Deodorization Module Solution

Specification

CMF-AR-A03

Product Brief

Description

- This module is designed for disinfection.

Features and Benefits

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

Key Applications

- Deodorization

Table 1. Product

Model	Input Voltage[Vin]	Φe [mW]	Wp [nm]			Remark
			MIN	TYP	MAX	
CMF-AR-A03	12	1,600	360	365	370	Constant Voltage

Part List

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Performance Characteristics

Table 2. Electro Optical Characteristics at 12V (Constant Voltage) (T_a=25℃ RH=30%)

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Peak wavelength[1]	λp	360	365	370	nm
Forward Current[5]	I_F	275	300	325	mA
Power Consumption	P_d[2]	3.3	3.6	3.9	W
Radiant Flux[3]	Φe[4]	1,300	1,600		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.

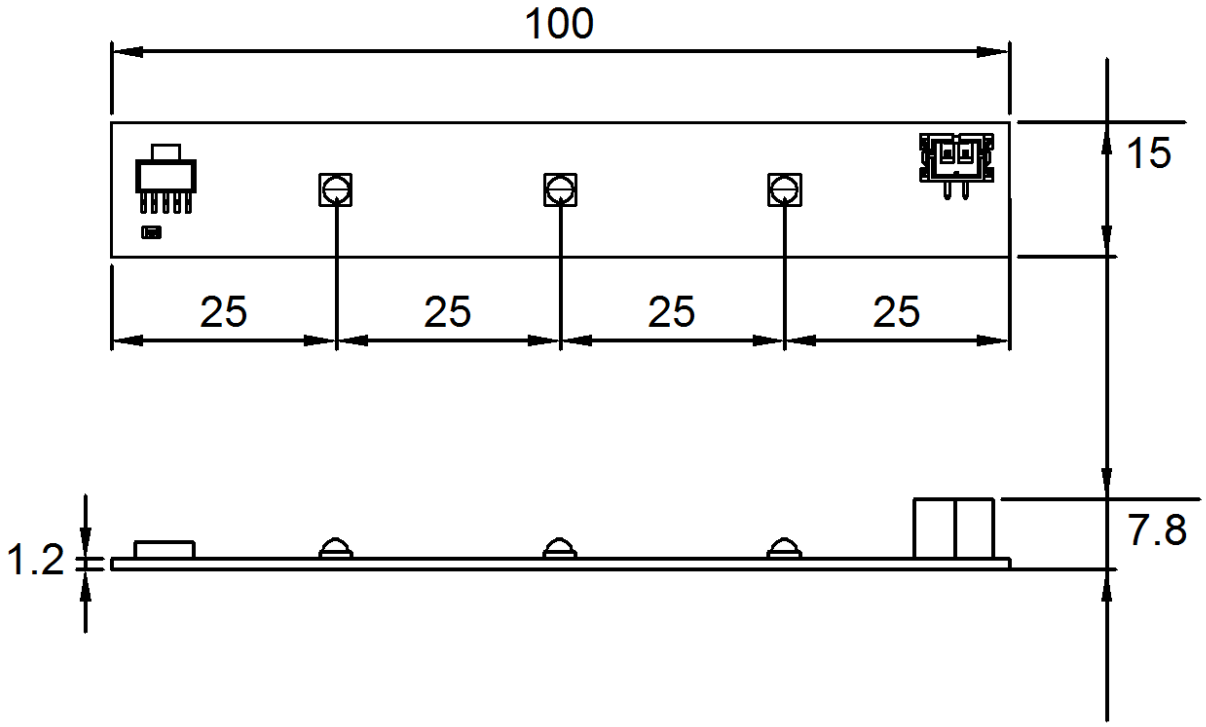
※It is recommended to drive under conditions of T_c= 60 ℃ or less.

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 :

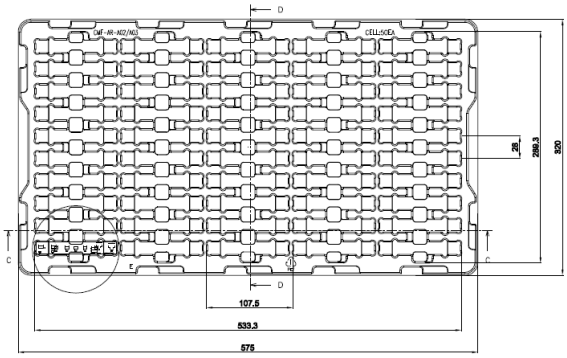
- Module Dimensions of the indicated maximum value, and to allow a tolerance : ±0.5 [mm]
- Wire Dimensions of the indicated maximum value, and to allow a tolerance : ±5 [mm]

Table 4. Wire Guide For supply connection

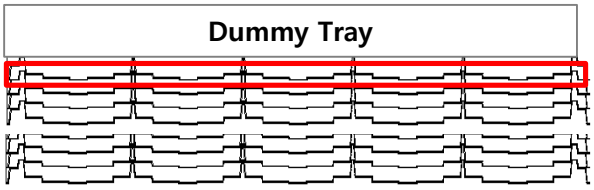
Division	Parts	Information	Vendor
UV Module	Housing	20022WS-02C	YEONHO
Recommended connector	Housing	20022HS-02	YEONHO

Packing

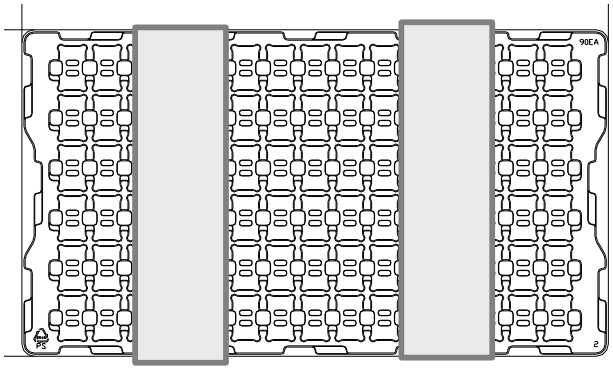
▪ Tray



Note 1.	1 Tray = 50 pcs of products
Note 2.	Stacking 21 Trays
Note 3.	(The top tray is an empty Tray)

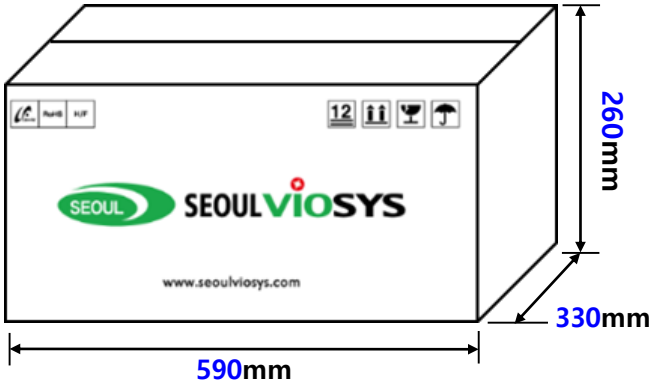


Note 1.	20 tray X 50 pcs = 1000 pcs (1Tray=dummy)
Note 2.	1 tray pack 50 pcs
Note 3.	Total Quantity : 1000 pcs



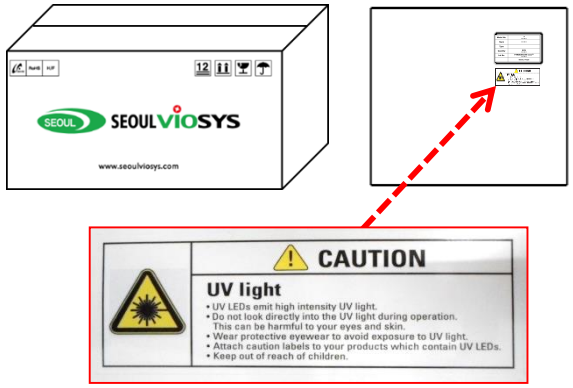
Note 1.	Tapping 21 Tray to fix.

▪ Pack the tray in a box



Note 1.	1BOX : 50 pcs per tray x 20 Trays = 1000 pcs
Note 2.	TOTAL : 1000 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.

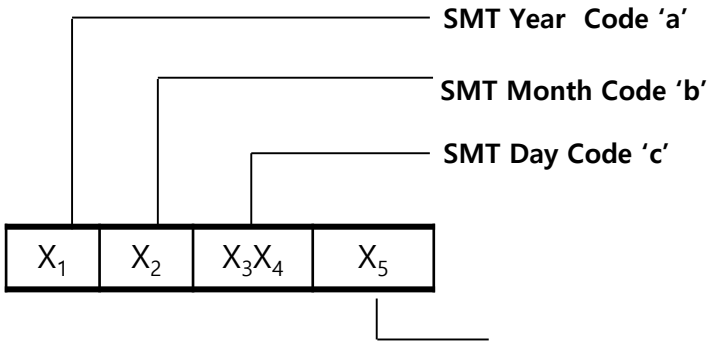
▪ Pallet

Pallet	Size	mm	1067(L)x1067(W)x150(H)	
	Material	-	Plastic	
	Box quantity	pcs	16	4x4(LAYERS)
	Weight	Kg	158	

Label Information

1) Label attachment location

Lot Marking



Ex) SMT Lot No : 16426 -> Ad26

PKG Information : jzK2b –> 9

2) Label and QR CODE information

Code	Description	Value
X_1	SMT Year	-
X_2	SMT Month	-
X_3X_4	SMT Day	-
X_5	PKG rank	-

Label Information

Model No.	CMF-AR-A03(1)
Type	
Quantity	XXX
Lot No.	YYMDDXXXXX-xxxxxxx(2)
SEOUL	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**

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