SPECIFICATION

LED Modular Platform Module Series	
Model Name	Platform LED Module with 4 Screw Holes
Type	CRI min. 75, 5000K, Flux Rank 4, Type Ⅲ-M, 3535 Ceramic
Parts No.	SL-PGR2T43M3WW

SAMSUNG ELECTRONICS CO., LTD.

REVISION HISTORY OF SPECIFICATION

REV. NUM	REVISION	PAGE	DATE	TRACED	APPROVED
0	The first specification established.	1~10	2014.01.09	-	S.A. Joo
1	Pictures of the Module Updated	cover, 4, 8	2014.03.21	-	S.A. Joo
2	Box Label Updated	8~9	2014.04.18	-	S.A. Joo

CONTENTS OF SPECIFICATION

This is a product specification of SL-PGR2T43M3WW, one of SL-Puv2xwaabcc.
Please refer to relevant General and Special Application Notes for thermal, optical, electrical, mechanical design and reliability information.

1. APPLICATION

25W Platform LED Module is designed as a core component in **Modular Platform Engine Series** for street light and flood light application. This document especially specifies **25W Platform LED Module with Fin**, generally recommended for luminaires with insufficient thermal management by the fixture itself.

1-1 Modular Platform Module

There are three different types of heat sink designs for 25W Platform LED Module, intended for thermal management either by engine or by fixture.
This document especially specifies **25W Platform LED Module with Fin for thermal management by Engine**.

(a) Module with Fin
[Thermal management by Engine]

(b) Module without Fin
[Thermal management by Fixture]

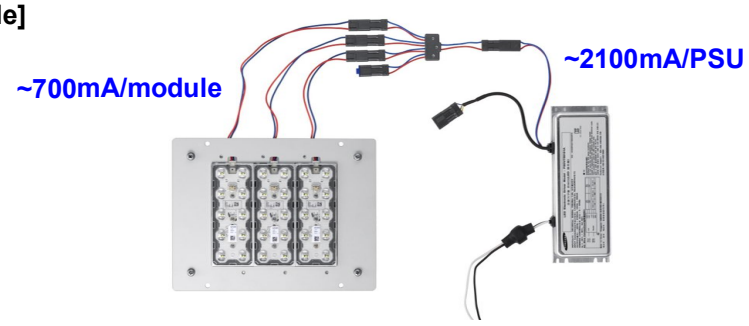
1-2 Modular Platform Engine Suggestion.

Typical operating current for one module is set at 700mA, which allows lumen output increment by **2300lm(nominal value)** depending on the number of LED modules.

1-2-1 Lumen Packages with LED Driver (Module : over 100lm/W)

Power Consumption (Engine, Nominal)	Modules (ea)	Operating Current (mA)	Lumen Output (lm)
25W	1	700	2300
50W	2	700	4600
75W	3	700	6900
100W	4	700	9200

[Example]



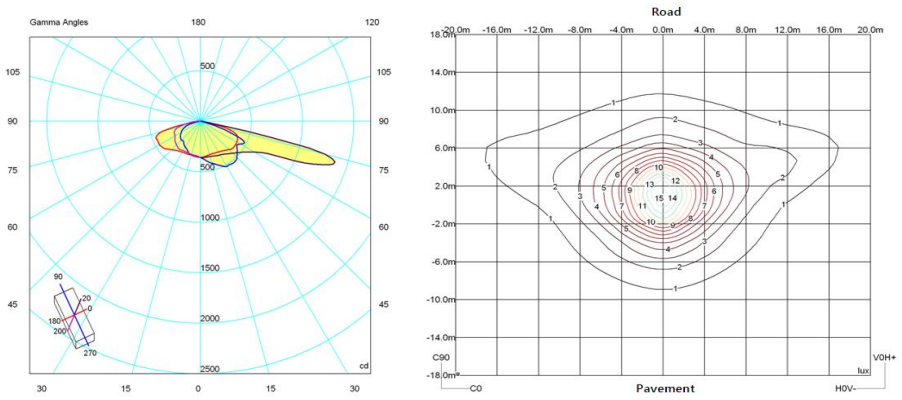
1-2-2 Optic Solutions

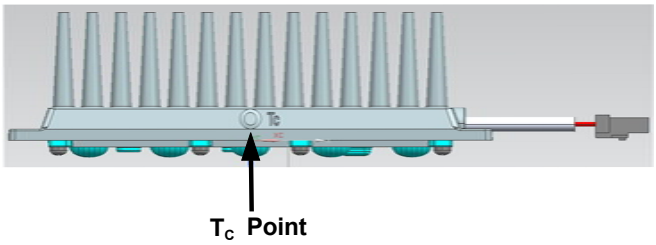
Application	Light Distribution	Solutions	Material
Street Light	IESNA Type Ⅰ	Short(1), Medium(1)	PC
	IESNA Type Ⅱ	Short(1), Short(2), Medium(1), Medium(2)	PC
	IESNA Type Ⅲ	Short(1), Short(2), Medium(1), Medium(2)	PC
	IESNA Type Ⅳ	Short(1), Short(2), Medium(1)	PC
	IESNA Type Ⅴ	Short(1), Medium(1)	PC
Flood Light	Narrow	Circular(BA15/25/40)	PC
	Medium	Circular(BA50/65), Rectangular(BA50x80), Batwing(BA85)	PC
	Wide	Circular(BA100), Batwing(BA120) Rectangular(BA90x130)	PC

※ BA : Beam Angle, PC : Polycarbonate

2. FUNDAMENTAL SPECIFICATIONS OF MODULE

<table>
<tr><th>No.</th><th>ARTICLE</th><th>SPECIFICATIONS</th></tr>
<tr><td>2-1</td><td colspan="2">
Photometric Specification of Platform LED Module @700mA(stabilized at Tc~65℃)
<table>
<tr><th>CCT</th><th>Article</th><th>Symbol</th><th>MIN</th><th>TYP</th><th>MAX</th><th>Unit</th><th>Equipments</th></tr>
<tr><td rowspan="3">5000K</td><td>Luminous Flux</td><td>LF</td><td>2000</td><td>2300</td><td>-</td><td>lm</td><td>Goniometer</td></tr>
<tr><td>Color Temperature</td><td>CCT</td><td>4745</td><td>5028</td><td>5311</td><td>K</td><td>Integrating Sphere</td></tr>
<tr><td>Color Rendering Index</td><td>CRI</td><td>75</td><td>-</td><td>-</td><td>Ra</td><td>Integrating Sphere</td></tr>
</table>
※ Typical values are not necessarily the same as the nominal values.

Light Distribution Profile : Type Ⅲ Medium with Optimized Illuminance Uniformity


※ The isolux diagram is drawn at the luminaire height of 5m.
※ IES files(in IESNA or CIE format) are available with Optical Application Notes.
</td></tr>
<tr><td>2-2</td><td>Dimension</td><td>· LED Module with Fin : 150(L)×65(W)×45.02(H) ㎜</td></tr>
<tr><td>2-3</td><td>Weight</td><td>· LED Lighting Module : {0.47kg ± 0.03kg} * 12ea
· Total Weight (including packing box) : 5.7kg ± 0.5kg/1box</td></tr>
<tr><td>2-4</td><td>Operating Temperature</td><td>· Case Temperature : +10℃ ~ +80℃ (Tc ~ 65℃ at Ta ~ 25℃)


※ Recommended Tc points as a function of number of modules are described in Thermal Application Notes.</td></tr>
<tr><td>2-5</td><td>Storage Temperature</td><td>· -30℃ ~ +70℃ (Tc)
※ -30℃ : ambient temperature without operation</td></tr>
<tr><td>2-6</td><td>Dust-proof
Water-proof</td><td>· IP66 for CE Marking
· Damp Location for UL Marking</td></tr>
</table>

No.	ARTICLE	SPECIFICATIONS

2-7 **Electrical Specification of Platform LED Module (stabilized at Tc~65℃)**

Article	Symbol	MIN	TYP	MAX	Unit	Remarks
Power Consumption	P	-	21	-	W	30V x 0.7A, module only
Operating Current	Iop	-	700	1000	mA	per 1 Module [700mA /PKG 1EA,TYP.]
Operating Voltage	Vdc	28.0	30	33.0	V	per 1 Module [3.0V/PKG 1EA, TYP.] 10 LEDs in Series
Electrical Circuit	Maximum of 4 modules can be in parallel connection with one LED driver channel of a UL class 2 power supply unit.					

※ The power consumption for a specific module is dependent on the operating voltage distribution across the modules in parallel connection. The maximum operating current means the highest limit in any operating condition.

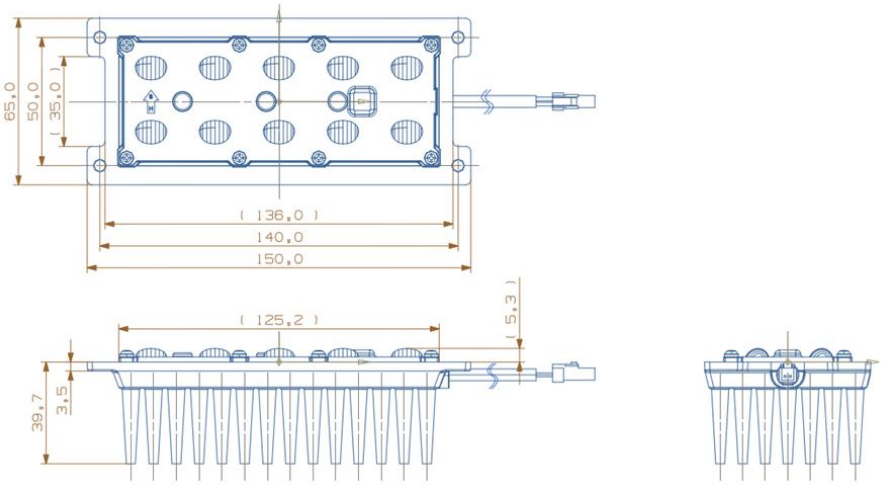
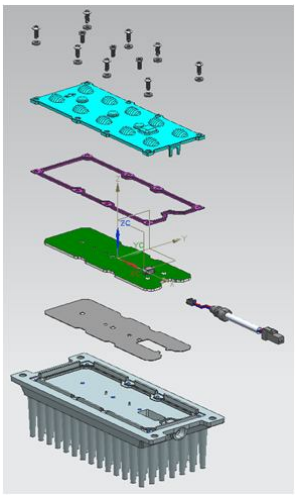
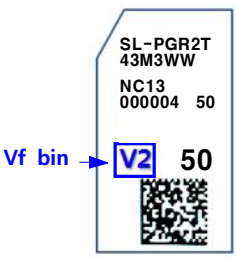
※ Voltage difference between modules are tightly controlled to be less than 1.0V so that the maximum current of any module can be limited to 850mA. Voltage bins of modules will be designated on the module label and box label, described in Electrical Application Notes.

※ Safety and wiring information will be described in Electrical Application Notes.

3. PARTS SPECIFICATIONS

No.	ARTICLE	SPECIFICATIONS
3-1	**Lens Cover Screw**	· Material : Stainless Steel with Teflon Washer · Location : between the array lens and heat sink
3-2	**Array Lens Cover**	· Material : Polycarbonate · Thickness : 2.0 ㎜ · Lens Type : Type Ⅲ **Medium**
3-3	**Seal Rubber**	· Material : Molded Silicone
3-4	**LED Board**	· LED : Ceramic PKG, CCT 5000K, CRI min. 75 · Material : MCPCB, Aluminum · Thickness : 1.6 ㎜ · Stainless Steel Screws : 3ea
3-5	**Side Inlet Harness**	· Material : Molded PVC coated with Sealant Silicone, 105℃ rating · Wires : T. B. D · Length(wires) : T. B. D · Connector Plug : IP66(minimum)
3-6	**Heat Sink (with Fin & 4 Screw Holes)**	· Material : Die-cast Aluminium · Thermal Pad between the PCB and Heat Sink

4. APPEARANCE AND STRUCTURE

No.	ARTICLE	SPECIFICATIONS
4-1	Appearance and Dimension (Type 3M)	 ※ Appearance is different for various optical solutions depending on the combination of the 10 core lenses. Critical dimensions are all the same for the optical solutions except for the thickness difference at the core lens cross-section. Detailed information on the lenses are described in Optical and Mechanical Application Notes.
4-2	Structure (Type 3M)	 
4-3	Labelling for Vf Binning (General)	 [LED Board Label]  [Module Label]  [Box Label]

5. PACKING SPECIFICATION

5-1 Packing Method

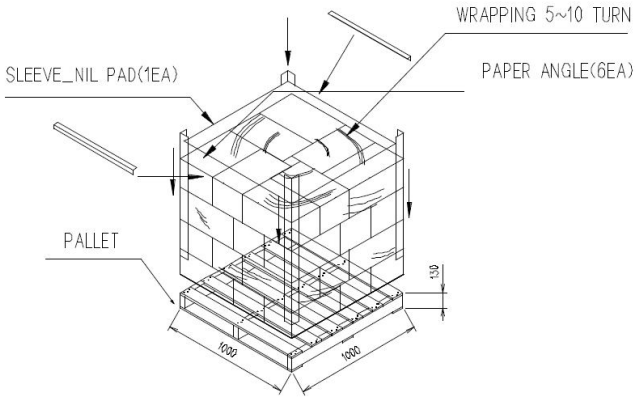
5-1-1 Inner Box : 6 modules of the same Vf bin in one inner box

6 PCs/Inner Box

5-1-2 Outer Box : 12 modules on 2 stacks of inner boxes in one outer box

2 Stacks of Inner Boxes
(419 x 240 x 189)

5-2 Pallet : 32 boxes(384 modules) on one pallet



※ Two stacks of pallets are allowed.

[20130812]

[APPENDIX 1] White LED Module Product Codes

Code	Module Type
P	Platform
I	Integrated
Z	Zhaga

Code	LED Platform
G	XP-G
3	3535 Ceramic

Code	Region
CN	China
EU	Euroupe
JP	Japan
KR	Korea
US	USA
WW	World Wide

25W

SL-Puv2Twaabcc

CRI(Ra)	Code
60.0~69.9	6
70.0~79.9	7
80.0~89.9	8
90.0~99.9	9
100	A
60.0~64.9	B
65.0~69.9	C
65.0~74.9	D
70.0~74.9	E
75.0~79.9	F
75.0~84.9	G
80.0~84.9	H
85.0~89.9	I
85.0~94.9	J
90.0~94.9	K
95.0~99.9	L

Code	Heat Sink Platform
E	Engine (Heat Sink with Fin)
F	Fixture (Heat Sink without Fin)
A	Adaptor (Heat Sink with Flange)
T	Tetra Screw Holes (H/S with 4 Holes)

Nominal CCT(K)	Code
6500	P
5700	Q
5000	R
4500	S
4000	T
3500	U
3000	V
2700	W

Code	Light Distribution	
0L	Lambertian	without lens
1S	IESNA Type 1	short
1M	IESNA Type 1	medium
2S	IESNA Type 2	short(I)
2M	IESNA Type 2	medium(I)
7S	IESNA Type 2	short(L)
7M	IESNA Type 2	medium(L)
3S	IESNA Type 3	short(I)
3M	IESNA Type 3	medium(I)
8S	IESNA Type 3	short(I)
8M	IESNA Type 3	medium(L)
4S	IESNA Type 4	short(I)
4M	IESNA Type 4	medium(I)
9S	IESNA Type 4	short(L)
5S	IESNA Type 5	short
5M	IESNA Type 5	medium
15	15 deg	circular
25	25 deg	circular
40	40 deg	circular
50	50 deg	circular
65	65 deg	circular
85	85 deg	circular batwing
A0	100 deg	circular
C0	120 deg	circular batwing
58	50 x 80 deg	rectangular
9D	90 x 130 deg	rectangular

Luminous Flux(lm)	Code(*)
6400~	9
4300~	8
3200~	7
2600~	6
2300~	5
2000~	4 (E)
1950~	3 (D)
1750~	2 (C)
1600~	1 (B)
1450~	0 (A)

(*) The Code May Be Changed by the Harness Type

(I) : optimized for Illuminance uniformity
(L) : optimized for Luminance uniformity

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