

## Relevant Assembly Equipment Standards

While there are a few IPC standards related to terms and definitions used by manufacturers of assembly equipment, the two that are most applicable are:

- IPC-9850 “Surface Mount Placement Equipment Characterization” and
- IPC-9851 “Mechanical Equipment Interface Standard”

IPC-9850 Revision A is a major update released in August 2011 covering current surface mount pick and place configurations that did not exist when the original 9850 was published.

IPC-9851 includes definitions of both electrical and mechanical interface requirements. The mechanical interface requirements also include dual lane support that was not part of the original SMEMA 1.2.

[IPC-T-50](#) –Terms and Definitions for Interconnecting and Packaging Electronic Circuits” - is the single most complete dictionary for terms used in our industry.

The requirements for fiducial marks, previously published as SMEMA 3.1, are provided with much greater detail in [IPC-2221](#): “Generic Standard on Printed Board Design”.