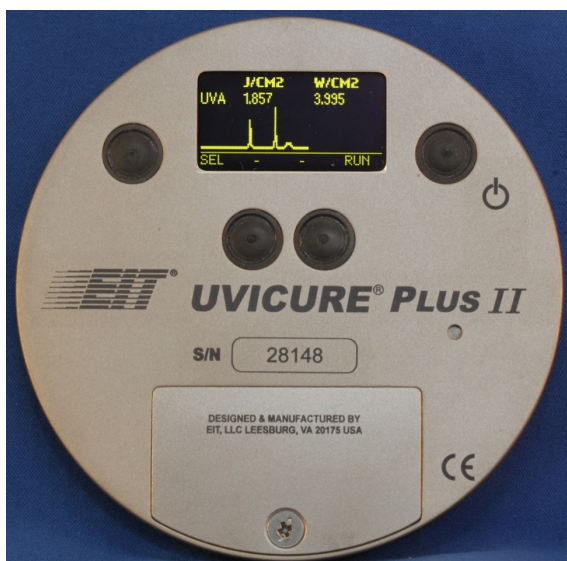


## EIT® UviCURE® PLUS II & EIT® UV Power Puck® II



*UviCure Plus II*  
*A single band radiometer*



*UV Power Puck II*  
*A four band radiometer*

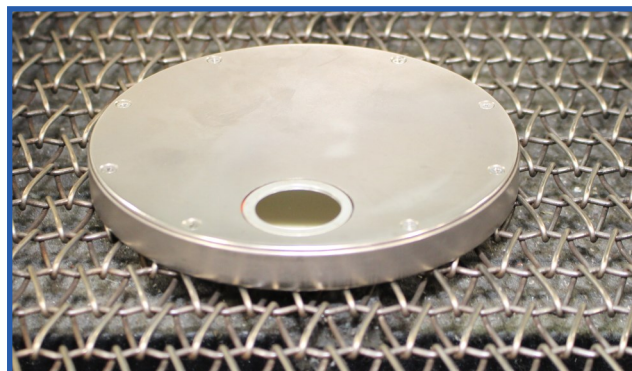
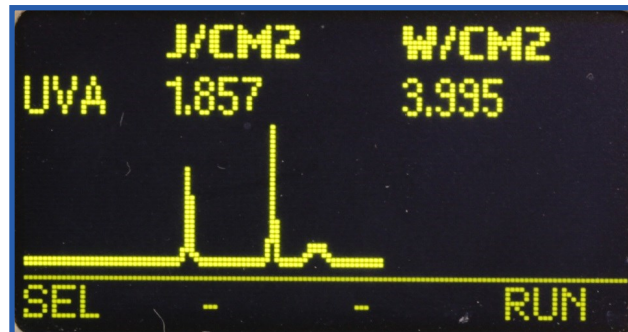
EIT has designed, manufactured, sold and supported industrial UV measurement solutions worldwide since 1986. The UviCure Plus II and UV Power Puck II radiometers utilize our experience and build on previous versions of our instruments. They are easy to use and help to establish, document, maintain and troubleshoot process windows in industrial UV curing applications.

The instrument display (right) provides irradiance ( $\text{W}/\text{cm}^2$ ) and energy density ( $\text{J}/\text{cm}^2$ ) values as well as the irradiance profile.

The UviCure Plus II is a single band radiometer with the band specified at the time of order. EIT UVA (320-390 nm) is the most common band ordered for applications using mercury bulbs.

The UV Power Puck II is a four band radiometer with EIT UVA, UVB, UVC and UVV. Having the four EIT bands in a single instrument allows the user to identify bulb (mercury-H, mercury-iron-D, mercury-gallium-V) types.

The Power Puck II allows you to independently monitor the wavelengths associated with surface cure (UVC) as well as those responsible for through cure (UVA/UVV). Tracking the ratio of UVC:UVA can indicate when your reflector is getting dirty. Looking at UVA:UVV can indicate when a mercury-gallium bulb has aged and is spectrally closer to a mercury bulb than a mercury-gallium bulb.



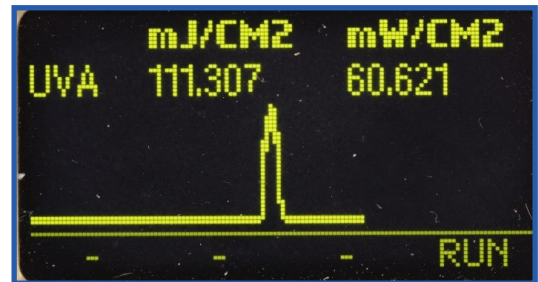
## UViCURE<sup>®</sup> PLUS II & UV POWER PUCK<sup>®</sup> II FEATURES

The UviCure Plus II (single band) and Power Puck II (four band) radiometers are easy to use and offer a number of user selected options for the display and sampling rate.

- **Easy to Use:** A Single Button allows the user to turn the unit on, collect & view the data.



- **Graph:** A graph illustrating the peak UV irradiance and total energy is displayed for each UV band. The graph shows the irradiance as a function of time ( $W/cm^2$  on Y-axis, time on X-axis) with the number of lamps and intensity of each shown.



- **Reference:** Allows the user to store a run in the instrument memory to allow for easy comparison to current UV conditions.



- **Toggle:** (Not Shown) Available on the UviCure Plus II. Allows the user to easily switch between Graph and Reference display screens with the push of a button.

- **All Channel:** Available on the Power Puck II. All Channel displays the Joules/cm<sup>2</sup> & Watts/cm<sup>2</sup> data on one screen for all four bands (UVA, UVB, UVC & UVV).



- **Setup:** Used to select instrument options including the Display Mode (Graph, Reference, Toggle, All Channel), Effective Sample Rate (Smooth), Units (J/W, mJ/mW or  $\mu J/\mu W$ ) and Display Brightness.





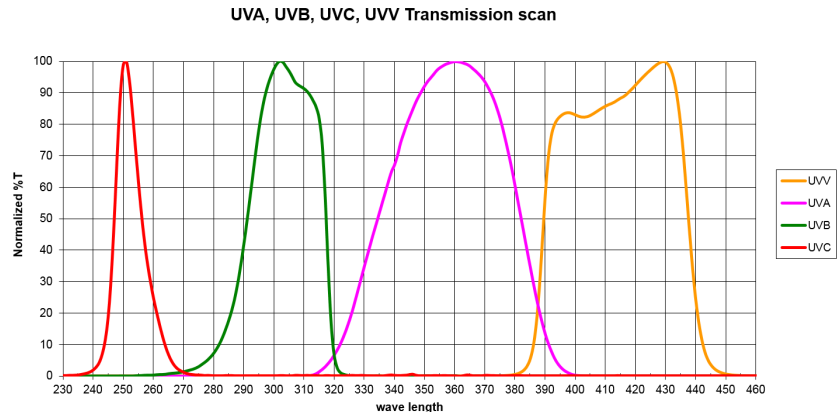
## UVICURE® PLUS II & UV POWER PUCK® II FEATURES

The UviCure Plus II is a single band radiometer with the EIT Band and Dynamic Range specified at the time of order. The Power Puck II is a four band radiometer with the Dynamic Range specified at the time of order.

### EIT Broadband Responses

EIT's Broadband responses are optimized for mercury based sources and have the following responses:

- **UVA (320-390nm)**
- **UVB (280-320nm)**
- **UVC (250-260nm)**
- **UVV (395-445nm)**



### EIT Dynamic (Operating) Ranges

The dynamic range of the UVICURE Plus II/Power Puck II is selected at the time of order and is based on the output of the UV source and instrument distance to the UV source.

- The Standard (H) High (10 Watt) range works well for high power curing applications
- The (M) Mid-range (1 Watt) works well with low power arc lamps and in applications with lamps that are non- focused or away from the cure surface
- The low range (100 mW) works well in exposure systems and applications with low power lamps

Refer to the Product Specifications on page four for more information.

### Instrument Sample Rate (Smooth) Functions

The UviCure Plus II and Power Puck II oversample at an extremely high rate. The user is able to adjust the effective sample rate used for data collection. For most applications, we recommend the **Smooth Profiler** setting.

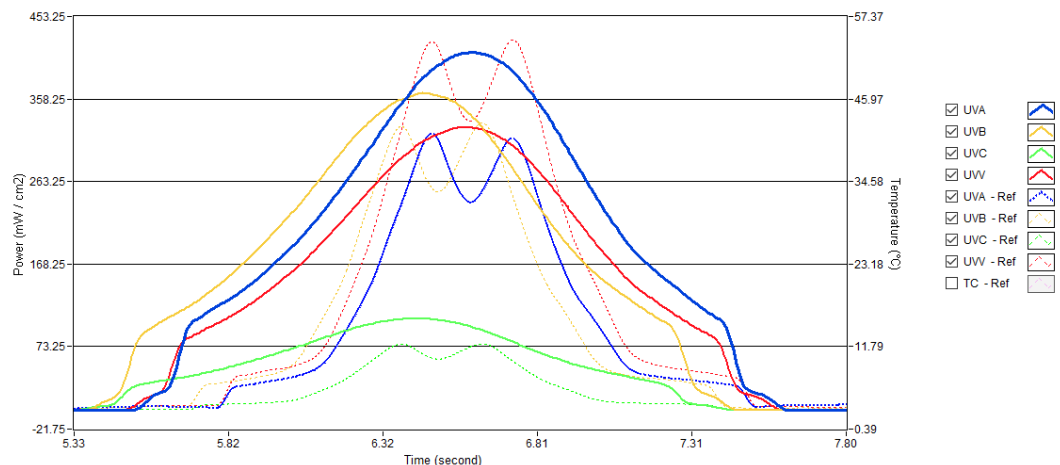
- **Smooth On:** Effective sample rate of 25 Hz (samples per second), matches obsolete Power Puck units
- **Smooth Profiler:** Effective sample rate of 128 Hz, suggested rate for most applications. The Smooth Profiler setting reports the average (RMS) peak intensity.
- **Smooth Off:** Effective sample rate of 2048 Hz. Fast enough to detect the AC cycling in a 50/60 Hz power supply. Reports the instantaneous irradiance value which is higher than the RMS value.

### Profiler Versions

Profiler versions of the UviCure Plus II/UV Power Puck II operate in the same manner as the Standard (display) versions. Profiler versions allow the transfer of the numerical data (irradiance, energy density) values and the irradiance profile (Watts as a function of time) to EIT's UV PowerView Software® III Program.

This allows the user to:

- Analyze system changes over time
- Look at individual lamps
- Compare multi-lamp systems
- Trouble shoot lines
- View lamp focus
- Determine lamp type



# UViCURE® PLUS II & UV POWER PUCK® II FEATURES

## Product Specifications (Specifications subject to change without notice)

<b>Display</b>	Easy to Read, Yellow Text on Black Background
<b>Suggested Operating Ranges</b>	Standard High Range: UVA, UVB, UVV - 100mW/cm <sup>2</sup> to 10W/cm <sup>2</sup> / UVC - 10mW/cm <sup>2</sup> to 1W/cm <sup>2</sup> Mid-Range: UVA, UVB, UVV - 10mW/cm <sup>2</sup> to 1W/cm <sup>2</sup> / UVC: 1mW/cm <sup>2</sup> to 100mW/cm <sup>2</sup> Low Power: UVA, UVB, UVV - 1mW/cm <sup>2</sup> to 100mW/cm <sup>2</sup> / UVC - 1mw/cm <sup>2</sup> to 100mW/cm <sup>2</sup> The suggested Operating Ranges are where the instrument performs best. Units will "turn on" and display data at irradiance values much lower than the suggested Operating Ranges.
<b>Accuracy</b>	+/- 10%; +/- 5% typical plus ±0.2% of full scale Typical +/- 5% or better
<b>Calibration</b>	Supplied with NIST traceable calibration certificate
<b>Spectral Ranges (UV Power Puck® II)</b>	<b>Four</b> channel monitoring of UVA (320-390 nm), UVB (280-320nm), UVC (250-260nm) and UVV (395-445nm)
<b>Spectral Ranges (UViCURE® Plus II)</b>	<b>One</b> channel monitoring of UVA (320-390 nm), UVB (280-320nm), UVC (250-260nm) or UVV (395-445nm), selected at the time of purchase
<b>Spatial Response</b>	Approximately cosine, "Lambertian"
<b>Operating Temperature</b>	0-75°C Internal temperature; tolerates high external temperatures for short periods (audible alarm indicates when temperature has exceeded tolerance)
<b>Smooth Modes</b>	Smooth ON: Effective Sample rate of 25 samples/second Smooth PROFILER: Effective Sample rate of 128 samples/second Smooth OFF: Effective Sample rate of 2048 samples/second
<b>Time-Out Period</b>	2 minutes DISPLAY mode (no key activity)
<b>Battery/Battery Life</b>	Two user-replaceable AAA Alkaline Cells/Approximately 20 hours with the display "on"
<b>Dimensions</b>	4.60 x 0.50 inches; 117 mm x 12.7 mm (D x H)
<b>Weight</b>	10.1 ounces (289 grams)
<b>Instrument Materials</b>	Aluminum, stainless steel
<b>Carrying Case Material/Weight</b>	Cut polyurethane interior, scuff resistant nylon exterior cover/9 ounces (260 grams)
<b>Carrying Case Dimensions</b>	10.75 x 3.5 x 7.75 inches; 274 x 89 x 197 mm (W x H x D)

### *Designed and manufactured in the USA*

This equipment is in conformity with the following standards and therefore bears CE marking: IEC 61326-1:2005, EN55011: 1998, EN61000-4-2: 1995, A1: 1998, A2: 2001; EN 61000-4-3: 2002, A1: 2002, following the provisions of the applicable directives: 98/34/EEC and amendments, 89/336/EEC and amendments.



## ABOUT EIT LLC

Founded in 1977, EIT provides contract electronic manufacturing & engineering services for medical, industrial, analytical instrument, telecommunications and aerospace customers from multiple facilities in Virginia and New Hampshire. EIT LLC designs, manufactures, sells, supports and services EIT radiometers and on-line measurement systems for industrial UV curing applications. EIT UV products have been sold since 1986 and are available for UV LED and Broadband (mercury) arc, microwave and spot sources.

**For more information  
contact EIT or:**



P/N IM-0117 Rev A Plus Puck Brochure March 2021