

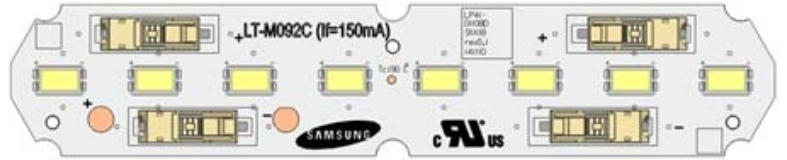


**THE DATASHEET OF
SI-B8W041100WW**



LED Module

LT-M092C



Samsung LT-M092C enables flexible design for various luminaries with narrow width and shapes.

Features & Benefits

- 3-step SDCM
- High performed LED – Samsung LM561B
- Suitable for linear, circular fixture

Applications

- Indoor Lighting
- Architectural / Residential Interior
- Linear / Cove Application
- Ceiling Light



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1. Product Code Information

Nominal CCT (K)	Product Code
2700	SI-B8W041100WW
3000	SI-B8V041100WW
3500	SI-B8U041100WW
4000	SI-B8T041100WW

2. Characteristics

Item	Rating	Unit	Remark
Rated Lifetime	>50,000	hour	L70B50 @ $t_p = 55^\circ\text{C}$
Ingress Protection (IP)	no rating	-	
Ambient / Operating Temperature (t_{amb})	-20 ~ +50	$^\circ\text{C}$	
Storage Temperature	-30 ~ +80	$^\circ\text{C}$	

Item	Nom. CCT (K)	Rating			Unit	Remark
		Min	Typ.	Max		
Luminous Flux (Φ_v)	2700	313	350	381	lm	
	3000	317	353	386		
	3500	322	356	392		
	4000	327	360	398		
Luminous Efficacy	2700	118	132	144	lm/W	$I_f = 110\text{ mA}$ $t_p = 55^\circ\text{C}$
	3000	120	133	146		
	3500	121	134	148		
	4000	123	136	150		
CCT	2700	2617	2688	2765	K	
	3000	2919	3008	3101		
	3500	3289	3403	3523		
	4000	3784	3930	4085		
Color Consistency (initial)		-	3	-	MacAdam step	
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		99	110	150	mA	-
Operating Voltage (V_f)		21.6	24.0	26.4	Vdc	$I_f = 110\text{ mA}$ $t_p = 55^\circ\text{C}$
Power Consumption		2.38	2.64	2.90	W	$t_p = 55^\circ\text{C}$

Notes:

- 1) t_p : temperature at which performance is specified; measured at "Tc point".
- 2) Samsung maintains a measurement tolerance of: Luminous flux: $\pm 7\%$, CRI: ± 3.0 , Voltage: $\pm 0.3\text{ V}$.

Item	Nominal*	Life**	Max***	Unit
Temperature	55 (t_p)	55 ($t_{p,50}$)	90 (t_c)	°C

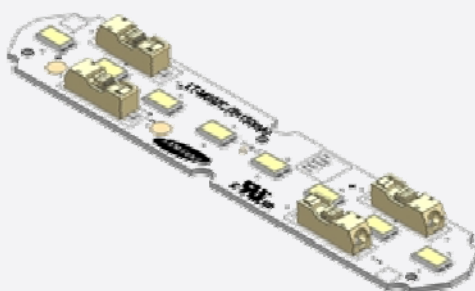
Notes:

- * 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.

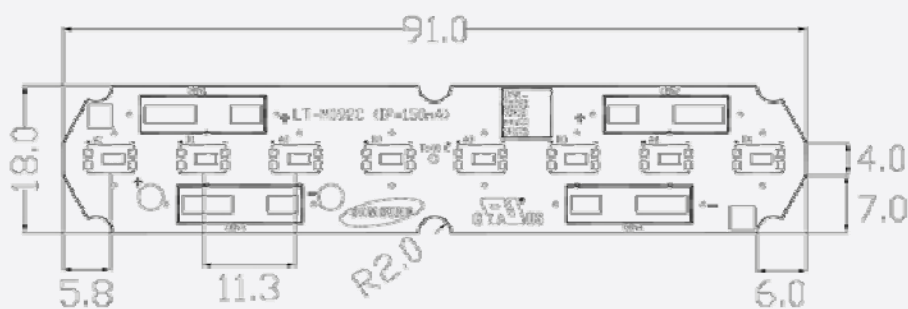
3. Structure and Assembly

a) Appearance



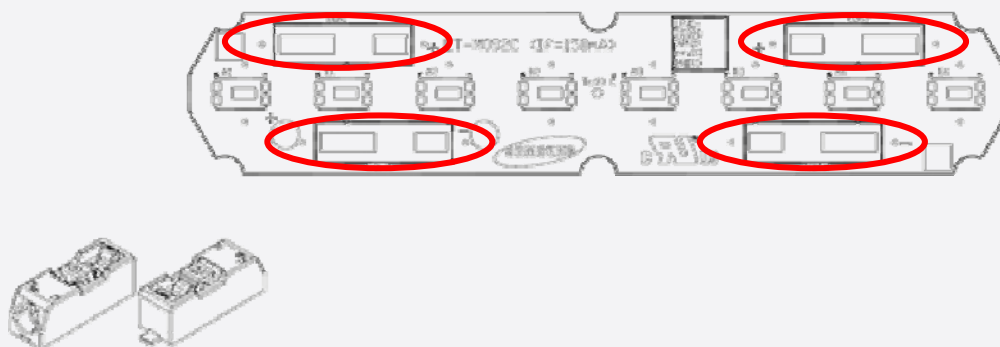
b) Dimension

Dimension	Specification	Tolerance	Unit
Module Length	91.0	±0.3	mm
Module Width	18.0	±0.3	mm
Module Height	5.2	±0.3	mm
PCB Thickness	1.0	±0.1	mm
Module Weight	4	±0.2	g



c) Assembly

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

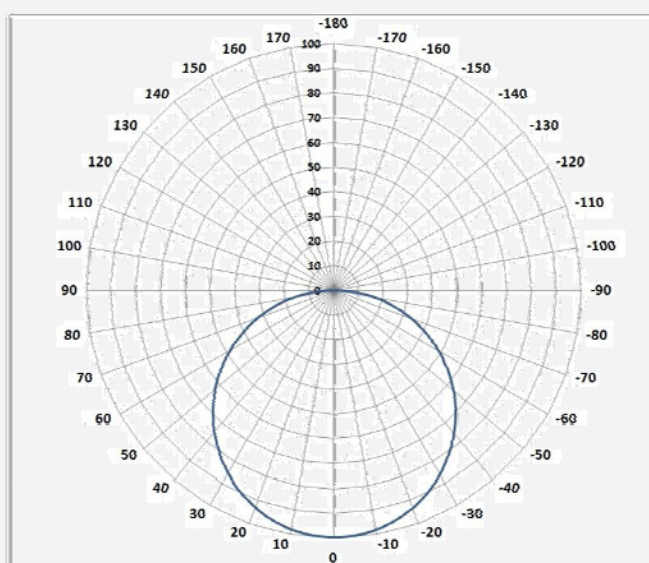


d) Structure

Item	Specification
LED	LM561B Middle Power LED (8 pcs)
PCB	Material: copper, solder mask, epoxy
Connector	Reworkable poke-in connector type
Wire	24~18 AWG; terminal strip length of 6~7 mm

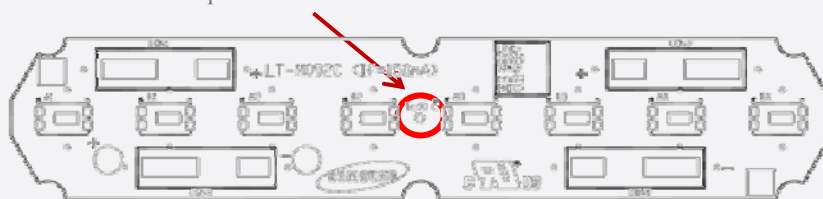
e) Light Distribution

Polar Intensity Diagram: Beam Angle $115 \pm 5^\circ$

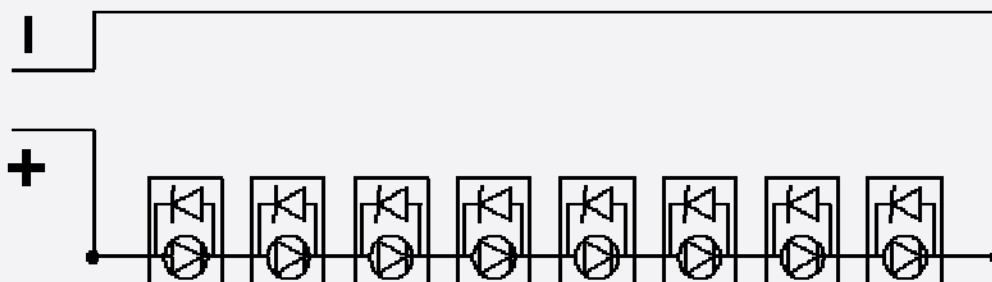


f) Thermal Management

Performance temperatures are measured on “Tc point” as indicated on the module.



g) Schematic Circuit

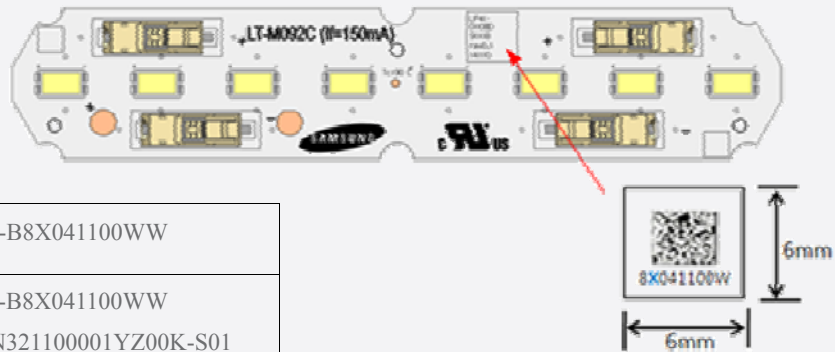


4. Certification and Declaration

Item	Compliant to	Remark
Test & Certification	UL / cUL for Component	UL8750
Declaration	RoHS	Hazardous Substance & Material
	REACH	Hazardous Substance & Material

5. Label Structure

a) Module Label



Model CODE	SI-B8X041100WW
QR CODE Information	SI-B8X041100WW _N321100001YZ00K-S01
Printed CODE Information	8X041100W

The lot number is composed of the following characters:

A. Barcode type : 2-dimensional data matrix code

B. Information of Barcode

① Example : SI-B8X041100WW_N321100001YZ00K-S01



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

C. Number information

① Model code: SI-B8X041100WW

X: W (2700K), V (3000K), U (3500K), T (4000K), R (5000K)

② Space: Space

③ SMT date: K224 (2010-February-24th)

A (2000), B(2001) ······ J(2009), K(2010), L(2011), ······ (year)

1(January), 2(February), ······ 9(September), A(October), B(November), C(December) (month)

01, 02, ······ 31th (date)

④ SMT Line No. : 1 line

1~9, A(10), B(11), C(12), D(13), E(14), F(15)

⑤ Serial No: 00001

00001~99999: Setting "00001" every working day

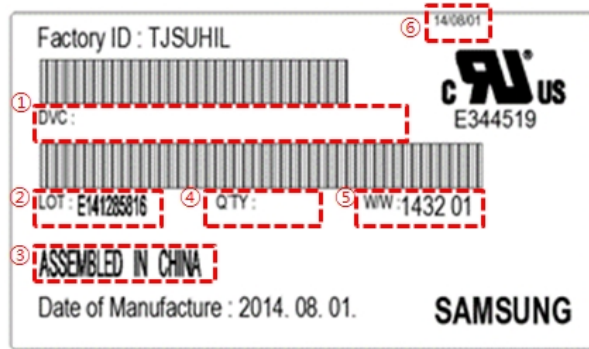
⑥ Color temperature: YZ00K

YZ: 27, 30, 35, 40

⑦ LED Maker: -S (Samsung)

⑧ Group No: 01 (Binning group)

b) Box Label

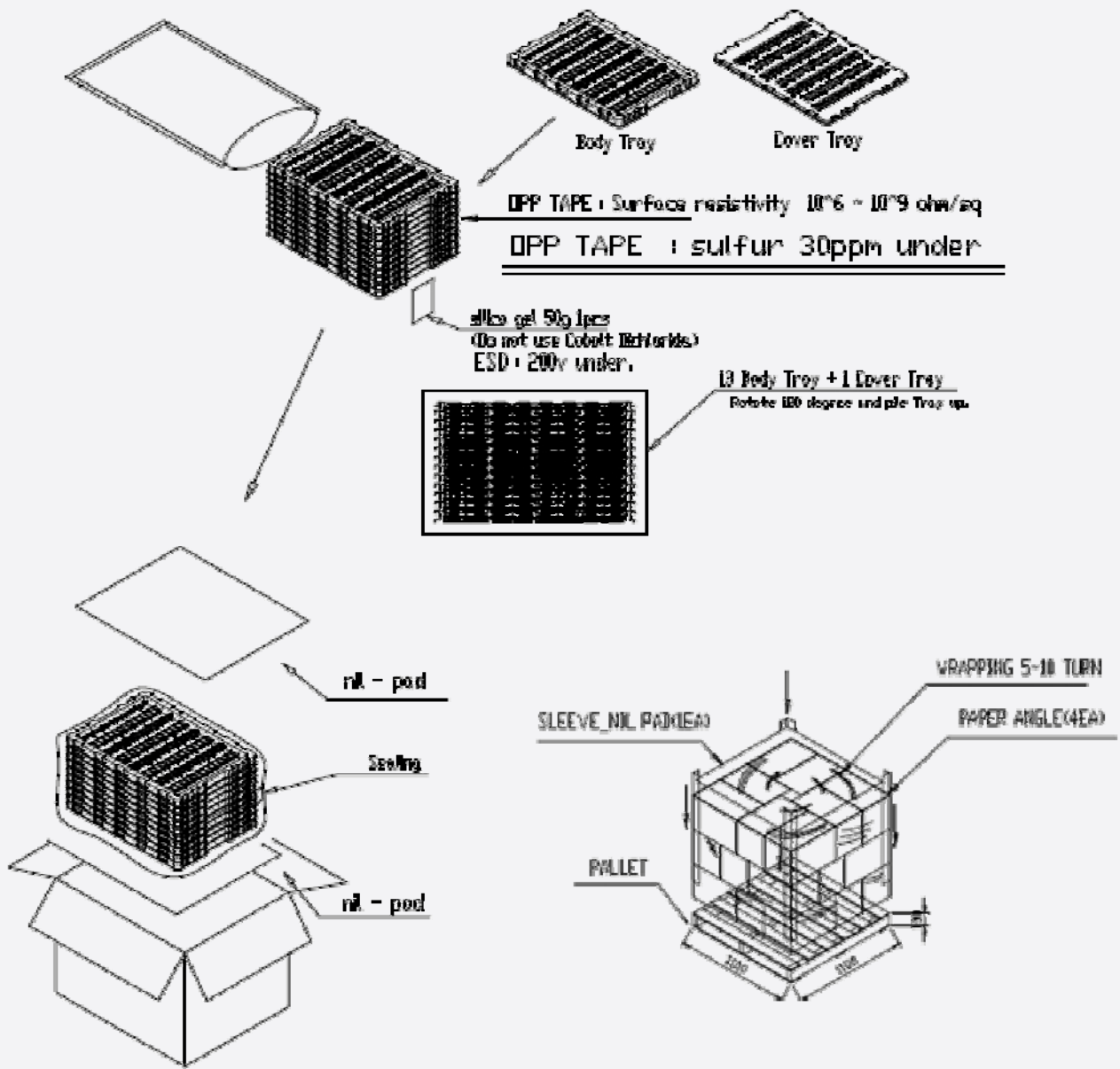


The lot number is composed of the following characters:

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

6. Packing Structure

a) Packing Process



b) Packing

Packing	Quantity (modules)	Dimension (mm)			
		Length	Width	Height	Tolerance
Outer Box	1560	430	310	275	-
Pallet	37440(24boxes)	1100	1100	130	-

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



Legal and additional information.

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