

LED Module Linear LAM A-series

LT-A302A



Samsung Lens Attached Modules enable slimmer luminaire design
with better uniformity and high reliability

Features & Benefits

- Integrated optical technology designed by Samsung
- Slim luminaire design through reduced Optical Distance
- Best color uniformity, minimal shift by the lens
- High reliability of lens attachment
- Suitable for slim line, linear fixtures

Applications

Indoor Lighting:

- Architectural / Residential Interior
- Linear / Cove Application



Table of Contents

1.	Product Code Information	-----	3
2.	Characteristics	-----	4
3.	Structure and Assembly	-----	6
4.	Certification and Declaration	-----	9
5.	Label Structure	-----	10
6.	Packing Structure	-----	12
7.	Precautions in Handling & Use	-----	13

1. Product Code Information

Nominal CCT (K)	Product Code
2700	SI-B8W071300WW
3000	SI-B8V071300WW
3500	SI-B8U071300WW
4000	SI-B8T071300WW
5000	SI-B8R071300WW

2. Characteristics

Item	Rating	Unit	Remark
Rated Lifetime	>50,000	hour	L70B50 @ $t_p = 45\text{ }^\circ\text{C}$
Ingress Protection (IP)	no rating	-	
Ambient / Operating Temperature (t_{amb})	-30 ~ +50	$^\circ\text{C}$	
Storage Temperature	-40 ~ +85	$^\circ\text{C}$	

Item	Nom. CCT (K)	Rating			Unit	Remark
		Min	Typ.	Max		
Luminous Flux (Φ_v)	2700	765	880	952	lm	$I_f = 600\text{ mA}$ $t_p = 45\text{ }^\circ\text{C}$
	3000	774	890	963		
	3500	792	910	986		
	4000	819	940	1019		
	5000	846	970	1053		
Luminous Efficacy	2700	-	116	-	lm/W	
	3000	-	117	-		
	3500	-	120	-		
	4000	-	124	-		
	5000	-	128	-		
CCT	2700	2609	2706	2811	K	
	3000	2879	2996	3119		
	3500	3267	3417	3580		
	4000	3730	3924	4139		
	5000	4695	5012	5373		
Color Consistency (initial)	-	4	-	MacAdam step		
Color Rendering Index (Ra)	80	-	-	-		
Operating Current (I_f)	-	600	-	mA	-	
Operating Voltage (V_f)	-	12.7	-	Vdc	$I_f = 600\text{ mA}$	
Power Consumption	-	7.6	-	W	$t_p = 45\text{ }^\circ\text{C}$	

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	45 (t_p)	80 ($t_{p,50}$)	85 (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.

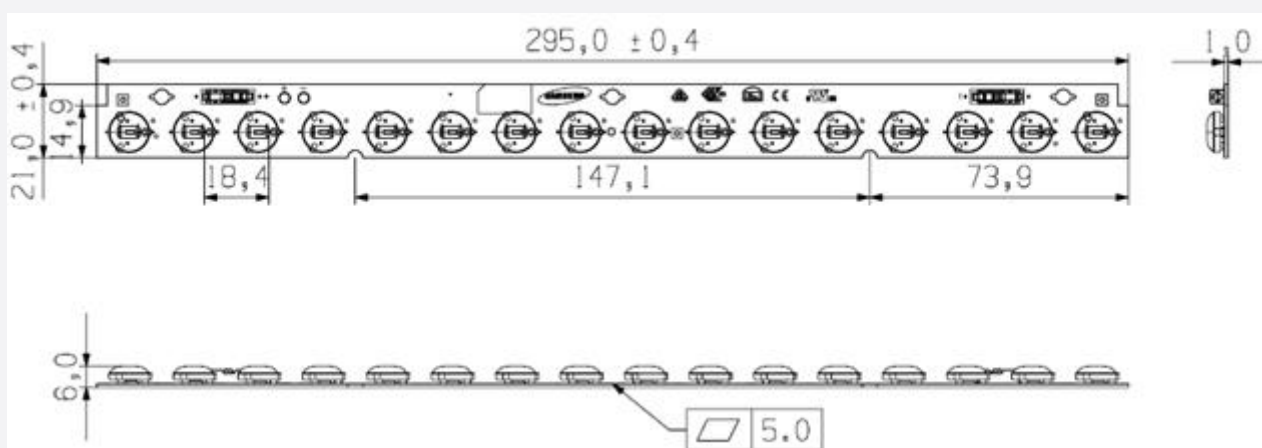
3. Structure and Assembly

a) Appearance



b) Dimension

Dimension	Specification	Tolerance	Unit
Module Length	295.0	±0.4	mm
Module Width	21.0	±0.4	mm
Module Height	6.0	-	mm
PCB Thickness	1.0	-	mm
Module Weight	20	±1.1	g



c) Assembly

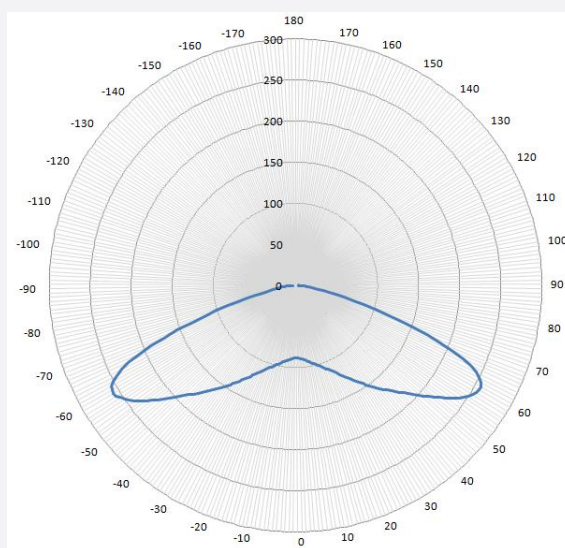
Connectors on the board are provided for easy wiring with the LED driver and between modules



d) Structure

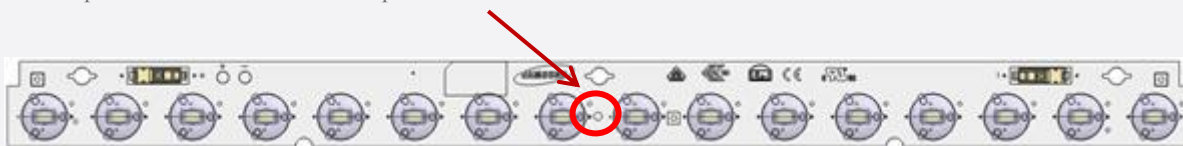
Item	Specification
LED	LM561B Middle Power LED (16 pcs)
PCB	Material: copper, solder mask, epoxy
Lens	PC
Connector	Reworkable poke-in connector type
Wire	24~18 AWG; terminal strip length of 6~7 mm

e) Light Distribution

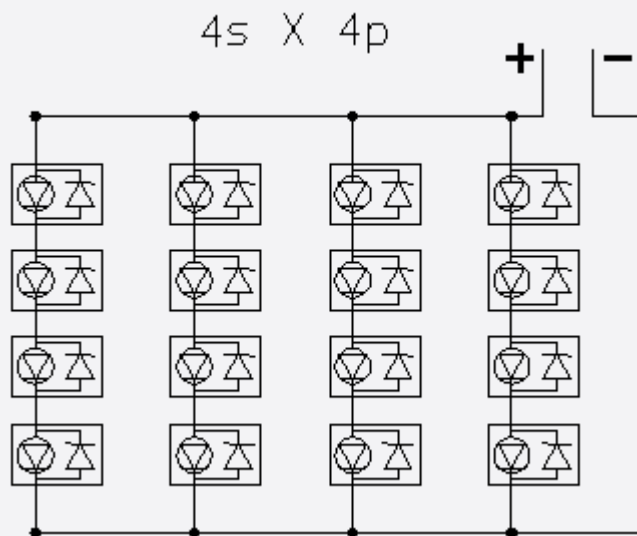


f) Thermal Management

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	CE	IEC / EN 62031, IEC / EN 62471
	ENEC	IEC / EN 62031, IEC / EN 62471
	UL / cUL for Component	UL 8750
	VDE?	EN 62031
	Photobiological Safety (LM561B LED)	IEC / EN 62471
Declaration	RoHS	Hazardous Substance & Material
	REACH	Hazardous Substance & Material

5. Label Structure

a) Module Label



The lot number is composed of the following characters:

A. Barcode type : 2-dimensional data matrix code

B. Information of Barcode

① Example : SI-B8X071300WW_K2241000014000K-S01



② 38 digits: Model code (15) + 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-B8X071300WW

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

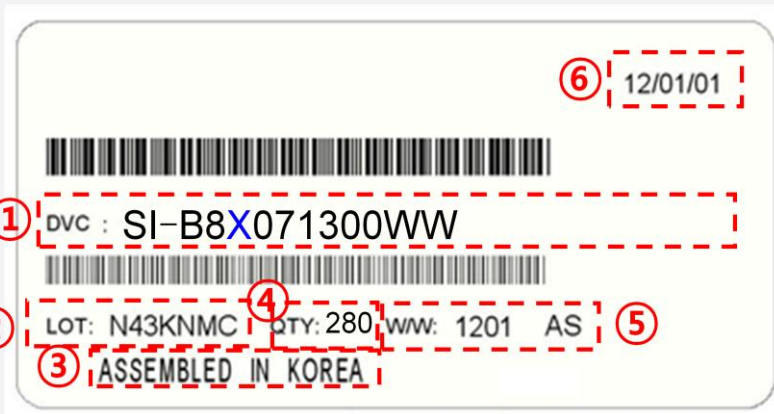
⑥ Color temperature: YZ00K

Y : 27, 30, 35, 40, 50

⑦ LED Maker: -S (Samsung)

⑧ Group No: 01 (Binning group)

b) Box Label

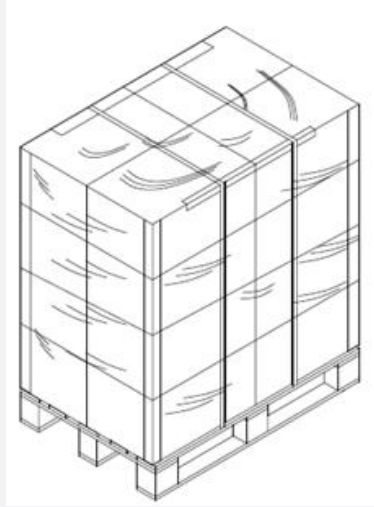
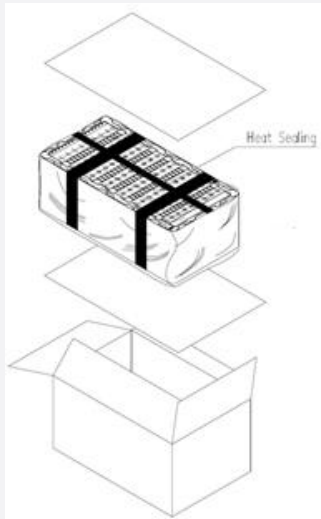


The lot number is composed of the following characters:

- 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	154	375	355	200	±0.5
Pallet	3696 (24 boxes)	1200	800	145	-

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.

[About Samsung Electronics Co., Ltd.](#)

Samsung Electronics Co., Ltd. is a global leader in technology, opening new possibilities for people everywhere. Through relentless innovation and discovery, we are transforming the worlds of TVs, smartphones, tablets, PCs, cameras, home appliances, printers, LTE systems, medical devices, semiconductors and LED solutions. We employ 286,000 people across 80 countries with annual sales of US\$216.7 billion. To discover more, please visit www.samsungled.com.

Copyright © 2014 Samsung Electronics Co., Ltd. All rights reserved.
Samsung is a registered trademark of Samsung Electronics Co., Ltd.
Specifications and designs are subject to change without notice. Non-metric weights and measurements are approximate. All data were deemed correct at time of creation. Samsung is not liable for errors or omissions. All brand, product, service names and logos are trademarks and/or registered trademarks of their respective owners and are hereby recognized and acknowledged.

Samsung Electronics Co., Ltd.
95, Samsung 2-ro
Giheung-gu
Yongin-si, Gyeonggi-do, 446-711
KOREA

www.samsungled.com

