



**Opto Plus LED Corp.**  
**0.56" Case Mold Type LED Display**  
**OPD-T5610UPG-GW**  
**OPD-T5611UPG-GW**

● **EDIT HISTORY**

Version A: Sep. 11, 2015  
Preliminary Spec.

Manufacture	Examination	Approving



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● **FEATURES**

- 0.56 inch (14.20mm) Digit Height.
- Low current operation.
- Case mold type.
- Gray face, White segment.
- RoHS compliant, Pb Free.

● **DESCRIPTION**

The OPD-T5610UPG-GW & OPD-T5611UPG-GW is a 0.56 inch (14.20 mm) height triple digits display.

This device utilizes Pure Green LED chip which are made from InGaN on a transparent GaN. The display has Gray face, White segment.

● **DEVICE**

<b>PART NO</b> <b>Pure Green</b>	<b>DESCRIPTION</b>
OPD-T5610UPG-GW	Common Anode
OPD-T5611UPG-GW	Common Cathode

**RoHS Compliance**



**Pb free.**





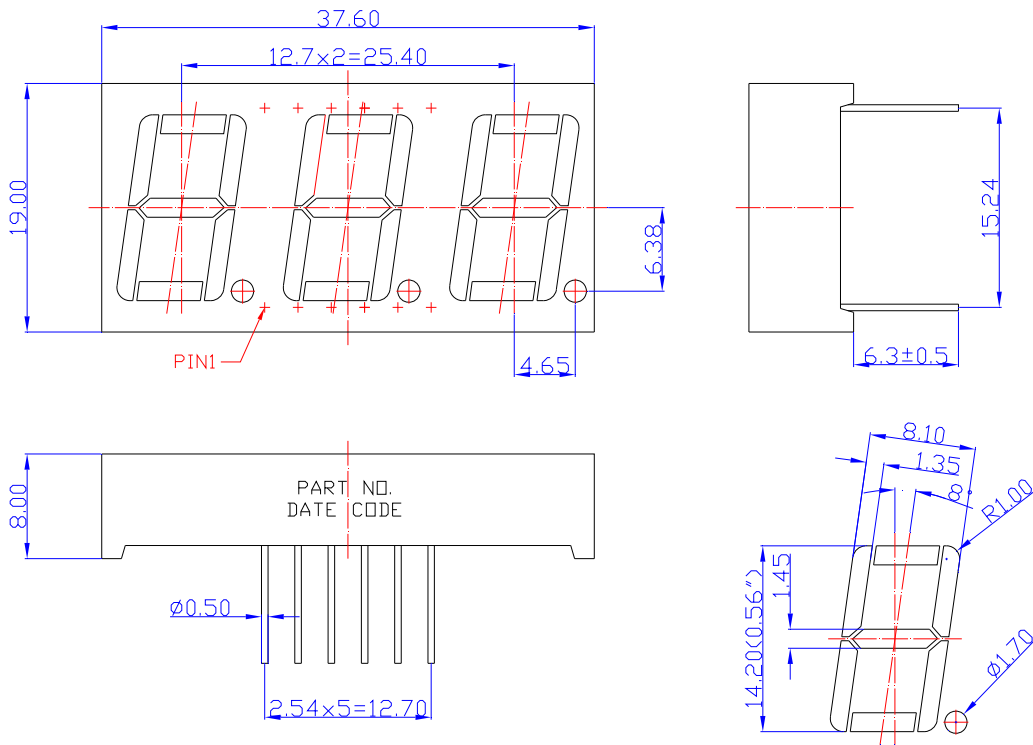
# Opto Plus LED Corp.

## 0.56" Case Mold Type LED Display

### OPD-T5610UPG-GW

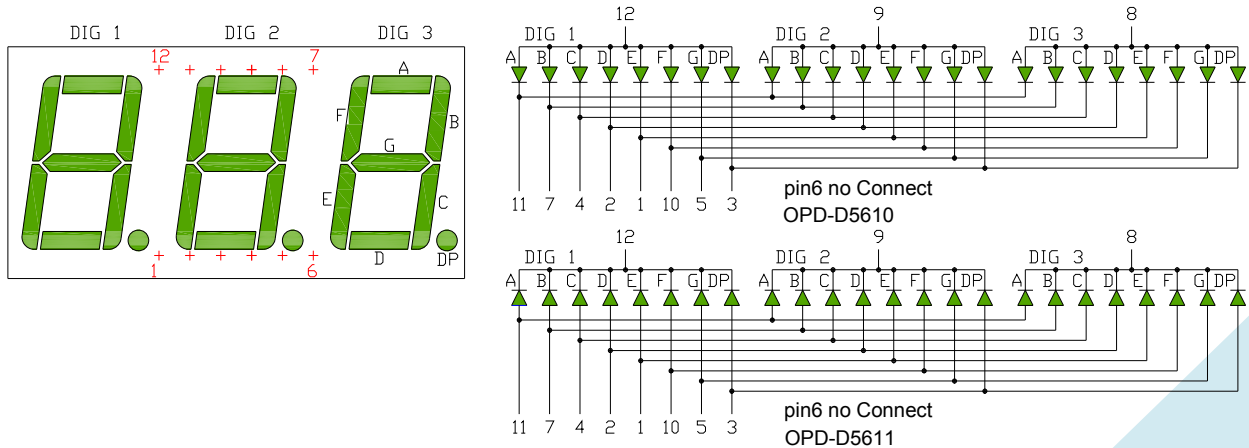
### OPD-T5611UPG-GW

### MECHANICAL DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm unless otherwise noted.

### TYPICAL INTERNAL EQUIVALENT CIRCUIT





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● **PG: PURE GREEN (InGaN/GaN)**

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Pure Green	Unit
Power dissipation per dice	P <sub>AD</sub>	120	mW
Derating liner from 25°C per dice	-	0.4	mA / °C
Continuous forward current per dice	I <sub>AF</sub>	30	mA
Peak current per dice (duty cycle 1/10, 1kHz)	I <sub>PF</sub>	120	mA
Reverse voltage per dice	V <sub>R</sub>	5	V
Operating temperature	T <sub>OPR</sub>	-25 to +85	°C
Storage temperature	T <sub>STG</sub>	-25 to +85	°C

ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	-	3.2	3.6	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =8V	-	-	10	μA
Dominant wavelength	λ <sub>D</sub>	I <sub>F</sub> =20mA	500	525	535	nm
Luminous intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	-	200	-	mcd
Spectral radiation bandwidth	Δλ	I <sub>F</sub> =20mA	-	30	-	nm



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● **PG: BIN GRADE (Unit : mcd / I<sub>v</sub>=20mA)**

Pure Green	R	S	T
	120~190	191~260	261~330

● **PG: HUE GRADE (λD : nm)**

1	2	3
515~520	521~525	526~535

● **AVAILABLE BIN / HUE TABLE**

R1	S1	T1
R2	S2	T2
R3	S3	T3



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### OPD-T5610UPG-GW

### OPD-T5611UPG-GW

#### ● PG: PURE GREEN (InGaN/GaN) CURVE

#### Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

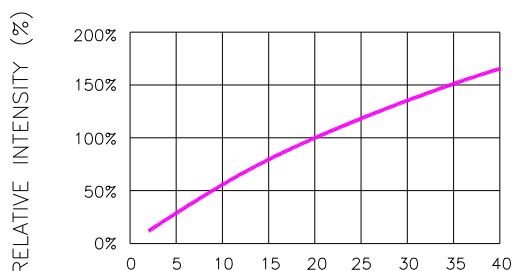


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

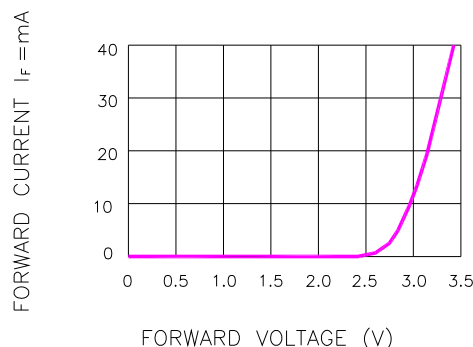


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

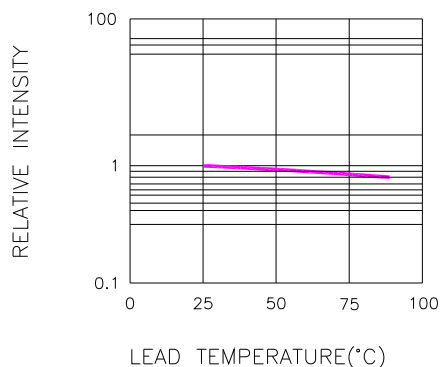


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE  
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

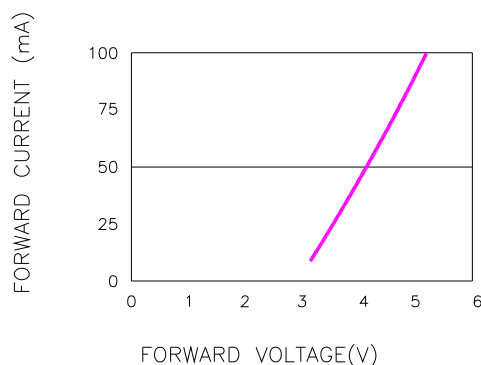


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

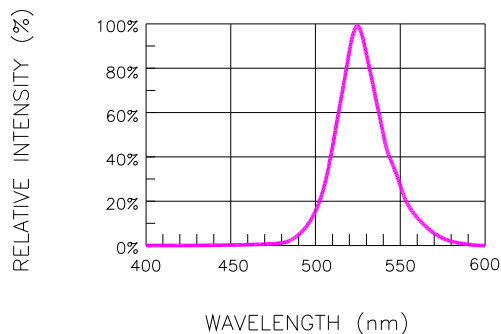


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

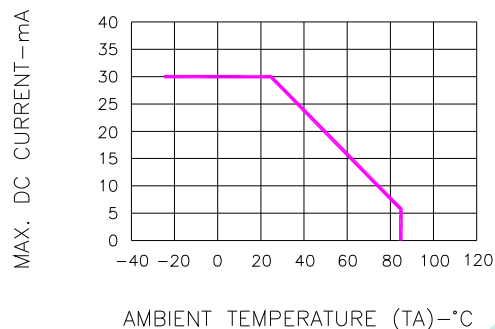


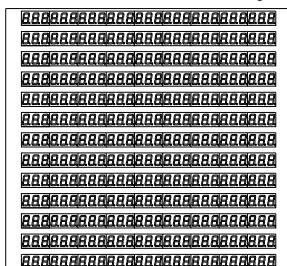
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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● **PACKAGE DIMENSIONS**

117 PCS / 1 Pink ESD Polyform ( 9 X 13 PCS )

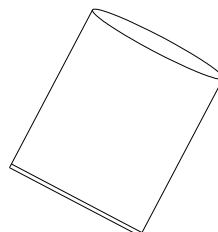


5 Pink ESD Polyform / 1 Pink BAG

585PCS /1Inner Carton

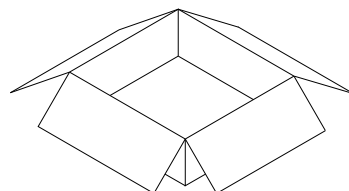


A reference for packing within bag.

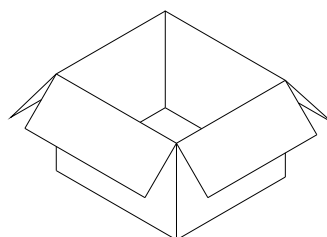


ESD BAG SIZE : 650 x 550 mm

585 PCS / 1 INNER CARTON & 1170 PCS / 2 INNER CARTON / 1 OUTER CARTON



INNER BOX SIZE : 394 x 370 x 138 mm



OUTER BOX SIZE : 430 x 390 x 300 mm

● **Note:**

**LED DISPLAY STANDARD STORAGED CONDITION**

Product in the original packaging material state is the recommended storage conditions.

TERATURE CONDITION	HUMIDITY CONDITION
5°C ~ 30°C	Below 60%RH

If the storage conditions do not meet specification standards, the component pins may become oxidized requiring re-plating and re-sorting before use. Suggest customers consume LEDs as soon as possible, and avoid long-term storage of large inventories.