CIRCUIT DESCRIPTION

Device: Narrow Band Receiver

Model: PC5132XS-433

ETSI Identifier:

Schematic Diagram:

Description:

This device is a narrow band ASK receiver for 433.92MHz. It receives signals in the area covered, demodulate the signals then sends them to the control unit of the wireless security system.

The unit consists of two main circuit sections, a control section with a microprocessor and an ASK receiver.

ASK Receiver: The antenna receives the incoming signals and feeds them to the RF amplifiers to achieve good sensitivity and selectivity. The mixer mixes signals from the RF filter and the local oscillator. The oscillator includes a crystal reference oscillator, a programmable divider, and a phase detector forming a phase-lock-loop (PLL) system to lock the free running VCO to /423.22MHz. After mixing, an IF filter passes the desired signals to the IF amplifier and the demodulator. The demodulated signal then is sent to the control unit via the Combus / Keybus interface.

The Control Section: This section sends the division ratio to the programmable divider of the local oscillator and provides pulses to switch antennas. It also controls the activities of the Combus / Keybus interface.