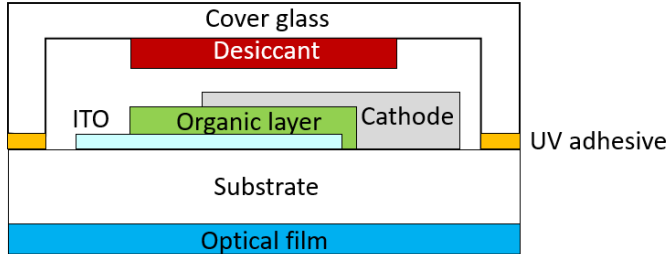


Total Solution for OLED Encapsulation and Out-coupling



Substrate

- High-refractive-index Glass
- Cover Glass
- FTO Glass (patterned)
- ITO Glass (patterned)

Optical Film

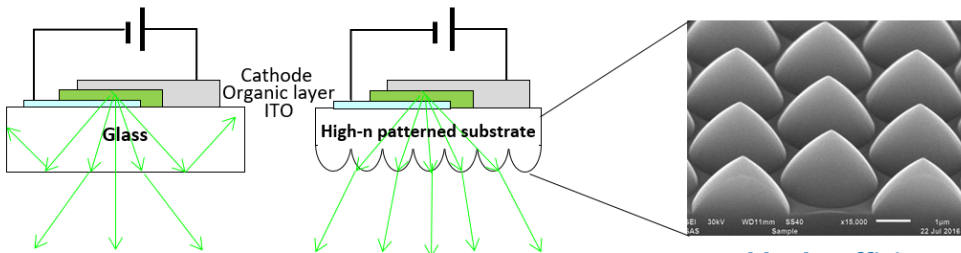
- Microlens Array Film
- Diffuser Film
- OCA Tape

Desiccant / UV Adhesive

- Label Desiccant
- Liquid Desiccant
- UV Adhesive

Substrate

HNPS01 High-refractive-index Glass



Double the efficiency!!

Feature

High-refractive-index substrate ($n=1.77$) with micro-lens-array structure can largely enhance the external efficiency of conventional bottom-emission OLED.

Emission area (2cm x 2cm)	CIE (x, y)	Ra	V (V)	CE(cd/A)	PE(lm/W)
Glass / ITO	(0.37, 0.41)	89	7.5	39.1	16.4
High-refractive-index Glass / ITO	(0.40, 0.40)	89	7.0	76.7(+96%)	34.4(+110%)

Electrode / Substrate and Sealing

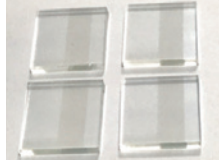
OLED Encapsulation and Out-coupling

LT-Cover Cover Glass



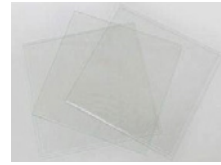
Type : Sandblasted or Etched
 Transmittance : > 90% (Etched)
 Dimension : 370*470*1.1mm or Customize

LT-G004 FTO Glass



Glass Thickness : 2.2mm
 FTO Thickness : 200nm
 Resistance : 15Ω/sq
 Transmittance : > 83%
 Dimension : Customize

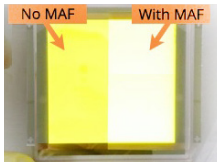
LT-G001 / LT-G002 ITO Glass



	LT-G001	LT-G002
ITO Thickness	: 1200~1600Å	: 3100~3700Å
Resistance	: 9~15Ω/sq	: 4~6Ω/sq
Transmittance	: > 84% (at 550nm)	: > 78% (at 550nm)
Glass	: Polished soda lime glass	
Dimension	: 370*470*0.7mm or Customize	

Optical Film

MA1101001 Microlens Array Film



Micro-lens Thickness	: 20um
PET Thickness	: 250um
Adhesive Thickness	: 5um
Haze	: 88%
Emission area 6x6cm	: Brightness
Panel w/o MAF	: 2164nits
Panel w/ MAF	: 3542nits
Enhancement ratio	: 63.7%

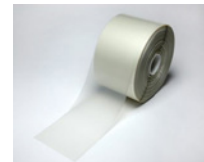
DF1252501 Diffuser Film



Diffusion layer	: 15um
PET Thickness	: 100um
Adhesive Thickness	: 25um
Haze	: 89.5%
Emission area 6x6cm	: Brightness
Panel w/o DF	: 474nits
Panel w/ DF	: 625nits
Enhancement ratio	: 31.8%

*Diffuser film can reduce color shift with angle compared to microlens array film.

OCA100001 OCA Tape



Adhesion to Glass	: > 1.0(kg/inch)
Liner Release - Easy	: 5~20(g/inch)
Liner Release - Tight	: 20~55(g/inch)
Transmission	: > 92%
Haze	: < 2%
Clarity	: > 90%

Desiccant / Adhesive

LLDY1000001 Label Desiccant



Package : 100pcs/pack
 Dimension : 18x18mm²
 Thickness : 180um
 Sorption Capacity : >50g/m²
 (20°C/65% RH)

LLDY2000001 Liquid Desiccant



Package : 10g/syringe
 Curing Condition : 120°C/3hr or 160°C/1hr
 Sorption Capacity : >16wt%
 (23°C/50% RH)
 Viscosity : 123,000cP
 (shear rate 5s⁻¹)

LT-U001 UV Adhesive



Storage : at 5°C
 Viscosity : 400~600 Pa.s
 Curing condition : 6J /cm²(High-pressure Hg lamp)+80°C/1h
 WVTR : 4g/m²/24h
 Tg : 120°C (by DSC)
 Package : 10g/Syringe