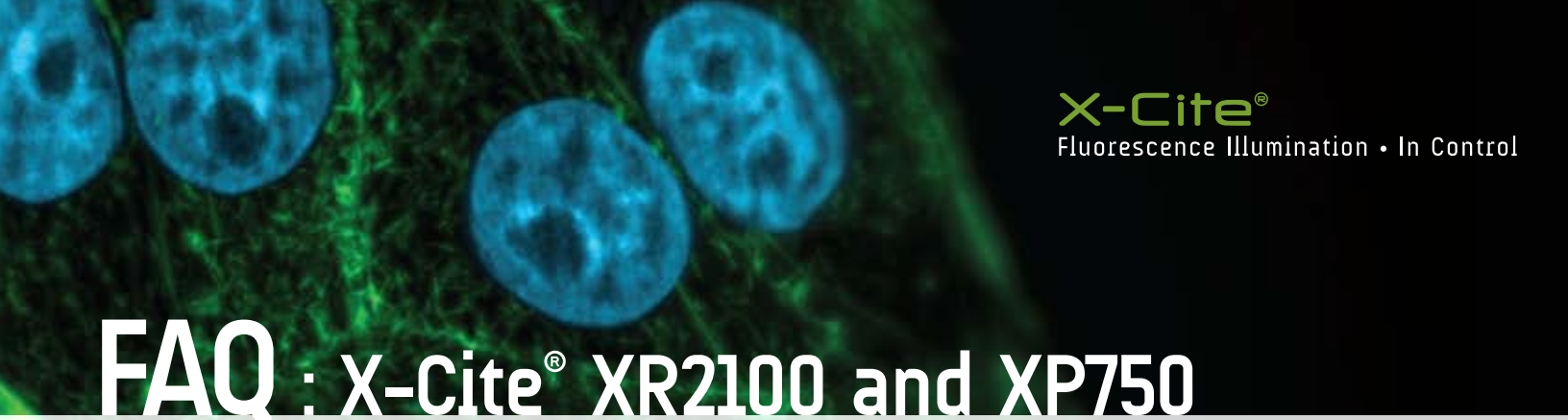

X-Cite®
Fluorescence Illumination • In Control

FAQ : X-Cite® XR2100 and XP750

1. What is the X-Cite® XR2100?

A power meter, based on the design of the X-Cite® XR2000 Radiometer. Similar to the X-Cite® XR2000, it allows you to measure the power output at the end of a light guide in watts. Additional features include: ability to connect the X-Cite® XP750 external sensor, backlit display, PC communication, data storage and data exporting.

2. What is the X-Cite® XP750?

An external power sensor that plugs into the X-Cite® XR2100. With the footprint of a standard microscope slide and a profile thin enough to fit between the stage and objectives on an upright microscope, it allows power measurements to be easily taken, right at the objective plane.

3. Why should the X-Cite® XP750 be used?

Repeatability. What researcher has never been asked to collect a bit more data, months after the original experiments, in order to publish a paper? Whether the application relies on quantifying and comparing fluorescence levels or just being able to recreate experiment parameters from day to day, being able to express illumination power in absolute units contributes to a complete experiment record.

Troubleshooting. Ever found a weak fluorescence signal and wondered if the difficulty was with the specimen or the instrument? Measuring power output in watts at the objective plane removes the variability and expense associated with specimens, as well as making it easier to troubleshoot and compare the effect of fine-tuning the microscope settings.

4. Can I use the X-Cite® XR2100 with all X-Cite® illumination systems?

Yes. The light guide input port will accept any X-Cite® light guide with a 3mm diameter core. The sensor in the X-Cite® XR2100 is calibrated with an X-Cite® *exacte* lamp, so it is most accurate with systems using this lamp or those with a similar spectral output, like the X-Cite® 120.

5. Can I use the X-Cite® XP750 with other types of illumination?

Yes. The peak excitation wavelength being measured is selectable when using the X-Cite® XP750, accounting for any wavelength dependencies in the response of the sensor. This ensures an accurate reading and allows the X-Cite® XP750 to be compatible with any light source and excitation filter combination from 320nm to 750nm. This includes (but is not limited to): X-Cite®, metal halide, mercury/HBO and xenon lamps, as well as lasers and LEDs.

6. How do I use the X-Cite® XP750 with my upright microscope?

Place the X-Cite® XP750 in the stage clip and use the x-y controls on the stage to center the detection window under the objective.

7. How do I use the X-Cite® XP750 with my inverted microscope?

Place the X-Cite® XP750 upside down on the stage, or in a slide holder insert. Center the beam from the transmitted light source in the target etched in the X-Cite® XP750.

8. Can I use the X-Cite® XP750 with water or oil immersion objective lenses?

No. At this time, the seals on the X-Cite® XP750 are not sufficient to completely prevent liquids from seeping in and damaging the electronics.

9. I have an X-Cite® XR2000 Radiometer with an external detector port. Can I use the X-Cite® XP750 with it?

No. To accommodate wavelength selection and other features that make the X-Cite® XP750 compatible with so many different types of light sources, several internal changes were required. As a result, X-Cite® XR2000 does not support X-Cite® XP750 use and cannot be upgraded to an X-Cite® XR2100.

10. The X-Cite® XR2000 is a Radiometer, the X-Cite® XR2100 is a Power Meter. What's the difference?

The X-Cite® XR2000 includes an 'irradiance' mode, expressing measurements in terms of W/cm^2, which has limited use when light is also going through microscope optics. In the X-Cite® XR2100, this mode is replaced with features of great benefit to microscopists, including: X-Cite® XP750 compatibility, wavelength selection, favorite settings, backlit display, PC communication, data storage, data exporting, and USB connectivity.

11. Can I calibrate my X-Cite® *exacte* with the X-Cite® XP750?

Yes. You can calibrate the X-Cite® *exacte* with data from the X-Cite® XP750 so that it displays power settings in terms of the values seen at the objective plane. Note, however, that the values will only be truly accurate for the wavelength/filter used during the calibration. X-Cite® *exacte* requires internal software version 2.0 or higher. Units can be upgraded; contact EXFO for details.

12. Why is recalibrating the X-Cite® XR2100 and the X-Cite® XP750 necessary?

As with any other precision measuring device, to obtain accurate results, occasional recalibration is required to compensate for sensor drift over time.

CELEBRATING OVER 25 YEARS Est. 1984

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