

Freescale FXTH87

Tire Pressure Monitoring Sensor (TPMS)

The TPMS solution featuring the smallest footprint and lowest RF power consumption

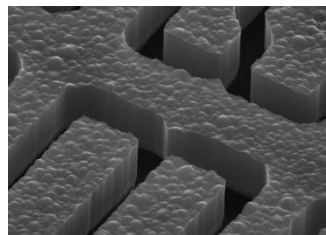
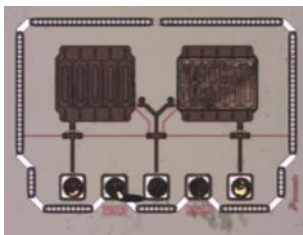
Pressure sensor market growth is mainly driven by TPMS due to legislation and quick adoption around the world. Freescale is competing head to head with Infineon on this application.

The FXTH87 is the 4th generation TPMS from Freescale. It features the smallest footprint with 7x7mm², the smallest RF power consumption with 7mA I_{dd} and the largest customer memory size with 8kB flash. In the report we make a comparison with Infineon SP37 device in order to understand the technologies differences and highlight each cost structures.

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.



REVERSE COSTING ANALYSIS

REPORT BY 

MEMS TPMS

150 pages

January 2015

Pdf file

Xls file

COMPLETE TEARDOWN WITH:

- Detailed Photos
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