

Introduction

Semiconductor devices are becoming more sensitive to Electrostatic Discharge (ESD). Industry standards such as ANSI/ESD S20.20 and IEC 61340-5-1 are designed to protect devices that have ESD sensitivity values greater than the graph on the left.

These standards cover a large percentage of the ESD sensitive devices used in the market. However, as shown in the ESD Association's Technology Roadmap for Semiconductors, there is an increasing number of devices that fall below these levels. These devices can be classified as "Ultra Sensitive". Existing ESD processes based on industry standards in many cases might not be adequate for these Ultra Sensitive products. For companies that handle devices that are more ESD sensitive, special equipment and measurement techniques need to be employed.

Register for FREE

Seminar 1

When: Where:

22/8/2024 Penang, Malaysia

Time: Venue:

9:00-17:00 Eastin Hotel Penang

Registration Contact:

Goh Beng Kok pngsales1@douyee.com.my

Seminar 2

When: Where:

30/8/2024 Hsinchu, Taiwan

Time: Venue:

9:00-17:00 National Yang Ming
Chiao Tung University

Registration Contact:

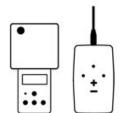
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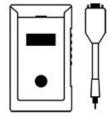
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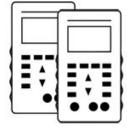




















Ron Gibson

Senior Application Specialist

Ron Gibson specializes in manufacturing process control, training and facility certification in accordance with ANSI/ESD S20.20. He is well known internationally as a major contributor to ESD technology for the past 30 years. He was Celestica International's Global Engineering Consultant and Corporate ESD Program Manager.

As a respected member of the standards development community Ron was active in the International Electro-technical commission (IEC) as the Standards Council of Canada's (SCC) national representative from 1992 to 2012. He was also the Chairman of the IEC 61340-5-1 working group.

He served as the ESD Association's Standards Chair for over 10 years. Ron has been a member of the ESD Association on since 1988, and served in every ESDA officer position including two terms as the President of the ESD Association.

Seminar Description:

This class will describe an approach on how to assess a process to determine the level of ESD protection afforded by the installed ESD controls using Prostat Equipment where possible. Topics covered:

Seminar Duration: 1 day

Seminar Type: Lecture and Demonstrations

ESD Basics

Resistance Charge Voltage Capacitance

Advanced Failure Models

HBM Other models
CDM Developing ESD

MM Sensitivity Information

ESD Association Technology

Road Map for **Semiconductors**

Why Existing Industry Standards may not be Adequate for Ultra-Sensitive Devices

Process Capability Equipment Description and Use

Oscilloscopes Current probes Voltmeters

Contact vs. non-contact

Event Detectors
Charged Plate Monitors
Electrostatic Field Meters

Personnel Charging

HBM capability assessment for all personnel in the factory

Setting ESD Program Limits for Ultra-Sensitive Devices

Process Capability Methodology

CASE STUDIES

Based on Ultra-sensitive device failures

Approach used
Source of damage
Resolution

DEMONSTRATIONS with PROSTAT EQUIPMENT