

Thermo Scientific MiniZap-15 ESD Simulator

ESD simulator for direct, indirect and diagnostic ESD testing

The Thermo Scientific MiniZap-15 ESD Simulator is an industry standard handheld, battery-operated 15KV ESD simulator that meets IEC 61000-4-2 and other ESD standards.

- Hand-held, portable and self-contained ESD simulator
- Intuitive operation
- Meets requirements of IEC 61000-4-2 and ANSI C63.16
- Contact mode and air discharge ESD testing
- Generates real world, repeatable, correlated ESD pulses
- E- and H-field diagnostics
- Vertical and horizontal coupling planes for indirect ESD testing
- Built-in safety features
- Field-configurable
- Rechargeable battery



High-performance, rugged, reliable tester for manufacturing, field service or lab

The Thermo Scientific™ MiniZap-15 ESD Simulator is a totally integrated, lightweight, easy-to-use handheld tester that withstands long-term operation in rugged environments. By simply interchanging plug-in tips, you can test to other standards and perform reality checks that indicate product performance in intended environments.

Test without errors caused by simulator-generated multiple ESDs

Multiple ESD events can be generated by a human discharge or by other ESD simulators that introduce additional artificial and energetic multiple discharges. The MiniZap

tester does not use a voltage multiplier, and won't introduce testing errors and uncertainties due to streams of artificial, high-level ESD multiples. With its constant voltage ESD simulator design feeding back and monitoring right from the tip, you always know the exact voltage at which you've tested.

The correct tip voltage is maintained to the instant of discharge; it then drops to prevent simulator-induced multiples.

Reach the Next Level of Success

Experience the many benefits of working with recognized experts in the field of EMC (ElectroMagnetic Compatibility) testing. Our commitment to the discipline is wide ranging; we actively participate on global standards committees, and have helped define test methodologies to achieve regulatory standards such as CE Mark requirements, as well as company — and market-driven — product quality objectives. Our goal is to support you with lifelong service, from applications support, calibration services and preventative maintenance scheduling to full tactical field support.

General Specifications

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|------------------------|--|
| Voltage Range | ±0.5 to 8 kV, Contact Mode; ±0.5 to 15 kV, Air Discharge |
| Air Discharge | TRUE-ESD (<0.3 ns nominal rise time up to 4 kV) |
| Contact Mode | FR/CI std <0.3 ns rise time independent of charge voltage; 3.75 A/kV ±10% peak, e.g., 30 A @ 8 kV RC |
| Networks | 150 pF/330 ohm standard (other RC networks available) |
| Lock On | Standard (with safety interlock) |
| Rep Rate | Single shot as well as 1/sec and 20/sec repetitive operation |
| HV Display | Digital LCD display measures actual HV at the tip with 10 V resolution, ~3% accuracy |
| Ground Connect Warning | LED indicates ground cable not connected to tester |
| Power | Operates from 120-240 VAC, 50/60 Hz or 4 NiCd batteries with LED charge status indicator |
| Size | 10 in x 2.5 in x 3.2 in (25.4 cm x 8.9 cm x 8.1 cm) |
| Weight | 29 oz (822 gm) nominal, plus case and accessories |

Calibrators

| | |
|-------|--|
| DCA-2 | Output Calibration Attenuator: network to allow oscilloscope or meter monitoring of DC stored on the discharge capacitor (10,000:1 ratio) |
| CTC-4 | Coaxial Current Monitor: IEC 61000-4-2, coax monitor for ESD current waveform, with >4 GHz capability. Includes high-peak-power attenuator and scope cable |
| FCS-1 | Field and Corona Sensor Group: Common Monitor Unit HEC-1, H-field sensor HFS-1, E-field sensor EFS-1 and pre-discharge corona sensor CCS-1 |

Accessories

| | |
|--------|---|
| TPC-1 | True-ESD, fast rise time contact-mode tip |
| TPF-1 | Self-discharge tip |
| 50-MZ | Standoff spacer for air-discharge mode1 |
| VCP-1 | Vertical Coupling Plane (VCP); 0.5 m x 0.5 m (19.7 in x 19.7 in) plane, in accordance with IEC 61000-4-2 and ANSI C63.16 ESD test standards. Includes bench-mount stand |
| MZT-11 | E-field (static and dynamic electric field) Simulator Tip Assembly |
| MZT-12 | H-field (magnetic field) Simulator Tip Assembly |
| MCA-1 | Hard Carrying Case (does not include space for VCP-1, HCP-1, BTS-1, TP-3) |
| TP-3 | Full Target Plane for mounting the CTC-4 coaxial target; 1.5 m x 1.5 m (59 in x 59 in) IEC-61000-4-2, and ANSI C63.16 |
| HCP-1 | Horizontal Coupling Plane (HCP); 0.8 m x 1.6 m (31.5 in x 63 in) for use on non-conducting tabletop under a small EUT, per IEC 61000-4-2, and ANSI C63.16. Includes one roll of <0.5 mm thick, static-dissipative sheet insulator |



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San Jose, CA USA is ISO Certified.

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Africa-Other +27 11 570 1840
Australia +61 2 8844 9500
Austria +43 1 333 50 34 0
Belgium +32 53 73 42 41
Canada +1 800 530 8447
China +86 10 8419 3588
Denmark +45 70 23 62 60
Europe-Other +43 1 333 50 34 0

Finland /Norway/Sweden
 +46 8 556 468 00
France +33 1 60 92 48 00
Germany +49 6103 408 1014
India +91 22 6742 9434
Italy +39 02 950 591
Japan +81 45 453 9100
Latin America +1 608 276 5659

Middle East +43 1 333 50 34 0
Netherlands +31 76 579 55 55
South Africa +27 11 570 1840
Spain +34 914 845 965
Switzerland +41 61 716 77 00
UK +44 1442 233555
USA +1 800 532 4752

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