

The TDSBot has two versions – one with a display and the other one without.

The Device is powered by a user supplied, widely used Cell phone charger (5V DC at 400ma)

Internal to the TDSBot, there are voltage converters from 5v to 3.3 VDC. The 3.3V DC powers the complete circuit. The typical power consumption is about 30 ma, and about 140ma while transmitting data.

- The circuit uses a **pre certified ESP32S** from Ai-Thinker, Shenzhen. This module is already FCC and CE certified. The certificates are attached in the email.

The circuit has 2 other processors from Holtek, Taiwan

- P/n BS83B04C for Flow meter
- The Flow meter is a Hall Effect sensor type. A set of magnets are rotated when water flows through the flow meter. That creates a pulse; max frequency is about 200 HZ. We can have flowmeter from ¼ in pipe to 1.5 inch pipe.
- P/N HT66F019 for Conductivity and temperature measured
- The conductivity is measured by two titanium coated steel rods. The conductivity is measured by a square wave of 3.3 V amplitude at about 1 khz.
- The temperature sensor is a passive NTC type thermistor.

The Firmware measures the various values every minute and then uploads them either at 60 minute interval or 1 day interval (selected by user).

Picture



Specs

Products and Specs

Features

TDS range: 0-1500ppm (Auto Temperature compensation)
Flow meter -Total Volume of water filtered, flow rate
Free Cloud storage for Life (Encrypted data)
Data Normalized and processed using ANSI standards
Mobile App – Water Quality & Filer System Status and Real time notifications
Proactive 24/7 monitoring with preventive alerts using Machine Learning
Configurable alert and notification preferences
1 Year Warranty from purchase date

In the BOX

TDS Bot

Probes [Titanium coated + NTC temperature sensor] - 2 Nos
Length of Probes: 30 in / 75 cm
T-Junctions + tubing [Suitable for 1/4"pipe] – 2 Nos
Flow meter (0.05 – 1 liter/min)
Length of cable for flowmeter: 26 in / 65 cm
6 feet Micro USB cable
Installation guide
TDSBot Dimensions: 2.8 in X 2.5 in X 0.7 inch / 7 cm x 6.5 cm x 1.7 cm
Weight: 0.5 lbs. / 0.23kg]
Optional Display: 4 lines by 80 character OLED display

Installation Requirements

Most Reverse Osmosis Water Filter Systems. Check compatibility
IOS and Android compatible Phone with Blue Tooth
WLAN Connectivity / IEEE 802.11bgn, 2.4 GHz frequency
Powered via plug-in AC to DC power supply
Operating conditions
For Indoor use only
Min temperature: 5°C / 41°F
Max temperature: 45 °C / 113°F
Humidity: 0-90% Non-condensing

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).