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]	Φe [mW]	Wp [nm]			Remark
			MIN	TYP	MAX	
CMD-FSC-CO1A	100	14	270	275	280	Constant Current

Part List

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Performance Characteristics

Table 2. Electro Optical Characteristics at 100mA (Constant Current) (T_a=25℃ RH=30%)

Parameter`	Symbol	Value			Unit
		Min.	Typ.	Max.	
Peak wavelength[1]	λp	270	275	280	nm
Forward Voltage[5]	V_F	5.0	6.0	7.0	V
Power Consumption	P_d[2]	0.5	0.6	0.7	W
Radiant Flux[3]	Φe[4]	11.0	14.0		mW

Notes :

[1] Peak Wavelength Measurement tolerance : ±3nm

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

[3] Radiant Flux Measurement tolerance : ± 10%

[4] Φ_e is the Total Radiant Flux as measured with an integrated sphere.

[5] Forward Voltage Measurement tolerance : ±3%

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

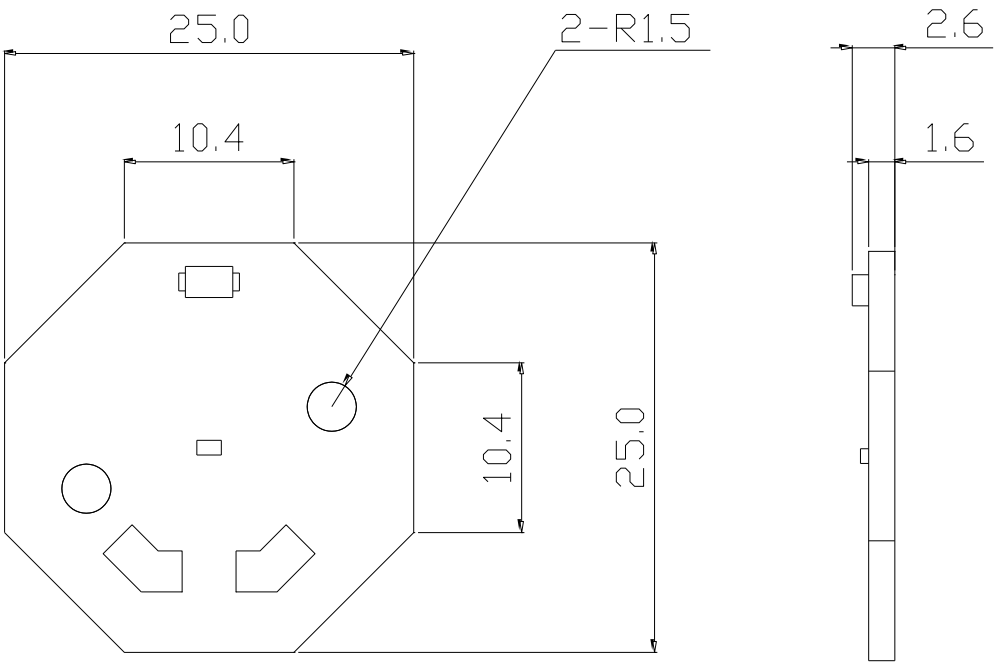
※It is recommended to drive under conditions of T_c= 60 ℃ or less.

Table 3. Absolute Maximum Ratings

Parameter	Symbol	Unit	Value
Operating Temperature	T_{opr}	ºC	-20 ~ +40
Storage Temperature	T_{stg}	ºC	-20 ~ +60

Drawing

[Unit: mm]

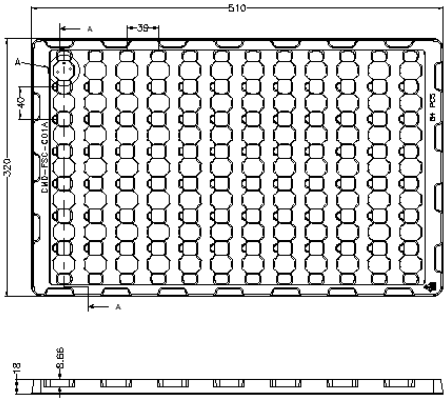


Notes :

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

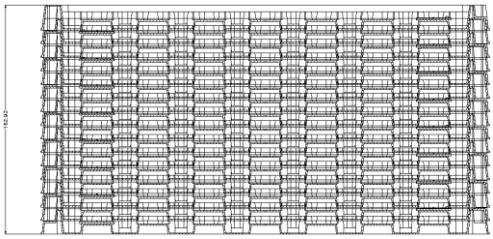
Packing

▪ Tray

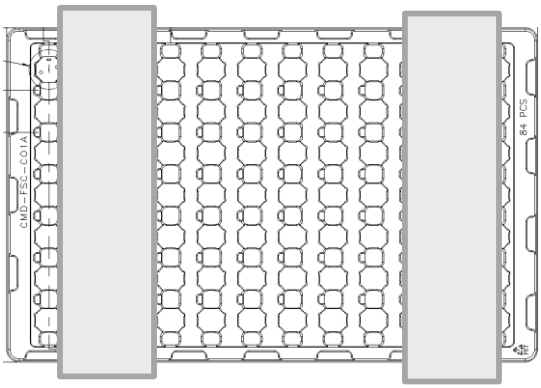


Note 1.	1 Tray = 84 pcs of products
Note 2.	Stacking 16 Trays
Note 3.	(The top tray is an empty Tray)

16ea Trays



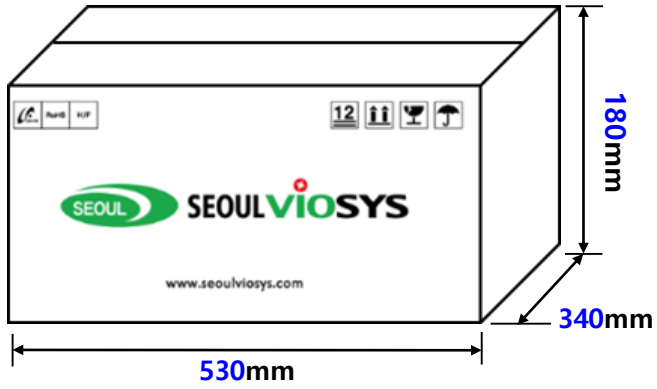
Note 1.	15 tray X 84 pcs = 1260 pcs (1Tray=dummy)
Note 2.	1 tray pack 84 pcs
Note 3.	Total Quantity : 1260 pcs



Tray Tapping **Tray Tapping**

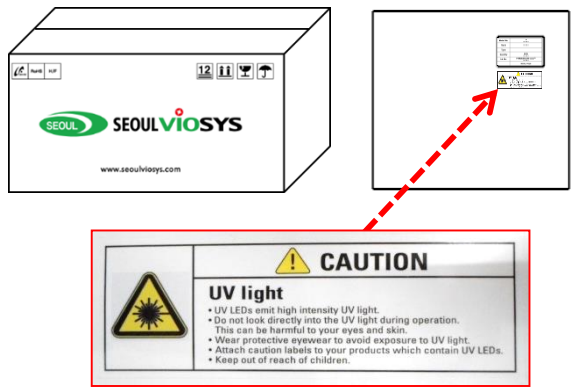
Note 1.	Tapping 16 Tray to fix.

▪ Pack the tray in a box



Note 1.	1BOX : 84 pcs per tray x 15 Trays = 1260 pcs
Note 2.	TOTAL : 1260 pcs per 1BOX (1dummy Tray)
If it is not a full box, apply the buffer material to fix the product	

▪ Labeling



Note 1.	Trays should be packed with sealing bag.
Note 2.	Sealing bag must be made with ESD protection charac teristics.
Note 3.	Each sealing bag must have 1ea silica gel pouch to ke ep humidity under control.

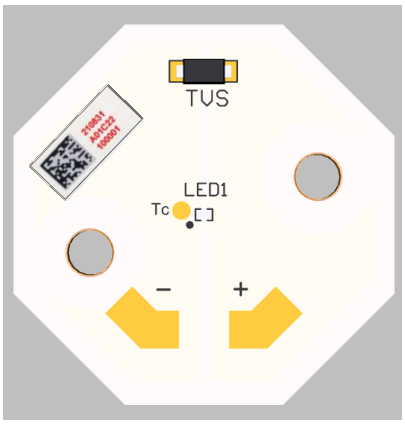
▪ Pallet

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

Label Information

1) Label attachment location

Marking



2) Label Size

① ② ③

3) Label and QR CODE information

NO	Item	Information	Digits	Value		Remark
①	Date	YYMMDD	6	SMT date		Ex: 210831
②	Module Bin Code	A01C22	3	A01	Radiant Flux	Typ 10mW
			1	C	Wicop Led	Typ 275nm
			2~7	22 or 27XXXXX	LED bin	Example. 13=DY9560-27-P-H22/ **2 digits** Or 27XXXXX) **7digit***
③	Lot No	100001	6	1	Lot no	
				00001	Lot number	00001~99999

Note* :Explain LED rank

1) Old rank LED XX : H01~HXX.(2 digits).
2) New Rank LED 27C1860 (7digits)
+ Wp (nm) bin:= 27A or 27B or 27C or 27D. (3digit)
+ Radiant Flux (mW) bin = 18 (W018) or 13 (W013) or 08 (W008)
+ Vf of LED(V) bin= 54(V540) or …. Or 62 (V620)

Example:
27C1860 = 27CW018V600.

Label Information

Model No.	**CMD-FSC-CO1A(1)**
Type	
Quantity	**XXX**
Lot No.	**YYMDDXXXXX-xxxxxxx(2)**
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Reference	(1)	It represent module part number. Refer to the page1 for part number selection.	
	(2)	YYMDD	Packing Date
		YY	last 2digits of year(ex – 2018 → 18)
		M	Oct-A, Nov-B, Dec-C(1digits)
		DD	Date(2digits)
		X	Initial of Manufacturer(1digits)
		XXXX	Sealing Pack No(4digits)
		-	dash
		XXXXXXX	SVC Code(7digits)
Note	(1)	It is attached to the top right corner of the box.	

- **Optional**

TOTAL Quantity

XXX

SEOUL **SEOUL VIOSYS CO.,LTD.**

Note	(1)	It is attached to the top right corner of the box.

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℃ and 30℃ 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