STS Developers Kit

Connect, Code, Create – Right Out of the Box.

The STS Developers Kit is the easiest way to develop and integrate spectral sensing into your application. Leveraging the STS microspectrometer, a Linux-powered Raspberry Pi microcomputer, a Lithium Ion battery and an easily customizable software platform, the kit is built for out of the box WiFi and much more. Put it on a UAV, create a remote monitoring station, develop a handheld device – this is spectral sensing made quick, easy and flexible.

Ocean Optics

At a Glance

Kit Contains:

STS microspectrometer
Raspberry Pi microcomputer
Lithium Ion battery
Plug-in WiFi dongle
8 GB SD card w/ software & drivers

The STS Microspectrometer:

Wavelength range:
190-650 nm (UV), 350-800 nm (Vis)
and 650-1100 nm (NIR)

Resolution: >1.5 nm (slit dependent)

Size: 40 x 42 x 24 mm

Weight: 68 g

Specifications:

Total weight: 190 g (with cables)

WiFi range: up to 150 m (2.4 gHz frequencies)

Power draw: ~1A with WiFi

Battery: 3000 mAh (3 hours wireless endurance)

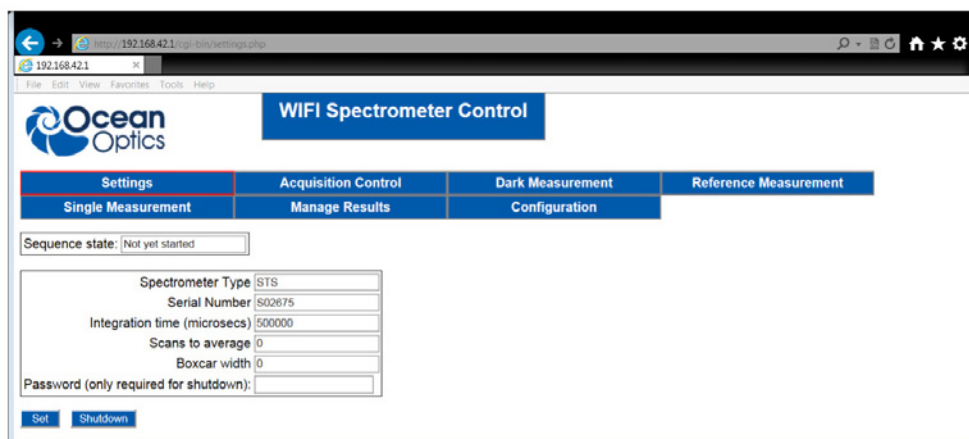**Raspberry Pi interfaces:** WiFi, Bluetooth, USB, Ethernet

Powerful STS Microspectrometer

The STS may be Ocean Optics' smallest spectrometer but that doesn't mean large compromises in performance. Choose the slit width for the resolution you need, starting from 1.5 nm. The STS is ultra-light and compact making it the ideal choice for integrating with the kit. Use in handheld devices for light metrology or color measurements, for mounting on UAVs in remote sensing applications or for making a cluster of cloud connected measuring stations to monitor pollution in the atmosphere. With the STS Developers Kit, the possibilities are only constrained by your imagination.

Out of the Box WiFi Over Web

The STS Developers Kit comes loaded with a simple interface that makes it simple to control your spectrometer out of the box through your web browser on phone, tablet or computer. Simply connect to the kit WiFi network and off you go. Set up the measurement, take references and manage data all through simple, clear interfaces. Collecting data on a UAV and fly out of WiFi range? No problem. All data is saved directly to the SD card. The Web scripting API makes it easy to script your own custom applications.

The Easy to Use Development Platform

The STS Developers Kit comes with a copy of our SeaBreeze drivers that lets you talk directly to the spectrometer via a USB interface. The next layer of software is a Daemon Service that can be extended to coordinate behavior with other hardware or supply more autonomous functionality. Finally, the Web API allows for quick development of custom scripts and applications that allow the STS and Rasberry Pi to perform even more complex tasks. The opportunities are only limited by what you can do with it!

For more information and pricing, please contact us today.