

3M™ ESD Pro Event Detector

Locate and identify ESD events in your process

The ultimate goal of an ESD program is to reduce the strength and occurrences of ESD events, or electrostatic discharges. ESD events can destroy sensitive components during their manufacturing, handling and assembly. Knowledge of the presence of ESD events and their relative strength is critical for assessment of the ESD environment and for determining whether the production environment is suitable for handling ESD-sensitive devices. The only way to verify that your ESD protection works is by knowing whether you have ESD events in the environment, how strong they are and how many of them occur. The portable, easy-to-use 3M ESD Pro Event Detector serves as a quick measure of the effectiveness of your ESD protection.

The ESD Pro is a hand-held indicator of ESD events that detects and counts the discharges as well as shows the relative strength of each ESD event. The ESD Pro offers variable settings of the discharge alarm threshold to detect and count only those discharges that exceed the threshold. The ESD Pro provides an audio alarm on each discharge and an LED bar-graph to show the relative strength of the ESD events. If the discharge exceeds the set alarm level, the LEDs turn red.

The ESD Pro is capable of rejecting most non-ESD related EMI (electromagnetic interference) events. This special proprietary charge device model (CDM) mode allows assessment of the ESD environment in places where EMI events resulting from stepper motors, solenoids, relays and sources abound.

Applications for the ESD Pro include electronics assembly, semiconductor device manufacturing, disk drive manufacturing, medical environments and military aerospace.

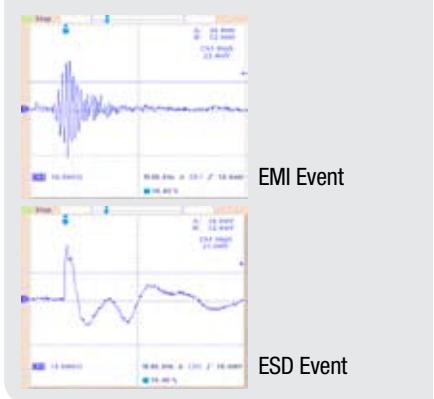
Features	Benefits
ESD Event Detection	ESD Pro provides detection of electrostatic discharges (ESD events) that are harmful for sensitive components.
Adjustable Alarm Threshold	Easy-to-set alarm threshold helps to set a level below which ESD Pro rejects events as insignificant for a particular application.
ESD Event Count	ESD Pro has a four-digit counter to provide a count of discharges above the set threshold.
Rejection of Non-ESD Events	Proprietary waveform analysis algorithm in its CDM mode rejects most non-ESD EMI events to provide accurate detection of legitimate discharges in noisy environments.
Portability	A small hand-held instrument that can be carried and used anywhere for quick assessment of ESD environments. ESD Pro belongs in the toolbox of every engineer and technician who is concerned with ESD damage to their parts.



3M™ ESD Pro Event Detector, CTM082

ESD or EMI?

Often, devices such as relays, solenoids, stepper motors, and others generate signals similar to those of ESD events. In order to separate genuine ESD events from those caused by equipment operation, ESD Pro uses patent-pending signal processing to differentiate signal waveforms with the focus on CDM-type events that are most critical in electronics manufacturing.



Where to Use the 3M™ ESD Pro?

ESD Pro is a versatile instrument with several important applications, among which are:

- **ESD Diagnostics and Troubleshooting**

Whenever an ESD issue comes up, ESD Pro is your best tool to identify the location of the problem occurrence. Find the specific steps in your process that cause ESD events, and the relative strength of an ESD event at each step. It also can be used to verify whether the problem still remains or it has been corrected.

- **Evaluation of ESD-protective Equipment**

Does your ionizer really improve your ESD situation in a particular location? Simply run your process with your ionizer on and then off and ESD Pro will show you whether this ionizer makes a difference in your process. With ESD Pro you will be able to select and to install your ESD protective measures with the maximum efficiency.

- **Tool Qualification**

Can you process your sensitive components on a particular tool? Find it out with ESD Pro before damaging your devices.

- **Next Step**

For more advanced ESD diagnostics and qualification, use 3M™ EM Aware ESD Monitors that can provide you with the actual discharge strength values and enable you to have a record of your ESD environment in several locations simultaneously.

Specifications	
Functional	
Sensitivity	1..1000V
Threshold	Adjustable
Discharge Polarity	Both
Event Count	4-digit counter
Event Magnitude	LED Bar
ESD Event Indication	LED bar, buzzer
EMI Event Rejection	CDM mode select; all events select
Power	9V alkaline battery
Mechanical	
Dimensions (approx.) without antenna	4.73"H x 2.56"W x 0.9"D 120 mm x 65 mm x 23 mm
with antenna	6.82"H x 2.56"W x 0.9"D 173 mm x 65 mm x 23 mm
All specifications are subject to change without notice.	

Ordering Information

ESD Pro is shipped with Antenna CTA110, Battery 9V Alkaline, User's Guide and Storage Case. Please contact the factory for other options and accessories.

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