



Corporate Overview



WATER



SURFACE



AIR



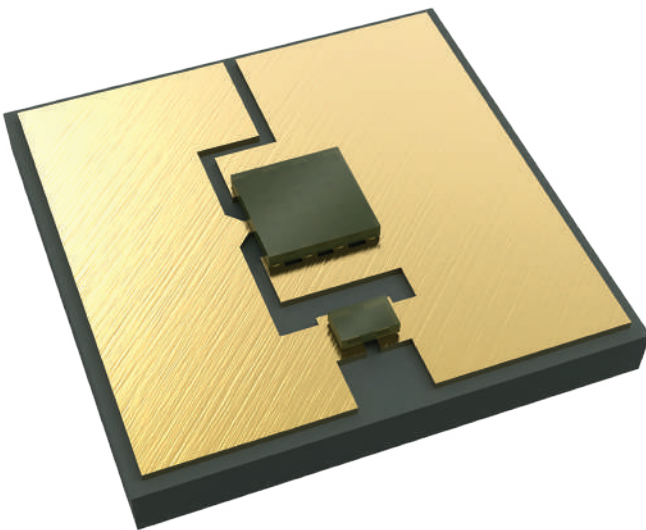
Crystal IS™

Leading Manufacturer of UVC LEDS since 1997

- Patent holder for AlN Substrate
- Large Manufacturing and Supply Capacity with a Built Inventory
- ISO 9001:2015 Certified Company
- Research and Design Expertise

AsahiKASEI

- Founded in 1922
- 45,000 Global Employees
- > \$20 Billion Revenue
- Customers in over 100 Countries
- 307 Subsidiaries



Crystal IS is a US-based manufacturer of native aluminum nitride substrates that are used to make high performance UVC LEDs for disinfection and sensing. Our proprietary technology allows for UVC LEDs that are more efficient, higher power, and longer lasting in your novel devices and applications.

We partner with our customers to make the world a healthier, safer place. Together, we take our technology beyond pure capabilities to deliver smart, real-world health benefits that serve as the foundation for sustainable human life.

ADVANTAGES OF ALUMINUM NITRIDE SUBSTRATES

AlN substrate-based UVC LEDs show key advantages against their sapphire-based competitors:

More efficient disinfection power:

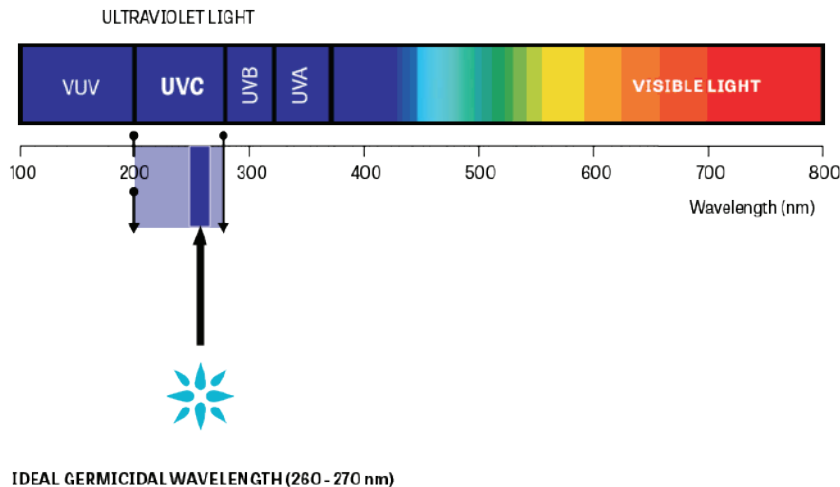
Less power is required for the same disinfection level of competitive LEDs. Refined emission of 260 - 270 nm, the ideal wavelength for germicidal applications.

More consistent, reliable performance:

AlN-based LEDs have fewer defects and thus a reduced probability for inconsistency throughout the lifetime of the product. Allowing engineers to manipulate the lifetime with higher confidence.

Simpler light emission pattern for simpler, lower cost designs:

AlN-based LEDs emit all light from the top surface, which minimizes the “etendue.” Therefore, the light is steered and focused without losses.



BIO-SAFETY LAB - LEVEL 2

In order to build the most effective UVC LED-based disinfection systems, it's important to understand the common pathogens that contaminate water, air, and surfaces. At the Crystal IS on-site microbiology lab, we have the resources to safely study common pathogens in a controlled environment and assess the performance of UVC LED disinfection systems against these pathogens. Being able to determine the performance of our products under real-life field applications allows us to create better disinfection solutions.

- On-Site, On-Point
- Trusted Research Experts
- Timely Delivery
- Real Life Field Applications
- Customized Solutions

Klaran WD

- Most Reliable in the industry
- Ideal Germicidal Wavelength (260 - 270 nm)
- The Industry Standard
- Outputs at 50, 60, 70, and 80 mW

Klaran LA

- Longest Lifetime (Up to 10,000 Hours)
- Ideal Germicidal Wavelength (260 - 270 nm)
- Higher mW Power Outputs

APPLICATIONS EXAMPLES



Water Dispensers



Refrigerators



Under the Sink



Water Bottle



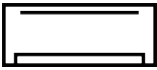
Water Pitchers



UV Robots



Food Curing



HVAC Systems



UVGI Implements



Air Purifiers



Automotive



PRODUCTS

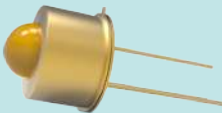


Disinfection Products

- Water Reactors
 - UVC LEDs
- Light engines
- Test equipment
- Custom Design Boards



PRODUCTS



Spectroscopy Products

- Surface Mount
- Ball Lens Solutions



an Asahi Kasei company

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