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.

Contents:
1. Overview / Introduction
   - Executive Summary
   - Reverse Costing Methodology

2. Company Profile
   - Freescale Semiconductor
   - FXTH87 Characteristics

3. Physical Analysis
   - Synthesis of the Physical Analysis
   - Physical Analysis Methodology

   Package
   - Package Views, Dimensions & Pin Out
   - Package Opening & Wire Bonding Process
   - Package Cross-Section

   ASIC 28
   - View, Dimensions & Marking
   - Delayering
   - Main Blocks Identification
   - Process Identification
   - Cross-Section
   - Process Characteristics

   MEMS Pressure Sensor 41
   - View, Dimensions & Marking
   - Sensing Area Details
   - Cross-Section
   - Process Characteristics

   MEMS Accelerometer
   - View, Dimensions & Marking
   - Bond Pad Opening & Bond Pad
   - Cap Removed & Cap Details
   - Sensing Area Details
   - Cross-Section
- Process Characteristics

4. Physical Comparison with Infineon SP37

5. Manufacturing Process Flow
   - Global Overview
   - ASIC Front-End Process
   - ASIC Wafer Fabrication Unit
   - MEMS Pressure Sensor Process Flow
   - MEMS Accelerometer Process Flow
   - MEMS Wafer Fabrication Unit
   - Packaging Process Flow & Assembly Unit

6. Cost Analysis
   - Synthesis of the cost analysis
   - Main steps of economic analysis
   - Yields Hypotheses

ASIC
   - ASIC Front-End Cost
   - ASIC Probe Test & Dicing Cost
   - ASIC Wafer & Die Cost

MEMS Pressure Sensor
   - MEMS Pressure Sensor Front-End Cost
   - MEMS Pressure Sensor Cost per process steps
   - MEMS Pressure Sensor Probe Test & Dicing Cost
   - MEMS Pressure Sensor Wafer & Die Cost

MEMS Accelerometer
   - MEMS Accelerometer Front-End Cost
   - MEMS Accelerometer Cost per process steps
   - MEMS Accelerometer Probe Test & Dicing Cost
   - MEMS Accelerometer Wafer & Die Cost
   - Back-End : Final Test & Calibration Cost

   - FXTH87 Component Cost

7. Estimated Price Analysis
   - Manufacturer Financial Ratios
   - Estimated Selling Price

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