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Sectional Requirements for Electronic Diagramming Symbol Generation Methodology

Developed by the Electronic Documentation Technology Committee (2-40) of IPC

Users of this publication are encouraged to participate in the development of future revisions.

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Sectional Requirements for Electronic Diagramming Symbol Generation Methodology

1 SCOPE

This standard establishes the requirements for generation of electronic symbols used in the documentation of electronic diagrams that define the electrical interconnectivity of electronic parts. The descriptions pertain to schematic symbols, logic symbols or Boolean truth tables required to define the circuit configuration. Where appropriate the standard also includes methodology for defining circuit flow, electrical or functional restrictions, or maintenance test procedures used to design or maintain the electronic product. The requirements pertain to both hard copy and electronic data descriptions.

1.1 Purpose

The purpose of the standard is to develop a protocol that fits well into both manual and automated documentation of electronic diagrams. In addition, the methodology permits the symbols to be placed and adjusted in a manner that facilitates showing how an electronic function can interact with other functions. In this regard, the symbol Input, Output, ground and voltage arrangement must fall on some form of the Cartesian coordinate system in order to facilitate the use of the symbols in automated diagramming tools.

1.2 Classification

Symbols have been organized into several categories and defined in the requirements according to the classification into which they belong. The classifications include:

- General symbols
- Electro mechanical symbols
- Discrete electronic functional symbols
- Logic representation and truth table symbols
- Semiconductor integration symbols
- Mechanical symbols

2 APPLICABLE DOCUMENTS

The following documents form a part of this standard to the extent specified herein. The revision of the document in effect at the time of solicitation **shall** take precedence.

2.1 IPC[1]

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

IPC-2611 *Generic Requirements for Electronic Product Documentation*

IPC-2611-1 *Generic Requirements for Electronic Product Data Base Storage Recommendation*[+]

IPC-2612 *Sectional Requirements for Electronic Diagramming Documentation (Schematic and Logic Descriptions)*

IPC-2613 *Electrical, Mechanical and Discrete Wiring Part Descriptions Documentation (Specification Control, Source Control, Wire Harness and Cabling)*[+]

IPC-2614 *Sectional Requirements for Board Fabrication Documentation*

IPC-2615 *Printed Board Dimensions and Tolerance*[+]

IPC-2616 *Sectional Requirements for Assembly Documentation (Electronic Printed Board and Module Assembly Descriptions)* [+]

IPC-2617 *Sectional Requirements for Board and Assembly Testing (Electrical, Environmental HAST, HALT, etc. Test)* [+]

[1] www.ipc.org
[+] under consideration