±2g/±4g/±8g, Low g, 12-Bit Digital Accelerometer
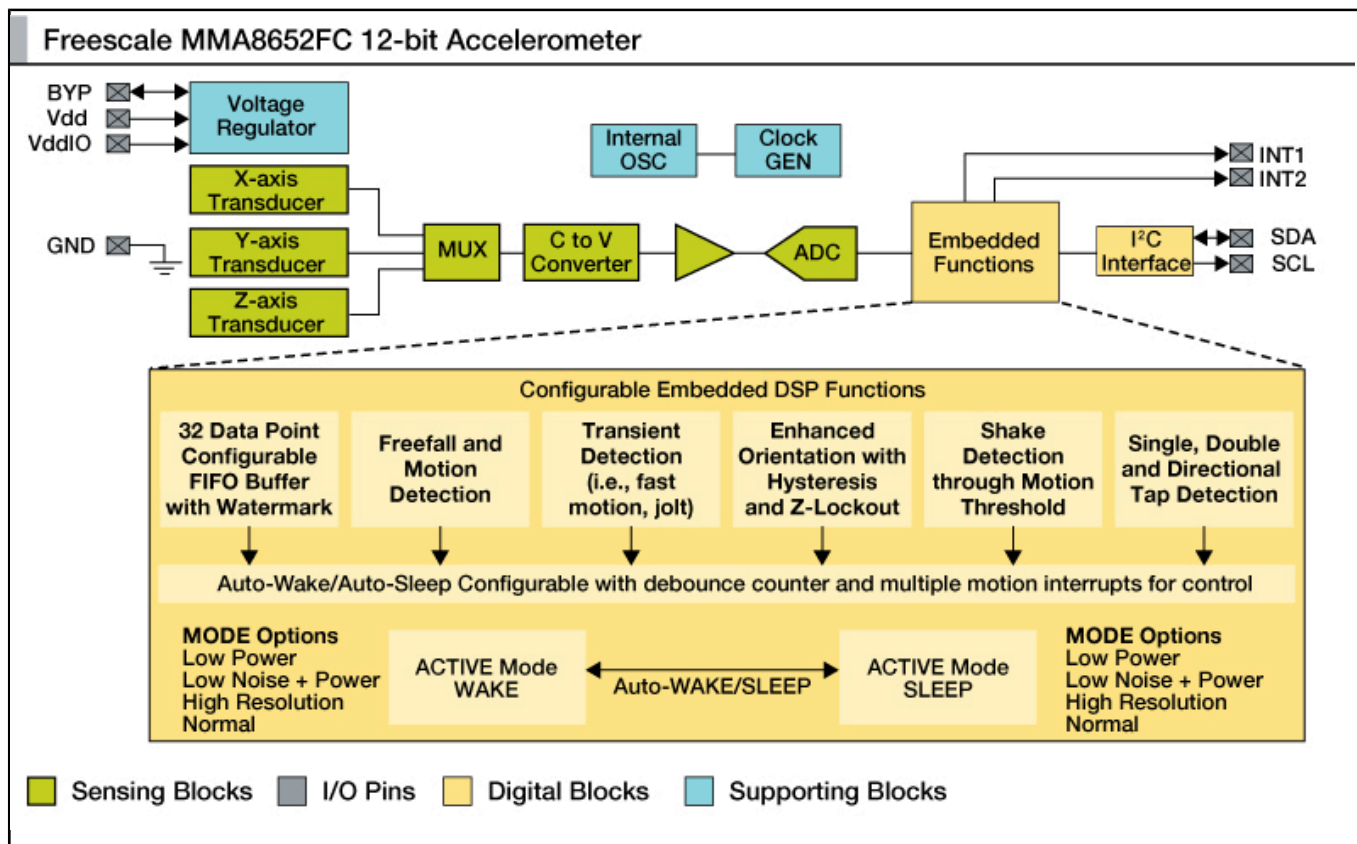
MMA8652FC

Archived

Last Updated: Feb 21, 2025

This product is in "End of Life" status, we recommend FXLS8974CF as a replacement.

The NXP® MMA8652FC 12-bit accelerometer has optimized performance in a small package. Packed with embedded functions that include:

- Flexible user-programmable options and two configurable interrupt pins
- Overall power savings through inertial wake-up interrupt signals that monitor events and remain in a low-power mode during periods of inactivity

G25089_MMA8652FC_BD Block Diagram

Freescale MMA8652FC 12-bit Accelerometer

Configurable Embedded DSP Functions

- 32 Data Point Configurable FIFO Buffer with Watermark
- Freefall and Motion Detection
- Transient Detection (i.e., fast motion, jolt)
- Enhanced Orientation with Hysteresis and Z-Lockout
- Shake Detection through Motion Threshold
- Single, Double and Directional Tap Detection

Auto-Wake/Auto-Sleep Configurable with debounce counter and multiple motion interrupts for control

MODE Options
Low Power
Low Noise + Power
High Resolution
Normal

ACTIVE Mode WAKE ← Auto-WAKE/SLEEP → ACTIVE Mode SLEEP

MODE Options
Low Power
Low Noise + Power
High Resolution
Normal

Legend: Sensing Blocks | I/O Pins | Digital Blocks | Supporting Blocks

View additional information for ±2g/±4g/±8g, Low g, 12-Bit Digital Accelerometer.

Note: The information on this document is subject to change without notice.