

Handheld Electrostatic Discharge Simulator

EDS 20H

Datasheet



In Compliance with

- > IEC / EN 61000-4-2
- > IEC / EN 61000-6-1
- > IEC / EN 61000-6-2
- > IEC / EN 61326
- > IEC 61340-3-1
- > GB / T 17626.2
- > ISO 14304
- > Bellcore GR-1089-Core
- > ITU-T K.20

Introduction

Electrostatic discharge between human body and a metal object or between metal objects can reach up to thousands of volts, which may cause malfunctions or damages to connected electrical equipment and devices.

The EDS 20H is the state-of-art handheld ESD generator, and the first of its kind independently researched and developed in China. It is designed according to IEC/EN 61000-4-2 with ergonomic design, integration design, battery powered and mains powered via an adaptor. It boasts easy touch screen operation, safe operation with temperature and humidity monitoring, and stable operation suitable from different testing occasions

Features

- > Ergonomic design
- > LCD touch screen
- > All-in-one design (no base unit)
- > Changeable R / C networks
- > Automatic polarity switching
- > Long battery life for continuous tests
- > Temperature and humidity monitoring
- > Built-in standards library
- > Intelligent detection of air discharge failure

Application Areas

- > IT
- > Telecom
- > Medical
- > TV Broadcasting
- > Railway, & rail transit
- > Military
- > Avionics
- > New energy power

Technical Parameters	
Contact Discharge	1 kV – 20 kV (±5%)
Air Discharge	1 kV – 20 kV (±5%)
Voltage Step	100 V
Hold Time	> 5 s
Polarity	Positive, negative
RC Module	LCD display
Humidity & Temperature	Built-in hygrothermograph, for recording and protection
Repetition Frequency	Single / 0.1 / 0.2 / 0.5 / 1 / 2 / 5 / 10 / 20 Hz
Trigger Mode	Manual / automatic
Pulse	1 – 9,999
Contact Discharge	150 pF / 330 Ω
Summary Procedure	Test according to different standard levels
Rise Time	0.8 ns ± 25%
Quick Start Test Program	Simple and easy to reset data online
Evaluation Procedure	Contact discharge test at 20 Hz, evaluate the test points of DUT
Standard Test Procedure	According to IEC / EN 61000-4-2

General Parameters	
Operating Temperature	15 °C-35 °C
Operating Humidity	30%-60%
Operating Air Pressure	86 kPa-106 kPa
Operating Power	100 V / 240 V (±10%); 50 / 60Hz; Default configuration: 220 V, 50 Hz (for Mainland China)
Weight	Approx. 8.5 kg
Weight (EDS gun)	Approx. 1.8 kg

Standard Accessories					
No.	Item	Model	Qty	Specification	Remarks
1	RC Module (Replaceable)	EDS 20H-RC	1	150 pF / 330Ω,	
2	Discharge Tip	EDS 20H-CONT	1	Contact discharge tip,	
3	Discharge Tip	EDS 20H-AIR	1	Air discharge tip,	
4	Battery Charging Module	EDS 20H-BATC	1	Containing 6 pcs of 2,600 mAh Ni-MH batteries	
5	Power Adaptor	EDS 20H-ACDC	1	Used as a substitute of battery pack during long-time tests	
6	Grounding Cable	/	1	2 m	/
7	Suitcase	/	1	/	/
8	Quality Guarantee	/	1	/	/
9	Factory Inspection Report	/	1	/	/
10	User Manual	/	1	/	/

Optional Accessories				
No.	Item	Model	Specification	Remarks
1	RC module (resistance-capacitance module)	(same as respective specification)	100 pF / 1500 Ω (EDS) 150 pF / 150 Ω (EDS) 150 pF / 2000 Ω (EDS) 200 pF / 0 Ω (EDS) 330 pF / 330 Ω (EDS) 330 pF / 2000 Ω (EDS) 500 pF / 0 Ω (EDS) 500 pF / 100 Ω (EDS) 500 pF / 500 Ω (EDS) 500 pF / 5000 Ω (EDS) DMX: as customized	
2	Discharge tip	EDS 20H-CONT	150 pF / 330 Ω fast relay discharge module rise time: 200 ps – 300 ps	
3	Testing table	ESDD	As per IEC 61000-4-2: Grounded HV resistance: 2 x 470 k Ω Vertical coupling plane: 500 x 500 mm Horizontal coupling plane: 1600 x 800 mm Reference ground plane: 2700 x 1800 mm Testing table: 1600 x 800 x 800 mm, solid wood	
4	ESD calibration kits	ESD CALA	Used for waveform calibration as per IEC / EN61000-4-2, including 2 Ω target / 4 GHz, coaxial cable, user manual	
5	Attenuator	JZ 602	Resistance: 50 Ω, attenuation: 20 db	
6	Attenuator	JZ 603	Resistance: 50 Ω, attenuation: 30 db	
7	Communication Module	EDS 20H-REMOTE	Enabling PC control	/
8	Control Software	CoreLab	Graphical UI, superior human-machine interactions Enriched standards library, easy parameters setting Powerful test sequencing and scheduling; Easy test report generating	/