MotionEngine™ Wear software makes low power, context aware sensing possible in wearable devices. MotionEngine™ Wear connects to a variety of motion and environmental sensors, collects data and provides motion outputs. The software includes sophisticated signal processing algorithms to process sensor data and provides real-time 3D orientation and advanced contextual outputs. MotionEngine™ Wear includes sensor drivers developed by Hillcrest for a wide variety of sensors from different hardware vendors.

**KEY BENEFITS**

*Enables New Applications in Wearables*

High performance algorithms provide foundation for applications in wearables – better context awareness, more accurate pedestrian navigation, and improved gesture control

*Flexible Software Architecture and Platform Support*

Portable to a wide variety of platforms including ARM® Cortex-M, Cadence® Tensilica® Fusion DSP, Synopsys ARC® EM for maximum flexibility

*Low Costs with Sensor Independence*

Sensor independent for reduced integration complexity, increased flexibility and lower bill-of-materials cost

**HIGHLIGHTS**

- Automatic Activity Tracking
- Intuitive Gesture Controls
- Precise Orientation and Compass Heading
- Sensor, System and Power Management
- Flexible and Modular Software Architecture
- Broad Sensor Category and Brand Support
- Low Power and Small Code Footprint
MotionEngine™ Wear

KEY FEATURES

Automatic Activity Tracking –
detects if user is still, walking, running, on stairs, in a
car or on a bicycle

Advanced Sleep Monitoring –
actigraphy based sleep state monitoring

Optimized Sensor Drivers –
improved sensor drivers provide better control of and
data from included sensors

Intuitive Gesture Controls –
recognizes natural gestures such as shake, flip, glance
and taps for device interaction

Flexible and Modular Software Architecture –
software can be delivered as an embedded library on a
single-processor or as a chip executable on co-
processor based platforms. Compatible with bare metal
or OS based systems

Broad Sensor Category and Brand Support –
supports motion and environmental sensors from
many leading sensor brands.

Support for Different Platforms –
easily portable to ARM® Cortex-M, Cadence® Tensilica®
Fusion DSP, Synopsys ARC® EM and pre-built chip
binaries available on with popular Cortex® M0+ and M4
processors from Atmel and STMicroelectronics

FOR MORE INFORMATION

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