

Tarts Wireless Tilt Sensor

General Description

The Tarts wireless tilt sensor measures tilt in the form of pitch and roll.


Features

- +/- 180° measurement range.
- ±2.5 % Accuracy (Force - X, Y, Z)

Principle of Operation

The Tarts wireless tilt sensor uses X, Y, and Z data from an on board tri-axis accelerometer to calculate pitch and roll in degrees. Tilt data is then transmitted to the wireless gateway (Arduino shield, Raspberry Pi plate or BeagleBone Black cape).

Technical Specifications

Datum Definition	Type: 75 Name: PITCH, ROLL RawValue: 102 (Pitch), 102 (Roll) FormattedValue: 1.02 DEG (Pitch), 1.02 DEG (Roll)
Supply Voltage	2.0 - 3.6 VDC * (ships with CR2032 - 3.0 V coin cell battery and battery clip)
Current Consumption	0.7 µA (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)
Measurement Range	0° to 180° ► -180° to -0° (Rotating in Positive Direction)
Measurement Accuracy	±2.5 % (Force - X, Y, Z)
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	FC CE  Industry Canada 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.

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