

# TLP-1000 Series Transmission Line Pulse Generator



## 1. Description

The model TLP-1000 series transmission line pulse generator is our latest design for standalone TLP pulses that can generate and inject direct TLP pulses, E field and H field to the device under test (DUT). This generator is designed to apply high quality rectangular pulses up to 5kV. Voltage polarity, amplitude, and pulse rate could be easily controlled by the 5-inch touch screen and serial port remotely. Customizable Pulse width and rise time with variable measurement accessories make the generator functionality extendable.

## 2. Features

- Most configurable TLP Pulse Generator
- 5-inch Touch Screen
- High quality TLP pulses
- Expandable with ESD injection fixtures, Standard TLP, VF-TLP, etc.
- Customization is available

## 3. Applications

- ESD current injection with diode and capacitive injection probes

- E & H field injection with field probes or TEM Cell
- General TLP for wafer, PCB, System level ESD debug
- Touchscreen ITO trace fuse and breakdown test
- Charge recovery time test
- Component ESD Pulse reliability test

## 4. Specifications

Parameters	TLP-1010	TLP-1030	TLP-1050	Unit	Comments
Output voltage @ open load	± 10 ~ 2000	± 10 ~ 6000	± 10 ~ 10000	V	
Output voltage @ 50 Ω load	± 5 ~ 1000	± 5 ~ 3000	± 5 ~ 5000	V	
Min voltage step	10	10	10	V	
Output voltage precision	Better than ± 5 % or ± 10 V			NA	
Output current @ short load	± 0.2 ~ 40	± 0.2 ~ 120	± 0.2 ~ 200	A	
Output current @ 50 Ω load	± 0.1 ~ 20	± 0.1 ~ 60	± 0.1 ~ 100	A	
Intrinsic TLP rise-time	≤ 0.2	≤ 1	≤ 2	ns	
Other rise-time options	0.06 ~ 50			ns	Available depends on model
Intrinsic TLP pulse width	100 ± 1			ns	Default
Other pulse-width options	1 ~ 3200	5 ~ 1000	5 ~ 500	ns	Available depends on model
Pulse repetition time	0.05 ~ 2			s	Selectable
Dimensions	347 X 300 X 145			mm	
Weight	5	6	8	kg	

## 5. Ordering Information

Line	Part # or Option #	Description
<b>TLP IV-Curve System Basic Configuration</b>		
1.1	TLP-1010	Transmission line Pulse Generator Max 1000V @ 50 Ohm Load
1.2	TLP-1030	Transmission line Pulse Generator Max 3000V @ 50 Ohm Load
1.3	TLP-1050	Transmission line Pulse Generator Max 5000V @ 50 Ohm Load
<b>Pulse Rise-time Customization</b>		
2.1	TLP-PIRT	Programable Internal Rise-time Options
2.2	TLP-MERT	Manual External Rise-time Filter Options
<b>Pulse Fall-time Customization</b>		
3.1	TLP-SFT	Slow Fall-time Option
<b>Pulse Width Customization</b>		
4.1	TLP-PIPW	Programable Internal Pulse-width Option
4.2	TLP-MEPW	Manual External Pulse-width Option
<b>Reflection Control Customization</b>		
5.1	TLP-ATT	Internal Bidirectional Attenuator (reduce reflections)
5.2	TLP-RNT	Reverse Negative Termination (reduce negative reflections)

Customizations are available upon request.