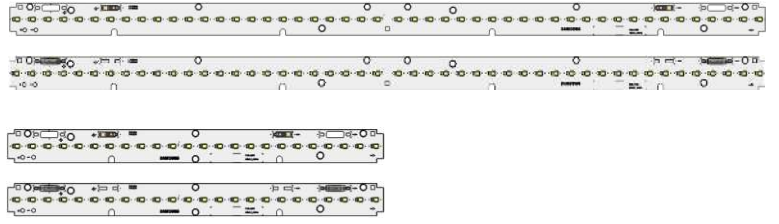# LED Module

LT-S562H
LT-S282H

$C \in$

Features & Benefits

- Standard version with delivering high efficacy
- Two options of wiring : Front / Rear
- Easy connection with re-workable poke-in connector
- Fit better to replace conventional T5, T8 fixture with narrow width

Applications

Indoor Lighting:

- Office / Retail / Living space
- Troffer / Linear / Pendant

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Table of Contents

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1. Product Code Information

a) S562H

Nominal CCT (K)		Product Code
3000		SI-B8V13156SEU
4000	STANDARD Front CNT	SI-B8T13156SEU
6500		SI-B8P13156SEU

Nominal CCT (K)		Product Code
3000		SI-B8V13256SEU
4000	STANDARD Rear CNT	SI-B8T13256SEU
6500		SI-B8P13256SEU

b) S282H

Nominal CCT (K)		Product Code
3000		SI-B8V07128VEU
4000	STANDARD Front CNT	SI-B8T07128VEU
6500		SI-B8P07128VEU

Nominal CCT (K)		Product Code
3000		SI-B8V07228VEU
4000	STANDARD Rear CNT	SI-B8T07228VEU
6500		SI-B8P07228VEU

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2. Characteristics

Item	Rating	Unit	Remark
Rated Lifetime	>50,000	hour	L70B50
Ingress Protection (IP)	no rating	-	
Ambient / Operating Temperature (t_{amb})	-20 ~ +50	℃	
Storage Temperature	-30 ~ +80	℃	

a) 560mm

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	If(mA)	
Luminous Flux (Φ_v)	3000	1940	2155	2370	lm	
	4000	2025	2250	2475		
	6500	2025	2250	2475		
Luminous Efficacy	3000	147	164	180	lm/W	
	4000	154	171	188		
	6500	154	171	188		
CCT	3000		3000		K	$I_f = 280$ mA $t_p = 50$ ℃
	4000		4000			
	6500		6500			
Color Consistency (initial)	3000		3		Mac Adam step	
	4000	-	3	-		
	6500	-	3	-		
Color Rendering Index (Ra)		80	83	-	-	
Operating Current (I_f)		-	280	540	mA	
Operating Voltage (V_f)		44.6	46.9	49.2	Vdc	
Power Consumption		12.5	13.2	13.9	W	

Notes:

1) t_p: temperature at which performance is specified; measured at "Tc point".

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

3) Max 4 kV for ESD(Direct contact)

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b) 280mm

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	965	1070	1175	lm	
	4000	1008	1120	1232		
	6500	1008	1120	1232		
Luminous Efficacy	3000	147	163	179	lm/W	
	4000	153	170	187		
	6500	153	170	187		
CCT	3000		3000		K	I_f = 280 mA
	4000		4000			t_p = 50 ºC
	6500		6500			
Color Consistency (initial)	3000		3		Mac Adam step	
	4000	-	3	-		
	6500	-	3	-		
Color Rendering Index (Ra)		80	83	-	-	
Operating Current (I_f)		-	280	540	mA	
Operating Voltage (V_f)		22.2	23.4	24.6	Vdc	
Power Consumption		6.3	6.6	6.9	W	

Notes:

1) t_p: temperature at which performance is specified; measured at "Tc point".

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

3) Max 4 kV for ESD(Direct contact)

| Item	Nominal*	Life**	Max***	Unit
Temperature	50 (t_p)	85($t_{p, 50}$)	90(t_c)	ºC

Notes:

*   Temperature used to specify performance of the module (t_p).

**   Rated maximum performance temperature at which lifetime is specified ($t_{p, 50}$).

*** Rated maximum temperature, highest permissible temperature to avoid safety risk (t_c).

All temperatures are measured at the designated "Tc point" as indicated on the module.

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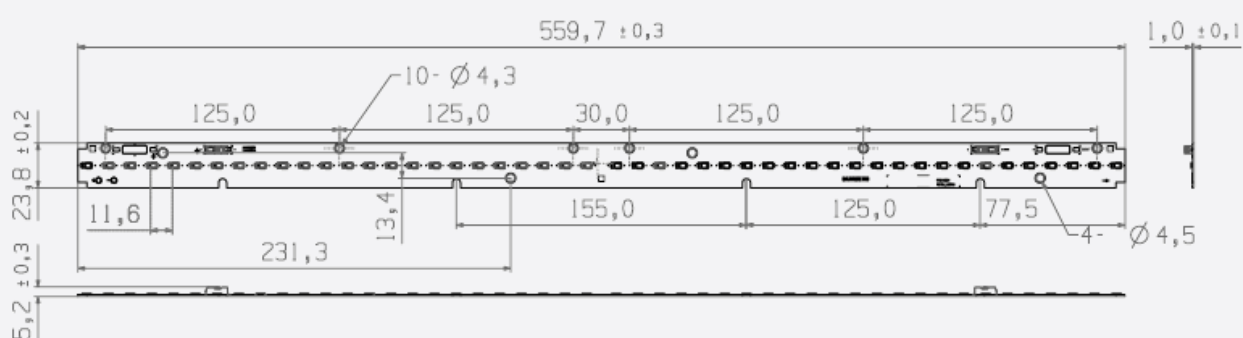## 3. Structure and Assembly

a) Appearance

560mm
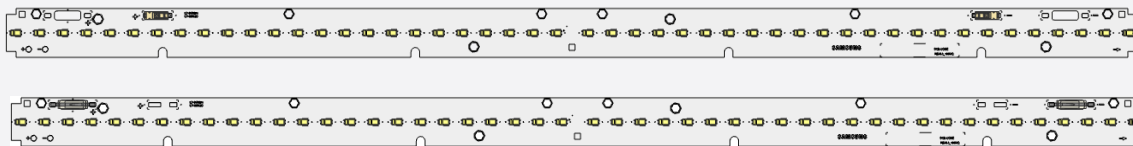
280mm

b) Dimension

560mm

Dimension	Specification	Tolerance	Unit
Module Length	559.7	±0.3	mm
Module Width	23.8	±0.2	mm
Module Height	Front : 5.2 Rear : 7.4	±0.3	mm
PCB Thickness	1.0	±0.1	mm
Module Weight	76.0	±3.8	g

- Front Connector Module

- Rear Connector Module

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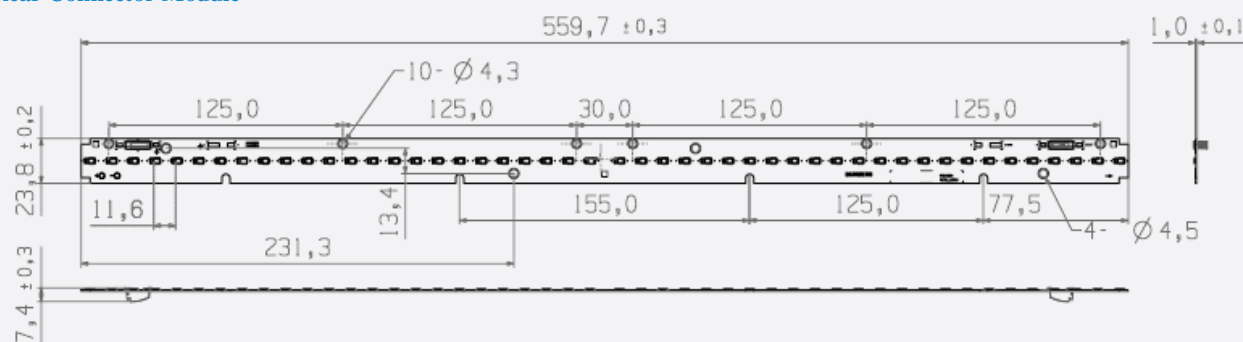
280mm

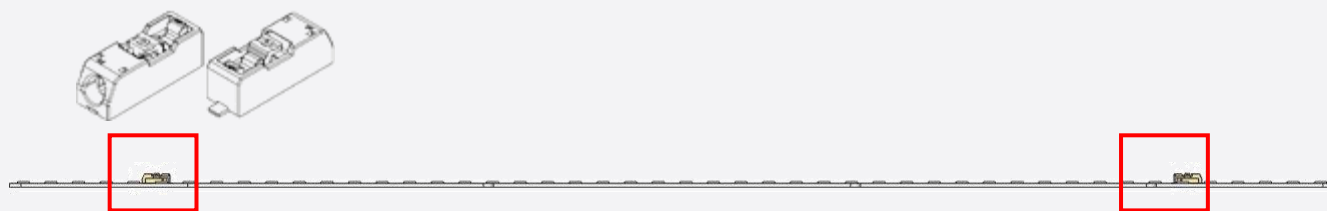| Dimension	Specification	Tolerance	Unit
Module Length	279.7	±0.3	mm
Module Width	23.8	±0.2	mm
Module Height	Front : 5.2 Rear : 7.4	±0.3	mm
PCB Thickness	1.0	±0.1	mm
Module Weight	35	±1.8	g

- Front Connector Module

- Rear Connector Module

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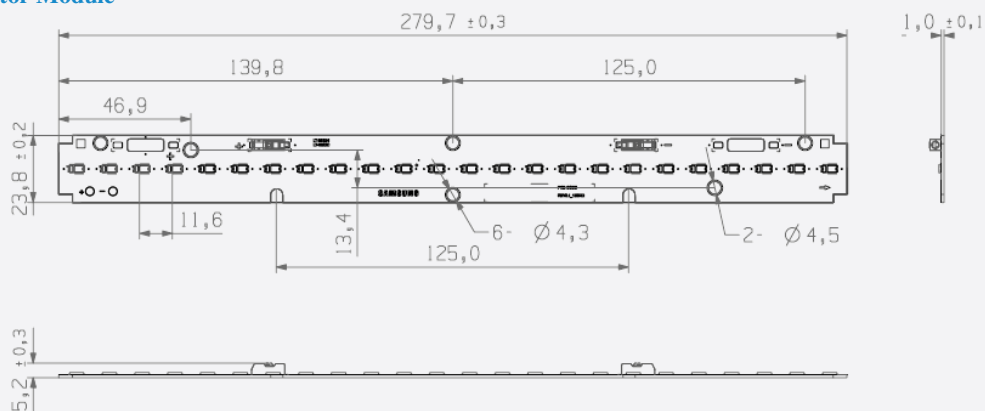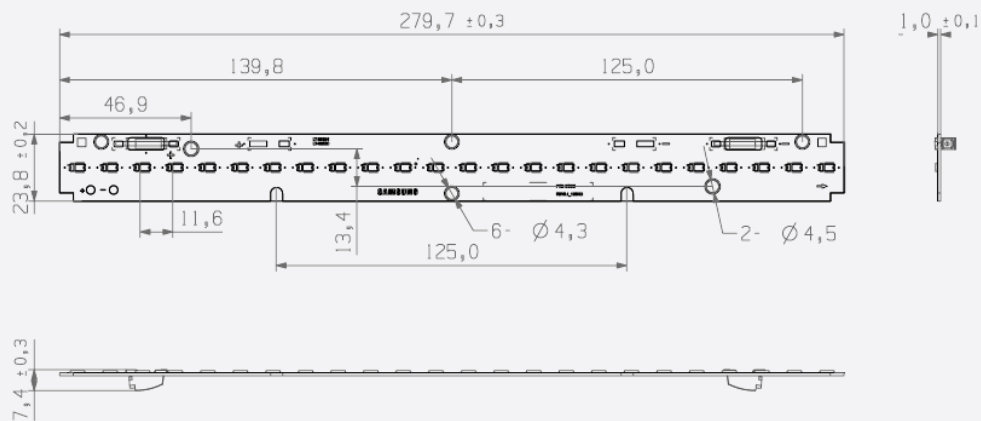
c) **Assembly**

Connectors on the board are provided for easy wiring with the LED driver and between modules

[Front connector]

[Rear connector]
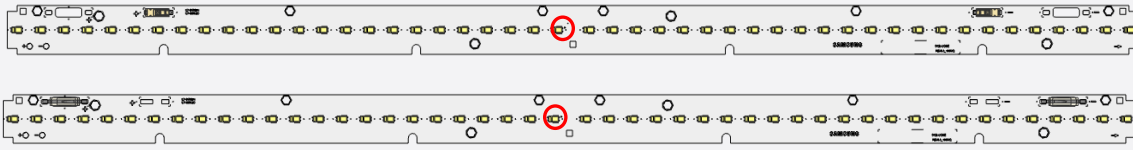
d) Thermal Management

Performance temperatures are measured on "Tc point" as indicated on the module.
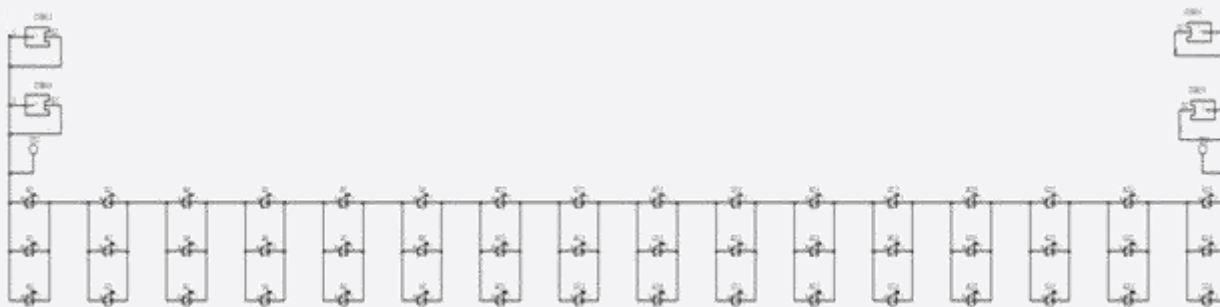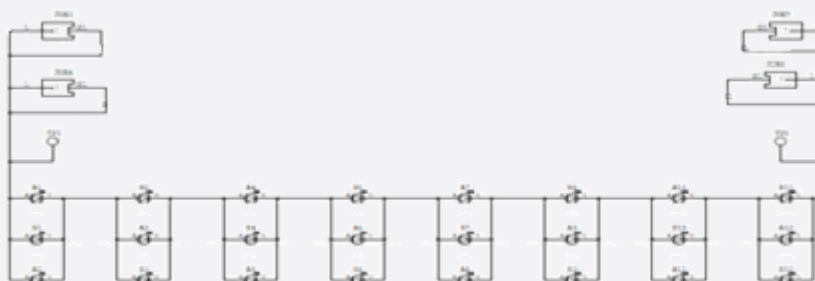
560mm

280mm

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e) **Schematic Circuit**

560mm : 16s x 3p

280mm : 8s x 3p

4. Certification and Declaration

Item	Compliant to	Remark
Test & Certification	CE	IEC / EN 62031, IEC / EN 62471
	ENEC	IEC / EN 62031, IEC / EN 62471
	VDE	N/A
	UL	N/A
	cUL	N/A
	Photo biological Safety(LM561B+ LED)	IEC / EN 62471
Declaration	RoHS	Hazardous Substance & Material
	REACH	Hazardous Substance & Material

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# 5. Label Structure

a) Module Label

[Printing Label]
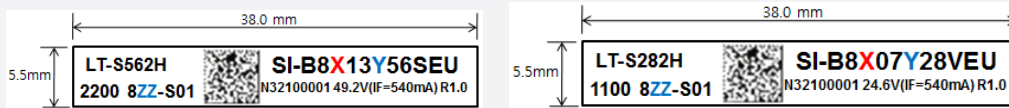
[Information of Barcode]

① Model code: SI-B8X13Y56SEU

SI-B8X07Y28VEU

(X : V(3000K), T(4000K), Y : 1(Front CNT), 2(Rear CNT))

② Product name: LT-S562H

LT-S282H

③ CRI & Color temperature: 8ZZ

ZZ: 30, 40

④ LED maker: -S (Samsung)

Group No.: 01 (Binning group)

⑤ SMT date: N321 (2013-March-21)

A (2000), B (2001) ······ K (2010), L (2011), M (2012), N (2013) ······ (year)

1 (January), ······ 9(September), A (October), B (November), C (December) (month)

01, 02, 03, ······ 31th (date)

⑥ Serial No.: 00001~99999; Setting "00001" every working day

⑦ Voltage (IF)

⑧ Product Revision: R1.0

[QR CODE Information]

① Example: SI-B8X13Y56SEU_ N321100001ZZ00K-S01

② 34 digits: Model code (14) + Space (1) + SMT date (4) + SMT line No. (1) + Serial No. (5) + Color temperature (5) + Dash(1) + LED maker (1) + GROUP No. (2)

Model CODE	SI-B8X13Y56SEU
QR CODE Information	SI-B8X13Y56SEU_N321100001ZZ00K-S01

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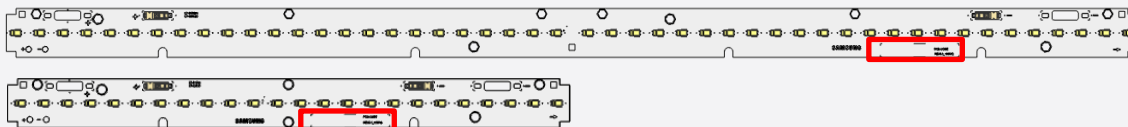
b) Tray & MBB Label

- 100mm x 50mm

① Model code: SI-B8**X**13**Y**56SEU

SI-B8**X**07**Y**28VEU

② LOT: 20150101-D0001

Packing Date(8 digit) → 20150101

Production Site(1digit) → PyeongTaek SUHIL(E), TianJIn SUHIL(D), SLED(B)

Serial no(4 digit) → 0001~9999, A111~A999

③ QTY: Quantity of Packaged Bar (5 Digit)

④ W/W: Production Year(2 digit) + Production Week(2 digit)
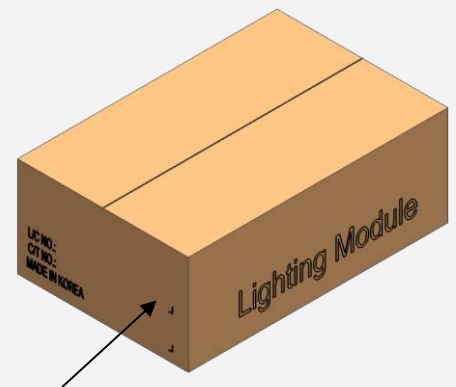
⑤ Issue date of Label: 12:year/01:month/30:day

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c) **Box Label**

   - 100mm x 50mm

The lot number is composed of the following characters:

① Product code
② Lot ID
③ Place of origin
④ Quantity
⑤ Describe production week
⑥ Date of Issue

6. Packing Structure

ARTICLE	TRAY	BOX	PALLET		REMARK	
Quantity	30 ea	240 ea	3840 ea	S562H	Front	Connector
			5760 ea	S282H		
	17 ea	136 ea	2176 ea	S562H	Rear	Connector
			3264 ea	S282H		

7. Precautions in Handling & Use

A. The LED Lighting Modules for white light are devices which are materialized by combining white LEDs.

The color of white light can differ a little unusually to diffuser plate(sign-board panel).

Also when the LEDs are illuminating, operating current should be decided after considering

the ambient maximum temperature.

B. Handling

To prevent the LED Lighting Modules from making any defectives, please handle the LED Lighting

Modules with care as follows.

(1) Don't drop the unit and don't give the unit any shocks.

(2) Don't bend the PCB and don't touch the LED Resin.

(3) Don't storage the Module in a dusty place or room.

(4) Don't take the product apart.

(5) Don't touch the LED and also PCB and other circuit parts of Module with your naked fingers or sharpness things.

(6) Take care so that do not pull wire with hand in case of carries or moves LED Lighting Modules.

C. Cleaning

The LED Lighting Modules should not be used in any type of fluid such as water, oil, organic solvent, etc.

It is recommended that IPA (Isopropyl Alcohol) be used as a solvent for cleaning the LED Lighting Modules.

When using other solvents, it should be confirmed beforehand whether the solvents will dissolve the

package and the resin or not. Freon solvents should not be used to clean the LEDs because of

worldwide regulations. Do not clean the LED Lighting Modules by the ultrasonic.

Before cleaning, a pre-test should be done to confirm whether any damage to the LED Lighting

Modules will occur.

D. Static Electricity

Static electricity or surge voltage damages the LED Lighting Modules. Please keep the working

process anti-static electricity condition to prevent the Lighting from destroying, as following.

(1) Anyone who handles the unit should be well grounded.(earth ring or anti-static glove)

(2) Anyone who handles the unit should wear anti-electrostatic working clothes.

(3) All kinds of device and instruments, such as working table, measuring instruments and assembly jigs in your

production lines should be well grounded.

E. Storage

The LED Lighting Modules must be stored to insert a package of a moisture absorbent

material(silica gel) in a box.

F. Others

If over voltage which exceeds the absolute maximum rating is applied to LED Lighting Modules.

It will cause damage Circuits(that LED is included) and result in destruction.

Do not directly look into lighted LED with naked eyes.

Please use this product within 5 months, which is kept in its original packaging unopened when

stocked

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Legal and additional information.

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Samsung Electronics Co., Ltd. is a global leader in technology,
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innovation and discovery, we are transforming the worlds of
TVs, smartphones, tablets, PCs, cameras, home appliances, printers,
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