

# EOS-500 Electrical Overstress Pulse Generator

(Preliminary Datasheet, parameters are not finalized)



## 1. Description

The model EOS-500 is a 50 Ohm output impedance pulse generator designed for general EOS tests with pulse width adjustable from ns to ms range.

## 2. Features

- Compact Design
- 50  $\Omega$  Output resistance
- Touch Panel User Interface
- Continuous Digitally Adjustable Pulse-width from ns to ms range
- Optional software controlled automatic measurement
- Optional automatic failure detection includes DC spot check and static IV

## 3. Applications

- General EOS failure test and analysis for wafer level device, PCB module, system hot plug, etc...
- Integrated with automatic measurement software for device safe operation area tests

## 4. Specifications

Parameters	EOS-500	EOS-500+	Unit	Comments
Output voltage @ open load	10 - 500	10 - 500	V	
Output voltage @ 50 Ω load	0.5 - 250	0.5 - 250	V	
Min voltage step	1	1	V	
Output voltage precision	< ± 0.5%	< ± 0.5%	± %	
Output current @ short load	0.02 – 10	0.02 – 10	A	
Output current @ 50 Ω load	0.01- 5	0.01- 5	A	
Output Resistance	50	50	Ohm	
Peak power @ 50 Ω load	1250	1250	W	Transient Peak Power
Fastest Risetime @ 50 Ω load	≤ 10	≤ 5	ns	May vary with pulse level voltage
Pulse Width Adjustable Range	0.1 – 1000	0.02 -5000	us	
Pulse Width Adjustable Step	± 100	± 2.5	ns	
Pulse Width Precision	<± 50	<± 5	ns	
Pulse Plateau Drop	≤5	≤1	%	
Dimensions	347 X 300 X 145	347 X 300 X 145	mm	
Weight	5	8	kg	

Note: Some parameters are not finalized in this draft yet, the parameters in blue are conservative specifications.

## 5. Ordering Information

Line	Part # or Option #	Description
<b>Electrical Overstress Pulse Generator</b>		
1.1	EOS-500	Model LVS-500 Electrical Overstress Pulse Generator, 0.5 us – 1ms Max 500V, RS232 SCPI Supported
1.2	EOS-500+	Model LVS-500+ Electrical Overstress Pulse Generator, 50ns – 1ms Max 500V, RS232 SCPI Supported
<b>Additional Options</b>		
2.1	ES62x-PC	Passive current probe, 0.01 V/A
2.2	KSMU2400	SMU, 200V, 1A, 20W, Single Channel (For device DC automation failure check))
2.3	ES62X-CMPS	Compact Manual Probe Station
2.4	ES62X-XYZM-TIM	XYZ Micropositioner – Inline model, XYZ travel 500 mils with 0.01mm per step
2.5	ES62X-XYZM-PAA	PCB Probe Arm Assembly with Voltage Measurement (Type C X1, Type B X2)
2.6	ES62X-XYZM-GAA	GND Probe Arm Assembly
2.7	ES62X-XYZM-PP048S	0.35mm diameter, 30-degree gold- plated sharp tip Pogopin for Probing
2.8	ES62X-XYZM-PP075S	0.68mm diameter, 30-degree gold- plated sharp tip Pogopin for Probing

*Some of the measured EOS Pulse Waveforms*



