

# IQS7223C

The IQS7223C ProxFusion® IC is a sensor fusion device for various long-term wear or presence detection purposes. The sensor is fully I2C compatible and on-chip calculations enable the IC to respond effectively even in lowest power modes.



## OVERVIEW

### PRODUCT INFORMATION NOTICE

## Main Features

- Highly flexible ProxFusion® device
- 9 sensor pad connections (QFN-20) / 8 sensor pad connections (WLCSP-18)
- Dedicated WearMax™ Sensor implementation for optimal wear / presence detection
- Built-in basic functions:
  - Dedicated Intelligent Wear Output
  - Differential measurements (Advanced reference channel capabilities)
  - Automatic tuning
  - Noise filtering
  - Debounce & hysteresis
- Design simplicity
  - PC Software for debugging and obtaining optimal settings and performance
  - One-time programmable settings for custom power-on IC configuration
  - Auto-run from programmed settings for simplified integration
- Automated system power modes for optimal response vs consumption
- I2C communication interface with IRQ/RDY(up to fast plus -1MHz)
- Event and streaming modes
- Customizable user interface due to programmable memory
- Supply Voltage 1.8V(-5%)to 3.5V
- Small packages
  - (1.62 x 1.62 x 0.5 mm) - interleaved 0.4mm x 0.6mm ball pitch
  - QFN20 (3 x 3 x 0.5 mm) - 0.4mm pitch

## Applications

- Fitness band & Smartwatch Wear Detection
- Headphone Wear Detection
- TWS Earbud Wear Detection