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IC

MEMS

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Bosch Mid Range Radar (MRR) Sensor

A compact, cost-effective and high-performance driving assistance system.



The Mid Range Radar Sensor, with its three Transmitter and four Receiver channels, operates in the 76-77 GHz frequency band that is standard for automotive radar applications. The front version works with an aperture angle of up to +/- 45 degrees and can detect objects up to 160 meters away. With a compact design (using fan-out RF components from Infineon), the system is easy to integrate into a vehicle's body.

The system integrates two electronic boards including Bosch, Freescale and STMicroelectronics circuits. The RF board is manufactured with an asymmetric structure using Hybrid PTFE/FR4 substrate and is equipped with planar antennas.

Infineon 77GHz SiGe Monolithic Microwave Integrated Circuits (MMIC) are used as High-Frequency transmitter and receiver. The two RF dies are packaged in the last version of the eWLB, the Fan-Out Wafer Level Package developed and manufactured by Infineon

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

A complete physical analysis and manufacturing cost estimation of the Infineon MMICs is available in a separate report.

Title: Bosch MRR Sensor

Pages: 80

Date: October 2015

Format: pdf + xls

COMPLETE TEARDOWN WITH:

- Detailed Photos
- Material Analysis
- Bill of Material
- Manufacturing Process Flow
- Manufacturing Cost Analysis
- Manufacturing Price Estimation

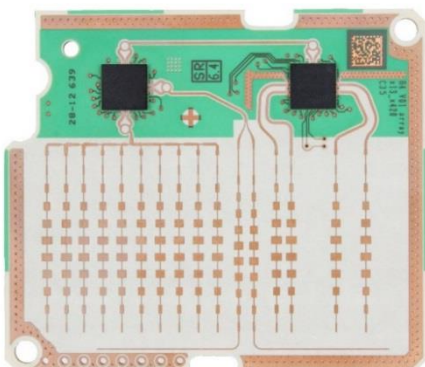


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He previously worked for Lacroix Electronics where he was in charge of components database.

David holds a master degree in microelectronics from the University of Rennes.

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