

# UV Power Puck® II & UV Power Puck® II Profiler

# UviCure® Plus II & UviCure® Plus II Profiler

The radiometers that first set the standard for the industrial UV curing industry now have the ability to be used with display or as a profiling radiometer that transfers the irradiance profile to a computer for analysis.

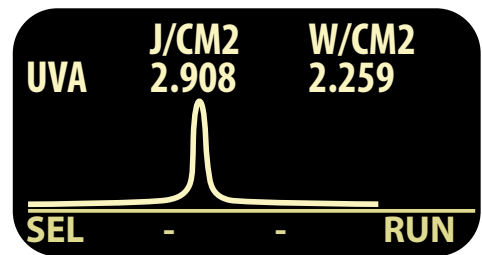


## Display Mode

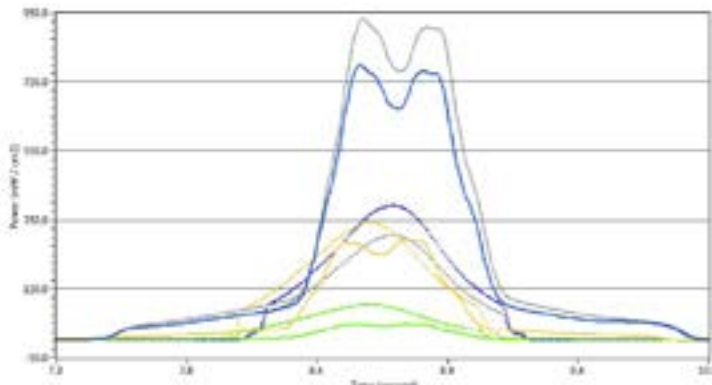
Easy to use on the production line with irradiance (W/cm<sup>2</sup>), energy density (J/cm<sup>2</sup>) and irradiance profile information easily available on the display.

## Profiler Mode

Profiler Mode adds the ability to transfer the irradiance profile and data to a computer for further analysis.



Instrument Display-Graph Mode showing multiple lamps.



Irradiance profile with time on X-Axis and Watts on Y-Axis.

	Sample File	Reference File	Difference
UVA - Power (mW/cm <sup>2</sup> )	1550.406	325.695	1224.711
Power (%)	376.0	0	376.0
Energy (mJ/cm <sup>2</sup> )	346.811	373.638	(26.827)
Energy (%)	(7.2)	0	(7.2)
UVB - Power (mW/cm <sup>2</sup> )	586.618	317.299	269.318
Power (%)	84.9	0	84.9
Energy (mJ/cm <sup>2</sup> )	91.949	348.207	(256.258)
Energy (%)	(73.6)	0	(73.6)

Profiler instrument data screen arranged by band from computer.

# UV Power Puck® II & UviCure® Plus II

## Instrument Features on EIT "Puck" Style Instruments

Easy to Use - Single Button for On/Off and Run Mode makes it easy to collect and view data.

	J/CM2	W/CM2	
UVA	2,908	2,259	
UVB	0,696	0,506	
UVC	0,075	0,057	
UVV	1,275	0,969	
SEL	-	-	RUN

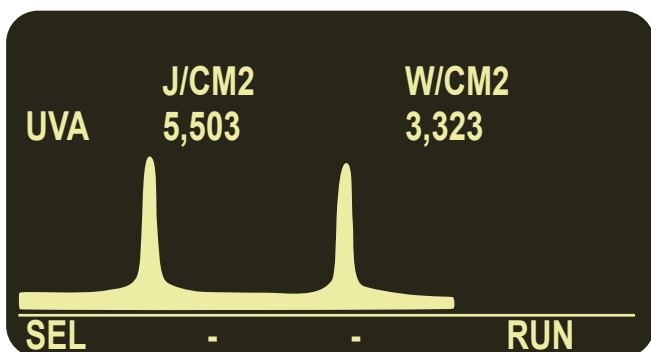
### Data Mode

UV data (Joules/cm<sup>2</sup>, Watts/cm<sup>2</sup>) displayed on one screen for up to 4 bands.

	J/CM2	W/CM2	
UVA	5,663	3,355	
REF	2,909	3,433	
DIFF%	+94,6	-2,3	
SEL	-	SET	RUN

### Reference Mode

Allows the user to store a run into the instrument memory to allow for easy comparison to current UV conditions.



### Graph Mode

A graph illustrating the collected UV irradiance and energy is displayed for each of the UV bands. Graph shows the irradiance profile as a function of time (W/cm<sup>2</sup> on Y-axis, time on X-axis).

SETUP		
*MODE:	*GRAPH	
SMOOTH:	OFF	
UNITS:	J/W	
DISPLAY:	HIGH	
SAVE	↓	→ EXIT

### Setup Mode

Soft buttons are used for function selections and are indicated on the bottom of the display for easy operator selection and use. The user can decide the mode (Data, Graph, Reference) and units (J/W, mJ/mW or μJ/μW) to show on the display and also select the sample rate.

## Sample Rate Options

- **Smooth On:** Compatible with previous sampling rate on legacy Power Puck units sampling at 25 samples per second.
- **Smooth Profile:** Compatible with UV PowerMAP/UV PowerMAP® II sample rate of 128 samples per second. This is also the sample rate at which the irradiance profile is transferred to the computer with the Profiler versions of Power Puck® II/UviCure® Plus II.
- **Smooth Off:** Compatible with UV PowerMAP/PowerMAP® II sample rate of 2048 samples per second.

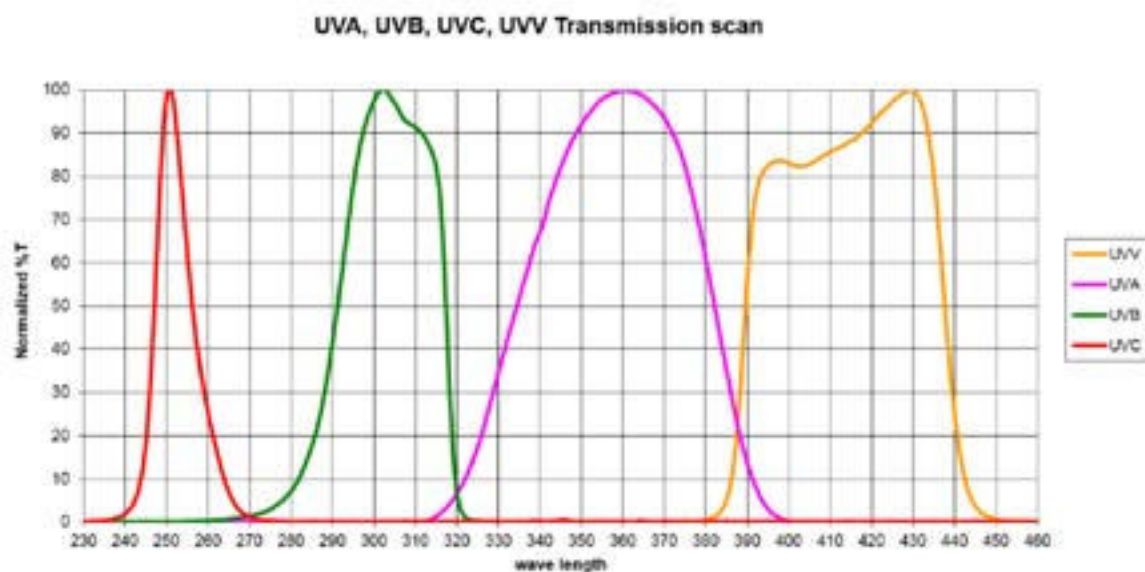
## Dynamic (Operating) Ranges

There are three dynamic ranges in the UviCure Plus II /Power Puck II that are selected at the time of order.

- The standard range (10 Watt) works well for high power curing applications
- The 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.

## EIT Bands

- EIT Puck Instruments are available with UVA (320-390nm), UVB (280-320nm), UVC (250-260nm) and/or UVV (395-445nm)
- See the filter responses below.
- The UV Power Puck® II is available only with all four EIT bands.
- The UviCure Plus® II is available in any one EIT band, selected at the time of order.



# UV Power Puck® II Profiler & UviCure® Plus II Profiler

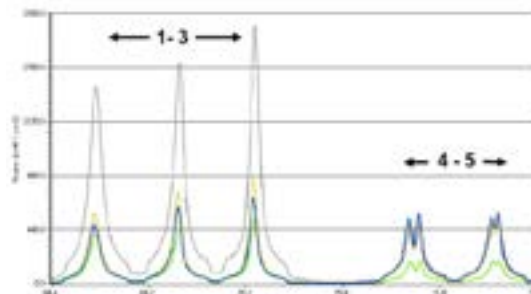
Profiler versions of the UviCure® Plus II or UV Power Puck® II operate in the same manner as Standard units, The Profiler function allows the transfer of the numerical (irradiance, energy density) values and the irradiance profile (Watts as a function of time) to a computer via a USB port for analysis with the EIT UV PowerView Software® III Program.

## EIT Profiler units quickly and easily identify

- The number of lamps and individual lamp performance
- Lamp focus conditions and changes to the focus
- The bulb type (Four band Power Puck® II Profilers)
- Uniformity of UV across bulb length changes over time with the comparison to stored files
- Process speed and/or exposure time variations
- Maintenance needs before they impact product quality

## Puck Profiler Instrument Features

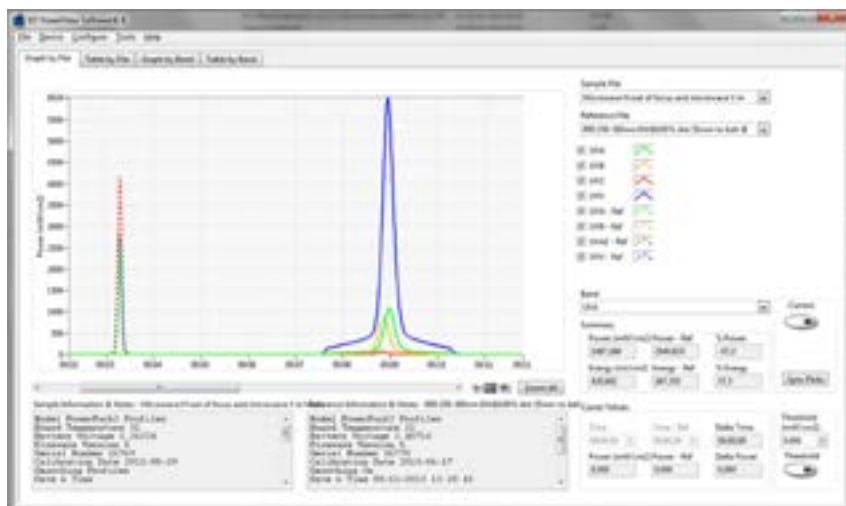
- Fixed sample rate of 128 samples/second
- Memory supports data collection of over 100 minutes
- Information displayed on the screen for production team, transfers to computer for analysis & archiving
- Can upgrade a "Standard" USB "Puck" instruments to a "Profiler" version at EIT



Five lamps out of a much larger system. Lamps 1-3 are different output value focused Hg-Gallium while lamps 4-5 are non-focused mercury lamps.

## UV PowerView Software® III Features

- Updated PowerView Software® for use with Profiler instruments, LEDCure Profilers and UV PowerMAP® II
- Cursors allow you to align files on top of each other for direct comparison
- Easily share information into reports/programs
- Enhanced note and information options to add information to your collected files
- UV PowerView Software® III files are in a \*.tdms file format and can imported to Excel



**Data and graph in same window**  
Graph by File which allows user to view two files with one-four bands each. Sample information from unit including date stamp.

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

Display	Easy to Read, Yellow Text on Black Background
Suggested Operating Ranges	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.
Accuracy	+/- 10%; +/- 5% typical plus ±0.2% of full scale Typical +/- 5% or better
Calibration	Supplied with NIST traceable calibration certificate
Spectral Ranges (UV Power Puck® II)	Four channel monitoring of UVA (320-390 nm), UVB (280-320nm), UVC (250-260nm) and UVV (395-445nm)
Spectral Ranges (UviCure® Plus II)	One channel monitoring of UVA (320-390 nm), UVB (280-320nm), UVC (250-260nm) or UVV (395-445nm) selected at the time of purchase
Spatial Response	Approximately cosine, "Lambertian"
Operating Temperature	0-75°C Internal temperature; tolerates high external temperatures for short periods (audible alarm indicates when temperature has exceeded tolerance)
Smooth Modes	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
Sample Rate for Profiling	Profiler instruments use a fixed sample rate of 128 samples/second for profiling. For best matching between instrument display and UV PowerView Software® III values, use Smooth PROFILER mode
Memory Capacity For Profiling	The memory capacity of the Power Puck® II and UviCure® Plus II Profilers in PROFILER Mode is sufficient to collect data for >100 minutes
UV PowerView Software® III	National Instruments LabVIEW based programming designed for Windows 7-10. Collected data stored in LabVIEW based *.tdms files
Time-Out Period	2 minutes DISPLAY mode (no key activity). A no time-out mode can also be ordered
Battery/Battery Life	Two user-replaceable AAA Alkaline Cells/Approximately 20 hours with display on
Dimensions	4.60 x 0.50 inches; 117 mm x 12.7 mm (D x H)
Weight	10.1 ounces (289 grams)
Instrument Materials	Aluminum, stainless steel
Carrying Case Material/Weight	Cut polyurethane interior, scuff resistant nylon exterior cover/9 ounces (260 grams)
Carrying Case Dimensions	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.

EFSEN UV & EB TECHNOLOGY

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