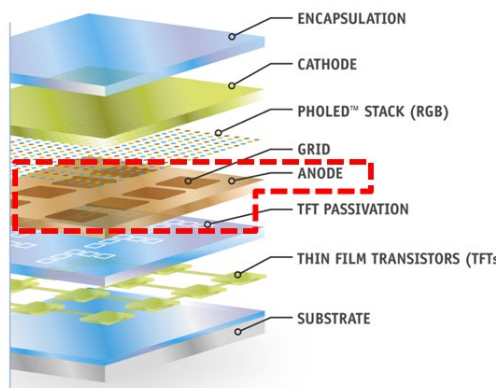


# Large-Area OLED Using Graphene Transparent Electrodes

## Overview and Configuration

- OLED panel technology utilizing graphene as a transparent electrodes
- Graphene electrode material technology applicable to OLED display processes

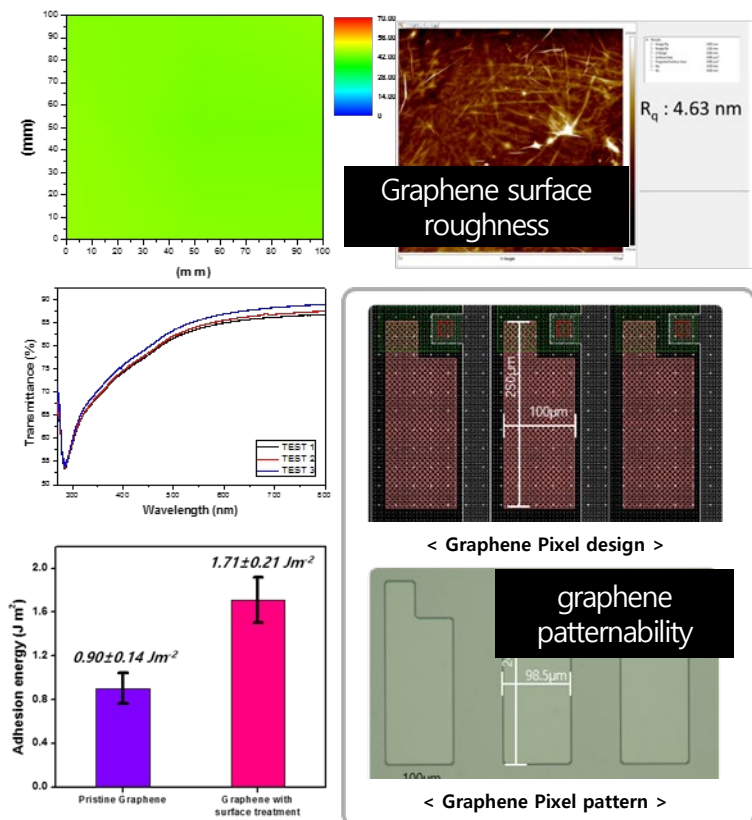


Cross-sectional structure of the OLED display

Sheet resistance uniformity

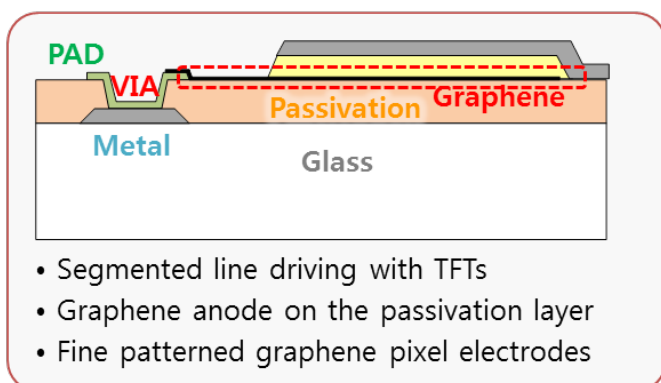
Graphene transparency

Improved adhesion



## Key Features

### Graphene-OLED Display Integrated Panel



- Demonstration of OLED panels using graphene transparent electrodes



- World's largest size
- 2nd generation substrate ( $370 \times 470 \text{ mm}^2$ )
- Graphene OLED panel

## Technological Competitiveness

- Fine patterning technology for thin graphene films suitable for OLED electrodes
- World's first and largest large-size ( $370 \times 470 \text{ mm}$ ) OLED implemented using graphene transparent electrodes
- Development of flexible display technology through the combination of flexible substrates and graphene flexible electrode technology

## Application Products & Fields

- High-efficiency, high-transparency, flexible AMOLED technology leveraging graphene's properties of transparency, conductivity, stretchability, and chemical resistance