

DESCRIPTION

The PT4302 is an ultra-low power OOK/ASK super heterodyne receiver for the 315/433.92 MHz frequency bands. It offers a high level of integration and requires only few external components. The PT4302 consists of a low-noise amplifier (LNA), a down-conversion mixer, an on-chip phase-locked loop (PLL) with integrated voltage-controlled oscillator (VCO) and loop filter, an OOK/ASK demodulator, a data filter, a data slicing comparator and an on-chip regulator. The PT4302 also implements a discrete one-step automatic gain control (AGC) that reduces the LNA gain when the RF input signal is greater than –68 dBm. The AGC circuitry can extend the dynamic range of received RF signal.

The PT4302 is available in a 16-pin SSOP package and is specified over the extended temperature range (–40 to +85°C).

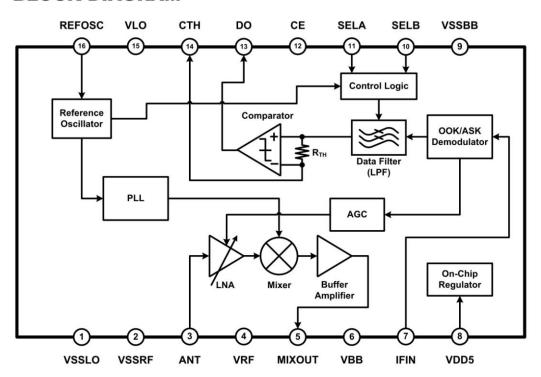
FEATURES

- Ultra-low power consumption: 2.7 mA for full operation (315 MHz)
- · Few external components
- Excellent sensitivity of the order of –111 dBm (peak ASK signal level)
- 2.4 V to 5.5 V supply voltage range
- 250 MHz to 500 MHz frequency range
- Data rate up to 10 Kb/s

APPLICATIONS

- · Automotive remote keyless entry (RKE)
- Remote control
- · Garage door and gate openers
- Suitable for applications that meet either the European ETSI-300-220 or the North American FCC (Part 15) regulatory standards

BLOCK DIAGRAM



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