

TPCV

Transient Photo-Current / Photo-Voltage Tester for Perovskite Solar Cells



Unlocking the Full Potential of Solar Energy

Precision Testing for Next-Gen PVK

TPC

The generation and collection of lightgenerated carriers

- Influence:

 internal resistance
 Carrier recombination
 Carrier diffusion
- Improving: Solar cell Jsc performance

TPV

Light-generated charge carriers separation mechanism.

- Influence:
 - 1. Bandgap of active layer
 - 2.Doping levels
 - 3. Interface quality
- Improving: Solar cell Voc performance

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Key Features



High Time-Resolution

Enlitech's TPCV tester uses a 520nm laser with rapid nanosecond operation, vital for studying photocurrents in solar cells.

High Signal/ Noise Ratio



Built on two decades of expertise, excels in noise reduction through meticulous design of wiring, signal processing circuits, and electromagnetic shielding.

Versatile and intuitive software



TPCV testing software enhances user efficiency by controlling hardware devices, swiftly capturing signals to the computer, and offering a three-level fitting function for carrier lifetime analysis.

High Cost-Performance Ration



TPCV tester offers a turnkey solution with top-tier components, assembled by experienced engineers. This system is ready for use after just one day of training, providing immediate data generation capabilities.







Laser module wavelength	Wavelength	520nm
	• rise time, fall time	< 5ns
	Laser light guidance and beam coupling components	
	 Maximum measurement bandwidth 	350MHz (3dB)
Photocurrent signal acquisition device	• Time analysis (Rise time)	<1.15 ns
	Record length	25К
	 Sampling rate 	5GSa/s
	Measuring voltage range	2mV/div~ 5V/div
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Waveform generation output	With arbitrary waveform generator	
	 Maximum modulation frequency 	15MHz
	Record length	25K
	 Basic waveform output 	 sine wave square wave pulse wave ramp wave DC
	Waveform output voltage	20mVpp~5Vpp (HighZ) 14bits resolution
	Dark Box、XYZ axis displacement platform	
Optional	Bigsable device module	
	Other wavelength secendle: 405nm, 633nm, 980nm	
	White light higs light function	

<u>https://enlitechnology.com/</u>

