Purpl PRO QUICK GUIDE

PURPL

SCIENTIFIC

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WHAT´S INCLUDED

Thank you for purchasing a Purpl PRO.

Purpl PRO uses patented Micro Electro Mechanical System (MEMS) Fabry-Perot Interferometer. Purpl PRO works at the true near infrared (NIR) spectral range from 1550 – 1950Nm, which means better sensitivity and specificity in material sensing applications.

Downloadable software:
• Purpl Pro Mobile App

In this guide, we've included all the instructions you'll need to get your Purpl PRO up and running. And if you do get stuck, go to purplhelp.com for more help!

! Important!

The intended use of Purpl PRO is to measure spectra from various materials. Do not use the device for anything other than its intended use.

THE PURPL CASE INCLUDES:

1. PURPL PRO
   The star of the show
2. WHITE REFERENCE TARGET
3. SAMPLE HOLDER + CAP
   Holds your flower sample
4. SPARE WHITE REFERENCE TARGET
5. CHARGING CORD
   USB-C cable to charge your Purpl PRO
6. CLEANING BRUSH
   Keeps your grinder and sample holder
   clean between uses
7. GRINDER + FUNNEL
   Used to get your sample prepped &:
   ready to be tested

1. Sensor window
2. USB-C connector
3. LED indicator for Bluetooth / power
4. Factory reset button
5. LED indicator battery level / charging
6. ON / OFF button
7. White reference target

SAFETY INFORMATION

Read these guidelines. Not following them may be dangerous or against local laws and regulations. For further info, read the complete user guide.

⚠️ Warning!

When you make measurements, ensure that the sample covers the Purpl PRO light source completely. The lamp can emit light near the infrared range. Risk of dazzling.

⚠️ Warning!

The device may warm up during long uninterrupted use. Do not touch the device during long periods of use. Never use the device without the optics.

⚠️ Warning!

The device contains a glass window. This window can break, if the device is dropped on a hard surface or receives a substantial impact. If the glass breaks, do not touch the glass parts or attempt to remove the broken window from the device. Stop using the device. Please contact a distributor or Purpl PRO sales.

⚠️ Warning!

Your Device and its accessories are not toys. They may contain small parts. Keep them out of reach of children.

⚠️ Warning!

Charge this rechargeable battery only with a USB 2.0 compatible charger

The battery is not changeable by a user, contact your authorized distributor or Purpl PRO sales if you need to replace the battery.

Do not keep or use this device in high temperature, humid environment or above 2000 m altitude. The operating temperatures are:

- Operating temperature: +10 to +50°C
  +50 to +122°F
- Charging temperature: 0 to +45°C
  +32 to +113°F
- Storage temperature: -5 to +35°C
  +23 to +95°F non condensing
- Maximum relative humidity 80 % for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C

If the battery has not been used for a long time, charge it before using it again.

GETTING STARTED

Charging

While charging, battery icon blinks yellow every three seconds. If turned on while charging, bluetooth icon will flash red.

First, charge your device using the charging cord. You can use the device while it's charging. Full charge will be reached after 3 hours and battery light will turn solid green.

It's good practice to let the battery fully drain down to 0% before recharging it again. Do this the first 5 times to train the battery. It will assist with the longevity of the battery life. The battery does slowly drain even when fully powered down. It will typically last between 3 to 5 days depending on daily usage.

ON / OFF
3-5 sec.

ON / OFF
3-5 sec.

Switching ON/OFF

To switch the device on, press ON/OFF button until both leds flash blue. To switch off, press ON/OFF button until both leds flash red.

Your scanner will automatically shut down after 15 minutes unused. Add the following: Under the settings page in app, you can change the sleep timer for your device. The device does need to be powered on and connected.

DOWNLOAD APP

Use your phone camera to scan the QR code
or download Purpl PRO App from App Store
or Play Store by searching "Purpl PRO".

Download on the
App Store

https://apps.apple.com

GET IT ON
Google Play

https://play.google.com/store/apps

CREATE ACCOUNT

Click Register. Notice that the Log In button has changed to a Register button.

Remember to save your email and password, they are used for device registration and portal access.

Enter a working email address and a password. Go to your email, find your verification email, and click to verify.

REGISTER DEVICE

Go to the My Devices tab, and tap the Register button on the right. Activate the device for measurement by tapping the toggle switch to the left of the device serial number.

CALIBRATE

Your Purpl PRO must first be calibrated before any measurements can be performed. This should be done every time you start new measurements.

Be VERY careful with the calibration puck. DO NOT touch the white part of the calibration puck or let it get contaminated or spill any liquids on it. If you do, use spare or discontinue use and contact your administrator.

1. Remove calibration puck cover and place white material on top of sensor window.

2. In the Purpl PRO Scanner mobile app, click "Calibrate" then "Calibrate Now". In a few seconds the device will calibrate and you're ready to go!

An extra calibration puck is located in the bottom. Remove foam try for access.

MEASURING

Measuring samples with your Purpl PRO is easy and consists of few steps that must be followed carefully for accurate results.

It is important that the well grinded sample covers the measurement window. The sample may not be evenly mixed and measurement from different points may give different results. Be sure to remove all seeds, stems, and trim before loading the sample.

A. Sample holder
B. Tamper, which will press the sample tightly against the window
C. Grinder for flower sample
D. Sample should be level with top when filled

1. Place black sample holder over the Purpl PRO
2. Grind your flower with the grinder: Finer the grind, higher the accuracy. Take several measurements and average the results for overall mean average of the sample.
3. Put funnel on top of the grinder and pour flakes into sample holder
4. Use tamper to press flakes tight
5. On your Purpl PRO App, click "Measure" then Measure Now"
6. Save the results

RESULTS

A couple seconds after pressing "Measure Now", the Purpl PRO app will display the results. All saved measurements will be available in the Purpl PRO app's "History" page.

Getting the Results

Post your sample results on Instagram and tag @purplscientific!

Enter a name & note for the sample. Tap "Save to DB" to save your measurement in the user portal. Login with your Purpl username/password.

Cleaning the Device

Occasionally the device window needs cleaning. Use microfiber cleaning cloth and compressed air to clean any dirt or stain out from the window.

! Important!

Only use oil and moisture free compressed air in a spray can for the window.

⚠ Warning!

Do not use excessive air pressure to clean up the window.

If you want to wipe the window to remove greasy stains, use isopropanol alcohol window cleaner fluid.

Proceed as follows:

1. Tip a small amount of isopropanol alcohol on a microfiber cleaning cloth.
2. Wipe the window to remove the dirt.

⚠ Warning!

Do not attempt to disassemble the device. The warranty is not valid, if the device has been opened.

MAINTENANCE

Handle your Device and accessories with care. The following suggestions help you keep your Device operational.

- Keep the device dry. Humidity and all types of liquids or moisture can contain minerals that corrode electronic circuits.
- Do not use or store the device in dusty or dirty areas.
- Do not store the device in high temperatures. High temperatures may damage the device.
- Do not store the device in cold temperatures. When the device warms to its normal temperature, moisture can form inside the device and damage it.
- Unauthorized modifications may damage the device.
- Do not drop, knock, or shake the device. Rough handling can break it.
- Only use a soft, clean, dry cloth to clean the surface of the device.
- Keep the device away from magnets or magnetic fields.

❗ Important!

If the White reference target becomes dirty or damaged, reference measurements are corrupted and the device measurement results in reflectance/absorption are unreliable.

TECHNICAL SPECIFICATIONS

Parameters	Specification	Notes
Wavelength range	1.55 – 1.95 µm (PP2.0)	
Outside dimensions	80mm (L) x 80mm (W) x 25mm (H)	
Weight	138 g	
Surface glass	Gorilla-3	
Lamp lifetime	> 40,000 hrs	
Battery	3.7V, 700mAh, rechargeable	
Charging port	USB-C	
Wireless connectivity	Bluetooth Low Energy BLE 4.3	
Wired connectivity	USB-C 2.0	
Illumination source	2 tungsten vacuum lamps	Purpl PRO Sensor integrated

Software	Name	Notes
Device software	Device Firmware	
Mobile application	Purpl Pro Mobile App	Android 7.0 or later, iOS 11+

Maximum Power Output

In the European Union, the Purpl PRO may operate within the following frequency band 2.4 GHz. Maximum power output by design is indicated in parentheses: Bluetooth® (6 dBm).

Environment Conditions

Intended environment with max pollution degree 2.

Status	LED		Description
Blinking yellow	🟡	Battery	Battery is charging
Blinking red	⚡🔴⚡	Bluetooth Battery	Scanner is powered on, Bluetooth is enabled and connected. Battery is low
Single red flash	🔴	Both	Scanner is powering off
Single blue flash	🔵	Both Bluetooth	Scanner is powering on Bluetooth connected

WARRANTY

This product is covered by a limited warranty. To obtain warranty service, please contact your authorized distributor or Purpl Scientific sales. Please confirm the warranty terms and the applicable return policies prior to returning the product.

Do not attempt to disassemble the device. The warranty is not valid, if the device has been disassembled.

Warranty information:
purplscientific.com/support

SUPPORT

For more information on Purpl PRO:
purplscientific.com/support

DISCLAIMER

! Important!

Devices, software, documentation, and other products offered by Purpl Scientific Inc., hereinafter referred to as the "Products", are not designed to be fault-tolerant and therefore they are not intended to be used for the purposes of life-critical or hazardous environments that require fail-safe performance.

To the maximum extent permitted by law, Purpl Scientific Inc. disclaims any and all warranties, whether expressed or implied, including without limitation any implied warranties of title, merchantability, or fitness for any particular purpose,

regarding the Products. Without limiting the foregoing, Purpl Scientific Inc. expressly does not warrant that:

- the Products will meet your requirements or expectations;
- the Products will be free of bugs, errors, viruses, or other defects;
- any results, output, or data provided through or generated by the Products will be accurate, up-to-date, complete, or reliable;
- the Products will be compatible with any third party software or products; or
- any errors in the Products will be corrected.

To the maximum extent permitted by law, neither Purpl Scientific Inc. nor its suppliers will be liable for any damage or

$C \in \checkmark RoHS_3$ 2011/65/EU & 2015/863

Declaration of Conformity

Spectral Engines hereby declares that the Purpl PRO is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at https://www.spectralengines.com/support

R **204-610006**

ANATEL
03882 -16-05903

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

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

**Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information**

IC

IC compliance
This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:
1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be chosen in such a way that the equivalent isotropically radiated power (e.i.r.p.) is not more than that is necessary for successful communication.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

Conformité aux norms d´IC Cet appareil est conforme à la(aux) norme(s) RSS sans licence d'Industry Canada.

Son utilisation est soumise aux deux conditions suivantes:

1. Cet appareil ne doit pas causer d'interférences et

2. il doit accepter toutes interférences reçues, y compris celles susceptibles d'avoir des effets indésirables sur son fonctionnement.

Conformément aux réglementations d'Industry Canada, cet émetteur radio ne peut fonctionner qu'à l'aide d'une antenne dont le type et le gain maximal (ou minimal) ont été approuvés pour cet émetteur par Industry Canada. Pour réduire le risque d'interférences avec d'autres utilisateurs, il faut choisir le type d'antenne et son gain de telle sorte que la puissance isotrope rayonnée équivalente (p.i.r.e) ne soit pas supérieure à celle requise pour obtenir une communication satisfaisante.

Cet équipement respecte les limites d'exposition aux rayonnements IC RSS-102 définies pour un environnement non contrôlé. Il doit être installé et utilisé en maintenant une distance minimum de 20 cm entre le radiateur et votre corps.

MSIP -CRM -ULX -NINA -B111

KCC South Korea compliance

內含發射器模組: CCAJ16LP6470T3

Taiwan NCC Warning Statement

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、 **加大功率或變更原設計之特性及功能。**
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Statement translation:
Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to approved low power radio-frequency devices.

The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radiofrequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

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This documentation is subject to revision without notice.

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