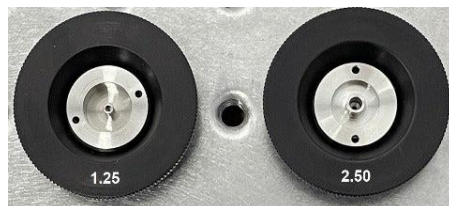


Guidelines for measuring power with *ProntoSI* power meter

Doric Lenses

Without Adapter

Adapters

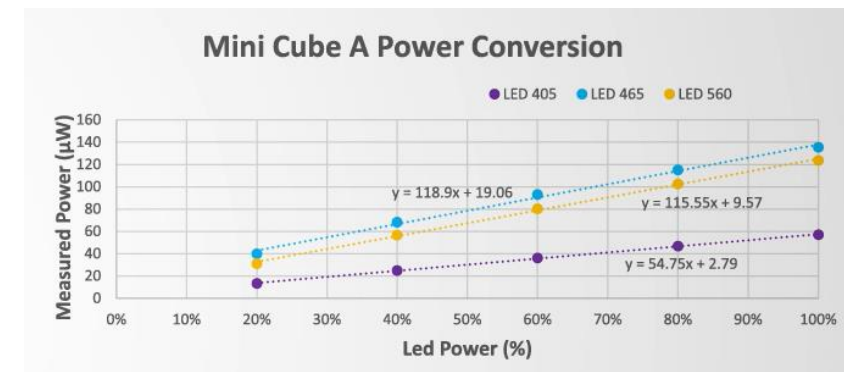


With Adapter



Measuring experimental photometry excitation power [G1 & G2 mini cubes]

1. Load experimental configuration in *Doric Neuroscience Studio*
 - Both for *Acquisition Console* & *LED Driver* modules
 2. Connect fiber (with adaptor) to the power meter (see **slide 2**)
 3. Make sure the light source is OFF (i.e. the software is not running)
 4. Zero the power meter (**slide 5** for more details)
 5. On the *LED Driver*, turn OFF all light sources except the light source that you will be measuring.
 - LED Driver should be in *ExAnal* mode (and *low-power* (-) if relevant).
 6. Change the wavelength on the power meter to match the light source that is ON (on the *LED Driver*). (**slide 6** for more details)
 7. In *Doric Neuroscience Studio*, start *Live* mode, as if running test experiment
 - Both for *Acquisition Console* & *LED Driver* modules
 8. Note down the value on the power meter.
 9. Modify the **LED Power %** in the Lock-In configuration and repeat for different values
- ***Repeat for all LED excitations***

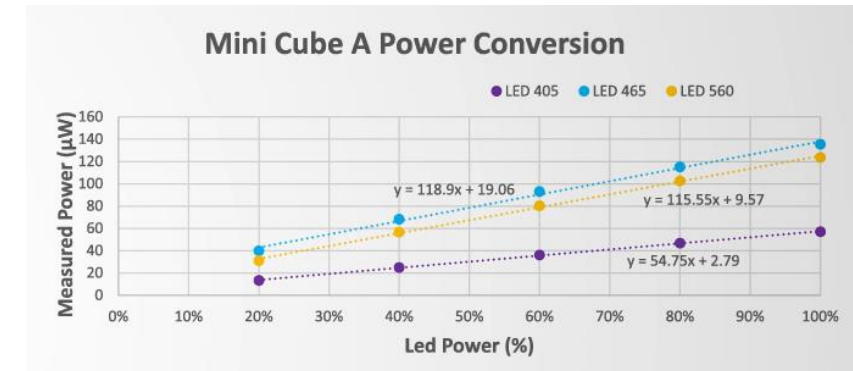


* Real values measure G3 cube, iIFMC-G3 mode

Measuring experimental photometry excitation power [G3 mini cubes]

1. Create dedicated configurations to measure power of each excitation independently.
 - See **slide 7** for more details
2. Load dedicated configuration file for the first light source in *Doric Neuroscience Studio*
3. Connect fiber (with adaptor)
4. Make sure the light source is OFF (i.e. the software is not running)
5. Zero the power meter
 - See **slide 5** for more details
6. Change the wavelength on the power meter to match the loaded configuration
 - See **slide 6** for more details
7. In *Doric Neuroscience Studio*, start *Live* mode
8. Note down the value on the power meter.
9. Modify the **LED Power %** in the Lock-In configuration and repeat (steps 7-9) for different values

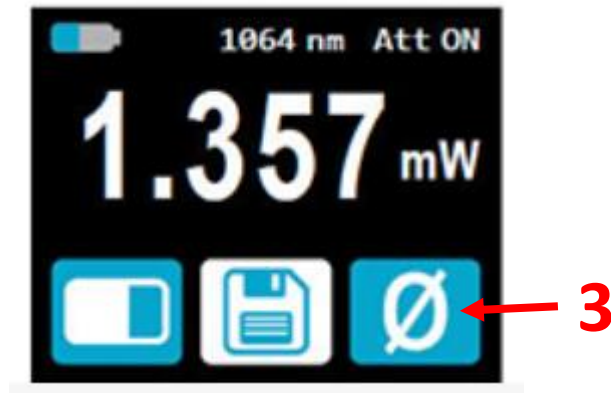
Repeat for all LED excitations



* Real values measure G3 cube, iFMC-G3 mode

Zero the power meter

1. Connect fiber (with adaptor)
2. Make sure the light source is OFF
3. Click the \emptyset button on the screen

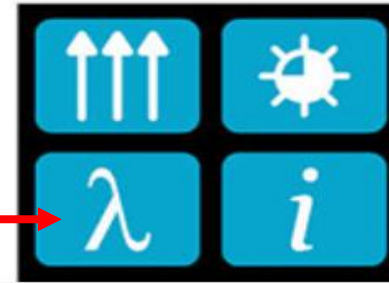


Change the Wavelength

1. Click the large **blue button** beside the screen.
2. Select the **λ** button on the screen
3. Select one of the preset wavelengths

OR

4. **Press and hold** one of the preset wavelengths to change its value.



Increase or decrease the value of the **blue digit** with the **arrows**

G3 dedicated config for measuring power

Config 1: 405 nm

Channel Options

Analog-In Options

Channel name: AIN01

Channel: Analog In. | Ch.1

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

Lock-In Options

Carrier Frequency Options

Enabled				
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trace name	AIN01xAOUT01LockIn	AIN01xAOUT02LockIn	AIN01xAOUT03LockIn	AIN01xAOUT04LockIn
Reference frequency*	208.616 Hz	572.205 Hz	333.786 Hz	470.877 Hz
LED maximum current	ilFMC-G3	ilFMC-G3	ilFMC-G3	500 mA
LED power	5 %	5 %	5 %	50 %
Vmax preview	0.25 V	0.25 V	0.25 V	0.63 V
Vmin preview	0.10 V	0.10 V	0.10 V	0.20 V

* Frequency will be re-adjusted by steps of ~5.96 Hz

Config 2: 470 nm

Channel Options

Analog-In Options

Channel name: AIN01

Channel: Analog In. | Ch.1

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

Lock-In Options

Carrier Frequency Options

Enabled				
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trace name	AIN01xAOUT01LockIn	AIN01xAOUT02LockIn	AIN01xAOUT03LockIn	AIN01xAOUT04LockIn
Reference frequency*	208.616 Hz	572.205 Hz	333.786 Hz	470.877 Hz
LED maximum current	ilFMC-G3	ilFMC-G3	500 mA	500 mA
LED power	5 %	5 %	50 %	50 %
Vmax preview	0.25 V	0.25 V	0.63 V	0.63 V
Vmin preview	0.10 V	0.10 V	0.20 V	0.20 V

* Frequency will be re-adjusted by steps of ~5.96 Hz

Config 3: 560 nm

Channel Options

Analog-In Options

Channel name: AIN02

Channel: Analog In. | Ch.2

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

Lock-In Options

Carrier Frequency Options

Enabled				
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trace name	AIN02xAOUT01LockIn	AIN02xAOUT02LockIn	AIN02xAOUT03LockIn	AIN02xAOUT04LockIn
Reference frequency*	208.616 Hz	572.205 Hz	333.786 Hz	470.877 Hz
LED maximum current	ilFMC-G3	ilFMC-G3	ilFMC-G3	500 mA
LED power	5 %	5 %	5 %	50 %
Vmax preview	0.25 V	0.25 V	0.25 V	0.25 V
Vmin preview	0.10 V	0.10 V	0.10 V	0.10 V

* Frequency will be re-adjusted by steps of ~5.96 Hz

Channel Options

Analog-In Options

Channel name: AIN01

Channel: Analog In. | Ch.1

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

AIN01xAOUT01LockIn

208.616 Hz

ilFMC-G3

5 %

0.25 V

0.10 V

Channel Options

Analog-In Options

Channel name: AIN01

Channel: Analog In. | Ch.1

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

AIN02xAOUT02LockIn

572.205 Hz

ilFMC-G3

5 %

0.25 V

0.10 V

Channel Options

Analog-In Options

Channel name: AIN02

Channel: Analog In. | Ch.2

Mode: Lock-In

Saturation: Doric Detector 5.00V

Rise/Fall Time: 15 ms

AIN02xAOUT03LockIn

333.786 Hz

ilFMC-G3

5 %

0.25 V

0.10 V