

Effective: 1 August 2014

Keysight Technologies Supplier ESD Control Requirements

1.0 Purpose

This exhibit defines the minimum requirements for an Electro Static Discharge (ESD) control program. These requirements apply to Contract Manufacturers (CM's) and Suppliers of products and services to Keysight Technologies, Inc. (Keysight), whenever parts are ESD sensitive (ESDS).

Note: In this exhibit, Contract Manufacturers (CM's) are defined as organizations that make products under contract for Keysight, where products are designed by Keysight. CM's are a form of outsourcing manufacturing processes (e.g.: Assembly, Test, etc.).

2.0 ESD Control Requirements

- 2.1 ESD control is required, by contract, of all Contract Manufacturers, Suppliers and Subcontractors furnishing or handling ESD sensitive items.
- 2.2 Suppliers and sub-contractors shall have an ESD control program which includes as a minimum:
 - 2.2.1 ESD training process, including retraining at regular intervals;
 - 2.2.2 ESD sensitivity part classification;
 - 2.2.3 Appropriate marking to identify ESDS parts;
 - 2.2.4 Suitable handling and packaging to protect ESDS parts;
 - 2.2.5 Personnel grounding requirements;
 - 2.2.6 ESD protected areas (also known as Static-Safe Work Areas or SSWA);
 - 2.2.7 Periodic ESD Self-Audits checking for compliance;
 - 2.2.8 Second Party ESD Audits when requested by a representative of Keysight.
- 2.3 Keysight's Contract Manufacturers (CM's) shall comply with Keysight's ESD Control requirements as described in the Keysight ESD Control Manual.

Note: For a copy of the manual, please contact your Keysight contract liaison.

3.0 Recommendations for Suppliers and Subcontractors

- 3.1 Personnel handling ESDS items should be retrained or recertified on ESD Control at intervals not longer than 1 year. (See 2.2.1 above)
- 3.2 ESDS items should be identified with the ESD Susceptibility Symbol as defined by the ESD Association ([ESDA](#)). (See 2.2.3 above)
- 3.3 ESD self-audits should be performed monthly. (See 2.2.7 above)
- 3.4 Second Party ESD Audits should be conducted annually. (See 2.2.8 above)
- 3.5 ANSI/ESD S20.20-2007 and IEC 61340-5-1:2007 are recommended standards for the implementation of an ESD Control Program.

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4.0 References

- 4.1 Keysight Technologies Doc# 5951-1665-1, [Supplier Quality System Requirements](#)
- 4.2 [ISO 9001:2008](#), Quality Management Systems – Requirements
- 4.3 [ANSI/ESD S.20.20:2007](#), ESD Association Standard for the Development of an Electrostatic Discharge Control Program
- 4.4 [IEC 61340-5-1:2007](#), Protection of electronic devices from electrostatic phenomena - General requirements
- 4.5 [IEC/TR 61340-5-2:2007](#), Protection of electronic devices from electrostatic phenomena – User guide