

Guidelines/recommendations on “IPC-6010 series” (Implementation subject to customer/supplier agreement)

Objective: General statement on the use of IPC-6010 series (e.g. IPC-6012 “Qualification and Performance Specification for Rigid Printed Boards”) and practical implementation of the guidelines in line with requirements

- Compliance with the design specifications according to IPC-2221 “Generic Standard on Printed Board Design” is a precondition for meeting the requirements.
- Printed circuit boards are manufactured in compliance with the requirements of IPC-6011 “Generic Performance Specification for Printed Boards”.
- The Class 2 acceptance criteria specified in IPC-A-600 “Acceptability of Printed Boards” are the standard in PCB manufacturing. Validated technologies and materials are to be used. Requirements of e.g. IPC 6012 “Qualification and Performance Specification for Rigid Printed Boards” or IPC-4101 “Specification for Base Materials for Rigid and Multilayer Printed Boards” are observed where feasible in terms of layout and design.
- Compliance with IPC Class 3 must be agreed between customer and supplier (AABUS).
- Test coupons should reflect the structural integrity of the PCB technology. IPC-T-50 “Terms and Definitions for Interconnecting and Packaging Electronic Circuits” should be used to improve communication between parties.
- Process monitoring is a proven method of reducing the destructive testing of PCBs.

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- Periodic tests such as microsections or ionic contamination measurements shall not necessarily be performed on a lot basis. Compliance can also be ensured with appropriate process control (quality control chart, daisy chains, process controls, etc.).
- Tests and inspections are to be performed in accordance with IPC-TM-650 “Test Methods Manual”. The manufacturer is responsible for specifying test and inspection performance.
- Copper wrap plating requirements regarding filled & capped (plugged) vias are to be agreed according to individual layouts.
- In the event of unbalanced constructions (material, copper plating, solder resist, etc.), compliance with the requirements of the IPC-6010 series regarding bow and twist cannot be ensured.