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2015 - March

Reflow Oven Process Control Standard

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Reflow Oven Process Control Standard

Developed by the Reflow Oven Process Subcommittee (5-45) of IPC

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Reflow Oven Process Control Standard

1 GENERAL

1.1 Scope This standard provides process control for solder reflow ovens by baseline and periodic verifications of oven profiles using a standard methodology. Equipment calibration and maintenance guidelines are provided.

This standard is intended to verify the operating parameters of the reflow oven. This standard is not intended for the assembly product profile/recipe. ***For detailed information on development or verification of a product profile/recipe see IPC-7530.***

This standard does not provide guidance for vapor phase processes.

1.2 Purpose Intended for users of reflow equipment to baseline performance and periodically verify and demonstrate acceptable oven performance repeatability.

2 APPLICABLE DOCUMENTS

The following documents of the issue in effect on the invitation for bid form a part of this specification to the extent specified herein.

2.1 Joint Industry Standards[1]

J-STD-033 Handling, Packing, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices

J-STD-075 Classification of Non-IC Electronic Components for Assembly Processes

2.2 IPC[2]

IPC-1601 Printed Board Storage and Handling Guidelines

IPC-7351 Generic Requirements for Surface Mount Design and Land Pattern Standard

IPC-7530 Guidelines for Temperature Profiling for Mass Soldering Processes (Reflow & Wave)

IPC-9194 Implementation of Statistical Process Control (SPC) Applied to Printed Board Assembly Manufacture Guideline

IPC-T-50 Terms and Definitions for Interconnecting and Packaging Electronic Circuits

2.3 ANSI[3]

ASTM/ANSI E230 Standard Specification and Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples

1. www.ipc.org
2. www.ipc.org
3. www.ansi.org

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