

ESD Simulator

ESS-2000AX & TC-815R

ESD simulator ESS

Feature

- Conformance test to EN/IEC61000-4-2 Ed.1.0 Ed.2.0 available
- Extra test with 30kV output beyond IEC Standard available
- Test pattern variety is realized with 4 modes as IEC standard, manual, sweep and sequence.
- Extra mode taking the radiation susceptibility in EUT into the account built-in
- The test can be enriched with the option variety like automated ESD eliminator

* For test requirement with 100pF-1.5k Ω (Human Body Model : HBM) and 200pF-0 Ω (Machine Model : MM) , model NO. ESS-6002 / 6008 (for semiconductor) shall be offered.

* Even if the capacitor unit for the discharge gun is changed to 100pF-1.5k Ω (Human-Body Model:: HBM) and 200pF-0 Ω (Machine Model : MM), the specification may not be guaranteed. . (The same goes for previous model ESS-2000 / 2002)



* Probe stand is option

Specification

Parameter	Specification
Output polarity	Positive / negative
Output voltages	0.20kV~30.0kV \pm 5% (30.5kVmax) 0.20kV~10.0kV 0.01kV step 10.0kV~30.0kV 0.1kV step
Repetition cycle	NORMAL mode : 0.05s~600.0s \pm 10% EXTRA mode : 1.00s~600.0s \pm 10% 0.05s~9.99s 0.01s step 10.0s~600.0s 0.1s step
No. of time of discharge	1~60000 times preset 1 time step or continuous preset
Discharge mode	Contact / Air
Radiation levels mode	NORMAL / EXTRA
Trigger mode	Gun trigger / Main unit trigger / External trigger
IEC Standard mode	Contact discharge Mode : 2.0, 4.0, 6.0, 8.0 kV steps Air discharge mode: 2.0, 4.0, 8.0, 15.0 kV steps
Manual test mode	Contact / Air discharge mode 0.2kV~30.0kV arbitrary set Sweep function available 99 units memory available

Parameter	Specification
Sequence test mode.	Continuous operation per units in manual operation Max.30 steps per one program. 20 programs store possible.
Warning lamp	Turn on light while the output, Blinking at starting discharge
Charging resistances	10M Ω (53 Ω in combination with 43M Ω in the discharge gun) *
AUX connector	D-SUB15 pin female connector (For connection to optional automated ESD eliminator and external warning lamp External interlock input, external trigger input terminal
Optical communication connector	For communication with PC (serial interface)
Power supply	AC100 V~AC240V \pm 10% 50Hz/60Hz 75VA
Operating temperature / humidity range	+15°C~+35°C 25% RH~75% RH (without dew)
Dimension	(W) 260 X (H)230 X (D) 285mm (Projection excluded)
Mass	Approx. 5.3kg

* The constant is changed along combination with discharge guns

Accessory

Item	Q'ty
Power cable	1 pc.
Instruction manual	1 volume

TC-815R

Feature

- Conforms to IEC61000-4-2 Standard
- Charging capacitor and discharge resistance exchangeable

Specification

Parameter	Specification
Output voltages	0.20~30kV \pm 5%
Charging capacitor	150pF \pm 10% (CR unit built-in) C/R combination of standard equipped CR unit cannot be changed
Discharge resistance	330 Ω \pm 10%
Charging resistance	Approx. 43M Ω (10M Ω is built in main unit. Totally 53M Ω)
Discharge current / Rise time	At contact discharge (See following table).
Dimensions	(W) 75x(H)220x(D) 210mm (discharge chip excluded) cable 2m
Mass	Approx. 1.4kg

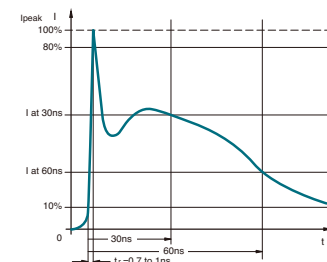
Level	Indicated voltage	First peak current of discharge (\pm 10%) I _p	Rise time	Current (\pm 30%) at 30ns	Current (\pm 60%) at 60ns
1	2kV	7.5A	0.7~1ns	4A	2A
2	4kV	15A	0.7~1ns	8A	4A
3	6kV	22.5A	0.7~1ns	12A	6A
4	8kV	30A	0.7~1ns	16A	8A

Accessory

Item	Model	Q'ty
CR unit for TC-815R 150pF/330 Ω (Fixed)	06-00057A	1 pc
Discharge tip	12-00001A (Conical)	1 pc
	12-00002A (Round)	1 pc
Instruction manual		1 volume



TC-815R
Probe station
is option.



Discharge current and its waveform characteristics of IEC61000-4-2 standard