

PESD 1610

16kV Electrostatic Discharge Generator

Bringing dissimilar insulation materials together and then parting them create electroStatic charges. The resultant discharge (ESD) is a high voltage high frequency field, which can cause failures in electronic circuits.

The **IEC and EN** standards are concerned with the transfer of these high level events from the human body to an electronic or electrical item. There are two principal methods of energy transfer. Air discharge is the phenomena experienced by humans when exiting a motor vehicle on a dry sunny day. A spark discharge is observed.

Contact discharge takes place when equipment is touched and the charge flows from the human body to the equipment housing. Within the housing a secondary radiation effect can be experienced which is also a threat to sensitive components.

The **ITU** series recommendations, in common with most Telecom requirements, define that the equipment is tested against discharges from users and also service personnel. When an equipment is being serviced, discharge levels may be more severe as the case/front panel protection is removed and sensitive components are exposed to direct discharge.

PESD 1610 features a unique **NO CONTACT** detection circuit which is able to determine if current flow is taking place during **CONTACT** mode testing. The operator receives a warning message in the LCD display.

PESD 1610 has a new ergonomic handle, larger trigger and new Lithium ion batteries for longer life and faster charging time.



Features

- 16kV Air discharge
- 9kV Contact discharge
- Standard network 150pF/330 ohm
- Electronic Polarity change
- ESD current flow detection
- Air and Contact discharge tips

Benefits

International application – Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for ESD applications.

Comfortable to use – The light weight, balanced weight distribution and ergonomic handle design mean that testing can be performed over long periods without operators becoming fatigued.

Fast Charging Time - The new Lithium ion batteries used in the PESD 1610 provide a high degree of flexibility. They are lighter than previous technologies and can be fully charged within 2 hours.

Sturdy and Reliable – Careful component selection ensures that the PESD 1610 will continue to operate under the most strenuous testing regime.

Reduced operator workload – PESD 1610 has all operator accessible control on the unit rear panel. These include a large LCD display and switches to change polarity, repetition rate and discharge voltage.

Applications

Electro-Static Immunity test Basic EMC standards

Generic immunity standard -- Part 1: Residential, commercial and light industry

Generic immunity standard -- Part 2: Industrial environment

Telecommunications – Resistibility Tests

Many more international Product standards

Technical Specifications

Air Discharge Voltage	0.2 – 16.5kV	Voltage increment	100 volt steps
Contact Discharge Voltage	0.2 – 9kV	Discharge Polarity	Positive & Negative
Discharge Repetition	Single, 1, 2, 5, 10 & 20Hz	Operating Modes	Single & Continuous
Discharge Counter	1 - 9999	Battery Type	85 – 264V 50/60Hz
Standard Network	150pF / 330 Ohms	Charging Unit	1.45 kg

Weights and Dimensions (W x H x D, net weight)		
PESD 1610	10 x 21 x 20 cm	1.20 kg

Scope of Supply

Qty. 1	PESD 1610 ESD Generator
Qty. 1	Carrying case
Qty. 1	Charger / Power supply unit
Qty. 1	Ground Cable
Qty. 1	Test Finger Air discharge
Qty. 1	Test Finger Contact discharge
Qty. 1	Users Manual

Options & Accessories

VCP	Vertical Coupling Plane 0.5m x 0.5m for indirect discharge in contact mode. Includes special resistor cable.
HCP	Horizontal Coupling Plane 1.6m x 0.8m for indirect discharge in contact mode. Includes special resistor cable.
RS 232 interface	for use with WinPATS software and PEFT 4010 generator.
2 ohm target	For calibration of ESD generators as per IEC 61000-4-2 in contact mode.
Test Table	made of wood for ESD tests as described in IEC 61000-4-2

ESD Test Table with VCP & HCP



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