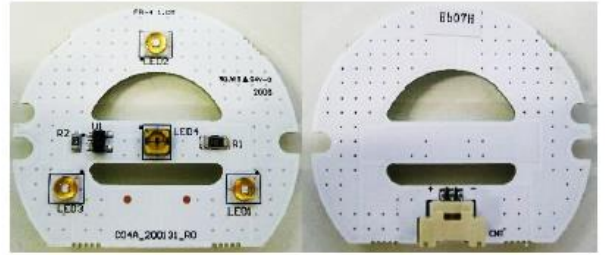


Deodorization/Disinfection Module Solution

Specification

CMA-FBM-CO4A



Product Brief

Description

- This module is designed for disinfection and deodorization.

Features and Benefits

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

Key Applications

- Disinfection
- Deodorization

Table 1. Product

Model	Input Current [mA]	Φ_e [mW]	Wp [nm]			Remark
			MIN	TYP	MAX	
CMA-FBM-CO4A	250	836	360	365	370	UV_A (Constant Current)
			270	275	280	UV_C (Constant Current)

Part List

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Performance Characteristics

Table 2. Electro Optical Characteristics at UV LED Module DC 12V/250mA (Constant Current)

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Peak Wavelength ^[1]	Wp (NUV)	360	365	370	nm
	Wp (DUV)	270	275	280	nm
	Wp	270	-	370	nm
Forward Voltage ^[5]	V _F		12	13.2	Vdc
Power Consumption	P _d ^[2]	2.25	2.58	3.0	W
Forward Current	IF_UVA		150		mA
	IF_UVC		100		mA
	IF		250		mA
Radiant Flux ^[3]	Φ _e _UVA	640	820	1230	mW
	Φ _e _UVC	6	16	20	mW
	Φ _e ^[4]	646	836	1250	mW

Notes :

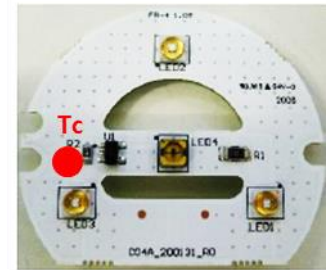
[1] Peak Wavelength Measurement tolerance : ±3nm

[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 Current Measurement tolerance : ±3%



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

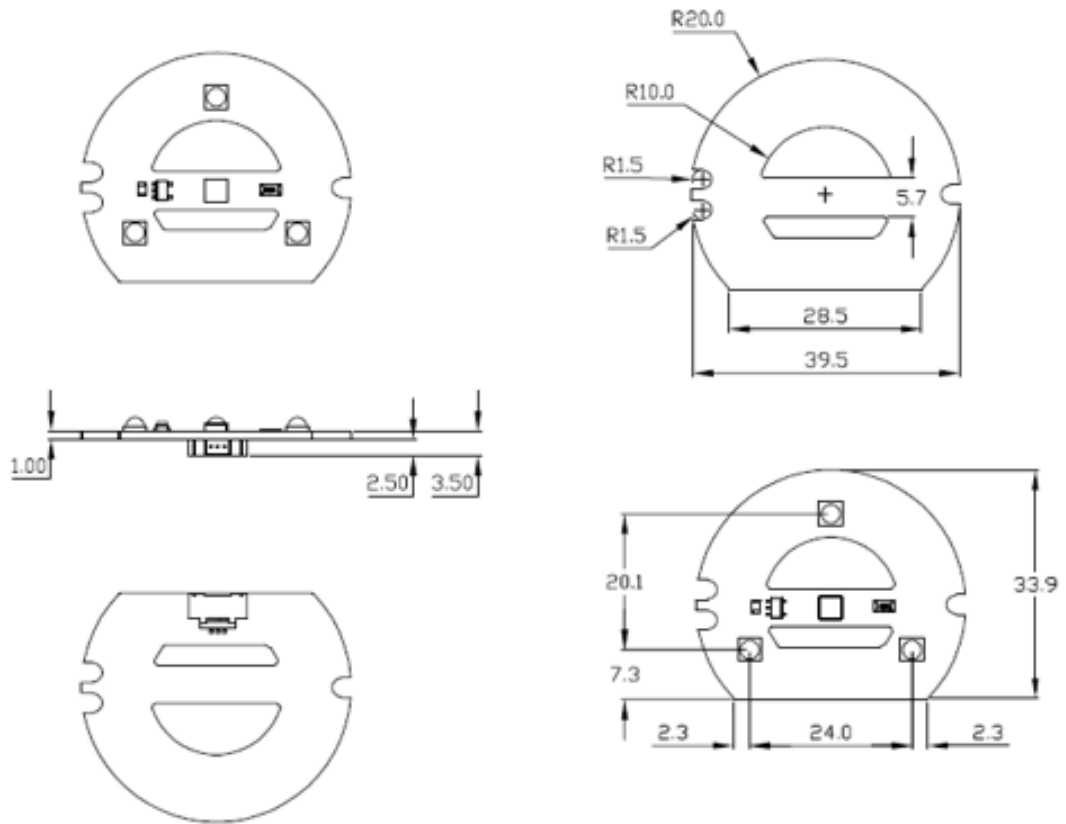
※It is recommended to drive under conditions of T_c= 60 °C or less.

Table 3. Absolute Maximum Ratings

Parameter	Symbol	Unit	Value
Operating Temperature	T _{opr}	°C	-20 ~ +40
Storage Temperature	T _{stg}	°C	-20 ~ +60

Drawing

[Unit: mm]



Notes :

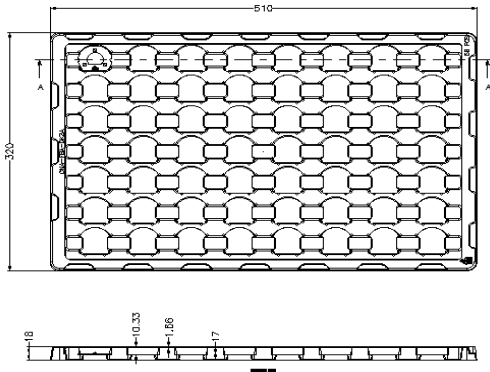
- Module Dimensions of the indicated maximum value, and to allow a tolerance : ± 0.5 [mm]

Fig 2. Wire Guide For supply connection

Division	Parts	Information	Vendor
UV Module	Housing	12507WR-03L	YEONHO
Recommended connector	Housing	12507HS-03L	YEONHO

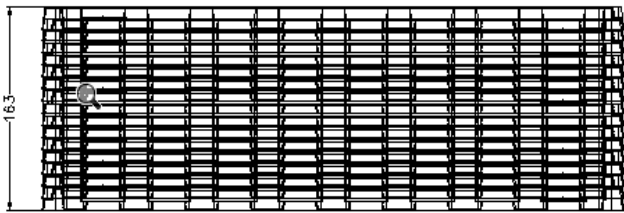
Packing

Tray

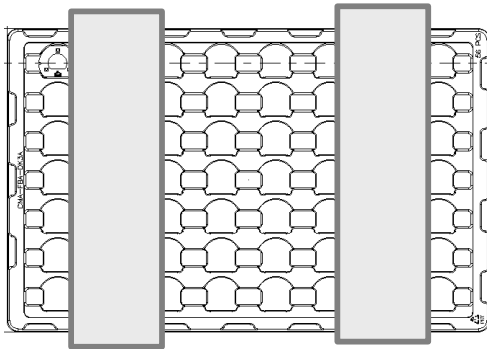


- Note 1.** 1 Tray = 56 pcs of products
- Note 2.** Stacking 16 Trays
- Note 3.** (The top tray is an empty Tray)

16ea Trays



- Note 1.** 15 tray X 56 pcs = 840 pcs (1Tray=dummy)
- Note 2.** 1 tray pack 56 pcs
- Note 3.** Total Quantity : 840 pcs

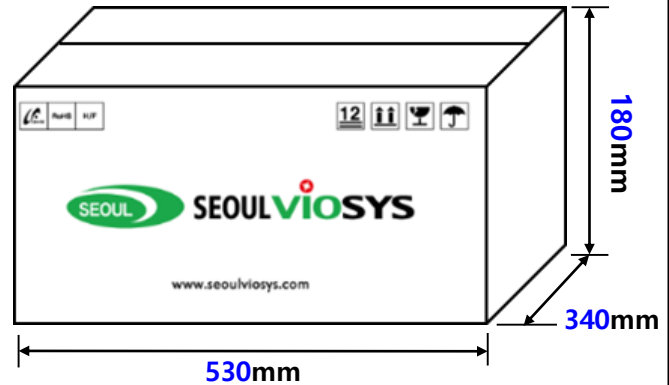


Tray Tapping

Tray Tapping

- Note 1.** Tapping 16 Tray to fix.

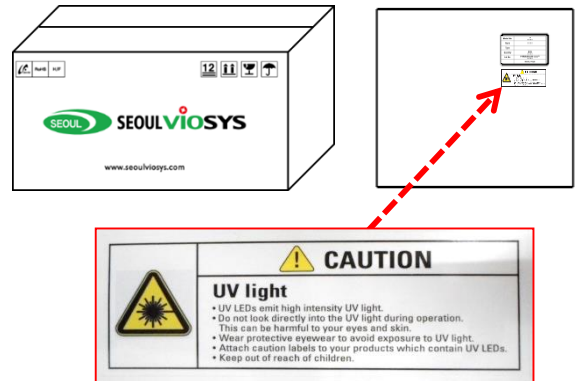
Pack the tray in a box



- Note 1.** 1BOX : 56 pcs per tray x 15 Trays = 840 pcs
- Note 2.** TOTAL : 840 pcs per 1BOX (1dummy Tray)

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

Labeling



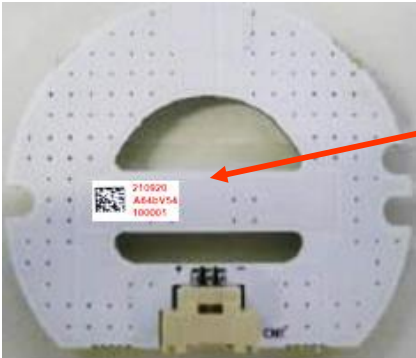
- Note 1.** Trays should be packed with sealing bag.
- Note 2.** Sealing bag must be made with ESD protection characteristics.
- Note 3.** Each sealing bag must have 1ea silica gel pouch to keep humidity under control.

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 on
Bottom
PCB

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: 210920
②	Module Bin Code	LED Rank	3	A64	Radiant Flux	Min 646mW
			1	b	Vf	UV_A
			1	V54	Vf	UV_C
③	Lot No	100001	6	1	Lot no	
				00001	Lot number	00001~99999

Label Information

Model No.	CMA-FBM-CO4A ⁽¹⁾ ■■■ ■■■ ■■
Type	
Quantity	XXX ■■■ ■■■ ■■
Lot No.	YYMDDXXXXX-xxxxxxx ⁽²⁾ ■■■ ■■■ ■■
	SEOUL VIOSYS CO.,LTD.

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**

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

	 CAUTION
	<ul style="list-style-type: none"> •UV LEDs emit high intensity UV light. •Do not look directly into the UV light during operation. This can be harmful to your eyes and skin. •Wear protective eyewear to avoid exposure to UV light. •Attach caution labels to your products which contain UV LEDs. <p>Avoid direct eye and skin exposure to UV light. Keep out of reach of children.</p>