



### Tarts Wireless 0-1 VDC Voltage Meter

#### General Description

Tarts wireless 0-1 VDC voltage meter can interface with other devices to measure voltage up to 1.2 VDC.

#### Features

- Wireless interface for measuring voltage.
- Measures voltage up to 1.2 VDC.
- Calibration feature for higher accuracy.


#### Principle of Operation

By connecting the leads on the Tarts wireless voltage meter to the positive and ground terminals of another device, battery or sensor, it can measure the voltage and transmit the data 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: 1 Name: VOLTAGE RawValue: 932 FormattedValue: 0.932 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	~ 0.6 mV (11-bit single ended)
Sensor Accuracy	+/- 1.5% FS
Conversion Time	228 $\mu$ s
Full Scale Voltage	0 - 1.21 VDC ***
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	 <p>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).</p>

\* 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 20 mA the sensor will return a maximum reading of 20 mA.

If current applied to measurement port exceeds 30mA, circuit protection and conditioning is required.

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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