

ES613 ESD Simulator



1. Description

The ES613 Series ESD simulator is our latest ESD simulator design with the most advanced features including exchangeable RC network modules, exchangeable rise time tips, zap-counter, remote control, exchangeable rise time tips. It meets the requirements of standard IEC61000-4-2, and ISO 10605 Standards. Options include dual polarity test level up to 20 or 30 kV.

2. Features

- The most economically designed ESD Gun
- Ultra-Light Weight ESD Gun (< 700 g, the lightest one in the market)
- Integrate automatic charge removal circuit
- Ultra Large Touch Screen (5 inch)
- Enhanced Voltage Control Stability (Single pulse better than 1%, 20 Hz pulse better than 5%)
- Unique Precision High Voltage Test Modes (for high voltage charging application or Breakdown test)
- Smart Device Under Test (DUT) Failure Level Scanning Mode (Automatic polarity change, increased pulse level per user settings)
- Optical Serial Remote Control Option
- Pulse Modes: Trigger, 1p/s, 2p/s, 5p/s, 10p/s, and 20p/s
- Exchangeable RC modules for different standards (Customization Available)

3. Applications

- System and board level ESD susceptibility test
- High voltage DC supply usage
- High voltage charging and sparking test
- High voltage breakdown test

4. Specifications

System	ES613-20	ES613-30
Controller Model	ES613-C20	ES613-C30
ESD Gun Model	ES613-G20	ES613-G30
Test voltage range	0.1 ~ 20 kV	0.1 ~ 30 kV
Voltage step	0.1 kV step	
Voltage tolerance	Factory calibrated to $\pm 1\%$ (FS)	
Voltage polarity	Positive and Negative	
Discharge repetition	Trigger, 1Hz, 2Hz, 5Hz, 10 Hz, 20 Hz	
Discharge counter	up to 65535 times	
Discharge mode	Contact discharge/ Air discharge	
Operation panel	5-inch large touch screen	
Trigger mode	Gun trigger / Remote Control	
Operation modes	Manual mode	
	Pattern mode	
	HV supply mode	
	Remote mode (optional)	
Manual mode	IEC standard pre-settings available in 1 click	
Pattern mode	A device under test (DUT) failure scanning mode with start, step, stop voltages, pulse per levels, polarity settings, user setting are available	
HV supply mode	Work as a high precision high voltage power supply, 1mA max output current	
Power consumption	100 to 240 V AC	
	50/60 Hz $\pm 10\%$	
	60 W	
Dimensions	35 X 28 X 15 cm	
Weight	8kg	8.5kg
Warranty	2 years	

5. Basic Configuration

Part Number	Description
ES612-C20 (or ES613-C30)	20 (or 30) kV Electrostatic and High voltage Test Controller
ES613-G30 (or ES613-G30)	20 (or 30) kV ESD Simulator Gun

ES613-CT	Contact Discharge Gun Tip
ES613-AT	Air Discharge Gun Tip
ES613-RC1	150 pF / 330 Ohm RC Module

6. Optional Accessories

Part Number	Description	Specifications
ES613-RC1	Exchangeable RC Module 150 pF / 330 Ohm +/-10%	IEC61000-4-2 and ISO 10605
ES613-RC2	Exchangeable RC Module 150 pF / 2000 Ohm +/-10%	ISO 10605
ES613-RC3	Exchangeable RC Module 330 pF / 330 Ohm +/-10%	ISO 10605
ES613-RC4	Exchangeable RC Module 330 pF / 2k Ohm +/-10%	ISO 10605
ES613-RC5	Exchangeable RC Module 100 pF / 1500 Ohm +/-10%	JS-001-2014 HBM Model, MIL STD 883E
ES613-RCX	Customized Exchangeable RC Module	
ES613-FRT	Fast Rise-time Tip	Rise-time < 400 ps
ES613-SAT	Spring Loaded Air Discharge Gun Tip	
ES613-SCT	Spring Loaded Contact Discharge Gun Tip	
ES614-CP	ESD Simulator Current Probe (E-field Shielded, Bandwidth 10 kHz – 200 MHz)	
ES614-AS500	Air discharge speed control sliding system (Control ESD simulator approaching speed 5 – 500 mm/s)	
ES614-ASWS500	Air discharge speed control work station (Control ESD simulator approaching speed 5 – 500 mm/s, approaching Angle 0 – 90 degree)	
A4001	ESD Current Target Calibration Kit	Calibrate ESD simulator current waveform up to 30 kV, 4 GHz per latest IEC and ISO standard
A4001-TP	ESD Current Target Plane	A Shielding Plane for mounting ESD Target and Shielding Oscilloscope measurements against directly coupled ESD noise
A4001-TSC	ESD Current Target Shielding Cabinet	A Shielding Cabinet for mounting ESD Target and Shielding Oscilloscope measurements against directly coupled ESD noise
A4002	ESD Current Target Adapter Line	Calibrate ESD Current Target and Adapter Line up to 4 GHz per latest IEC and ISO standard
A4003	ESD Current Target & Adapter Line Calibration Set	Calibrate ESD simulator, ESD Current Target and Adapter Line up to 30 kV, 4 GHz per latest IEC and ISO standard
ES615-A1	ESD Test Table	
ES615-A2	Vertical Coupling Plane	
ES615-A3	Horizontal Coupling Plane	
ES615-A4	ESD Test Table Insulation Cover	

ES615-A5	Charge Removal Cable	
ES615-A6	ESD GRP – Ground Reference Plane	