Freescale FXTH87 – MEMS TPMS - Reverse Costing Analysis

Description: Pressure sensor market growth is mainly driven by TPMS due to legislation and quick adoption around the world.

The FXTH87 is the 4th generation TPMS from Freescale. It features the smallest footprint with 7x7mm², the smallest RF power consumption with 7mA Idd and the largest customer memory size with 8kB flash.

This system in package includes a dual-axis accelerometer (XZ), pressure and temperature sensors, an integrated MCU, a RF transmitter and a low frequency receiver. It is 40% smaller than Freescale's previous-generation QFN 9x9mm package and 50% smaller than Infineon SP37 TPMS solution.

The pressure sensor is based on Freescale's MEMS capacitive pressure cell without signal conditioning. The accelerometer included in the FXTH87 can be a single axis (Z) or a dual axis (XZ) and is manufactured with Freescale's surface micromachining poly-Si MEMS process.

Assembled in a Film-Assisted Molding (FAM) 7x7mm QFN package with gel fill, the FXTH87 is certified AEC-Q100 and qualified for operating temperature range from -40°C to +125°C.

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