



ESD Glossary:

Decay time: The time a charged body takes from an initial value (maximum) to a defined lower value by connecting it to ground potential.

Discharge time: The time a charged body takes to reduce static charge from an initial value (maximum) to a defined lower value by means of forced recombination through ionizing equipment.

Electrostatic discharge (ESD): Transfer of charge between bodies at different electrostatic potentials caused by direct contact or induced by electrostatic field.

Electrostatic discharge sensitive devices (ESDS): Discrete device, integrated circuit or assembly or any other electronic components that may be damaged by electrostatic fields or discharge encountered in routine handling, testing or transit.

Electrostatic discharge shielding material: Barrier or enclosure that limits the passage of current and attenuates the energy resulting from an electrostatic discharge.

Electrostatic conductive material: Having a surface resistance $\geq 10^2\Omega$ to $10^5\Omega$ (surface resistances, measured with the ESD S11.11 electrode, are a factor 10 lower than the resulting surface resistivity).

ESD Protected Area (EPA): Area in which ESDS can be handled with accepted reduced risk of damage as a result of electrostatic discharge or fields.

EPA - Ground bonding point (EBP): dedicated point to which an EPA-equipment and personnel via grounding cord can be connected.

Electrostatic dissipative material: Having a surface resistance $\geq 10^5\Omega$ to $10^{11}\Omega$ (surface resistances, measured with the ESD S11.11 electrode, are a factor 10 lower than the resulting surface resistivity).

Groundable point: Dedicated point that can be connected to an EPA-ground.

Insulative material: Having a surface resistance $\geq 10^{11}\Omega$

ESD Packaging: Transport material not making contact with ESDS but which is used to enclose one or more devices.

Resistance to ground: Resistance between an electrode on the surface of an installed specimen and ground potential.

Surface resistivity: is equivalent to the surface resistance of a square area, having the electrodes at 2 opposite sides.

Surface resistance: the ratio of a DC voltage applied between two electrodes on a surface of a specimen and the steady-state current between the electrodes.

Triboelectric charging: Electrical charging process in which charge is generated by the contact and separation of two surfaces which may be solid, liquid or particulate-carrying cases.

Volume resistance: The ratio of a DC voltage applied between 2 electrodes placed on 2 opposite surfaces of a specimen and the steady-state current between the electrodes.

Volume resistivity: The ratio of DC field strength (V/m) and the steady-state current density (A/m²) within the material. In practice, it is equivalent to the volume resistance of a cube with the unit length, having the electrodes at 2 opposite surfaces.

Voltage suppression: The phenomenon of an apparent charge drainage by increasing the capacity of a charged body (e.g. getting close to a grounded electrode surface).

