New: MICRO-CONTAMINATION DEPARTMENT PRESENTS A NEW AREA OF TESTING :

ELECTRO-STATIC DISCHARGE TESTING

What is Electrostatic Discharge (ESD) and what are the effects? - Electrostatic discharge (ESD) is defined as the transfer of static charges between bodies at different electrical potentials. ESD impacts productivity and product reliability in virtually every aspect of today's electronics environment thus affecting manufacturing costs, product quality, production yields, product reliability, and profitability. It can change the electrical characteristics of a semiconductor device, degrading or destroying it. It can upset the normal operation of an electronic system, causing equipment malfunction or failure. In clean rooms, charged surfaces can attract and hold contaminants, making removal from the environment difficult. For more informations on ESD , please refer to Fundamental of ESD .

Why is there a need for ESD test services and under what environment should ESD testing be performed? What are the most common standards and equipments? - ESD test services are available to verify ESD characteristics of ESD control products**. Generally, before performing a ESD test, a critical Electrostatic Protected Area is required. And all ESD tests should be performed in the environment by those who complete ESD training program.**

There are several series of ESD test standards. Most-wide-accepted, newest and well-specified standard is from ESD Association, ESDA standards. Attached below is a list of ESD testing equipments and standards that is common in any types of industry that require the need of ESD testing services :

- Surface Resistance/ Resistivity Measurement **(ANSI EOS/ESD s11.11) .** Volume Resistance/ Resistivity Measurement **(ESD DS11.12/ASTM D-257)**

Surface Resistance Meter

The PRF-912 Miniature E12 Micro Probe Set accurately measures surface resistance of small areas up to 1.0 x 10^{12} ohms.

- Static Decay Measurement **(FTMS 101C Method 4046.1)**

Static Decay Meter With Faraday Cage

Static Decay Meter

- Controlled Environmental Chamber with Humidity Controller

Controlled Environmental Chamber

Automatic Humidity Controller

- Triboelectric Generation **(ESD ADV11.21)** By Inclined Plate Method

Triboelectric Charge Generation- Inclined Plate Method(As shown by the photo)

Description-The antistatic properties of material is one of the most important factors in determining the effectiveness of a static control product. One of the most frequently used procedures is the inclined plane test described in ESD ADV 11.21. This test measures the charge developed on Teflon and Quartz cylinders when rolled down a test material mounted to a plane inclined at 15 ° .

- Triboelectric Generation **(EOS/ESD S3.1-1991)** By Charge Plate Monitor Method

Triboelectric Charge Generation- Charged Plate Monitor Method(Model : 156A) As shown by the photo

Description-The Model 156A Charged-Plate Monitor (CPM) uses a measurement technique that makes the capacitance independent of the physical size and shape of the ion plate. This lets the user specify the capacitance or, conversely, the size and shape of the plate to match a component or process. It also can operate in conformance to EOS/ESD S3.1-1991. The 156A offers float-mode and decay-mode measurements that can be used to verify the balance offset and neutralization parameters of ionizers.

We hope to be the total solution provider that helps you to save time & cost. With Setsco you will notice the difference too. It's the value added services that count.

Samples that Setsco Services had performed ESD testing on

Kindly call us if you have further enquiry
Biological & Chemical Technology Division

Mr Lei Zhi Pei (Head Of Microcontamination Testing Department)
DID +(65)-6-8950 688, HP 9797 9622
E-mail : leizp@setsco.com
Mr. Kelvin Tong (Executive Marketing Chemist of Microcontamination Department)
DID +(65)-6- 8950 687, HP 94556658
E-mail : tongbs@setsco.com

SETSCO SERVICES PTE LTD
18 Teban Gardens Crescent Singapore 608925 Tel: (65) 566 7777 Telefax: (65) 566 7718