

ENGINEERING PRACTICE STUDY  
PROJECT NUMBER: 5998-2010-048

TITLE:

Review of Non-Government Standard (NGS) IPC-D-351  
To Determine The Status Of Its DoD Adoption.

15 October 2010

FINAL REPORT

Prepared by:

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ATTCH 3

I. **OBJECTIVES:** The objective of this study was to evaluate the status of IPC-D-351, "Printed Board Drawings in Digital Form" in regards to its worth as a viable document for use by the Defense Standardization Program (DSP) using the following criteria:

- a. Determine the value and use of IPC-D-351 as a DoD adopted document within the DSP.
- b. Evaluate the activities by the non-Government standard body (NGSB) regarding the document.
- c. Reviewing the actual notice of adoption on the ASSIST web site that is administered by the Document Automation and Production Service (DAPS) for accuracy and errors.

II. **BACKGROUND:** IPC-D-351 was adopted on 18 September 1985 in FSC 5999 (attachment 1). The notice of adoption has not been revised since that date. However, the NGS should have been transferred to FSC 5998 when the FSC was established in January 1988. IPC-D-351 was developed and published its non-Government standard body (NGSB), the IPC – Association Connecting Electronics Industries. IPC-D-351 has not been revised by its NGSB since it was issued in 1985, although it was reaffirmed in 1993. The NGSB committee responsible for IPC-D-351 meets twice a year and DLA Land and Maritime-VAC has attended the committee meetings. The last meeting attended was on 27 September 2010.

III. **RESULTS:** After a thorough review of IPC-D-351, ASSIST, and the printed board industry, the answers to the questions posed in section I of this study are as follows:

- a. Use of the NGS in DoD documents: A review using ASSIST to search for use of IPC-D-351 within DoD documents resulted in one direct reference by a DoD standardization document. The NGS is referenced in MIL-STD-1840 "Automated Interchange of Technical Information" (FSC IPSC).
- b. NGSB activity: There is no activity to update this standard. DLA Land and Maritime-VAC has been monitoring the IPC's 2-11 Computer Data Format Standardization Subcommittee, which is responsible for IPC-D-351. IPC-D-351 supports legacy data formats that are still used and supported in electronic design tools, however the committee is developing a new generation of documents for modern practices and software.
- c. Status of the DoD Notice: A review of the actual notice of adoption that is on the ASSIST web site (attachment 2) uncovered mistakes. The following is a compilation of the errors in the adoption notice on the ASSIST web site:
  1. The title of NGS is incorrect.
  2. The NGSB address on the adoption notice is incorrect.
  3. The point of contact data for DLA Land and Maritime is also incorrect and needs to be updated.
  4. The Air Force custodian has changed from code 11 to code 85.
  5. The FSC is incorrect. The notice should be FSC 5998.

A proposed updated notice highlighting these errors is included as attachment 3.

IV. **CONCLUSION:** Based on its usage within DoD documents and within DoD adopted IPC documents, IPC-D-351 is a valued standardization document that benefits the DoD standardization program.

V. **RECOMMENDATION:** IPC-D-351 should continue to be available for citing by DoD standardization documents and use by design and manufacturing activities. Therefore, an updated notice of adoption for IPC-D-351 should be issued.

ACCEPTANCE NOTICE

This non-Government document was adopted on 18 September 1985, and is approved for use by the DOD. The indicated industry group has furnished the clearance required by existing regulations. Copies of the document are stocked by DOD Single Stock Point, Naval Publications and Forms Center, Philadelphia, PA 19120, for issue to DOD activities only. Contractors and Industry groups must obtain copies directly from IPC, 3451 Church Street, Evanston, Illinois 60203.

Title of Document: Printed Board Drawings in  
Digital Form

Date of Specific Issue Adopted: June 1985

Releasing Industry Group: The Institute for Interconnecting  
and Packaging Electronic Circuits

NOTICE: When reaffirmation, amendment, revision, or cancellation of this standard is initially proposed, the industry group responsible for this standard shall inform the military coordinating activity of the proposed change and request participation.

Custodians:

Army - ER  
Navy - EC  
Air Force - 17

Military Coordinating Activity:  
Army - ER

Review activities:

Army - AR, MI  
Navy - AS, SH  
Air Force - 11, 85  
NSA/S512  
DLA - ES

Project 5999-0157-01)

FSC 5999

User activities:

Army -  
Navy - OS

Agent:

DLA - ES

**ADOPTION NOTICE**

IPC-D351, "ELECTRONIC DESIGN DATA DESCRIPTION FOR PRINTED WIRING BOARDS IN DIGITAL FORM", was adopted on 18-SEP-85 for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: Defense Supply Center Columbus, P.O. Box 3990, Attn: DSCC-VAI, Columbus, OH 43216-5000. Copies of this document may be purchased from the IPC - Association Connecting Electronics Industries 2215 Sanders Road Northbrook, Illinois, United States, 60062-6135. <http://www.ipc.org/>

**Custodians:**

Army - CR  
Navy - EC  
Air Force - 11  
DLA - CC

**Adopting Activity:**

DLA - CC

**Reviewer Activities:**

Army - AR, MI  
Navy - AS, OS, SH

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Custodians:  
Army - CR  
Navy - EC  
Air Force - ~~14~~ 85  
DLA - CC

Adopting Activity:  
DLA - CC  
  
Project: ~~5998-2010-000~~

Review Activities:  
Army - AR, MI  
Navy - AS, OS, SH

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil/>.