

**M6000 PIXX**

**Electrical, Optical & Thermal**  
Imaging & Test Systems

# Imaging & Lifetime Test System

M6000 PIXX Imaging & Lifetime Test System periodically measures the electroluminescence image while driving display devices such as OLED, QLED, Micro and Mini LED, and evaluates the variation of luminance, structural deformation and uniformity through the device life cycle, in addition to the conventional display device lifetime tests including voltage and current measurement. Special features are:

- Scalable multi-channel system for the long-term imaging & lifetime measurements of display devices
- Compact 12-bit high-resolution imaging unit built in each test channel with  $V(\lambda)$  Filter and fast auto-focusing module
- Various luminescence uniformity analysis including standard 9-Section non-uniformity and structural similarity (SSIM)

**Multi-Channel**



**Imaging**



**Uniformity**



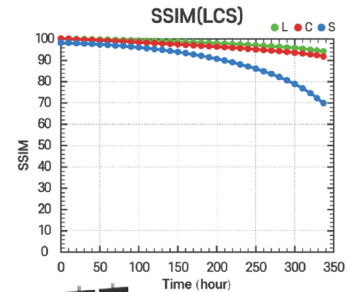
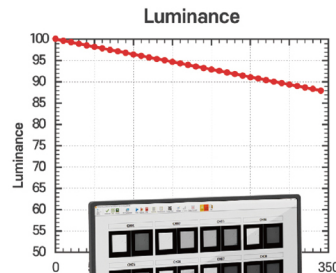
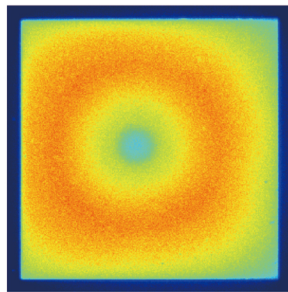
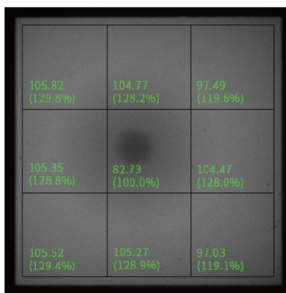
**Lifetime**



**Auto-Focusing**



**$V(\lambda)$  Filter**



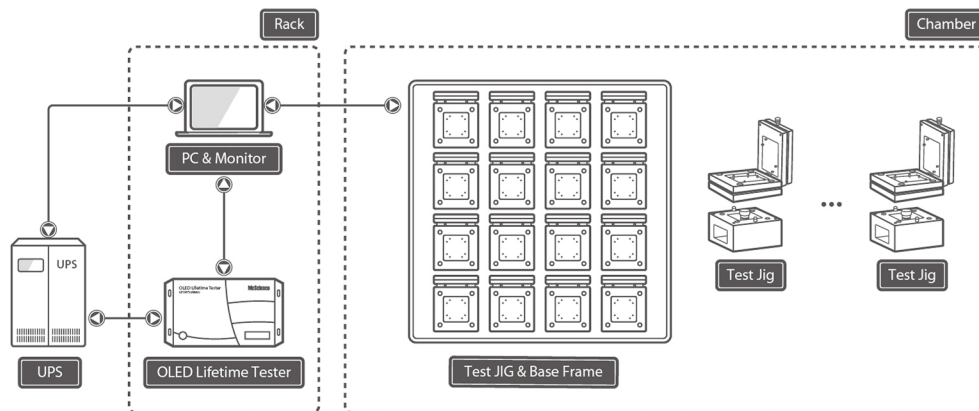
Display Cell / Panel / Module  
Scalable Multi-Channel Test System  
Lifetime Test / Uniformity / Aging / I-V Scan  
Imaging Test / 9-section Analysis / SSIM  
Auto-Focusing /  $V(\lambda)$  Filter  
CC/CV/PC/PV/PCV Operation  
Thermal Chamber / ThermoStation



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## System Configuration



## System Components



<OLED Lifetime Tester>



<Test Jig & Base Frame>



<Thermostated Type>



<Chamber Type>



<Imaging & Lifetime Test Software>

## System Specification

Product Name		M6000 PIXX Imaging & Lifetime Test System	
Measurement Item		Time, Voltage, Current, Image, Uniformity, Relative Luminance	
Standard Capacity		16ch / Set (Standard)	
Electrical Operation Mode		CV, CC, CL, PV, PC, PCV	
Imaging	Sensor Resolution	CMOS Imaging Sensor 640 x 480 Pixel	
	FOV / WD	5mm x 4mm / 32mm (Auto-Focusing Function / Intensity Resolution : 12bit)	
	Measurement Luminance Range	0 ~ 3,000nit ( Standard A Light Source / Range is variable by user defined value)	
	Spectral Responsibility	CIE Photopic Luminous Function Filter	
DC	Item	Voltage	Current
	Range	±20V	[Range 1] ±1mA / [Range 2] ±10mA (Auto 2-Range Shunt Type)
	Accuracy	±0.05% + 10mV (F.S.R.)	[Range 1] ±0.05% + 1uA (F.S.R.) / [Range 2] ±0.05% + 10uA (F.S.R.)
Pulse	Frequency Range	10 ~ 256Hz / 1Hz Step	
	Duty	1 ~ 99% / 1% Step	
Data Backup		Automatic Data Backup in HW Memory in case of SW Disconnection	
Interface		LAN and USB Interface	
Option		Temperature Chamber (Typically, 25 ~ 85°C Range), Thermostated (4ch/unit Standard), Image Analysis Software, UPS	