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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## The MMA9559L AcceleKube Demo

## (MMA9559LKUBE)

Used in smartphones, PC tablets, laptops and other mobile devices, Freescale's MMA9559L intelligent motion-sensing platform is an industry first—with integration of an MEMS accelerometer, 32-bit embedded ColdFire microcontroller, flash memory and a dedicated architecture to manage other sensors.

With such an intelligent device, we found a way to demonstrate the MMA9559L features within the AcceleKube demo. Some of the MMA9559L intelligent platform features demonstrated include wake, sleep, motion recognition and orientation detection.

## Getting Started

The on/off switch on the side of the AcceleKube prevents it from waking up when it is being shipped or stored. To begin, switch to the "on" position.

The AcceleKube blinks different colors and at various rates depending on its motion and orientation. It wakes-up with a freefall event or a 6-axis roll event.

To conserve power, the AcceleKube will return to a low-power sleep mode after having been on for 180 seconds or if it is at rest for 15 seconds.



## LED Color/Activity Indications

LED Colors	Orientation
Blink red	-X axis accelerations
Blink blue/green	+X axis accelerations
Blink green	-Y axis accelerations
Blink red/blue	+Y axis accelerations
Blink blue	-Z axis accelerations
Blink green/red	+Z axis accelerations

LED Activity	Motion
••• Fast blinking	AcceleKube is moving
Slow blinking	AcceleKube is resting
<ul> <li>Solid red</li> </ul>	Low-g freefall
<ul> <li>Solid green</li> </ul>	Sustained acceleration greater than TBDg high-g filter
<ul> <li>Solid blue</li> </ul>	Shake: High pass filter (high rate of change of motion)

### LEDs Blinking



x = 1g



x = -1g



z = 1g

z = -1g



y — 1



y = -1g

#### LEDs Solid



Low-G Freefall



High-Pass Filter

#### **Quick Start Guide**

### For more information, visit freescale.com/AcceleKube

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