



## Tarts Wireless 0-10 VDC Voltage Meter

### General Description

The Tarts wireless 0-10 VDC voltage meter can be attached to the positive and ground terminals of another device, battery or sensor to measure the voltage.

### Features

- Wireless interface for measuring voltage.
- Measures voltage up to 10 VDC.
- Calibration feature for higher accuracy.

### Principle of Operation

The Tarts wireless 0-10 VDC voltage meter is a DC analog voltage measuring device that can be connected to the positive and ground terminals of a battery or power source to report the measured voltage at user specified intervals. Voltage data is transmitted wirelessly to the gateway (Arduino shield, Raspberry Pi plate or BeagleBone Black cape).

### Calibration

This sensor can be calibrated for higher accuracy. For highest accuracy, you will need to have an accurate voltage meter.

### Technical Specifications

Datum Definition	Type: 74 Name: VOLTAGE RawValue: 7424 FormattedValue: 7.424 VDC
Calibration Parameter	void calibrate(float value); Value is the voltage.
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 Resolution	~5 mV
Accuracy	$\pm$ 1.5% full scale (FS)
Full Scale Voltage	0 - 10 VDC ***
Absolute Maximum Voltage	20 VDC ***
Open Circuit Voltage	~1.880 Volts
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.

\*\*\* If application exceeds 10 VDC the sensor will return a maximum reading of 10V. Voltage over 20 VDC can damage sensor.

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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