



### Tarts Wireless Activity Detection Sensor

#### General Description

Tarts wireless activity detection sensor detects vibration or sudden movement of the device.


#### Features

- 0.05g sensitivity.
- Detects vibration or sudden movement.

#### Principle of Operation

The Tarts wireless activity detection sensor uses a vibration sensor to detect vibration or sudden movement of the device. If the sensor detects movement or no movement it will immediately turn on the RF radio and transmit the data to the wireless gateway (Arduino shield, Raspberry Pi plate or BeagleBone Black cape).

#### Technical Specifications

Datum Definition	Type: 5 Name: ACTIVITY RawValue: 0 (No Motion), 1 (Motion) FormattedValue: NO MOTION (0), MOTION (1)
Supply Voltage	2.0 - 3.6 VDC * (ships with CR2032 - 3.0 V coin cell battery and battery clip)
Current Consumption	0.7 $\mu$ A (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Electronics Operating Temperature Range	-40°C to +85°C ( -40°F to +185°F ) **
Available Operating Frequencies	900 MHz (25 Channels), 868 MHz (5 Channels) and 433 MHz (15 Channels)
Sensor Power Consumption	0.25 $\mu$ A continuous
Sensitivity	0.05 g
Antenna	4" wire antenna
Device Range	250 - 300 ft. non-line-of-sight (actual range may vary depending on environment.)
Dimensions	1 inch (W) x 1 inch (L)
Certifications	 900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).

\* Hardware cannot withstand negative voltage. Please take care when connecting a power device.

\*\* At temperatures above 100°C, it is possible to lose programmed memory.

For more product information or to place an order visit us on the web at [www.tartssensors.com](http://www.tartssensors.com).

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