

## Electrostatic Discharge Simulator (HBM/MM) EDS 10IC (MM5-2000V) Datasheet



### In compliance with

- > **Human Body Model (HBM)**
- > ANSI /ESD-STM5.1 2007
- > JEDEC JESD22- A114E Jan.2007
- > MIL-STD-883G 28 Feb.2006
- > ANSI/JEDEC JS-001-2010
- > **Machine Model (MM)**
- > ESDA ANSI/ ESD STM5.2 2009
- > JEDEC JESD22- A115C Nov.2010

### Introduction

The EDS 10IC is specially designed for HBM and MM ESD immunity test requirements, and applicable to semiconductor devices like LED, transistors, IC, etc. in accordance with IEC, ESDA, JEDEC, MIL, etc. as well as fully complies with the severest ESD voltage levels in the standards above.

### Characteristics



- > New third-generation control platform and touch screen intelligent operation;
- > The lowest voltage 5 V and 1 V step for precise adjusting voltage;
- > Capable of performing single/ automatic discharging tests. Testing parameters such as times, frequency etc. can be set;


### Application Areas

- > Communication
- > Material
- > Semi-conductor device
- > Electrical and electronic devices

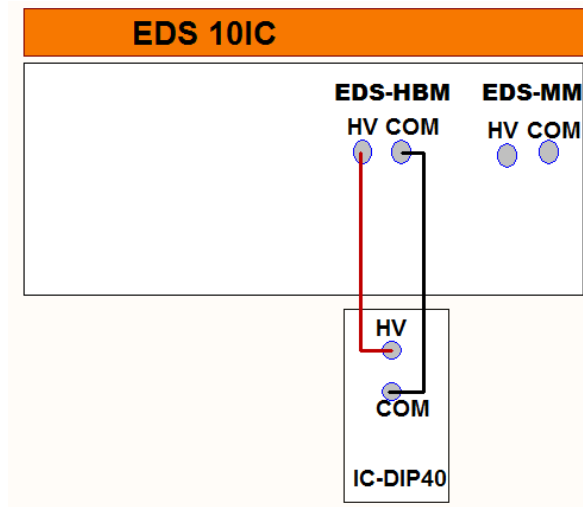
Technical Parameters	
<b>HBM Short Circuit Current Parameters</b>	
Discharge Capacitor	100 pF
Discharge Resistance	1500 $\Omega$
Pulse amplitude	5~8000V(5% $\pm$ 5V)
Peak Current I <sub>ps</sub>	0.17 A $\pm$ 10% @250 V 0.33 A $\pm$ 10% @500 V 0.67 A $\pm$ 10% @1000 V 1.33 A $\pm$ 10% @2000 V 2.67 A $\pm$ 10% @4000 V 5.33 A $\pm$ 10% @8000 V
Rise Time	2 ns ~10 ns
Pulse Width	150 ns $\pm$ 20 ns
Ringing Amplitude	<15% peak current
<b>HBM 500 <math>\Omega</math> Resistor Current Parameters</b>	
Peak Current I <sub>pr</sub>	375 mA ~550 mA @ 1000 V 1.5 A ~2.2 A @ 4000 V
I <sub>pr</sub> /I <sub>ps</sub>	$\geq$ 63%
Rise Time	5 ns ~25 ns
<b>MM Short Circuit Current Parameters</b>	
Discharge Capacitor	200 pF
Discharge Resistance	0 $\Omega$
Pulse amplitude	5~2000V (5% $\pm$ 5V)
Peak Current I <sub>p1</sub>	0.44 A $\pm$ 20% @25 V 0.88 A $\pm$ 20% @50 V 1.75 A $\pm$ 10% @100 V 3.5 A $\pm$ 10% @200 V 7.0 A $\pm$ 10% @400 V
I <sub>p2</sub> /I <sub>p1</sub>	67%~90%
Cycle	66 ns ~90 ns
<b>MM 500 <math>\Omega</math> Resistor Current Parameters</b>	
Peak Current I <sub>pr</sub>	0.85 A ~1.2 A @ 400 V
100 ns Current Value I <sub>100</sub>	0.23 A ~0.40 A @ 400 V

General Parameters	
Output Voltage	HBM 5 ~ 8000 V (5% $\pm$ 5 V) MM 5 ~ 2000 V (5% $\pm$ 5 V)
Polarity	+/-/alternate
Frequency	0.1 Hz~5 Hz
Trigger Times	1~999
Trigger Mode	Auto/ Manual/ external trigger
Input Power Supply	AC 100 V~240 V, $\pm$ 10% 50 Hz/60 Hz
Ambient Temperature	15°C~35°C
Storage Temperature	-10°C~50°C
Relative Humidity	25%~75%
Dimension	450 mm (L) x190 mm (W) x320 mm (H)
Weight	10 kg

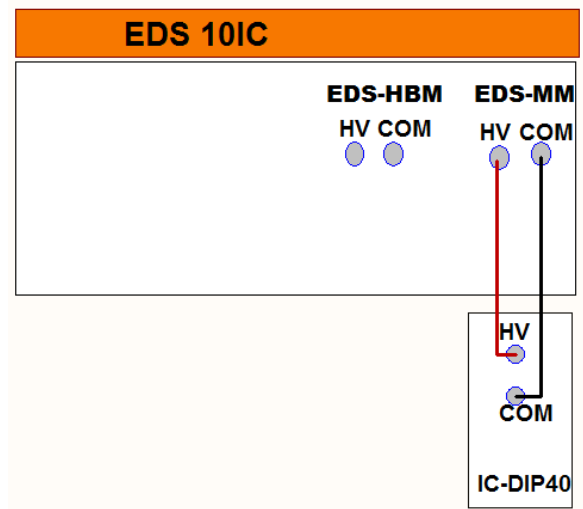
Accessories	
1. Test support IC-DIP40 	For placing IC
2. Test line EDS 10IC-line1/line2 	For test connection
User manual, jumper wire, Power line and Earth line	

Options	
Testing support SCTS TO-56 	Used for EUTs with TO56 encapsulation

**Test connection diagram 1 EDS-HBM:**



**Test connection diagram 2 EDS-MM:**





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