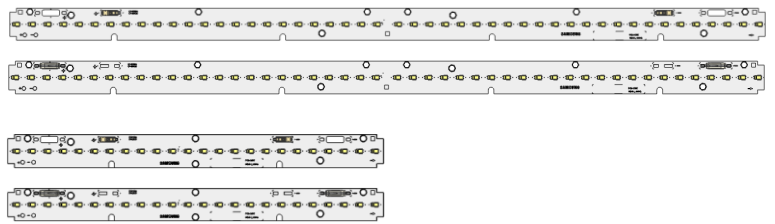


## LED Module

# LT-S562H LT-S282H



### 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

**SAMSUNG**

## Table of Contents

|    |                               |       |    |
|----|-------------------------------|-------|----|
| 1. | Product Code Information      | ----- | 3  |
| 2. | Characteristics               | ----- | 4  |
| 3. | Structure and Assembly        | ----- | 6  |
| 4. | Certification and Declaration | ----- | 12 |
| 5. | Label Structure               | ----- | 13 |
| 6. | Packing Structure             | ----- | 15 |
| 7. | Precautions in Handling & Use | ----- | 16 |

## 1. Product Code Information

### a) S562H

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

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

### b) S282H

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

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

## 2. Characteristics

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

### a) 560mm

| Item                        | Nom. CCT<br>(K) | Rating |      |      | If(mA)        | Remark                                                      |
|-----------------------------|-----------------|--------|------|------|---------------|-------------------------------------------------------------|
|                             |                 | Min    | Typ. | Max  |               |                                                             |
| Luminous Flux ( $\Phi_v$ )  | 3000            | 1940   | 2155 | 2370 | lm            | $I_f = 280 \text{ mA}$<br>$t_p = 50 \text{ }^\circ\text{C}$ |
|                             | 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             |                                                             |
|                             | 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:  $\pm 7 \%$ , CRI:  $\pm 3.0$ , Voltage:  $\pm 0.3 \text{ V}$ , Power Consumption:  $\pm 0.3 \text{ W}$
- 3) Max 4 kV for ESD(Direct contact)

## b) 280mm

| Item                        | Nom. CCT<br>(K) | Rating |      |      | Unit          | Remark                                                      |
|-----------------------------|-----------------|--------|------|------|---------------|-------------------------------------------------------------|
|                             |                 | Min    | Typ. | Max  |               |                                                             |
| Luminous Flux ( $\Phi_v$ )  | 3000            | 965    | 1070 | 1175 | lm            | $I_f = 280 \text{ mA}$<br>$t_p = 50 \text{ }^\circ\text{C}$ |
|                             | 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             |                                                             |
|                             | 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 ( $V_f$ ) |                 | 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:  $\pm 7\%$ , CRI:  $\pm 3.0$ , Voltage:  $\pm 0.3 \text{ V}$ , Power Consumption:  $\pm 0.3 \text{ W}$
- 3) Max 4 kV for ESD(Direct contact)

| Item        | Nominal*     | Life**            | Max***      | Unit             |
|-------------|--------------|-------------------|-------------|------------------|
| Temperature | 50 ( $t_p$ ) | 85( $t_{p, 50}$ ) | 90( $t_c$ ) | $^\circ\text{C}$ |

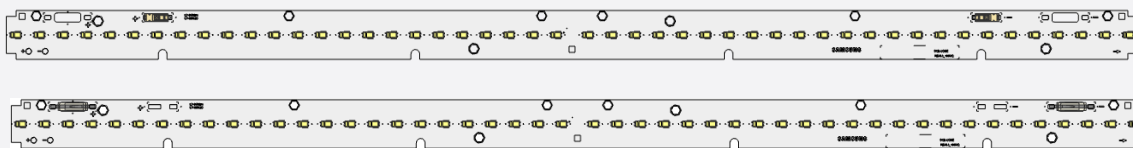
**Notes:**

- \* 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

560mm



280mm

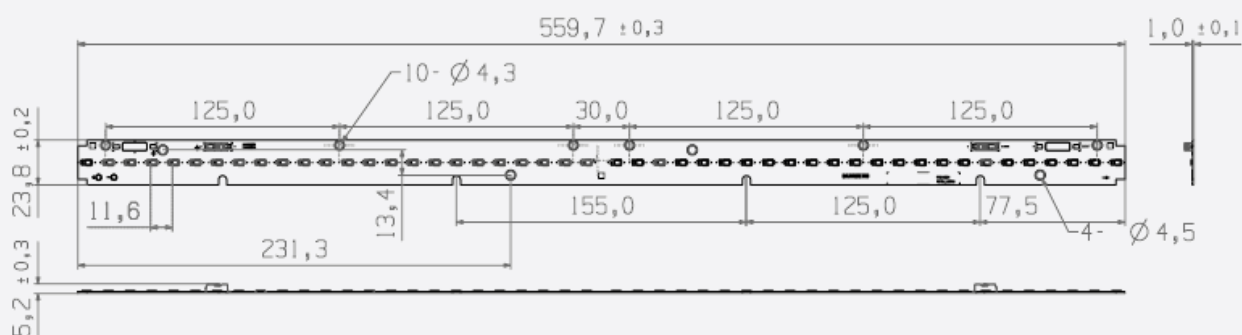


## b) Dimension

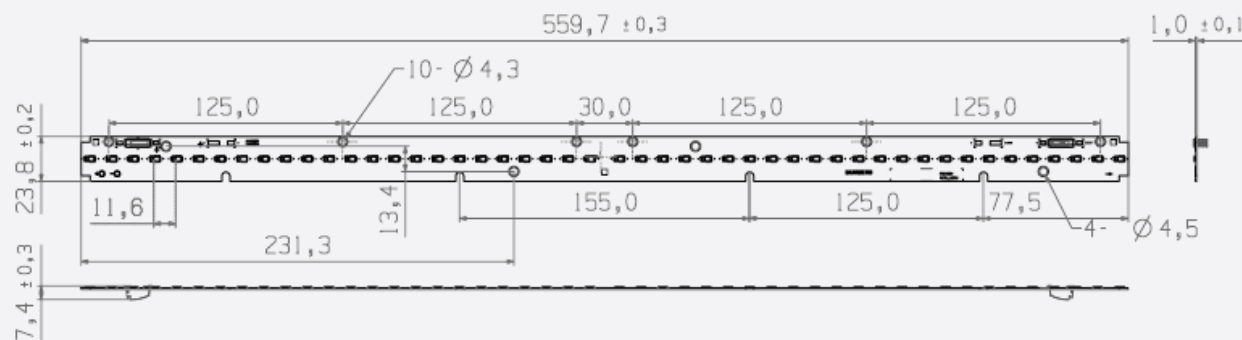
560mm

| Dimension     | Specification             | Tolerance | Unit |
|---------------|---------------------------|-----------|------|
| Module Length | 559.7                     | $\pm 0.3$ | mm   |
| Module Width  | 23.8                      | $\pm 0.2$ | mm   |
| Module Height | Front : 5.2<br>Rear : 7.4 | $\pm 0.3$ | mm   |
| PCB Thickness | 1.0                       | $\pm 0.1$ | mm   |
| Module Weight | 76.0                      | $\pm 3.8$ | g    |

## - Front Connector Module



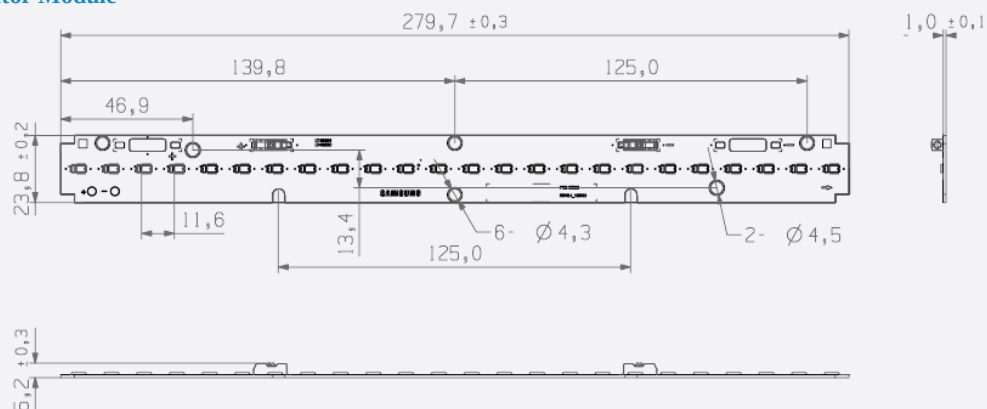
## - Rear Connector Module



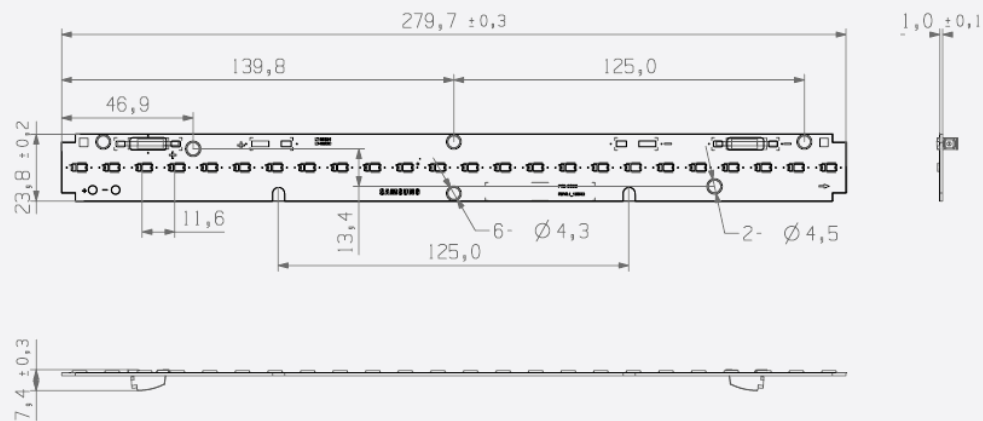
## 280mm

| Dimension     | Specification             | Tolerance | Unit |
|---------------|---------------------------|-----------|------|
| Module Length | 279.7                     | $\pm 0.3$ | mm   |
| Module Width  | 23.8                      | $\pm 0.2$ | mm   |
| Module Height | Front : 5.2<br>Rear : 7.4 | $\pm 0.3$ | mm   |
| PCB Thickness | 1.0                       | $\pm 0.1$ | mm   |
| Module Weight | 35                        | $\pm 1.8$ | g    |

## - Front Connector Module



## - Rear Connector Module





### c) Assembly

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

[Front connector]



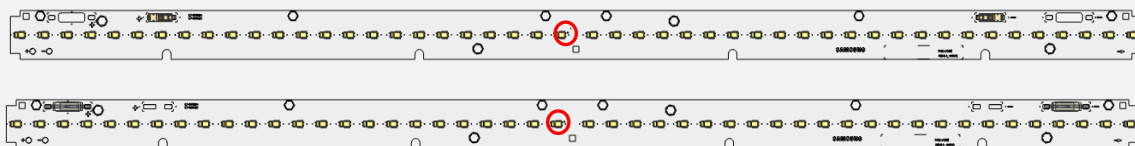
[Rear connector]



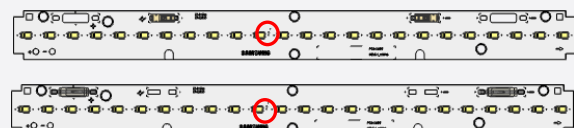
#### d) Thermal Management

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

##### 560mm

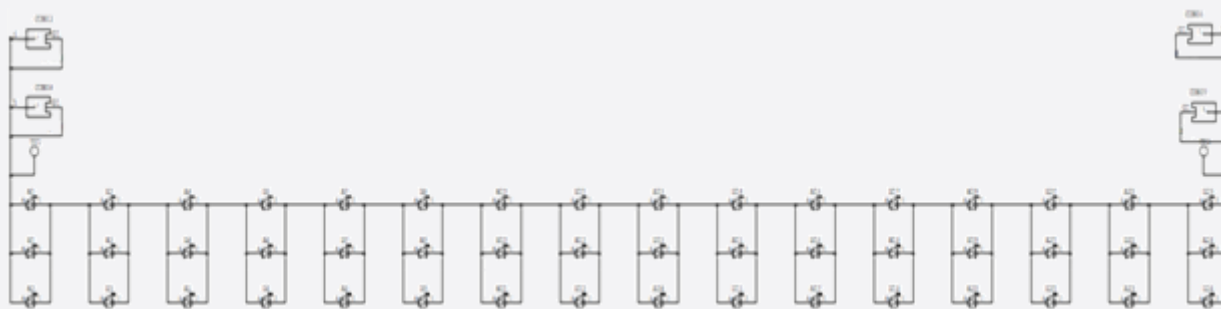


##### 280mm



## 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 |

## 5. Label Structure

### a) Module Label

[Printing Label]



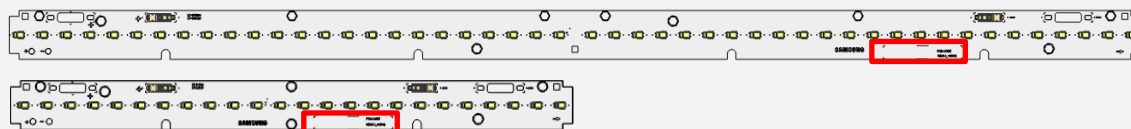
[Information of Barcode]

- 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 |



## b) Tray & MBB Label

- 100mm x 50mm



① Model code: SI-B8X13Y56SEU

SI-B8X07Y28VEU

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

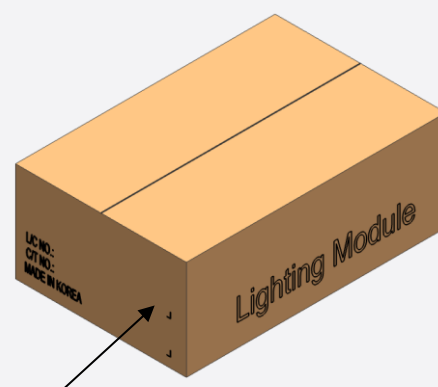
### c) Box Label

- 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  |                 |

**SAMSUNG**

## 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](http://www.samsungled.com).

Copyright © 2016 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](http://www.samsungled.com)

**SAMSUNG**