

## **CIRCUIT DESCRIPTION**

**Device:** Narrow Band Transmitter

**Model:** WLS909NB North America

**ESI Identifier:**

**Schematic Diagram:**

**Description:**

The narrow band KEY FOB transmitter ( NBTX ) sends the status information encoded appropriately to the control unit of the wireless security system after a button switch being activated.

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

The control section receives status from button switch after activation and then coded to produce the ASK modulation signal. This section also controls transmitter activity.

The transmitter consists of a crystal reference oscillator, a divide-by-32 prescaler, and a phase detector forming a phase-lock-loop ( PLL )system. The phase comparator compares the reference frequency and the divide-by-32 output signal frequency, if there is any difference, it will produce an error voltage to lock the free running CCO to 433.92MHz. A RF amplifier with matching compensation provides the output signal to the antenna.