

UV LED modules

New high power UniJet series

Designed for the highest performance

Main applications

- ◆ Roll-in print
- ◆ UV inkjet printers
- ◆ UV ink drying
- ◆ 3D printing
- ◆ Edge curing
- ◆ Spot curing
- ◆ Image processing
- ◆ Wafer production

Features

- ◆ Mercury free
- ◆ Ozone free
- ◆ Energy efficient
- ◆ High peak irradiance in a compact design
- ◆ Long life exceeding 10,000 operating hours
- ◆ Integrated air cooling system
- ◆ 365, 385, 395, and 405 nm wavelengths



Ushio's varied, custom designs, in the form of the E and i series, are developed around the unique functions of the numerous applications in the commercial and industrial UV curing and printing industries. With features such as air cooling and dimming, each user can be sure that their specific needs are met. UV LED UniJet modules have distinct advantages over mercury based lamps for the curing and printing industry. They are safe to operate and their efficient design offers generous energy savings.

UniJet E series

Ushio offers 3 distinct types of UV LED UniJet E series modules for inkjet print and 3D printing. All three types are available in different configurations.

HD (High Dose) type

High accumulated irradiance (dose amount) along the short axis is most suitable for inkjet printers or other applications where quick drying is required. Scalable design to link up to three E series modules and two E II series modules.



HC (High Condensing) type

High peak irradiance is achieved by focusing the light using an integrated rod. The High Condensing (HC) type is most suitable for UV curing or other side emitting applications. Scalable design to link up to two E series modules and two E II series modules.



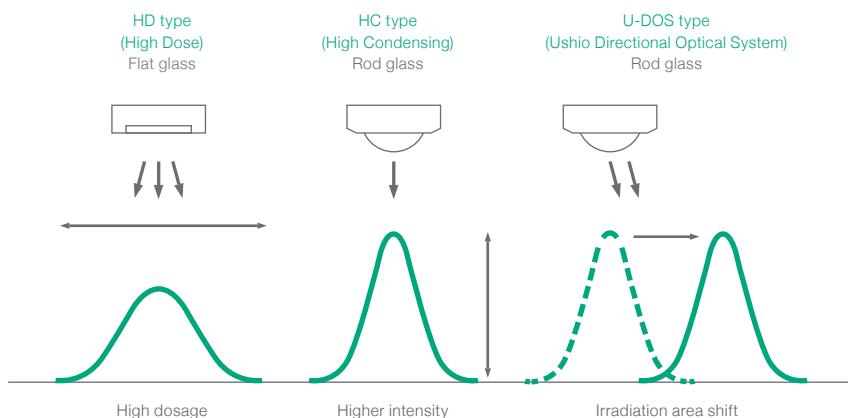
U-DOS (Directional Optical System) type

State-of-the-art Ushio optical technology provides the angle for the irradiance distribution and focuses the light very effectively. This technology prevents ink clogging in the print head caused by UV reflection. Scalable design to link up to two E series modules and two E II series modules.



Thanks to Ushio's unique optical technology, three types of intensity distribution are available. Also, you can choose the most suitable one for your needs from a combination of the various intensities, wavelengths, and radiation distributions.

E series features



The superior performance of this series also allows for high peak irradiance, stability, and consistent uniformity. The UniJet series compact design and operating lifetime, which exceeds 10,000 hours, offers the user convenience and ease of operation.

Module Type	E110 HD (High Dose)	E110 HC (High Condensing)	E110 U-DOS (Ushio Directional Optical System)
Cooling Type		Air cooled	
Size of the window (mm)	109 × 10	110 × Rod lens	110 × Rod lens
Peak Irradiance (W/cm ²)	3 (Window) at 385/395/405 nm 1.8 (Window) at 365 nm	3 (W.D 10 mm) at 385/395/405 nm	1.5 (W.D 5 mm) at 385/395/405 nm
Dimming range (%)		10 to 100	

Module Type	E075II HD, E110II HD (High Dose)	E075II HC, E110II HC (High Condensing)	E075II U-DOS, E110II U-DOS (Ushio Directional Optical System)
Cooling Type		Air cooled	
Size of the window (mm)	75 × 10, 109 × 10	76 × Rod lens, 110 × Rod lens	76 × Rod lens, 110 × Rod lens
Peak Irradiance (W/cm ²)	7 (Window) at 385/395/405 nm 4.2 (Window) at 365 nm	4 (W.D 10 mm) at 385/395/405 nm	3 (W.D 10 mm) at 385/395/405 nm
Dimming range (%)		10 to 100	

Module Type	E075Z HD, E110Z HD (High Dose)	E075Z HC, E110Z HC (High Condensing)	E075Z U-DOS, E110Z U-DOS (Ushio Directional Optical System)
Cooling Type		Air cooled	
Size of the window (mm)	75 × 14, 112.5 × 14	76 × Rod lens, 113.5 × Rod lens	76 × Rod lens, 113.5 × Rod lens
Peak Irradiance (W/cm ²)	7 (Window) at 385/395/405 nm 4.2 (Window) at 365 nm	5.5 (W.D 5 mm) at 385/395/405 nm	4.5 (W.D 5 mm) at 385/395/405 nm
Dimming range (%)		10 to 100	

Module Type	E075III HC, E110III HC (High Condensing)	E075III U-DOS, E110III U-DOS (Ushio Directional Optical System)
Cooling Type		Air cooled
Size of the window (mm)	75 × Rod lens, 110 × Rod lens	76 × Rod lens, 110 × Rod lens
Peak Irradiance (W/cm ²)	7 (W.D 10 mm) at 385/395/405 nm	4.5 (W.D 10 mm) at 385/395/405 nm
Dimming range (%)		10 to 100

UniJet i series

- ◆ High power density up to 18 W/cm²
- ◆ Multidivisional dimming from 10% - 100%
- ◆ Scalable end-to-end with edgeless module
- ◆ Integrated driver
- ◆ U-VIT (Ushio Variable Illumination Technology):
partial dimming - on\off function can offer optimised light distribution which can contribute to energy saving
- ◆ Fine tuned curing process



i-II series

Module Type	i60II	i120II	i185II	i245II	i310II	i370II	i430II	i495II
Cooling Type	Air Cooled							
Size of the window (mm)	60 × 25	120 × 25	185 × 25	245 × 25	310 × 25	370 × 25	430 × 25	495 × 25
Peak Irradiance (W/cm ²)	8 at 365 nm, 16 at 385 - 405 nm							
Dimming range (%)	10 to 100							

i-III series

Module Type	i075III	i150III	i225III	i300III	i375III	i450III	i525III
Cooling Type	Air Cooling						
Size of the window (mm)	75 × 40	150 × 40	225 × 40	300 × 40	375 × 40	450 × 40	525 × 40
Peak Wavelength (nm)	365/385/395/405						
Peak Irradiance (W/cm ²) at 5 mm distance	11.6/15.0/16.3/16.7						
Dimming range (%)	10 to 100						

Developing Solutions Together

Ushio is a partner which listens to your ideas and requirements. Let us optimise your processes according to your specifications and expectations. Use our expertise to develop a tailor-made solution which matches your needs.

USHIO
Applying Light to Life

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