Bosch Mobility Ultrasonic Sensor

An ultrasonic sensor in a compact housing, with 20-450cm detection range

Ultrasonic transducers are used in vehicles as parking assistance. The ultrasonic transducer sends out short ultrasonic impulses which are reflected by barriers. The echo signals are registered by the sensor and are evaluated by a central control unit.

This ultrasonic parking sensor from Bosch is very compact with its very few components meaning it is manufactured at low cost. The sensor is made with one electronic board, including a Bosch transceiver integrated circuit (IC) that drives the output of the Epcos/TDK transformer and evaluates the reflected signal. The transducer itself is made of a lead zirconate titanate (PZT) membrane and silver electrodes.

Based on a complete teardown analysis of the Bosch ultrasonic sensor, the report provides the bill-of-material (BOM) and manufacturing cost.

A physical analysis and a manufacturing cost estimation of the Bosch transceiver IC are also available in this report.
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**ANALYSIS PERFORMED WITH OUR COSTING TOOLS SYSCOST+ AND IC PRICE+**

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The fourth generation of Bosch long range radar sensor sets new standards for a more elegant, compact and cost effective module.

Bosch confirms its will to catch up on the forward camera market with a second issue of their multipurpose camera.

First piezoelectric MEMS microphone could disrupt consumer applications.

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