

NCV75215 Ultrasonic Sensor

Released!!!

Description

The NCV75215 ASSP is intended to operate with a piezoelectric ultrasonic transducer to provide time-of-flight measurement of an obstacle distance during vehicle parking. The high-sensitivity, low-noise operation allows detection from 0.25 m up to 4.5 m for a standard 75 mm pole. Actual minimum distance is determined by the length of reverberations. Under ideal conditions, with perfectly tuned and matched external circuitry, a minimum distance of 0.2 m is achievable. Actual detection range depends on a piezoelectric ultrasonic transducer and external analog parts.

Unique Features & Benefits

- Measurement Distance Range from 0.25 m to 4.5 m (depends on External Parts)
- Acoustic Noise Monitoring • Transducer Resonant Period Measurement • Diagnosis of Transducer Performance
- Junction Temperature Monitoring and Thermal Shutdown
- Transducer Center Frequency Range from 35 to 90 kHz
- Direct and Indirect Measurement Modes
- EEPROM Memory for Configuration Setting and User Data
- Rx Gain Adjustable in 0.5 dB Steps in the Range from 50 to 110 dB
- Time-dependent Threshold Values for the Sensitivity Control
- Dynamic (Time-dependent) Gain Control
- Tx Current Range Adjustable from 50 mA to 350 mA

Markets & Applications

- Automotive Park Assist
- Ultrasonic Distance Measurements

NCV75215 Landing Page Link:

<https://www.onsemi.com/products/sensors/ultrasonic-sensor/ncv75215db001r2g>

Typical Application Schematic

