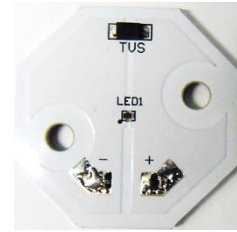


Disinfection Module Solution

### Specification

CMD-FSC-CO1A



## Product Brief

### Description

- This module is designed for disinfection.

### Features and Benefits

- UVC LED
- Low thermal resistance
- Simple BOM
- Miniaturization
- Lead Free Product

### Key Applications

- Disinfection

Table 1. Product

Model	Input Current [mA]	$\Phi_e$ [mW]	Wp [nm]			Remark
			MIN	TYP	MAX	
CMD-FSC-CO1A	100	10	270	275	280	Constant Current

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### Performance Characteristics

**Table 2. Electro Optical Characteristics at 100mA (Constant Current)**

( $T_c=25^{\circ}\text{C}$  RH=30%)

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Peak wavelength <sup>[1]</sup>	$\lambda_p$	270	275	280	nm
Forward Voltage	$V_F$	5.0	6.0	7.0	V
Power Consumption	P	0.5	0.6	0.7	W
Radiant Flux <sup>[2]</sup>	$\Phi_e$ <sup>[3]</sup>	8	10		mW

**Notes :**

[1]  $P_d$  can be changed by surrounding temperature and current.

[2] Peak Wavelength Measurement tolerance :  $\pm 3\text{nm}$

[3] Radiant Flux Measurement tolerance :  $\pm 10\%$

[4]  $\Phi_e$  is the Total Radiant Flux as measured with an integrated sphere.

[5] Forward Voltage Measurement tolerance :  $\pm 3\%$

※Operating temperature was tested at the assigned  $T_c$  point on the PCB.

※It is recommended to drive under conditions of  $T_c= 60^{\circ}\text{C}$  or less.

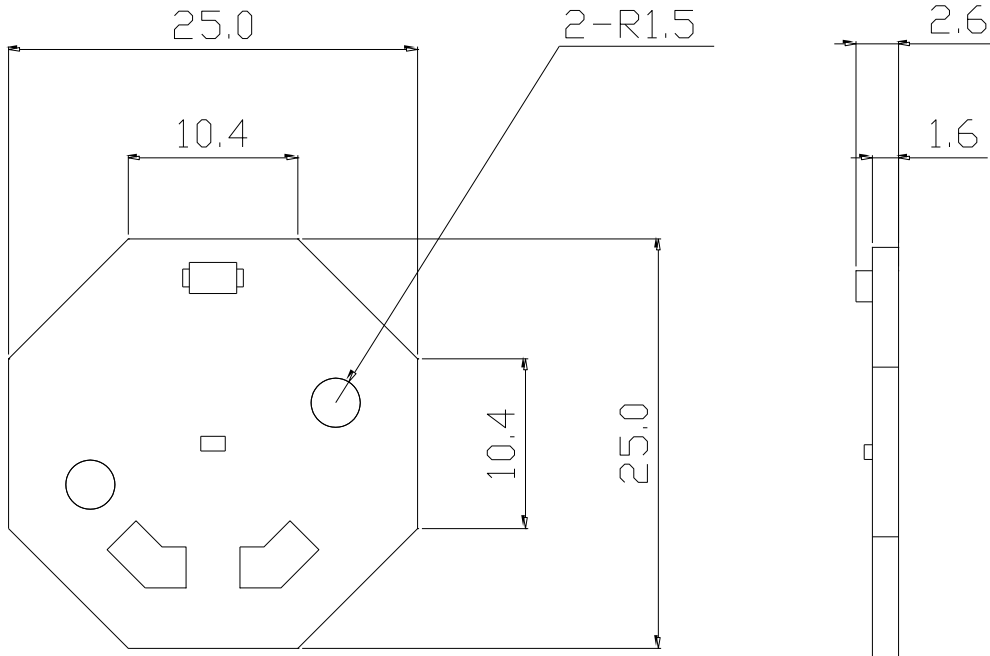


**Table 3. Absolute Maximum Ratings**

Parameter	Symbol	Unit	Value
Operating Temperature	$T_{opr}$	$^{\circ}\text{C}$	-20 ~ +40
Storage Temperature	$T_{stg}$	$^{\circ}\text{C}$	-20 ~ +60

## Drawing

[Unit: mm]

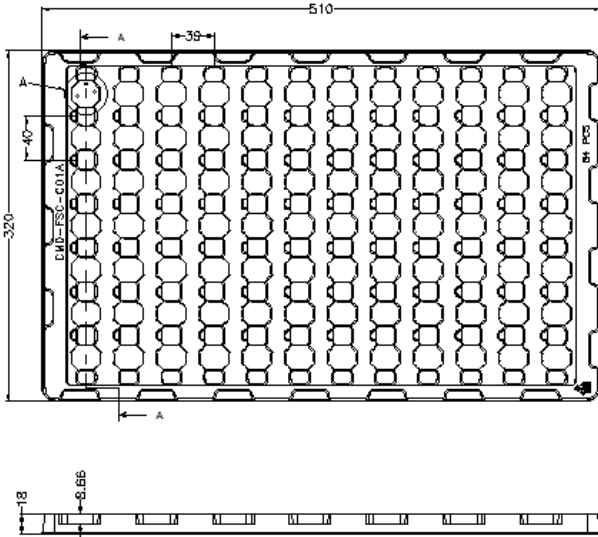


### Notes :

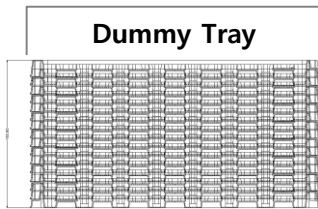
- Module Dimensions of the indicated maximum value, and to allow a tolerance :  $\pm 0.5$  [mm]

## Packing

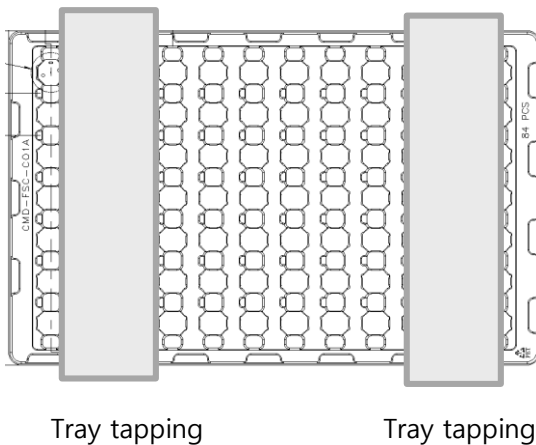
- 1) 1 Tray = 84pcs of products  
(510Lx320Wx18T) mm



- 2) Stacking 16 Trays (The top tray is an empty Tray)  
 → 15 tray X 84EA = 1260EA (1Tray=dummy)  
 → 1 tray pack 84pcs  
 → Total Quantity : 1260 pcs



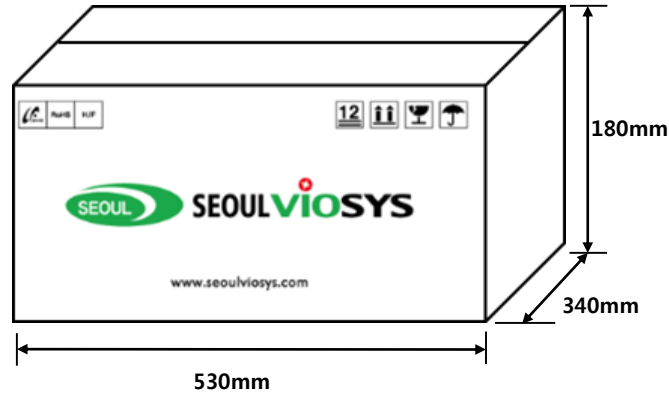
- 3) Tapping 16 Tray to fix.



Tray tapping

Tray tapping

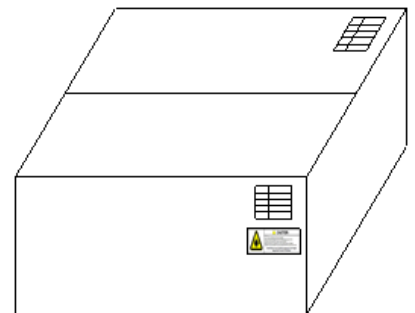
## Pack the tray in a box



- \* 1BOX : 84 pcs per tray x 15 Trays = 1260 pcs
- TOTAL : 1260 pcs per 1BOX  
(Outer guards are packaged in bulk)

- \* If it is not a full box, apply the buffer material to fix the product

- 4) Labeling

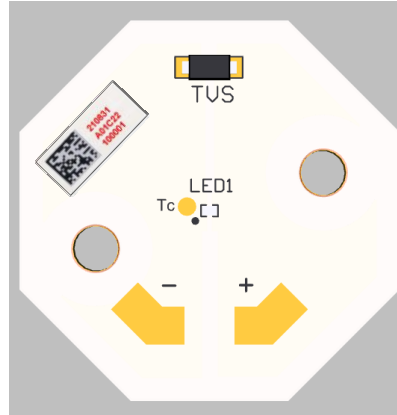


Part	Index	Unit	Information (mm)	Remark
Pallet	Size	mm	1067*1067	
	Box quantity	ea	24	4x6 layer
	Material	Plastic	-	

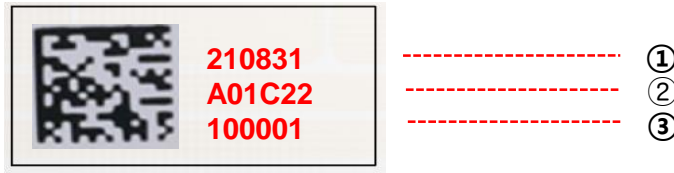
## Label Information

### 1) Label attachment location

**Marking** —————




### 2) Label information



No	Item	Information	Digits	Value	Remark	
①	Date	YYMMDD	6	SMT date	Ex: 210831	
②	Module Bin Code	BIN name PKG	3	A01	Radiant Flux	Typ 10mW
			1	C	Wicop Led	Typ 275nm
			2	22	Vf	DY9560-27-P-Bin
③	Lot No	100001	6	1	Lot no	
				00001	Lot number	00001~99999

### Label Information

<b>Model No.</b>	<b>CMD-FSC-CO1A (1)</b> 
<b>Rank</b>	- 
<b>Type</b>	
<b>Quantity</b>	<b>XX</b> 
<b>Lot No.</b>	<b>YYMMDDXXXXX-XXXXXXX</b> 
	<b>SEOUL VIOSYS CO.,LTD.</b>

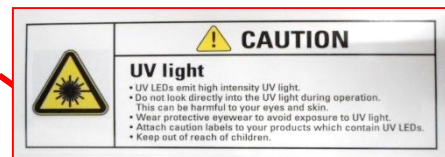
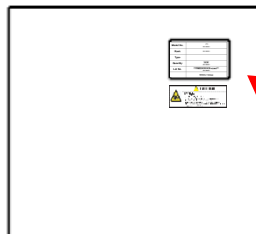
### Reference

- (1) It represent module part number.
- (2) YYMMDD : Packing Date
  - YY : Last 2digits of year(ex – 2018 → 18)
  - MM : Month(2digits)
  - DD : Date(2digits)
  - 
  - XXXXX : Packing box number
  - 
  - XXXXXXX: SAP code module

### Note

- \* Affixed to the label space of the box

### \* Labeling



## Precaution for Use

### 1) Storage

- To avoid moisture penetration, we recommend storing UV-Module in a dry box with a desiccant. The recommended temperature and Relative humidity are between 5°C and 30°C and below 50% respectively.
- UV-Module must be stored properly to maintain the device. If the UV-Module is stored for 3 months or more after being shipped from SVC, a sealed container with a nitrogen atmosphere should be used for storage.
- Replace the remained UV-Module into the moisture-proof bag and reseal the bag after work to avoid those UV-Module being exposed to moisture. Prolonged exposure to moisture can adversely affect the proper functioning of the UV-Module.

### 2) Handling Precautions

- VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate products and discolor them when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the materials selected to be used in the construction of fixtures can help prevent these issues.
- In case of attaching UV-Module, do not use adhesives that outgas organic vapor.
- Please do not use(or storage) together with the materials containing Sulfur.
- Do not use inflammable material nearby the products.
- Do not touch the products with wet hand
- Do not fix or remodel the products.
- Do not drop the machine, or give strong impact on the products.
- The UV-Module is encapsulated with special material for the highest flux efficiency. So it needs to be handled carefully as below
  - Avoid touching quartz glass parts especially with sharp tools such as Tweezers
  - Avoid leaving fingerprints cover parts.
  - UV-Module will attract dust so use covered containers for storage.
  - It is not recommend to cover the UV-Module with other materials (epoxy, urethane, etc)

### 3) Safety for eyes and skin

- The Products emit high intensity ultraviolet light which can make your eyes and skin harmful, So do not look directly into the UV light and wear protective equipment during operation.

### 4) Cleaning

- After assembly the product, empty the water and then wipe the UV-Module with a dry towel.



## Precaution for Use

### 5) Others

- Be sure to turn On / Off after module is connected.  
When connecting the module in the power on state, LED can be damaged by the influence of the inrush voltage / current.
- The driving circuit must be designed to allow forward voltage or current only when it is ON or OFF . If the reverse voltage is applied to UV-Module, migration can be generated resulting in LED damage.
- Do not handle this product with acid or sulfur material in sealed space
- Please handle using equipment that prevents static electricity.
- Do not touch unless ESD protection is used.
- Ionizer, grounding and keeping appropriate humidity are necessary for work environment.
- The appearance and specifications of the product may be modified for improvement without notice

