



\$595/Attendee

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Semi-conductor 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 following:

HBM

Human Body Model – 100 volts

The most commonly used model for characterizing the susceptibility of an electronic device to damage from electrostatic discharge (ESD).

CDM

Charged Device Model – 200 volts

Model for characterizing the susceptibility of an electronic device to damage from electrostatic discharge (ESD). The model is an alternative to the human-body model (HBM).

MM

Machine Model – 35 volts

This model represents the scenario when a machine or an automatic handling unit touches a device.

These standards cover a large percentage of the ESD sensitive devices used on 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.

Seminar Conducted by:
Advanced Static Control Consulting



Seminar Outline

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. Topic areas:

- Advanced ESD Basics
 - Resistance
 - Charge
 - Voltage
 - Capacitance
- Advanced Failure Models
 - HBM
 - CDM
 - Field Induced
 - Socketed
 - Contact Mode
 - MM
 - Other models
 - Developing ESD sensitivity information
- ESD Association Technology roadmap for semiconductors
- Why Existing Industry Standards are not adequate for Ultra-sensitive devices
- Process Capability equipment description and use
 - Oscilloscopes
 - Current probes
 - Voltmeters
 - Contact vs. non-contact
 - Event Detectors
 - Charged Plate Monitors
- Personnel charging
- Setting ESD program limits for ultra-sensitive devices
- Process Capability methodology
 - Case studies
 - Based on Ultrasensitive device failures
 - Approach used
 - Source of damage
 - Resolution
- Demonstrations

Process Capability Assessment Seminar

Register today at:

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Ron Gibson, Speaker

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 Electrotechnical 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. A member of the ESD Association since 1988, he is still active in several Standards Committees and is currently the Chairman of the ESD Association's Facility Certification Committee and served in every ESDA officer position including two terms as President of the ESD Association.