



Electrostatic Discharge Simulator

EDS MAX30

- ISO 10605
- IEC 61000-4-2
- IEC 61000-6-1
- IEC 61000-6-2
- IEC 61326
- GJB 151C CS112
- ITU-T K.20
- Bellcore GR-1089-Core
- RTCA DO-160 Section 25
- MIL-STD-461G CS118
- GB/T 19951
- GB/T 17626.2

Features

- > 3.5" HD color screen
- > Test voltage up to 30 kV
- > Exquisite ergonomic design and UI design
- > Built-in 3 test modules: standard test, sequence test and easy test
- > Replaceable RC modules with automatic identification
- > Support remote control via optical fiber communication
- > Optional battery pack



Introduction

The EDS MAX30 is 3CTEST's fourth-generation electrostatic discharge simulator in compliance with IEC 61000-4-2:2025, ISO 10605:2023 and other standards. This new product has a test voltage up to 30 kV and features 3.5-inch high-definition color screen, along with compact mechanical design, intuitive UI design, lightweight, and impeccable waveforms....

The EDS MAX30 supports AC power supply or built-in battery operation, with replaceable RC modules and a built-in temperature and humidity meter. With three test modules designed in this equipment, it offers customers convenient operation tailored to their specific testing requirement, catering not only to research and development stage but also to quality check stage.

Application Areas



Technical Parameters

Simulator Parameters	
Test Voltage	0.2 kV ~ 30 kV $\pm$ 5 %
Voltage Step	100 V
Polarity	Positive, negative, alternative
Holding Time	5 s ~ 10 s
Discharge Tip	Air discharge tip and contact discharge tip
RC module	IEC 61000-4-2: 150 pF/330 Ω ISO 10605: 150 pF/330 Ω , 330 pF/330 Ω , 150 pF/2000 Ω , 330 pF/2000 Ω Note: support optional RC modules
RC Module Identification	Automatic identification and display
Control Mode	Touch screen, trigger button, optical fiber remote control
Frequency	Single, 0.1 Hz, 0.2 Hz, 0.5 Hz, 1 Hz, 2 Hz, 5 Hz, 10 Hz and 20 Hz
Trigger Mode	Automatic, manual
Counter	1 ~ 9, 999
Sequence Test	Up to 4 sequence levels
Counter	Counting happens upon tips voltage lowered than setting voltage thresholds
Voltage Thresholds	50%, 60%, 70%, 80%, 90%
Temperature and Humidity	Built-in temperature and humidity meter, serving as real-time test environment record and protection function.
Battery Parameters (optional accessory: battery pack TST231-3S1P)	
Battery Type	Lithium battery
Battery Group Voltage	3 *3.7 V
Battery Capacity	27 Wh
Battery Life	4 h @ contact discharge 30kV, 1 Hz, first positive and then negative 6 h @ contact discharge 8kV, 1Hz, first positive and then negative
Battery Charge Time	Approx. 4 h, automatic overcharge protection
Service Life	300 times >80%

General Parameters

Display Screen	3.5 inches color screen
Language	English, Chinese
Screen Off Setting	Auto screen-off after inactivity: 5 min / 10 min / 15 min / 30 min / Never
Screen Brightness	0 ~ 100%
Memory	latest 4 groups testing parameters
Communication mode	Optical fiber
Grounding Method	4mm banana plug
Power Supply	Input: 100 ~ 240 V/50 ~ 60 Hz, with built-in battery pack
Main Unit Dimension	207 (W)*160 (H)*310 (D) mm
Weight	Approx. 7.35 kg (incl. the gun)
Ambient Temperature	5°C ~ 40°C
Relative Humidity	20% ~ 80%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

1	RC Module	Model: 30C150R330 150 pF / 330 Ω	
2	Gun Head Module	Model: EDS MAX30-TM330	
3	Air Discharge Tip	Model: EDS MAX20-AirTip	
4	Contact Discharge Tip	Model: EDS MAX20-ConTip	
5	Discharge Return Cable	Model: CSX210GX2.5HJ Length: 2.1 m	
6	Base Support	Model: EDS MAX-BASE	
7	Electrostatic Suitcase	Trolley case	
8	Factory Report		
9	User Manual		

Optional Accessories

1	RC Module	Model	
	100 pF / 1,500 Ω	30C100R1500	
	150 pF / 2,000 Ω	30C150R2000	
	150 pF / 150 Ω	30C150R150	
	200 pF / 0 Ω	30C200R0	
	330 pF / 330 Ω	30C330R330	
	330 pF / 2,000 Ω	30C330R2000	
	500 pF / 500 Ω	30C500R500	
	500 pF / 5,000 Ω	30C500R5000	
	200 pF / 50 Ω	30C200R50	
	500 pF / 100 Ω	30C500R100	
	Customizable RC modules according to user needs		
2	Air Discharge Tip	Model: EDS MAX30-AirTip 30 mm	
3	Gun Head Module	Model: EDS MAX30 – TM2000	
4	Battery Pack	Model: TST231 – 3S1P Provides power to the main unit without an external AC power source	
5	Fiber Optical Cable	Model: HFBR4503-4513 Used with EDS-REMOTE to enable remote control of the instrument via PC software. Cable length: 10 m.	
6	Electrostatic discharge test configuration	Model: ESDD VCP (ESD-DZ): 500*500*3 mm HCP (ESD-DZ): 1,600*800*2 mm GRP (ESD-CD): 2,700*1,800*2 mm Insulating Mat: 1,600 *800 *0.5 mm Discharge cable: ES 470-1.4 (1.4 m) ES 470-1.7 (1.7 m)	
7	ESD calibration device	Model: ESD-CALA Used for waveform calibration of IEC / EN 61000-4-2, including 2Ω target, 1 m coaxial cable	
8	Attenuator	Model: JZ602 Impedance: 50 Ω Attenuation: 20 dB	
9	Attenuator	Model: JZ603 Impedance: 50 Ω Attenuation: 30 dB	
10	Control software	Model: CoreLab For remote control with test sequence and test report generation functions etc.	
11	PC Communication	Model: EDS-REMOTE Fiber optic to USB converter	
12	Electrostatic Dissipative Mat	Model: ESD-DM Resistance: 10 ⁸ Ω/square Dimension: 1,000 mm*1,000 mm*2.5 mm	

Optional Accessories

13	Insulating Mat	Dimensions: 2,000 mm*1,000 mm*2 mm	
14	EDS Calibration Fixture	Model: ESDD-B Note: Complies with ISO 10605:2023	
15	EDS Calibration Fixture	Model: ESDD-D Note: Complies with IEC 61000-4-2:2025	
16	High Voltage Divider	Model: EDS-HVM30 Used to measure the output voltage of the EDS in air discharge mode. Test Voltage: Max. 30 kV Impedance: 20 GΩ // 3 pF Attenuation Ratio: 20651:1 (Reference Value)	

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