

Seoul Viosys

UV Sales Team

Business Milestones

Core Competency

Business Line Up

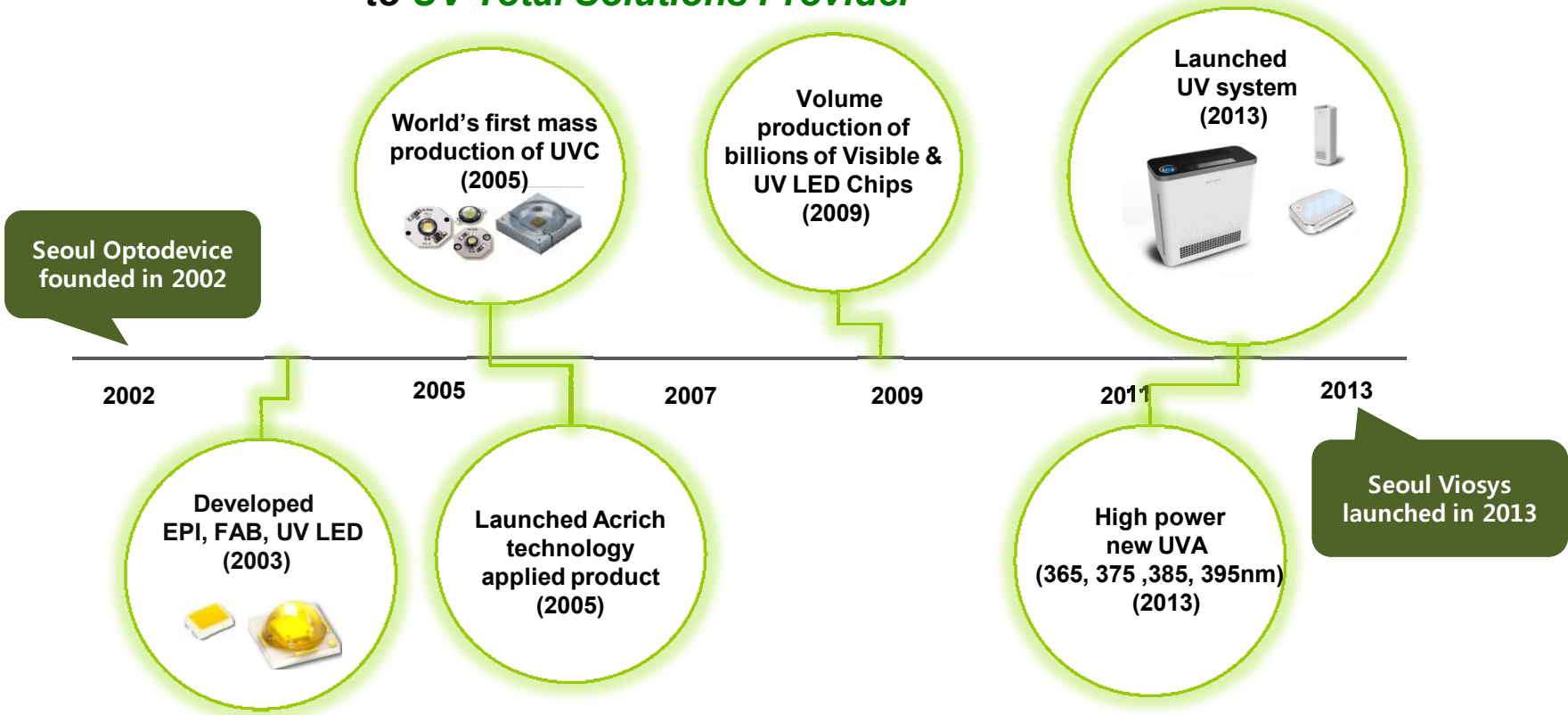
UV LED Business

SEOUL VIOSYS Business Milestone

World Top UV LED Company

VIOSYS = UV * BIO * SYSTEM

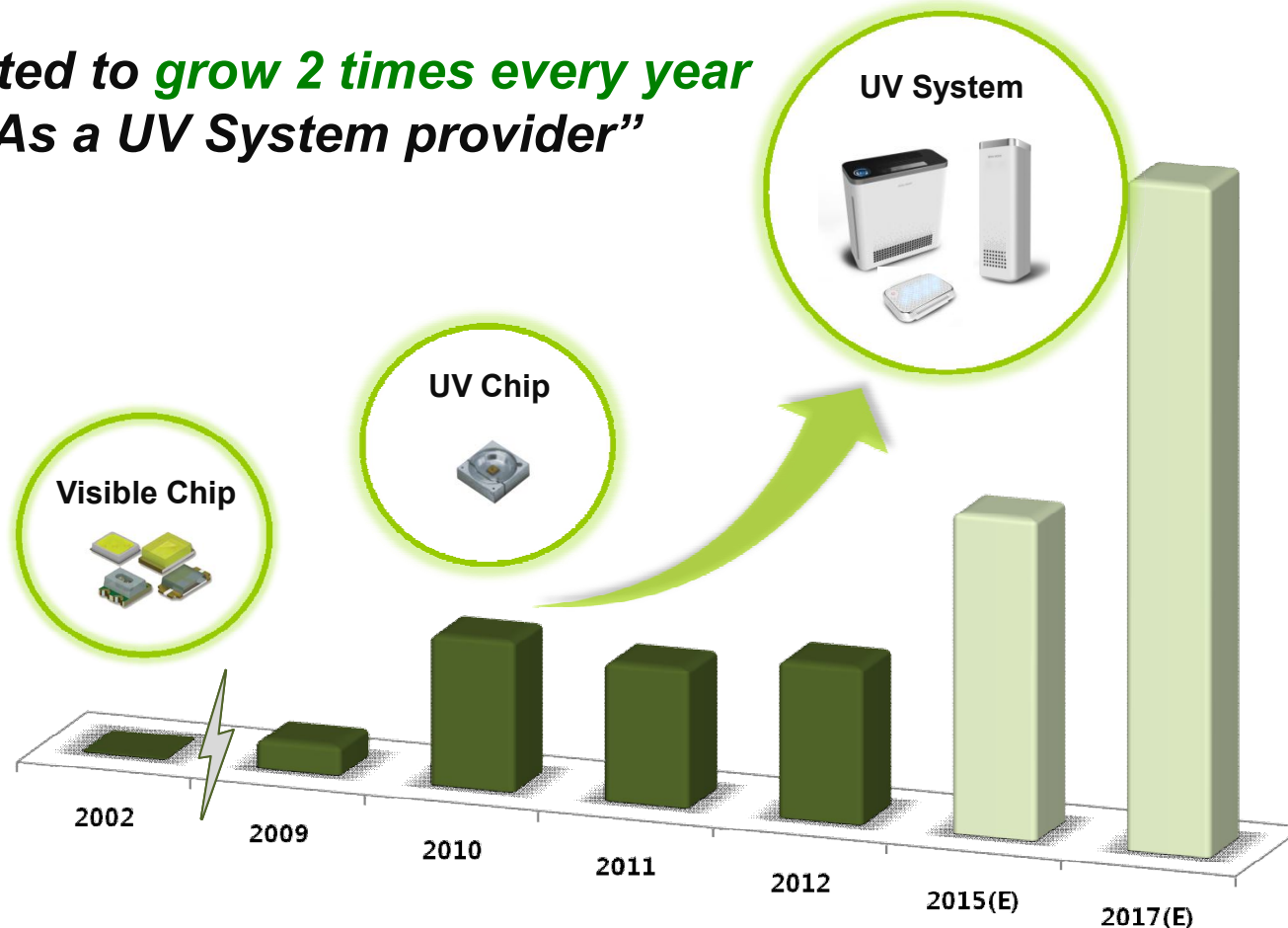
*“ Transformed from Visible & UV Chip Maker
to UV Total Solutions Provider ”*



SEOUL VIOSYS Turnover

**UV LED total solutions provider
with expected rapid growth (62% CAGR) during 2009-2016**

*“ Expected to **grow 2 times every year**
As a UV System provider”*



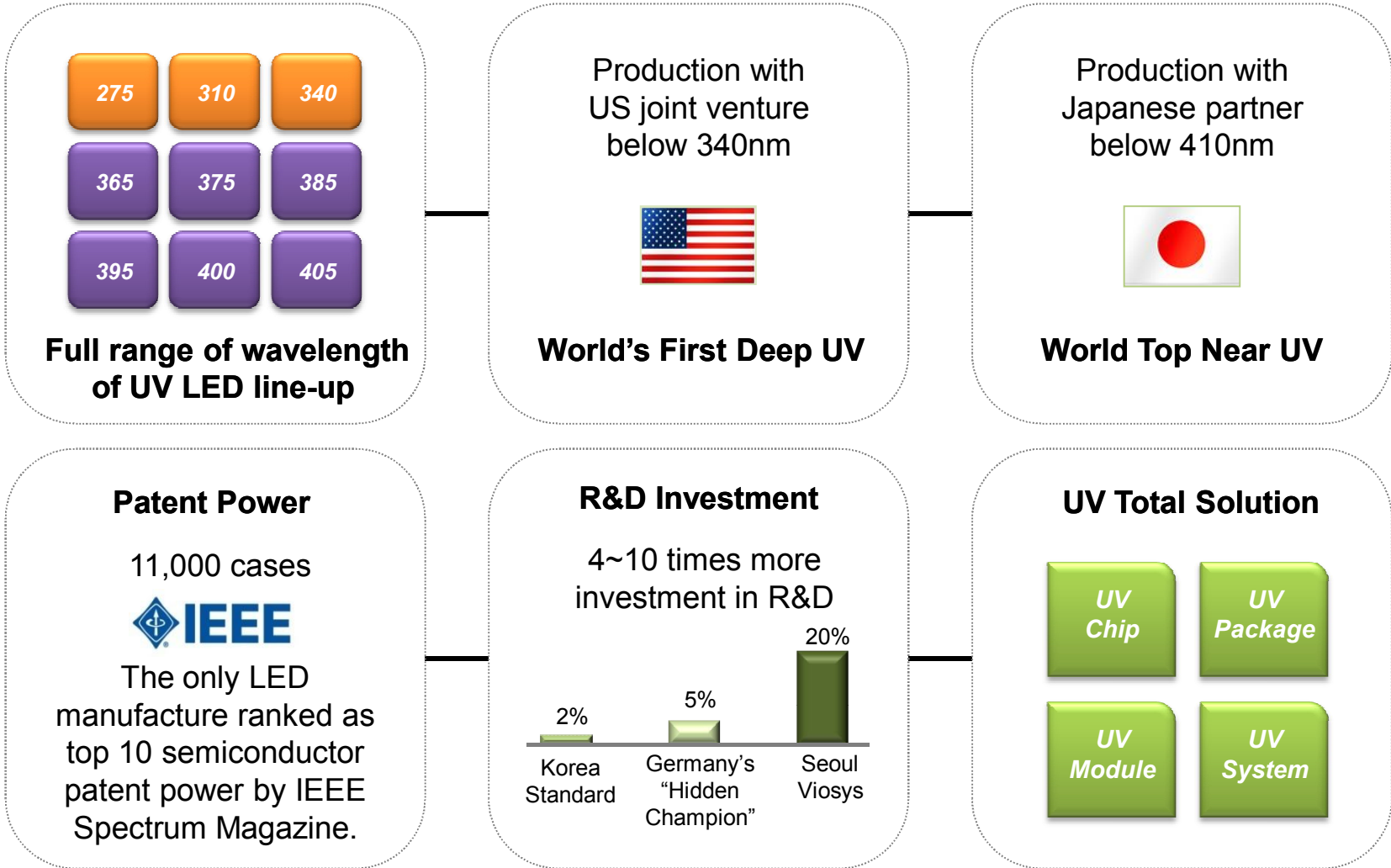
Business Milestones

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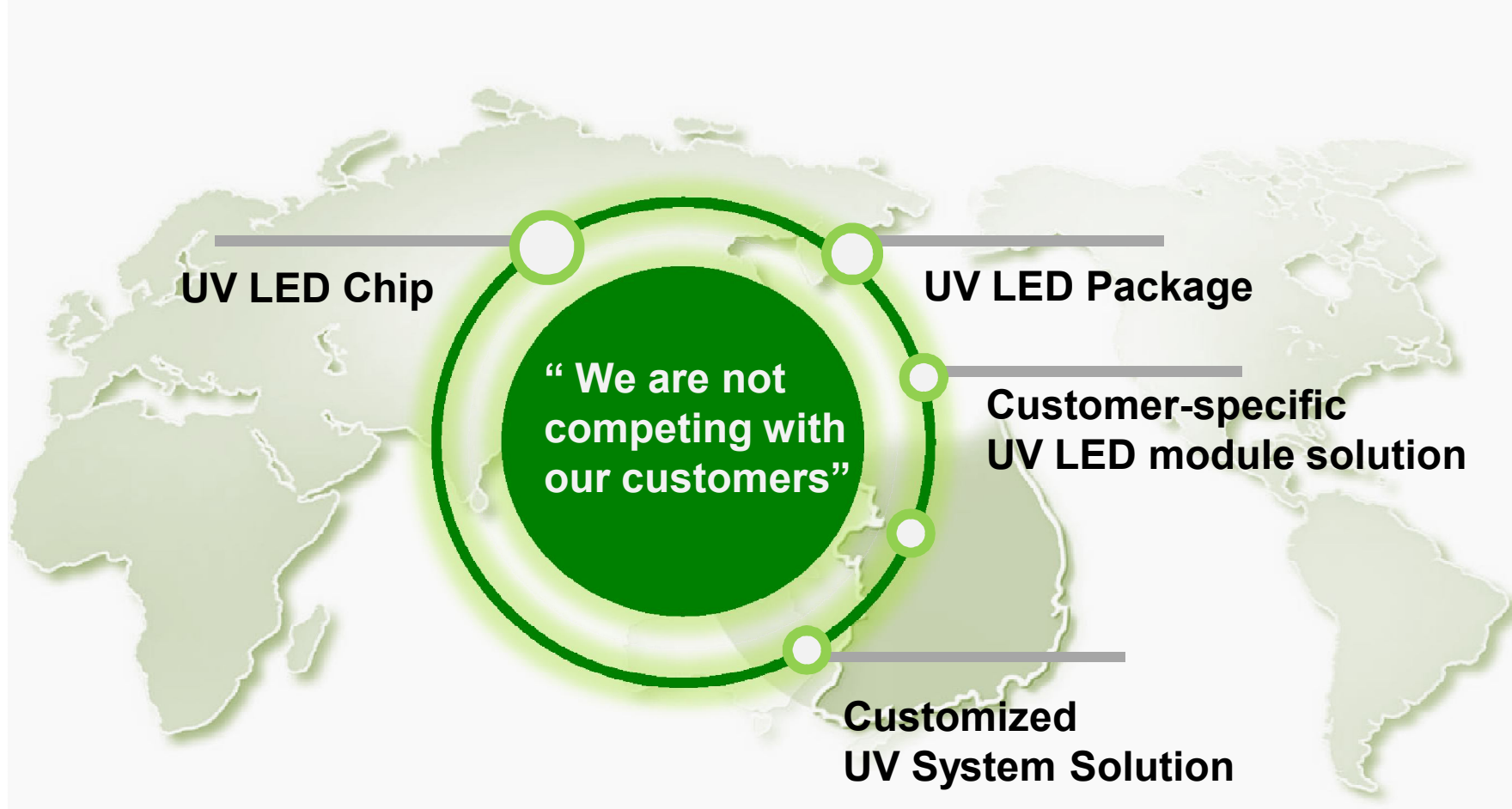
UV LED Business

Technology competitiveness backed by more than 11,000 patents



SEOUL VIOSYS Business Model

**Focused on providing UV LED solutions that meet customer needs,
not competing with our customers**



UV LED Total solution provider

Able to meet customer needs in various applications

UV Package




Near UV/ Deep UV Package

Full range of wavelength




Industrial Curing Nail Curing Photolithography Counterfeit detection Black Light Bulb (UV lamp)

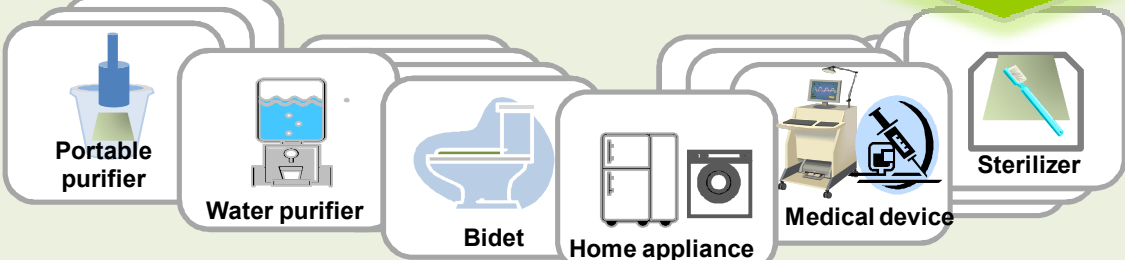
UV System



Air purifier Portable Air purifier Surface disinfectant



Expand to various applications



Portable purifier Water purifier Bidet Home appliance Medical device Sterilizer

Disinfection Air Purification / Deodorization / Water Purification Biomedical

Business Milestones

Core Competency

Business Line Up

UV LED Business

Full line-up of packaging solutions

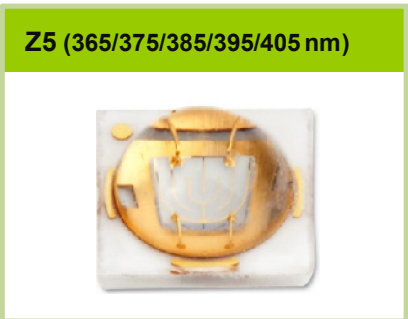
**DEEP
UV
LED**



- Feature**
- ✓ SMT solderable
 - ✓ Low thermal resistance
 - ✓ Lead - Free , ROHS compliant

- Application**
- Air & Water Purification
 - Air & Water Disinfection
 - Analytical instruments
 - Surface Sterilization

**Near
UV
LED**



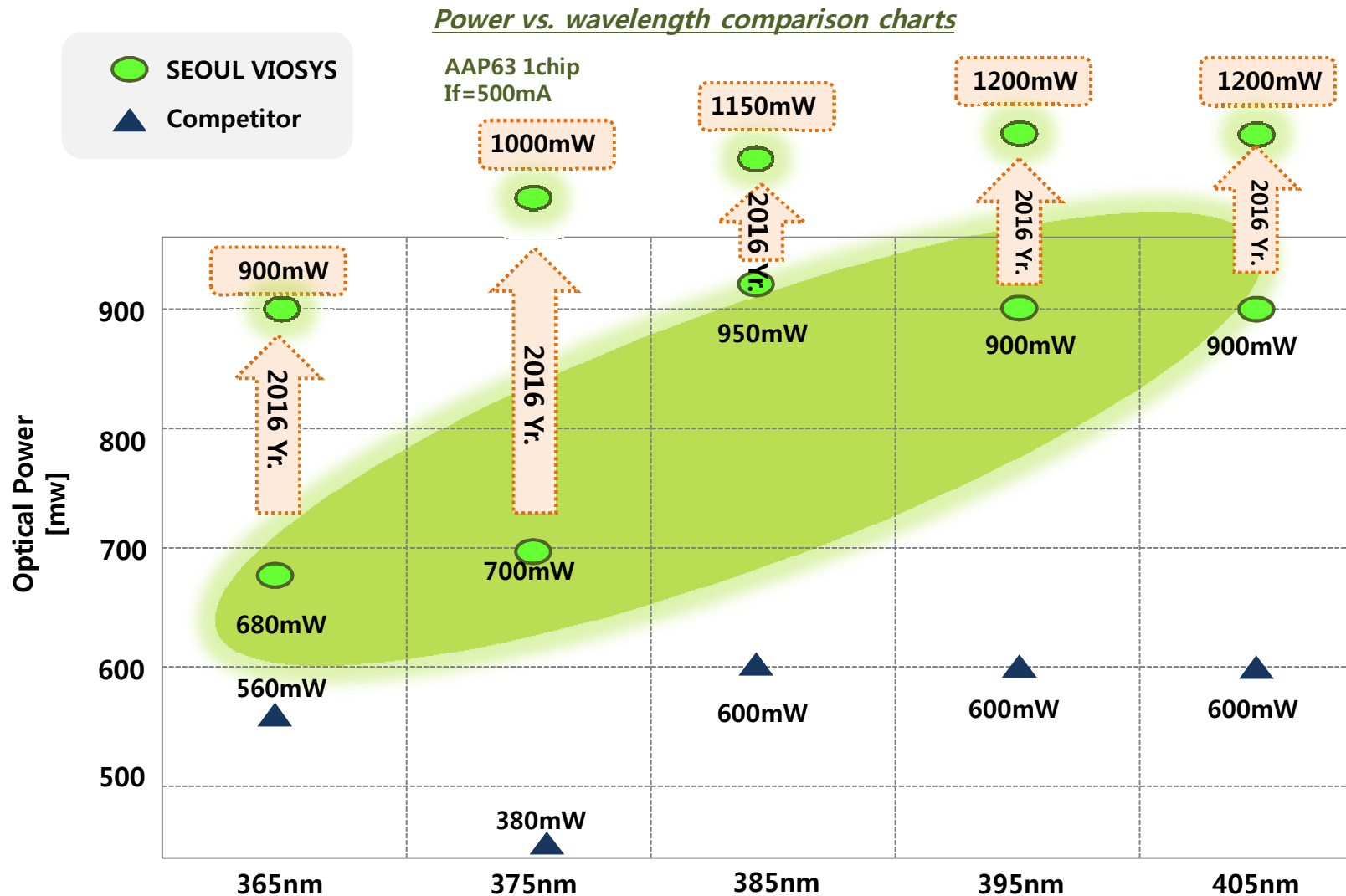
- Feature**
- ✓ Super high Flux output and high Luminance
 - ✓ Designed for high current operation
 - ✓ Low thermal resistance
 - ✓ SMT solderable



- Application**
- UV Curing / Coating
 - Forensics
 - Counterfeit Detection / Security
 - Printing / UV Torch

Leading Package Provider

Approximately 50% higher power than competitor



Business Milestones

Core Competency

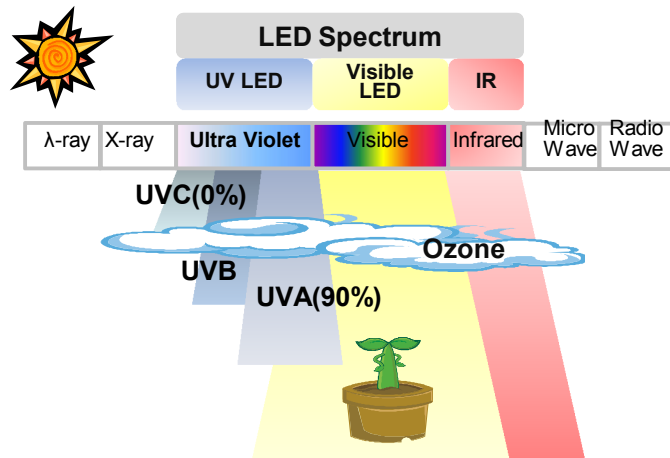
Business Line Up

UV LED Business

Why UV LED ?

UV LED is green, environmentally friendly, and can be adopted for various applications

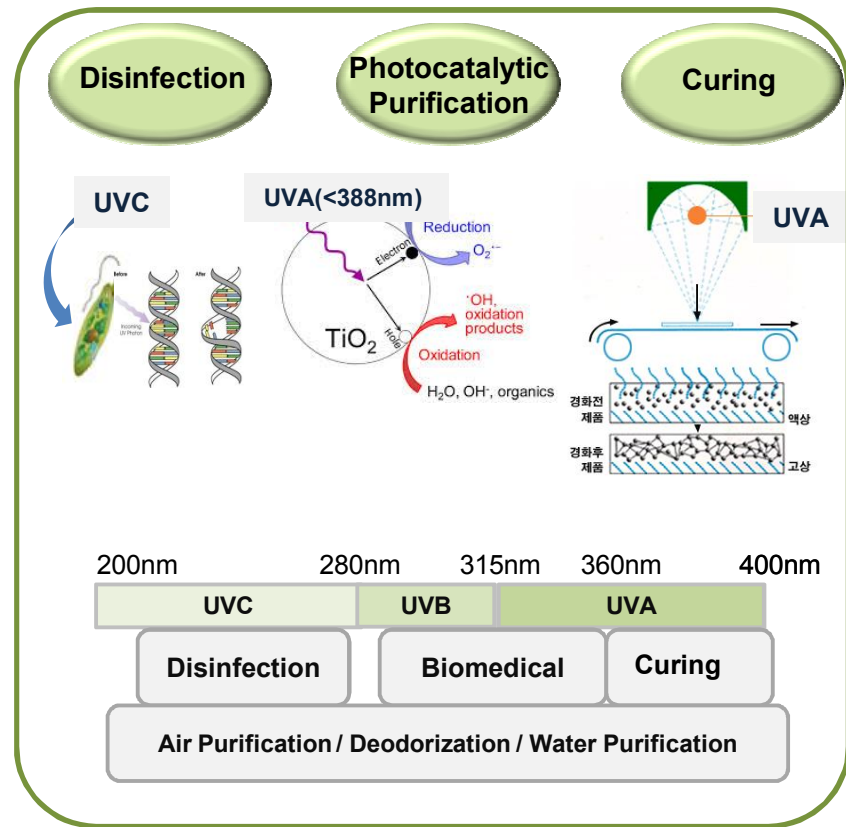
✓ **UV(Ultraviolet) = Functional light**



Green / Clean Purification Technology

- ✓ Energy Saving
- ✓ Environmentally friendly
- ✓ Long life span
- ✓ Design Flexibility
- ✓ Available for various applications

✓ **Application & Function**



Become an industry leader using our value-added technology products

- Disinfection
- Healthcare
- Analysis Instruments

- Phototherapy
- Skin treatment sensor

- Photo catalysis
- Purification
- Deodorization

Curing

- Printing
- Adhesive
- Coating



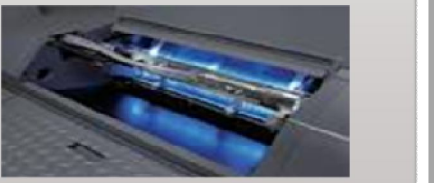
200nm~280nm



280nm~340nm



300nm~400nm



365nm~400nm

Application : Examples

Various applications are open to the UV LED market

DIE WELT
 "Two people died of pneumonia caused by the bacteria of the unclean- air conditioner."
 DIE WELT 2013-Aug-22

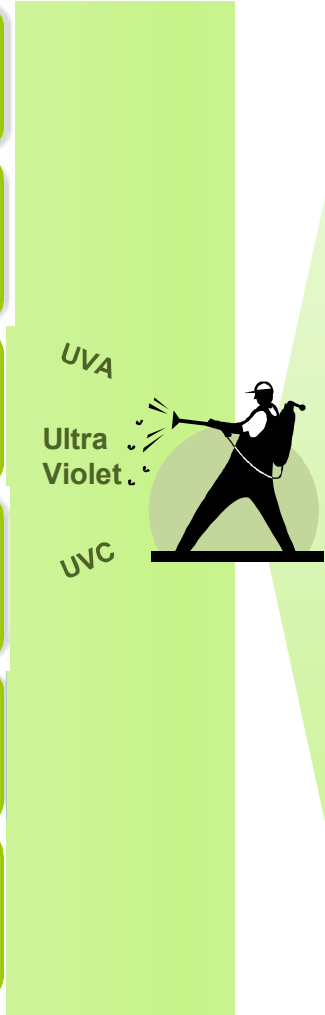
Los Angeles Times
 More than 159 million Americans -- over half the nation's population -- live in areas with bad air
 Los Angeles Times 2008-Apr-21

CBN NEWS
 Cell phones are 10 times as dirty as a toilet seat
 CBN NEWS 2013-Jan-27

MailOnline
 Average washing machine load contains 100 million E.coli at any one time
 Mail Online 2011-Oct -17

eHow
 "Approx. 2.7 million germs per square inch on a water cooler spigot or dispenser."
 eHow.com

Vanguard
 Your fridge - very good bed of germs!!
 Vanguard 2013-June-12



Air Purification

Air conditioner

Air Purification

Air purifier

Disinfection

Mobile phone

Disinfection

Washing machine

Water Purification

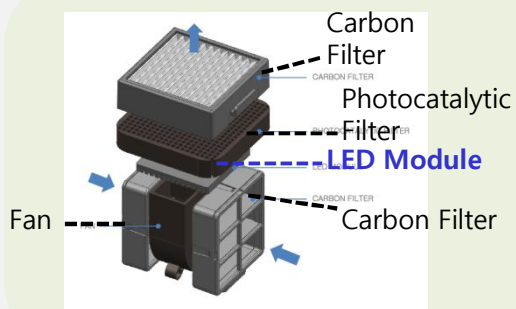
Water purifier

Disinfection Deodorization

Refrigerator

Application : Portable Air Purifier

Portable Air Purifier

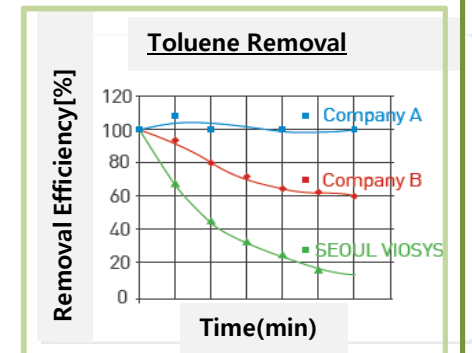


Specification

- Dimension (L×W×H) (mm) : 65×65×196
- Weight : 0.5kg
- Input Voltage : DC 12V

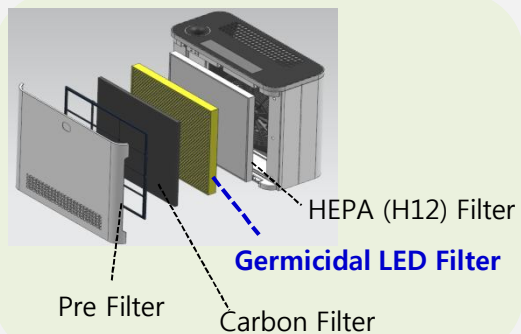
Features

- ✓ Eco-friendly
- ✓ Advanced purification technology covering most pollutants found in residential and personal spaces
- ✓ Suitable for automobile interior and personal use
- ✓ Hassle-free, easy maintenance



Application : Full-size Air Purifier system

Full-size Air Purifier

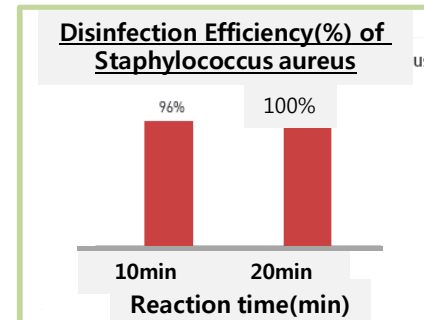


Specification

- Dimension (L×W×H) (mm) : 446×190×446
- Weight : 6kg
- Input Voltage : AC 220V/60Hz

Features

- ✓ Eco-friendly
- ✓ Airborne pathogen disinfection by germicidal UVC LED technology
- ✓ Multi-functional germicidal LED filter
- ✓ Easily integratable germicidal LED for any air purifier or dehumidifier



Application : Universal Surface Disinfecter

Universal Surface Disinfecter



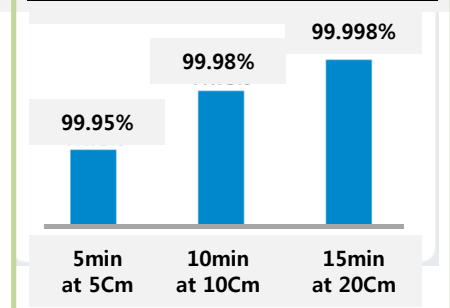
Specification

- Dimension (L×W×H) (mm) 136×87×23
- Weight : 0.2kg
- Input Voltage : DC 5V

Features

- ✓ Eco-Friendly
- ✓ Compact, versatile and applicable to any surfaces
- ✓ LEGO-like modularity for a wide variety of 2D and 3D configurations
- ✓ Powerful surface disinfection capability

Surface disinfection (%) as distance



Application : Mobile Device Application

Integrated Charging Stand / Station



Wireless Charging System

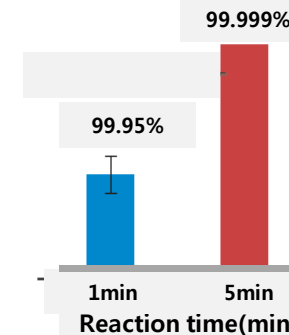


Bluetooth Sound System

Specification

- ✓ Eco-friendly
- ✓ Applicable to charging station and case
- ✓ Integratable into mobile device
- ✓ Powerful surface disinfection capability

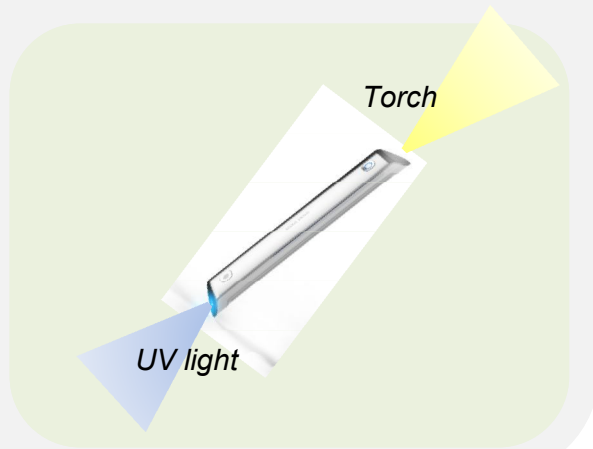
Surface disinfection (%) of E-Coli



* Test condition: Smartphone size.
80mm x150mm of Company A

Application : Germicidal LED Pen

Germicidal LED Pen



Specification

- ✓ Dimension (L×W×H) (mm): $\Phi 20 \times 180$ (L)

Features

- ✓ Eco-friendly
- ✓ Powerful surface and liquid disinfection capabilities
- ✓ Compact, lightweight and portable
- ✓ Torch function

- ✓ Global UV LED total solution provider
- ✓ More than 11,000 patents and annual investment of 20% into R&D
- ✓ Value-added technology products that can be integrated with your products

***Market can't be predicted,
but created!!***

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