Cambridge CMOS Sensor CCS801 - Reverse Costing Analysis

Description: New entrant in the Gas Sensor market, Cambridge CMOS Sensors is focused on the future mobile market with ultra low power consumption products.

The objective is the integration of gas sensor in smartphones in order to offer new functions like pollution monitoring, alcohol breathalyzer and toxic gas (CO) detection.

The CCS801 is a volatile organic compound gas sensor which can detect Carbon Monoxide (CO), a wide range of Volatile Organic Compounds (VOC) and which can also be used as a CO2 equivalent sensor.

With a very small footprint, only 6mm², the package is adapted to consumer applications. The sensor die area is very tiny.

The die is based on a Metal Oxide sensitive layer made on a micro hotplate. This allows a very low power consumption: 1.6mW for one measurement. Moreover, the die is using some of the last technologies developed for the MEMS microphones.

Cambridge CMOS Sensors is a young company and the CCS801 is their first product for large volume. CCMOSS has developed a complex SiO2 membrane and a multi-heater to reduce the duration of the measurement.

The report provides all details on the structure of the component and the supply chain to produce this MEMS sensor. The report includes a detailed technology and cost analysis describing the innovations of CCMOSS and a comparison with the AS-MLV-P2 from AMS-Applied sensor.

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