T3000 PLUS

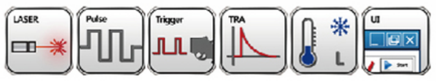
TOF Measurement System (Time Of Flight)

Electrical, Optical & Thermal
Imaging & Test Systems

The time of flight measurement is essential for characterization of charge carrier mobility of organic semiconductor material, and T3000 TOF Measurement System performs standard TOF experiment based on Pulse laser and high-speed measurement electronics. Low temperature cryogenic is optional for the study of temperature dependence of carrier mobility.

Mobility + **TOF** + **DIT** + **CELIV**

Charge Carrier Transport in Organic Semiconductor
Measurement of Electron/Hole Mobility
Time of Flight Measurement (TOF)
Dark Injection Transient (DIT)
Charge Extraction by Linearly Increasing Voltage (CELIV)
Low Temperature Measurement



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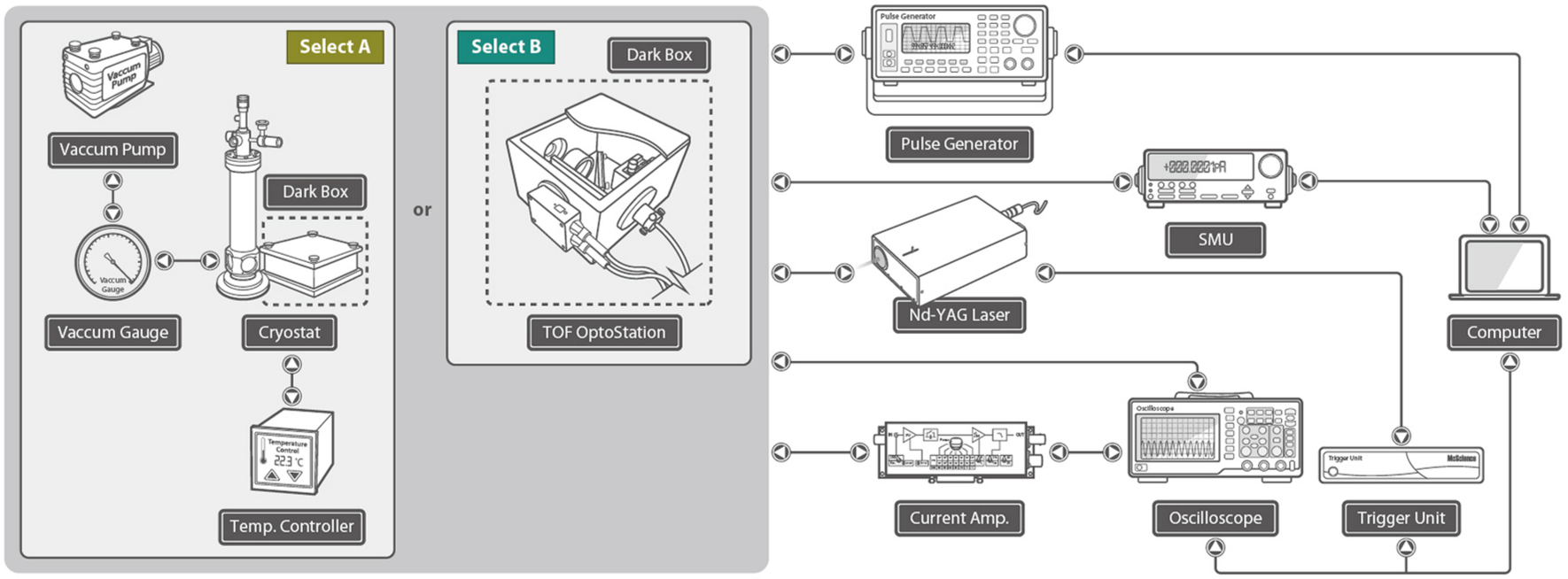
System Configuration



System Components


<Nd-YAG Laser>


<Trigger Unit>


<Oscilloscope>


<V-Source>


<Function Generator>


<Cryostat>


<Optical Unit>


<DeJign JIG>


<TOF Measurement S/W>

System Specification

Model Name	T3000 Time of Flight Measurement System
System Option	S : Standard Option / T : Low Temperature Option / C : Dark Injection & CELIV Function Option
System Configuration	Laser(Nd-YAG), Oscilloscope, High Voltage Sourcemeter, Signal Amplifier, Loader & Trigger Unit, Optical Unit(Focusing Lens, Beam Splitter, Photodetector, Sample Mounting Unit, Dark Box & System Frame, (Option) Dye Laser, Probe Unit, Low Temperature Unit(Cryostat, Temperature Controller, Vacuum Accessories)
Dimension	Size(mm) : 2,400 x 800 x 1,600 / Weight(kg) : <200kg / Utility : 220V, 15A, 99.999% N2 Gas
Sample	Organic Materials (Electron, Hole)
Sample Size / Type	Glass Size : <50mm x 50mm / Active Area : >2mm x 2mm / Top and Bottom Type
Beam Size	<2mm x 2mm
Measure Time Range	4nsec ~ 10s/div
Transit Time Min. Measure Time	Min. 1usec
Mobility Measure Range	$>10^{-6}$ $cm^2/V.sec$ @ 1um Sample Thickness
Measure/Analysis Item	Transit Time, Mobility, Zero Mobility, E-Field vs Mobility, Temperature vs Mobility

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