Density Digital Analysis and multi-level signal processing with a vertically interleaving beam pattern for superior intruder detection while being immune to pets weighing up to 85lbs/38kg.

This unit consists of two main circuit sections. A control section with a microprocessor & digital logic and the RF transmitter.

The control section receives sensor inputs and unit status information that is then coded to produce the ASK modulation signal. This section also controls transmitter's activity.

The transmitter consists of a crystal reference oscillator, a divide-by-64 prescaler, and a phase detector forming a phase-lock-loop ( PLL )system. The phase comparator compares the reference frequency and the divide-by-64 output signal frequency, if there is any difference, it will produce an error voltage to lock the free running VCO to 433.92MHz. A matching network provides the output signal to the antenna.