

CIRCUIT DESCRIPTION

Device: Low Cost Narrow Band Standard PIR

Model: WLS904NB (UA201)

ESI Identifier:

Description:

The low cost narrowband standard PIR (LCNB STD PIR) sends the sensor status appropriately to the control unit of the wireless security system. An Infrared sensor is incorporated to sense a sudden change in temperature over the range covered by the fitted lens.

This unit consists of Three main circuit sections. A control section with a microprocessor, a digital controls sensor section and the RF transmitter.

The control section receives status information from the sensor inputs triggered by detecting a change in temperature apart from its normal operating temperature. It is then coded to produce ASK modulation signal. This section also controls transmitter activity.

The transmitter consist of an integrated chip fully implemented with a phase locked loop (PLL), divide-by-64 prescaler, a phase detector, a voltage controlled oscillator, and an automatic lock detect that disables the transmitter output when the PLL is out of lock. The external reference crystal frequency provide a complete phase-locked detector which when divide-by-64 produce the output signal frequency of 433.92MHz compensated with a matching network to antenna.