T4000

OSC Parameter Test System

(Organic Semiconductor)

Electrical, Optical & Thermal
Imaging & Test Systems

The optoelectronic characterization of organic semiconductor layer is substantially important in applications for organic photovoltaics(OPV) and organic light emitting diode (OLED), and T4000 Organic Semiconductor Parameter Test System performs various experiments based on LED light source and high-speed measurement electronics in order to obtain carrier lifetime, carrier mobility, diffusion coefficient and other characteristic parameters.

TPV/TPC/CE + CELIV + I-V

Transient Photovoltage (TPV) / Transient Photocurrent (TPC)
Charge Extraction (CE) / Dark
Photo Charge Extraction by Linearly Increasing Voltage (CELIV)
I-V Characteristics

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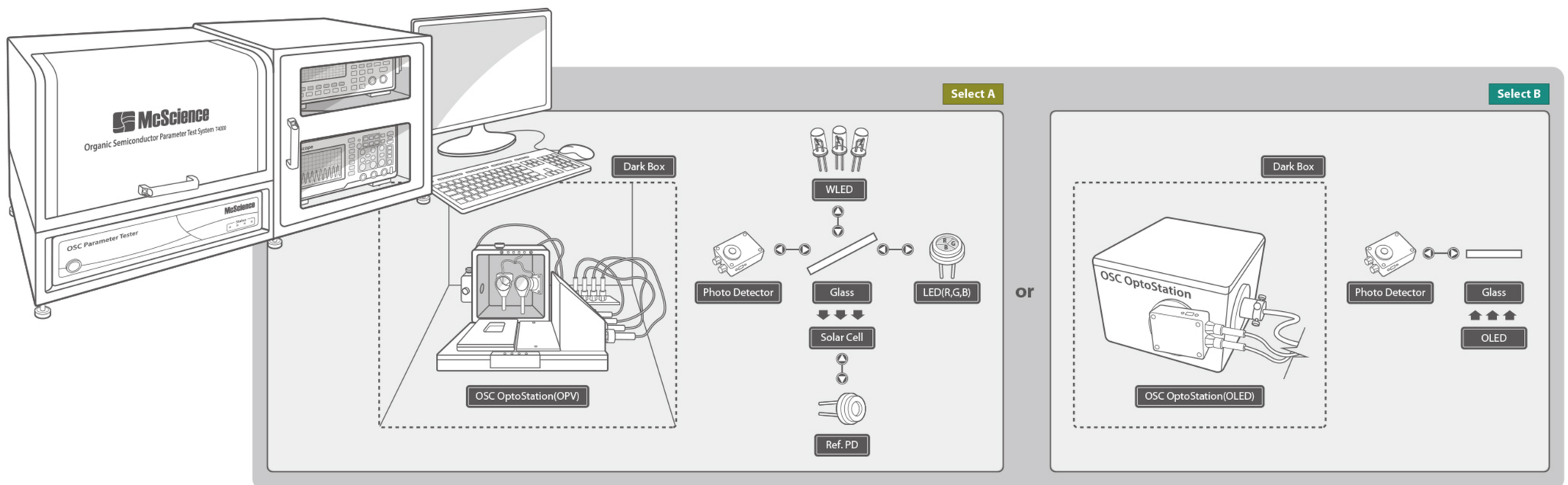
System Configuration



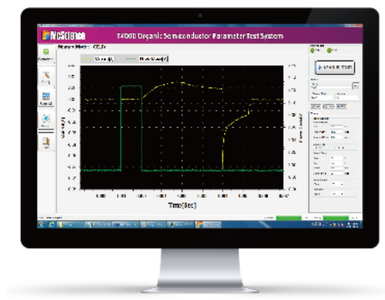
System Components

<OptoStation : Solar Cell>

<OptoStation : OLED>

<Oscilloscope>

<OSC Parameter Tester>



<OSC Parameter Test S/W>

System Specification

Model Name	T4000 Organic Semiconductor Parameter Test System	
System Configuration	Main Frame, T104 OSC Parameter Tester, Oscilloscope, Optostation, Signal Amplifier, Cables, Software, PC	
Dimension / Weight / Electricity	Dimension : (W)930 mm X (D)470 mm X (H)480 mm / Weight(kg) : 100kg / Utility : 220V, 15A	
Test Sample	Solar Cell	OLED
Test Recipe	TPV, TPC, CE, CELIV	I-V-L, T-EL
Response Time	LED Light On/Off Time : > 500ns	PD Detector Response Time : > 10ns
Signal Sampling Rate	Max. 1GS/sec	Max. 1GS/sec
Memory Depth	1Mega Point	1Mega Point
Bias Voltage	-10V ~ +10V	-10V ~ +10V
Voltage Rising/Falling Time	Min. 20ns @ No Load	Min. 20ns @ No Load

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