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# IPC-1751

## Generic Requirements for Declaration Process Management



Endorsed by the International  
Electronics Manufacturing  
Initiative (iNEMI)

**IPC-1751**

February 2006

A standard developed by IPC

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- Show relationship to Design for Manufacturability (DFM) and Design for the Environment (DFE)
- Minimize time to market
- Contain simple (simplified) language
- Just include spec information
- Focus on end product performance
- Include a feedback system on use and problems for future improvement

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- Increase time-to-market
- Keep people out
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# **Generic Requirements for Declaration Process Management**

Developed by the Declaration Process Management  
Subcommittee (2-18) of the Data Generation and Transfer  
Committee (2-10) of IPC

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

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## Table of Contents

1	SCOPE .....	1
1.1	Purpose .....	1
1.2	Intent.....	1
1.3	Documentation Hierarchy.....	2
1.4	Interpretation.....	2
1.5	Presentation.....	2
2	APPLICABLE DOCUMENTS .....	2
2.1	IPC Standards.....	2
3	Requirements .....	2
3.1	Terms and Definitions .....	3
4	FAMILY OF STANDARDS .....	3
4.1	Materials Declaration Management (IPC-1752) .....	4
4.2	Laminate Structure Declaration Management (IPC-1753).....	4
4.3	Printed Board Declaration Management (IPC-1754) .....	4
4.4	Electronic Assembly Declaration Management (IPC-1755).....	4
5	Generic Requirements .....	4
5.1	Requester Information.....	4
5.1.1	Company Information .....	5
5.1.2	Request information .....	5
5.1.3	Contact Information .....	5
5.1.4	Other descriptions .....	6
5.1.5	Item Information .....	6
5.2	Supplier Information.....	7
5.2.1	Company Information .....	7
5.2.2	Response Status .....	7
5.2.3	Contact Information .....	8
5.2.4	Other Descriptions.....	8
5.3	Declaration Specifics .....	8
5.3.1	Commitment to the Standard.....	9
5.3.2	Supplier Signature.....	9
5.4	Attachments .....	9
6	DATA MODEL.....	9
6.1	Machine Readable Formats .....	9
6.2	Data Model for Declaration .....	10
6.3	Methods of Using UML.....	10
7	BUSINESS PROCESS .....	13
7.1	Request/Response (Pull) .....	13
7.2	Publication (Push).....	13
8	Verification.....	13
8.1	Validation .....	13
8.2	Confirmation.....	14

8.3 Audit.....	14
Appendix A – Generic PDF Form Description.....	15
Appendix B – Declaration Analytical Model .....	16



## Generic Requirements for Declaration Process Management

### Foreword

This standard provides the principles and details for declarations necessary between members of a supply chain relationship. This standard is the first in a series of standards that permits segmentation of declaration details based on the subject and scope of the declaration as well as the manufacturing domain. This standard contains general information and is supplemented by sectional standards requiring more detailed information such as material declarations, quality profiles, or codes of conduct.

As an example, Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment sets the focus for one of the sectional standards of 175X series. That sectional standard (IPC-1752) establishes information exchange requirements regarding the substances and materials that comprise the bulk material, component, Printed Circuit Board (PCB), sub-assembly, etc.

The generic and sectional standards can be implemented through Portable Document Format (PDF) forms. These forms are designed so that they can be completed using the free Adobe Acrobat Reader, (either by manual data entry or by data upload), saved locally, and submitted electronically back to the requester. Each form will be based on an underlying Extensible Markup Language (XML) schema, which in turn is represented by a Unified Modeling Language (UML) model. If other forms are developed, they must conform to the appropriate UML model. This will force entries to conform to the schema requirements before the form can be submitted, thereby ensuring a higher level of data quality. XML data can be extracted by the requester to automate the data transfer into internal systems.

### 1 SCOPE

This standard provides the principles and details for declarations necessary between members of a supply chain. Although this standard contains only generic information regarding trading partners, when combined with a specific sectional standard, the entire document set is used to define and maintain the declaration type information. The requirements pertain to both hard copy and electronic data descriptions. This standard provides for the creation of a record that will serve as a commitment between trading partners and may be used to establish due diligence in any dispute in third-party litigation.

#### 1.1 Purpose

The purpose of the standard is to establish a methodology for any declaration process between customers and their suppliers. It benefits suppliers and their customers by providing consistency and efficiency to the declaration process. The details provided in this generic standard delineate those characteristics and informative statements that are related to any declaration process. In addition to the physical descriptions of a declaration site, information is also captured regarding personnel and their responsibility (role) in providing clear and unambiguous information required by any of the sectional standards within the 1750 series.

Certain characteristics described in the UML model may be optional and are only included between trading partners who work under preferred vendor relationship conditions.

Because producers may choose to audit information provided under this standard, audit and verification procedures are described within this standard.

#### 1.2 Intent

The intent of the 1750 standard set is to promote the development of consistent data exchange formats that will facilitate and improve data transfer along the entire global supply chain.

### 1.3 Documentation Hierarchy

This standard establishes the generic requirements for a declaration process used to provide information on material, capability, quality, code of conduct, etc. The details of declaration specifics are defined by the IPC-1750 series of standards. Each standard has a specific focus and **shall** be used, as appropriate, to describe a particular declaration process. The sectional standards and their focus are:

IPC-1752	<i>Sectional Requirements for Material Declaration Management</i>
IPC-1752-1	<i>Material and Substance Declaration Description Form – Class 1 to 4</i>
IPC-1752-2	<i>Material and Substance Declaration Description Form – Class 1, 2, 5 and 6</i>
IPC-1752-3	<i>Material and Substance Declaration Description Users Guide</i>
IPC-1753	<i>Sectional Requirements for Laminate Structure Declaration Management (under consideration)</i>
IPC-1754	<i>Sectional Requirements for Printed Board Declaration Management (under consideration)</i>
IPC-1755	<i>Sectional Requirements for Electronic Assembly Declaration Management (under consideration)</i>

### 1.4 Interpretation

The word “**shall**,” the emphatic form of the verb, is used throughout this standard whenever a requirement is intended to express a provision that is **mandatory**. Deviation from a “**shall**” requirement may be considered if sufficient data is supplied to justify the exception. The words “should” and “may” are used to express non-mandatory provisions intended to be recommendations. “Will” is used to express a declaration of purpose related to the text description. To assist the reader, the word “**shall**” is presented in bold characters.

### 1.5 Presentation

All dimensions and tolerances in the 1750 standard series are expressed in metric units with millimeters the main form of dimensional expression. Inches may be shown in brackets as appropriate and are not always a direct conversion depending on round-off discrepancies or the required precision. Users are cautioned to employ a single dimensioning system and not intermix millimeters and inches. The measurement of volume and mass (weight) **shall** also be in SI units. Reference information is shown in parentheses ( ).

## 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 a declaration is produced **shall** take precedence.

### 2.1 IPC Standards

IPC-T-50 *Terms and Definitions*

## 3 Requirements

The following requirements are applicable to all the IPC-1750 series of declaration management standards. In the event that a particular requirement does not apply, the alternate methodology is defined in the sectional standard.

### 3.1 Terms and Definitions

The definition of all terms **shall** be in accordance with IPC-T-50 and the following. An asterisk (\*) by the term indicates that it is a reproduction from IPC-T-50 and is provided to assist the reader in interpretation of this standard.

#### 3.1.1 Compliance

Demonstration of meeting a government regulation, law, or directive.

#### 3.1.2 Conformance

Demonstration of meeting a company, national or international specification.

#### 3.1.3 Due Diligence

Proof of actions exercised and reasonable steps taken to avoid misrepresentation or committing of an offense.

#### 3.1.4 Item

Any substance, material, sub-part, part, sub-assembly, assembly, or product that is the subject of a declaration.

#### 3.1.5 Producer

Any company or organization that, irrespective of the selling technique, manufactures and sells electrical and electronic equipment under their own brand, or resells under their own brand equipment produced by other suppliers, or imports/exports electrical and electronic equipment on a professional basis.

#### 3.1.6 Supplier

The organization or company responsible for providing the goods and/or services required to produce an electrical or electronic product.

#### 3.1.7 User\*

The individual, organization, company or agency responsible for the procurement of electrical/electronic hardware, and having the authority to define the class of equipment and any variation or restriction (i.e., the originator/custodian of the contract detailing these requirements).

## 4 FAMILY OF STANDARDS

This standard establishes the generic requirements for a declaration process. The standard becomes a mandatory part of any of the sectional standards that are identified as being part of the 1750 series. The details are substantiated through the use of UML information models and optional standard PDF forms that allow a user to complete the various attributes required.

The specific requirements for the generic portion of any declaration system include descriptions of the facility to which a declaration system applies, contact information, as well as the mechanism that relates to the process to be used for queries and responses between members of the supply chain.

A customer may want to audit the supplier and supplier's system for declaration. Although some declarations are for a single site or location, the information about the overall company is helpful in establishing the relationship of the existing site to the total company and to other sites or divisions.

Some declarations are intended to convey the maximum information about the facility that provides the parts or service; other declarations are satisfied with the minimum information about the company, mainly email and

phone contact information. In these instances the partner agreements are conveyed through contractual documentation.

#### 4.1 Materials Declaration Management (IPC-1752)

Regulatory and market developments in the electronics industry, such as EU directives on RoHS and WEEE, have necessitated each member of the supply chain understanding the substances and materials that comprise the bulk material, component, PCB, sub-assembly, etc. that they supply to the end product. Producers are requiring that suppliers provide material declarations that will enable the producer to comply with the applicable requirements.

The details regarding exchange of materials declaration data are defined in IPC-1752. A UML data model, corresponding XML schema and PDF form are available to facilitate the appropriate manufacturer/user information exchange. Two forms, IPC 1752-1 and IPC 1752-2, which may be used to present the material declaration made in accordance with IPC 1752, are provided. A users guide for 1752-1 and 1752-2 is provided as 1752-3.

#### 4.2 Laminate Structure Declaration Management (IPC-1753)

This standard is under consideration and is intended to become a replacement for IPC-1730. The new standard will use the generic standard, IPC-1751, to provide company information.

#### 4.3 Printed Board Declaration Management (IPC-1754)

This standard is under consideration is intended to become a replacement for IPC-1710 in the near future. The new standard will use the generic standard, IPC-1751, to provide company information.

#### 4.4 Electronic Assembly Declaration Management (IPC-1755)

This standard is under consideration and is intended to become a replacement for IPC-1720 in the near future. The new standard will use the generic standard, IPC-1751, to provide company information.

### 5 Generic Requirements

#### 5.1 Requester Information

This information describes the company and person who is requesting a declaration. This information is only relevant when a request/response model is being followed using one of the sectional standards. This section of the data model contains several fields that identify the company and the individual requesting a particular declaration. Each field is described in the following paragraphs, and are shown in the example PDF form in Figure 5-1.

Requester Information						Lock Requester Fields
Company Name *	Company Unique ID	Unique ID Authority	Request Date *	Request Document ID	Respond By Date	
Contact Name *	Contact Title	Contact Phone *	Contact Email *	Requester Comments or URL for additional information		
My supplier ID	The File Type and Destination fields control how the form is submitted by the supplier. Consult your IT staff for configuration.		File Type PDF	Destination - URL or Email address		
Item Number *	Item Name	Mfr Item Number *	Mfr Item Name	Mfr Item Version	Manufacturing Site	

Figure 5-1 Example requester information sections

### 5.1.1 Company Information

#### 5.1.1.1 Company Name

This field identifies the legal name of the company requesting the declaration document. This field is **mandatory**.

#### 5.1.1.2 Company Unique ID

This field is used by industry to uniquely identify the requester company. For example, in the U.S. a Dun & Bradstreet Data Universal Numbering System (DUNS) number is a commonly used unique identification (ID). This field is *optional*.

Note: DUNS numbers can be found at <<http://www.dnb.com/us>>

#### 5.1.1.3 Unique ID Authority

This field identifies the organization that assigns the unique ID. In the example above, Dun & Bradstreet would be the authority assigning the unique ID. This field is *optional*.

### 5.1.2 Request information

#### 5.1.2.1 Request Date

This field identifies the date when a user requests a declaration document. This field is **mandatory**.

#### 5.1.2.2 Request Document ID

This field identifies the request to help the user and supplier reference the communication. A revision method should be established to identify different configurations of the same request. The methodology may be simply a single letter or date that establishes the appropriate linkage. This field is *optional*.

#### 5.1.2.3 Respond By Date

This field identifies the date when the supplier is expected to respond to the request for information. This field is *optional*.

### 5.1.3 Contact Information

#### 5.1.3.1 Contact Name

This field identifies the name of the person to contact with questions about the request for declaration. This field is **mandatory**.

#### 5.1.3.2 Contact Title

This field identifies the title of the contact person. This field is *optional*.

#### 5.1.3.3 Contact Phone

This field identifies the telephone number for the contact person. This field is **mandatory**.

#### 5.1.3.4 Contact Email

This field identifies the email address for the contact person. This field is **mandatory**.

### 5.1.4 Other descriptions

#### 5.1.4.1 Requester Comments or URL for Additional Information

This field provides additional information to the supplier, such as definitions of the authorized representative field in the supplier information section, submission instructions, additional contact information, or information relating to fields in the sectional standards. These can be provided either directly or by a URL address which shows where the additional information can be obtained. This field is *optional*.

#### 5.1.4.2 My Manufacturer ID

This field identifies a company's internal designator for a supplier such as a supplier ID. For data tracking purposes, requesters can provide this designator under the My Manufacturer ID field. This field is *optional*.

#### 5.1.4.3 File Type

This field identifies the file type and designates how the data is submitted by the supplier. There are three methods for completing this field: PDF, XML, and XDP. The field is **mandatory** with the default being being PDF.

The Portable Document Format (PDF) is a visual representation of a document developed by Adobe. XML is a standard computer format developed by the W3C Committee. The XDP concept describes an XML format, known as XML data package that provides a mechanism for packaging units of PDF content within a surrounding XML container. The XDP format is intended to be an XML based companion to PDF.

#### 5.1.4.4 Destination – URL or Email Address

This field identifies the URL or email address to which the requester wishes the data be submitted. This field is *optional*.

### 5.1.5 Item Information

**5.1.5.1 The following six fields provide information describing the item of interest. See IPC-1752-3 for further descriptions.**Item Number

This field identifies the number for the item in the requester's system. This field is **mandatory**.

#### 5.1.5.2 Item Name

This field identifies the name of the item in the requester's system. This field is *optional*.

#### 5.1.5.3 Mfr Item Number

This field identifies the number for the item in the supplier's system as perceived by the requester. This field is **mandatory**.

#### 5.1.5.4 Mfr Item Name

This field identifies the name for the item in the supplier's system as perceived by the requester. This field is *optional*.

### 5.1.5.5 Mfr Item Version

This field identifies the version of the item in the supplier's system as perceived by the requester. This field is *optional*.

### 5.1.5.6 Manufacturing Site

This field identifies the site at which the item is manufactured as perceived by the requester. This field is *optional*.

## 5.2 Supplier Information

This information concerns the company and persons who are supplying a declaration document. Each field is described in more detail below; these are shown in the example PDF form in Figure 5-2.

Supplier Information					
Company Name *	Company Unique ID	Unique ID Authority	Response Date *	Response Document ID	
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	<input type="button" value="Duplicate Contact -&gt; Authorized Representative"/>	
Authorized Representative *	Title - Representative	Phone - Representative *	Email - Representative *	Supplier Comments or URL for Additional Information	

Figure 5-2 Supplier Information Section

### 5.2.1 Company Information

#### 5.2.1.1 Company Name

This field contains the legal name of the company supplying the declaration document. This field is **mandatory**.

#### 5.2.1.2 Company Unique ID

This field is used to uniquely identify the primary supplier. The DUNS number is an example of a unique ID. This field is *optional*.

#### 5.2.1.3 Unique ID Authority

This field identifies the organization that assigns the unique ID. This field is *optional*.

### 5.2.2 Response Status

#### 5.2.2.1 Response Date

This field identifies the date of the supplier's response to the request for information. If the publication model is being used (see Section 7 BUSINESS PROCESS), this is the date as of which the data provided in the declaration is completed. This field is **mandatory**.

#### 5.2.2.2 Response Document ID

This field identifies the response in order to help the user and supplier reference communication. A revision method should be established to identify different configurations of the same response. The methodology should be established between the trading partners and may be a single letter or date that establishes the appropriate linkage. This field is *optional*.

### 5.2.3 Contact Information

#### 5.2.3.1 Contact Name

This field identifies the name of the person to contact regarding the contents of the declaration information. This field is **mandatory**.

#### 5.2.3.2 Title – Contact

This field identifies the title of the person responsible for the contents of the declaration information. This field is *optional*.

#### 5.2.3.3 Phone – Contact

This field identifies the telephone number for the contact person. This field is **mandatory**.

#### 5.2.3.4 Email – Contact

This field identifies the email address for the contact person. If an email address is not available, state “not available” or “n/a.” A blank field may cause an error in form implementation. This field is **mandatory**.

### 5.2.4 Other Descriptions

#### 5.2.4.1 Authorized Representative

This field identifies the person authorized to sign the form or indicate through other means the information is valid and correct to the best of their knowledge. At times, the authorized representative is a different individual than the person completing the declaration. It is not correct to use the words “same” or similar identification to provide the name of the authorized representative. This field is **mandatory**.

#### 5.2.4.2 Title – Representative

This field identifies the title of the authorized representative. This field is *optional*.

#### 5.2.4.3 Phone – Representative

This field identifies the phone number of the representative authorizing the declaration. This field is **mandatory**.

#### 5.2.4.4 Email - Representative

This field identifies the email address of the authorized representative. If an email address is not available, state “not available” or “n/a”. A blank field may cause an error in form implementation. This field is **mandatory**.

#### 5.2.4.5 Supplier Comments or URL for Additional Information

This field identifies the URL address where the authorized representative has provided additional information. This field is *optional*.

### 5.3 Declaration Specifics

In some instances the declaration requires substantiation of the details provided in accordance with IPC-1751 and any of the sectional standards. Although the fields are optional, they become **mandatory** when



the requester requires verification of a commitment by the responding authority. In that instance the following paragraphs apply.

### 5.3.1 Commitment to the Standard

This standard is designed to serve the public interest by facilitating declaration through a common data model and XML schema. Existence of such standards and publications **shall** not in any respect preclude any member or nonmember of IPC from manufacturing or selling products not conforming to such standards and publications, nor **shall** the existence of such standards and publications preclude their voluntary use by those other than IPC members, whether the standard is to be used either domestically or internationally. Versions of the declaration forms may have been created to allow requesters to specify that the provided information requires substantiation and/or to specify that the information is true and correct to the best of the knowledge and belief of the supplier at the time the form was completed.

At the discretion of the company requesting the declaration (requester), the declaration may require substantiation of the details provided in accordance with IPC-1751 and any of the sectional standards. In this instance, the supplier **shall** complete all the required fields in the document and designate an authorized representative of the company to sign the document to verify the commitment by the responding authority. Where disputes to the statement may arise, these **shall** be mutually agreed upon between the two trading partners.

### 5.3.2 Supplier Signature

The signature of the authorized representative and the company's commitment statement may be required by the sectional standard. These details may be accomplished in the representative's own wording, which might validate the declaration as a legal document. This may be accomplished using a digital signature or by other means to sign the form. The signature will apply to the entire document, not just the specific page signed.

## 5.4 Attachments

The supplier may attach any substantiating data to the declaration that explains or characterizes the position of the declaration descriptions. In many instances, the attachment would be specifically related to the sectional standard which is used in combination with the generic information. If the sectional standard PDF form is used, it contains a separate tab for the attachment of electronic files or for providing a URL which identifies the location of the attachment information.

## 6 DATA MODEL

A model is a simplified representation of a system that ignores extraneous details in order to concentrate on some particular aspect of the system; UML was chosen to represent this information system. An information model is an abstract view of a system that specifies and describes the information used by the system. The most useful information models describe constraints on information and relationships between information, in addition to the structure of the information. Machine readability is a desirable feature of an information model, which makes it much more useful for automation.

### 6.1 Machine Readable Formats

Ideally, a machine-readable information model would be programmatically converted into:

- The grammars necessary to transport information
- Skeletal computer code used to manipulate information

- The Structured Query Language (SQL) statements necessary to define the structure of relational databases that store information
- Database stored procedures used to ensure the validity of the data.

## 6.2 Data Model for Declaration

The data model for a generic declaration standard is not complex; however, there are many relationships and linkages that need to be addressed and established. Data modeling can improve the characteristics of any form or any programming that is developed at the requester's site or the supplier's location.

Appendix B shows the characteristics of the UML model for the generic standard. This information will be continually evaluated and modified as the standard evolves and gains consensus.

## 6.3 Methods of Using UML

There are three modes for using UML; one is as a sketch of the desired process, another is as a blueprint for developing details, and the third is a very detailed entry into the programming language. The most common is that of sketching out the ideas and relationship for a particular model. In many instances a data modeler goes through several iterations in order to satisfy the developing team's needs.

The most important part of the modeling sequence is the development of the analytical model. See Appendix B for a full Declaration Analytical Model. The data model for a single item explores all the ramifications of the intended descriptions. Figure 6-1 shows an example of the analytical model for an electronic assembly. Once the analytical model is developed it can be converted to a design model as appropriate. The design model becomes very specific as to the intent and the method of model implementation.

In the declaration management standard, there are several analytical models that must be developed in order to cover the various details of the model implementation strategy. These are then used to develop the design model. The data model used for the PDF form is shown in Figure 6-2. This data model describes the information necessary to be captured in the data instance of the PDF form, and may be used to develop software tools that facilitate data transfer. See Appendix A.

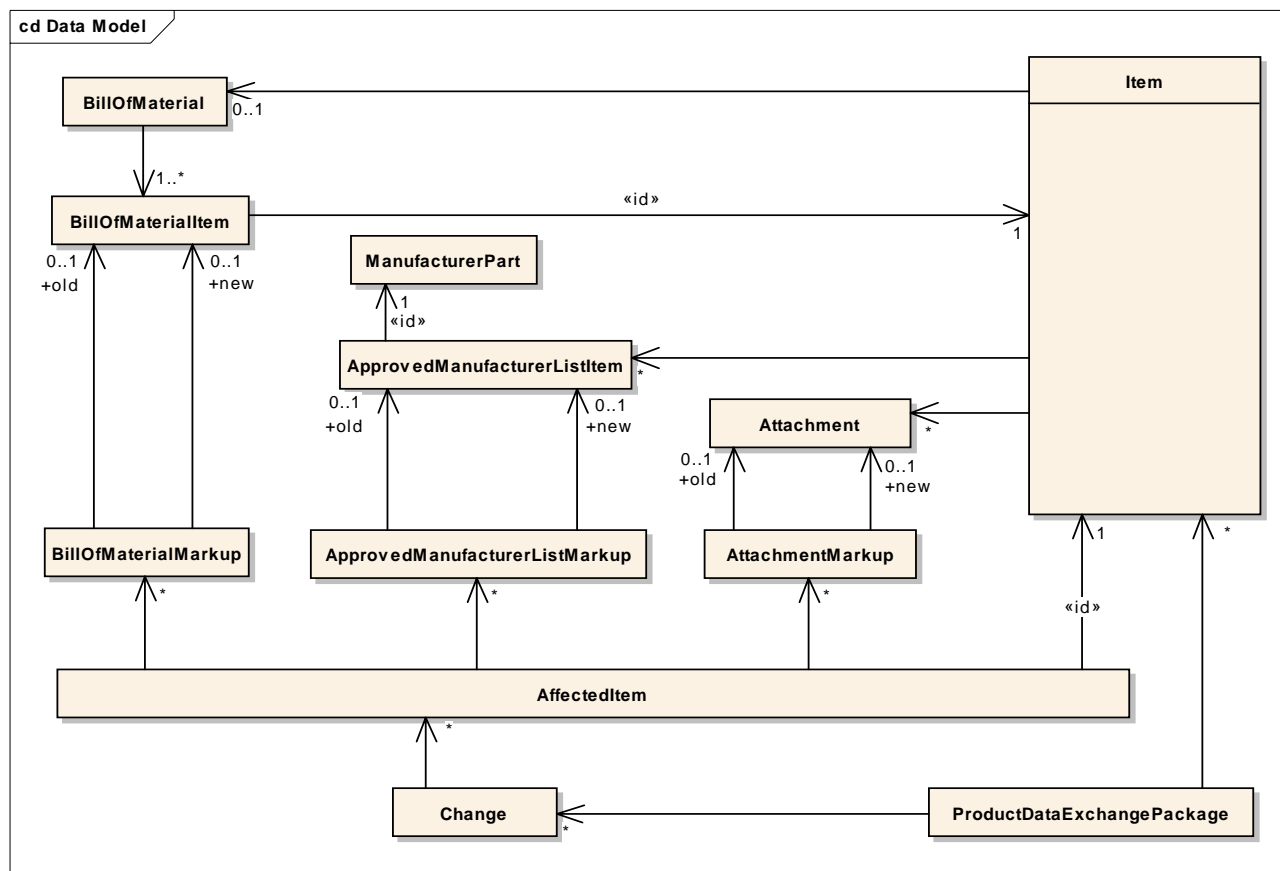


Figure 6-1 Analytical Model of an Item that is Part of an Electronic Assembly

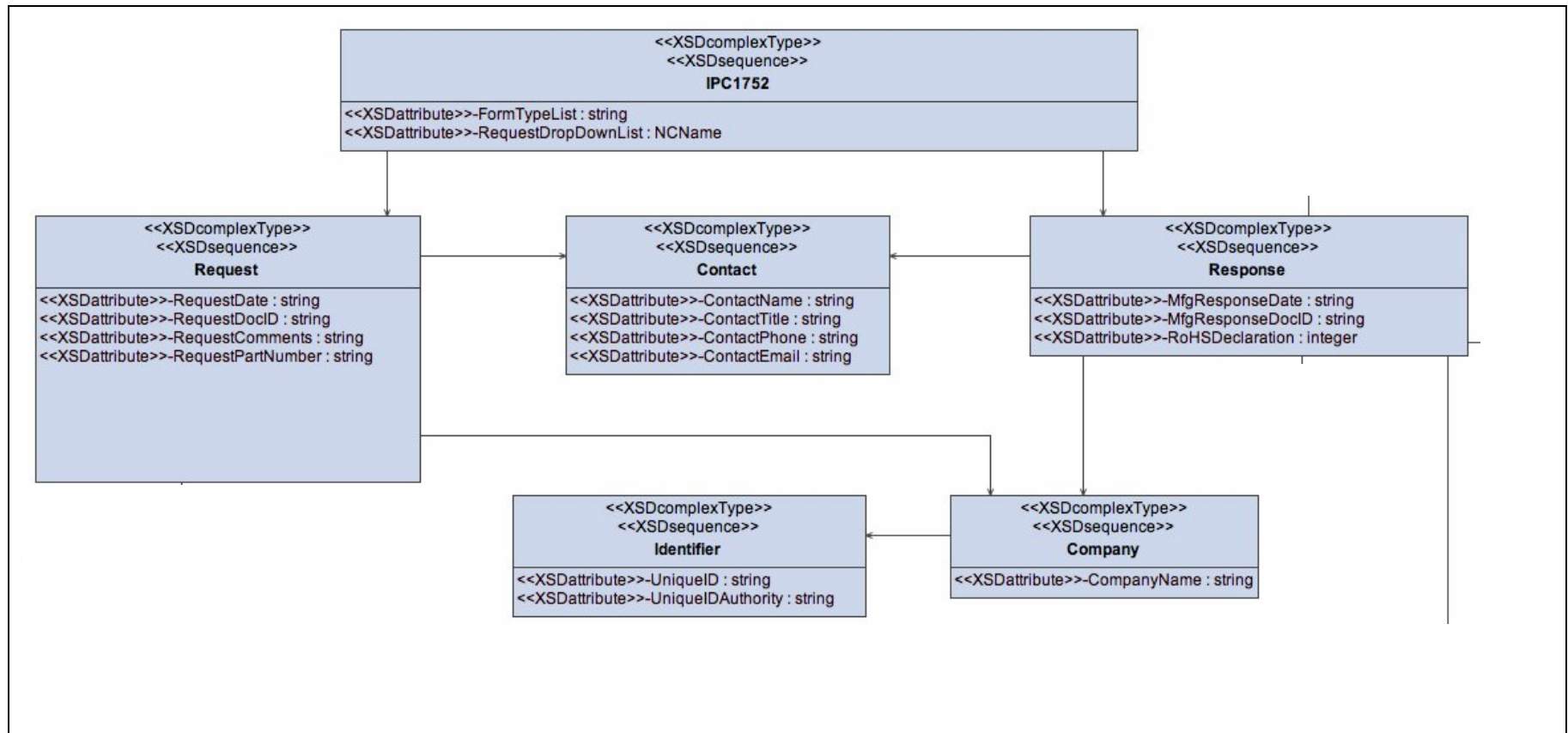


Figure 6-2 Request/Response Design Data Model

## 7 BUSINESS PROCESS

This section discusses the business models and supply chain interactions supported by the declaration process.

### 7.1 Request/Response (Pull)

Requests for information can come from customers, regulators, non-governmental organizations (NGOs), or the public. The request may be part of a procurement contract or request for quote/information, or may simply be a request for data. Any ambiguity in the request should be clarified. Specific information about the request may be attached to the request or may be provided on a web page which is described in the request.

The company receiving the request (defined as the supplier) should then decide whether to respond to the request. While not responding to a request is an option, the supplier should consider the implications of this course of action.

The response to the request will depend on the requested transmission format described by the requester. The response **shall** follow the IPC-1751 generic standard and the appropriate sectional information related to the declaration activity. The report/declaration should then be sent to the requester.

### 7.2 Publication (Push)

Another process of distributing the declaration information and the appropriate sectional content is to publish it for distribution. This most often will be accomplished by making documents available on a corporate web site, or having them available internally for submission to a requester when a request is received. In this latter case, it will be important that the information in the requester fields be included with the response. These fields contain information that the requester needs so as to be able to systematically tie the response to the request.

Under this process the format for generic information is combined with the requirements of the appropriate sectional information and then published as a unique description related to a specific part. The publication **shall** follow the IPC-1751 generic standard and the appropriate sectional information related to the declaration activity.

## 8 Verification

Verification involves ensuring that the information provided is accurate. Verification of declared information has a number of different aspects, described below. Since this generic standard deals with company information, additional requirements for verification are included in the sectional standards.

Each supplier or producer **shall** be responsible for determining the level of verification appropriate to their operations.

### 8.1 Validation

Validation of the company information contained in any declaration is straightforward and is often done systematically. Validation is the first step of any verification process, and involves ensuring that the data provided is of the correct type. If email addresses are available, they should be in the correct form and contain an @ symbol; all dates must be in an approved date format and that names use characters and are not numeric, etc.

## **8.2 Confirmation**

After checking that data exchanged between trading partners is valid as described above, it is also important to ensure that it is correct. Contact personnel, as well as their phone numbers, email and other information (as appropriate given the business need), should be established and kept up-to-date. Sometimes confirmation of information can be systematic, such as comparing company names in the requester and supplier fields against information in the My ID for the Manufacturer field, or comparing contact information provided by the supplier against supplier contact information in the requester's systems.

If the requester has specific instructions for the supplier, they may be provided through a hyperlink to a web page or with the request as an attachment. The requester may wish to confirm that the supplier has followed these instructions, particularly any specific instructions concerning the role of the authorizing person. While it may be easy to systematically ensure that the name provided is a valid name, requesters may also wish to confirm that the person certifying the declaration is at or above the required level of authority in the organization.

## **8.3 Audit**

An additional level of verification consists of an audit of the supplier by either the requester, a third party, or a supplier self-audit. Supplier audits are optional, although audit conditions are often described in the original business agreement between trading partners. The confidence level between trading partners largely determines the need for or frequency of audits. Because this generic standard deals with company information, a separate audit to verify this information will seldom be warranted. Requesters may wish to incorporate verification of how suppliers document this information within existing audit protocols.

## Appendix A – Generic PDF Form Description

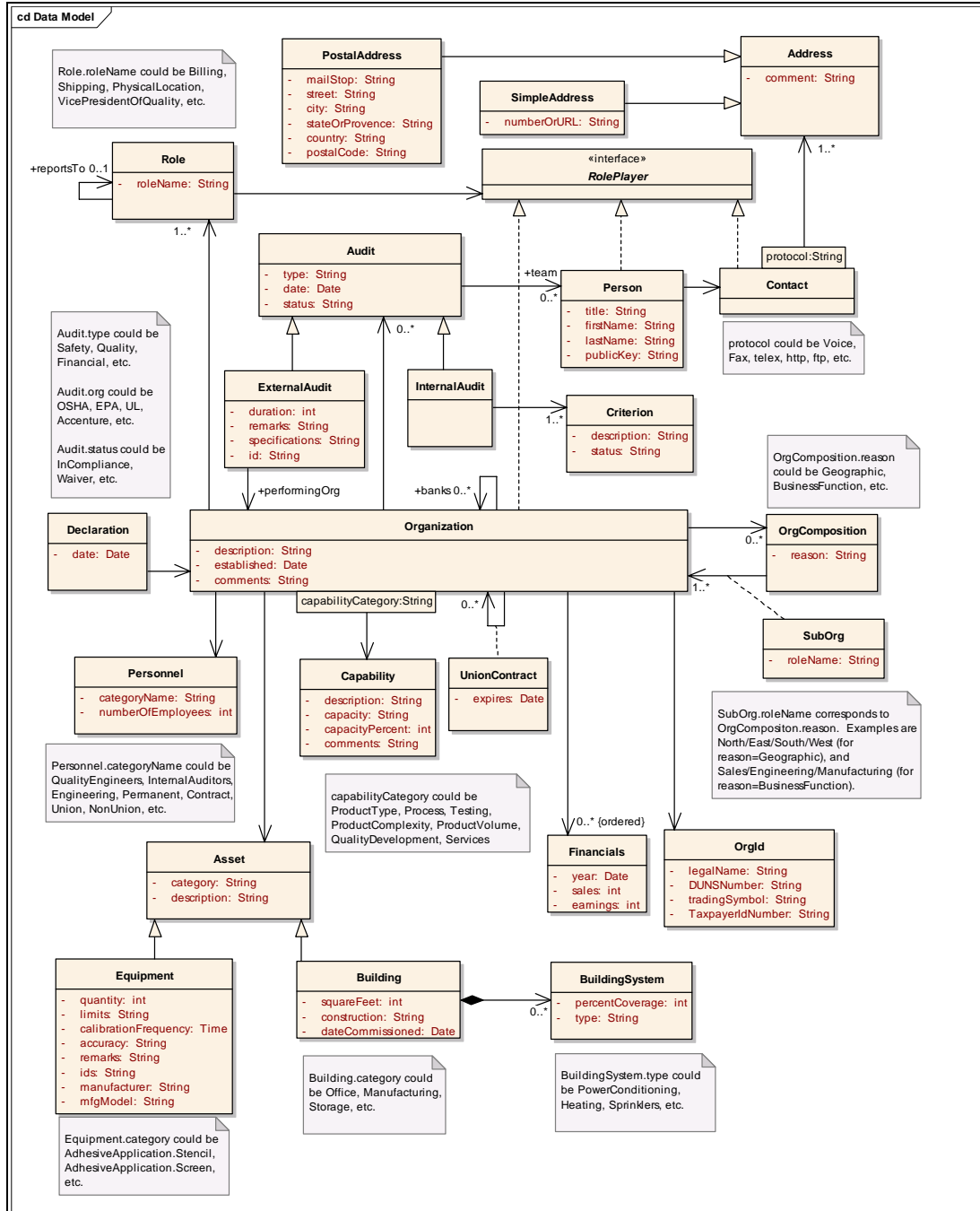
The following is an illustration that shows a section of the PDF forms which relates to general company information. The graphic shows both the company information for the requester and the company information for the supplier.

The PDF form has been designed to incorporate fields related to material declaration requirements identified in IPC-1752. These fields will be modified to reflect the needs of IPC-1753, IPC-1754, and IPC-1755 when they are developed. The data fields will be consistent with the needs of those standards and each will have their unique descriptions appended to the requester and supplier information fields.

Requester Information										Lock Requester Fields
Company Name *	Company Unique ID	Unique ID Authority	Request Date *	Request Document ID	Respond By Date					
Contact Name *	Contact Title	Contact Phone *	Contact Email *	Requester Comments or URL for additional information						
My supplier ID	The File Type and Destination fields control how the form is submitted by the supplier. Consult your IT staff for configuration.			File Type PDF	Destination - URL or Email address					
Item Number *	Item Name	Mfr Item Number *	Mfr Item Name	Mfr Item Version	Manufacturing Site					
Supplier Information										
Company Name *	Company Unique ID	Unique ID Authority	Response Date *	Response Document ID						
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	Duplicate Contact -> Authorized Representative						
Authorized Representative *	Title - Representative	Phone - Representative *	Email - Representative *	Supplier Comments or URL for Additional Information						
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight	UOM	Unit Type		
Alternate Recommendation					Alternate Item Comments					

## Appendix B – Declaration Analytical Model

The following illustration is an example of a declaration analytical model intended to represent any of the IPC-175X family of standards. It consists of various elements and attributes necessary for trading partner information exchange.







# ANSI/IPC-T-50 Terms and Definitions for Interconnecting and Packaging Electronic Circuits Definition Submission/Approval Sheet

The purpose of this form is to keep current with terms routinely used in the industry and their definitions. Individuals or companies are invited to comment. Please complete this form and return to:

IPC  
3000 Lakeside Drive, Suite 309S  
Bannockburn, IL 60015-1219  
Fax: 847 615.7105

## SUBMITTOR INFORMATION:

Name: \_\_\_\_\_

Company: \_\_\_\_\_

City: \_\_\_\_\_

State/Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Date: \_\_\_\_\_

- ☐ This is a **NEW** term and definition being submitted.  
☐ This is an **ADDITION** to an existing term and definition(s).  
☐ This is a **CHANGE** to an existing definition.

Term	Definition

If space not adequate, use reverse side or attach additional sheet(s).

Artwork: ☐ Not Applicable ☐ Required ☐ To be supplied

☐ Included: Electronic File Name: \_\_\_\_\_

Document(s) to which this term applies: \_\_\_\_\_

Committees affected by this term: \_\_\_\_\_

Office Use	
IPC Office	Committee 2-30
Date Received: _____	Date of Initial Review: _____
Comments Collated: _____	Comment Resolution: _____
Returned for Action: _____	Committee Action: <input type="checkbox"/> Accepted <input type="checkbox"/> Rejected
Revision Inclusion: _____	<input type="checkbox"/> Accept Modify
IEC Classification	
Classification Code • Serial Number	
Terms and Definition Committee Final Approval Authorization: Committee 2-30 has approved the above term for release in the next revision.	
Name: _____ Committee: <b>IPC 2-30</b> Date: _____	

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## Technical Questions

The IPC staff will research your technical question and attempt to find an appropriate specification interpretation or technical response. Please send your technical query to the technical department via:

tel: 847-615-7100

fax: 847-615-7105

www.ipc.org

e-mail: answers@ipc.org

## IPC World Wide Web Page [www.ipc.org](http://www.ipc.org)

Our home page provides access to information about upcoming events, publications and videos, membership, and industry activities and services. Visit soon and often.

## IPC Technical Forums

IPC technical forums are opportunities to network on the Internet. It's the best way to get the help you need today! Over 2,500 people are already taking advantage of the excellent peer networking available through e-mail forums provided by IPC. Members use them to get timely, relevant answers to their technical questions. Contact KeachSasamori@ipc.org for details. Here are a few of the forums offered.

### TechNet@ipc.org

TechNet forum is for discussion of issues related to printed circuit board design, assembly, manufacturing, comments or questions on IPC specifications, or other technical inquiries. IPC also uses TechNet to announce meetings, important technical issues, surveys, etc.

### ComplianceNet@ipc.org

ComplianceNet forum covers environmental, safety and related regulations or issues.

### DesignersCouncil@ipc.org

Designers Council forum covers information on upcoming IPC Designers Council activities as well as information, comments, and feedback on current designer issues, local chapter meetings, new chapters forming, job opportunities and certification. In addition, IPC can set up a mailing list for your individual Chapter so that your chapter can share information about upcoming meetings, events and issues related specifically to your chapter.

### Trainingnews@ipc.org

This is an announcement forum where subscribers can receive notice of new IPC Training Products.

### leadfree.ipc.org

This forum acts as a peer interaction resource for staying on top of lead elimination activities worldwide and within IPC.

### IPC\_New\_Releases@ipc.org

This is an announcement forum where subscribers can receive notice of new IPC publications, updates and standards.

## ADMINISTERING YOUR SUBSCRIPTION STATUS:

All commands (such as subscribe and signoff) must be sent to listserv@ipc.org. Please DO NOT send any command to the mail list address, (i.e. <mail list> @ipc.org), as it would be distributed to all the subscribers.

Example for subscribing:

To: LISTSERV@IPC.ORG

Subject:

Message: subscribe TechNet Joseph H. Smith

Example for signing off:

To: LISTSERV@IPC.ORG

Subject:

Message: signoff DesignerCouncil

Please note you must send messages to the mail list address ONLY from the e-mail address to which you want to apply changes. In other words, if you want to sign off the mail list, you must send the signoff command from the address that you want removed from the mail list. Many participants find it helpful to signoff a list when travelling or on vacation and to resubscribe when back in the office.

## How to post to a forum:

To send a message to all the people currently subscribed to the list, just send to <mail list>@ipc.org. Please note, use the mail list address that you want to reach in place of the <mail list> string in the above instructions.

Example:

To: TechNet@IPC.ORG

Subject: <your subject>

Message: <your message>

The associated e-mail message text will be distributed to everyone on the list, including the sender. Further information on how to access previous messages sent to the forums will be provided upon subscribing.

For more information, contact Keach Sasamori

tel: 847-597-2815

fax: 847-615-5615

e-mail: sasako@ipc.org

[www.ipc.org/emailforums](http://www.ipc.org/emailforums)

## Education and Training

IPC conducts local educational workshops and national conferences to help you better understand conventional and emerging technologies. Members receive discounts on registration fees. Visit [www.ipc.org](http://www.ipc.org) to see what programs are coming to your area.

### IPC Certification Programs

IPC provides world-class training and certification programs based on several widely-used IPC standards, including IPC-A-600, IPC-A-610, IPC/WHMA-A-620, J-STD-001 and IPC-7711A/7721A Rework and Repair. IPC-sponsored certification gives your company a competitive advantage and your workforce valuable recognition.

For more information on these programs:

tel: 847-597-2814

fax: 847-615-7105

e-mail: [certification@ipc.org](mailto:certification@ipc.org)

[www.ipc.org/certification](http://www.ipc.org/certification)

### Designer Certification (C.I.D.)/Advanced Designer Certification (C.I.D.+)

Contact:

tel: 847-597-2827

fax: 847-615-5627

e-mail: [christipoulsen@ipc.org](mailto:christipoulsen@ipc.org)

<http://dc.ipc.org>

### EMS Program Manager Certification

Contact:

tel: 847-597-2884

fax: 847-615-5684

e-mail: [susanfilz@ipc.org](mailto:susanfilz@ipc.org)

[www.ipc.org/certification](http://www.ipc.org/certification)

### IPC Video Tapes and CD-ROMs

IPC video tapes and CD-ROMs can increase your industry know-how and on the job effectiveness. Members receive discounts on purchases.

For more information on IPC Video/CD Training, contact Mark Pritchard

tel: 505/758-7937 ext. 202

fax: 505/758-7938

e-mail: [markp@ipcvideo.org](mailto:markp@ipcvideo.org)

<http://training.ipc.org>

## IPC Printed Circuits Expo, APEX and the Designers Summit



This yearly event is the largest electronics interconnection event in North America. With technical paper presentations, educational courses, standards development meetings networking opportunities and designers certification, there's something for everyone in the industry. The premier technical conference draws experts from around the globe. 500 exhibitors and 6,000 attendees typically participate each year. You'll see the latest in technologies, products and services and hear about the trends that affect us all. Go to [www.GoIPCShows.org](http://www.GoIPCShows.org) or contact [shows@ipc.org](mailto:shows@ipc.org) for more information.

### Exhibitor information:

Mary Mac Kinnon

Alicia Balonek

Director, Show Sales

Director, Trade Show Operations

847-597-2886

847-597-2898

[MaryMacKinnon@ipc.org](mailto:MaryMacKinnon@ipc.org)

[AliciaBalonek@ipc.org](mailto:AliciaBalonek@ipc.org)

## How to Get Involved

The first step is to join IPC. An application for membership can be found in the back of this publication. Once you become a member, the opportunities to enhance your competitiveness are vast. Join a technical committee and learn from our industry's best while you help develop the standards for our industry. Participate in market research programs which forecast the future of our industry. Participate in Capitol Hill Day and lobby your Congressmen and Senators for better industry support. Pick from a wide variety of educational opportunities: workshops, tutorials, and conferences. More up-to-date details on IPC opportunities can be found on our web page: [www.ipc.org](http://www.ipc.org).

For information on how to get involved, contact:

Jeanette Ferdman, Membership Director

tel: 847-597-2809

fax: 847-597-7105

e-mail: [JeanetteFerdman@ipc.org](mailto:JeanetteFerdman@ipc.org)

[www.ipc.org](http://www.ipc.org)

# Application for IPC Site Membership



Thank you for your decision to join IPC, Association Connecting Electronics Industries. IPC membership is site specific, which means that benefits of IPC membership are extended only to employees at the site that is designated on this application. To help IPC serve your member site in the most effective manner possible, please tell us what work is being done at your site by choosing the most appropriate member category. *(Check one box only.)*

## ☐ INDEPENDENT PRINTED CIRCUIT BOARD MANUFACTURER

This facility manufactures, and sells to other companies, printed wiring boards (PWB's) or other electronic interconnection products on the merchant market.

**What products do you make for sale?**

☐ One- and two-sided rigid, multilayer printed boards    ☐ Flexible printed boards    ☐ Other interconnections

**Site General Manager** \_\_\_\_\_

Name

Title

## ☐ EMSI COMPANY - Independent Electronics Assembly

This facility assembles printed wiring boards, on a contract basis, and may offer other electronic interconnection products for sale.

**Site General Manager** \_\_\_\_\_

Name

Title

## ☐ OEM - Original Equipment Manufacturer

This facility purchases and/or manufactures printed wiring boards or other interconnection products for use in a final product, which we manufacture and sell.

**What is your company's primary product line?**

**Site General Manager** \_\_\_\_\_

Name

Title

## ☐ INDUSTRY SUPPLIER

This facility supplies raw materials, machinery, equipment, or services used in the manufacture or assembly of electronic interconnection products.

**What products or services does your company supply?** (50 word limit, please)

The information that you provide here will appear in the next edition of the IPC Membership Directory.

*Our company supplies:*

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## ☐ GOVERNMENT AGENCY/ACADEMIC TECHNICAL LIAISON

This government agency or accredited university, college or technical training school is directly concerned with design, research and utilization of electronic interconnection devices. (Must be a non-profit or not-for-profit organization.)

# Application for IPC Site Membership



## Site Information: (Please print or type)

Company Name			
Street Address			
City	State	Zip/Postal Code	Country
Main Switchboard Phone No		Main Fax No.	
Company E-Mail Address		Website URL	
Name of Primary Contact for all IPC matters		Title	Mail Stop
Phone No.	Fax No	E-Mail	
Name of Senior Management Contact:		Title:	Mail Stop
Phone No	Fax No	E-Mail	

Please attach business card of primary contact here.

## Please designate your site's Technical Representatives:

For PWB/PWA design-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
--------------	-------	-------	-----	--------

For PCB fabrication-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
--------------	-------	-------	-----	--------

For Electronics Assembly-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
--------------	-------	-------	-----	--------

## Please designate your site's Management Representatives:

For PWB/PWA design-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
--------------	-------	-------	-----	--------

For PCB fabrication-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
--------------	-------	-------	-----	--------

For Electronics Assembly-related information and activities:

Contact Name	Title	Phone	Fax	E-mail
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# Application for IPC Site Membership



## MEMBERSHIP DUES SCHEDULE

### Please check one:

- ☐ **\$1,000.00** – Annual dues for Primary Site Membership  
Twelve months of IPC membership begins from the time the application and payment are received at the IPC office.
- ☐ **\$800.00** – Annual dues for Additional Facility Membership  
An additional membership for a site within an organization where there already is a current Primary Site IPC membership.
- ☐ **\$600.00\*\*** – Annual dues for an independent PCB/PWA fabricator or independent EMSI provider with annual sales of less than \$1,000,000.00. USD  
\*\* Please provide proof of annual sales.
- ☐ **\$250.00** – Annual dues for Government Agency or Academic Technical Liaison Membership. Must be not-for-profit organization.

### TMRC MEMBERSHIP

- ☐ Please send information on participation in the Technology Market Research Council (TMRC) program. Only current IPC member sites are eligible to participate in this **calendar year** program, which is available for an additional fee.
- ☐ **Yes, sign up our site now:**
  - \$950.00** - Primary TMRC member site
  - \$400.00** - Additional facility TMRC member. Another site within our organization is already a TMRC program participant.

### Name of Primary Contact for all TMRC matters:

Phone

Fax

E-Mail

## PAYMENT INFORMATION

Enclosed is our check/money order for \$\_\_\_\_\_

### Mail application with check or money order to:

IPC  
3491 Eagle Way  
Chicago, IL 60678-1349

### Fax or mail application with credit card payment to:

IPC  
\*3000 Lakeside Drive, Suite 309S  
Bannockburn, IL. 60015-1249  
Tel: 847-615-7100  
Fax: 847-615-7105

*\* Overnight deliveries to this address only*

Please bill my credit card (circle one) for \$\_\_\_\_\_

- ☐ MasterCard    ☐ American Express    ☐ Visa    ☐ Diners Club

Account No

Expiration Date

Name of Card Holder

Authorized Signature

Phone Number

## QUESTIONS ?

Call the IPC Member Services Department in Bannockburn, Illinois, at 847-597-2809 or 847-597-2872, or fax us at 847-615-7105.

E-mail: JeanetteFerdman@ipc.org SusanStorck@ipc.org

# Application for IPC Site Membership



## INFORMATION DISTRIBUTION

IPC has significant member benefits available to a wide range of individuals within your organization. To ensure that your facility takes advantage of these benefits, please provide the name of the individual responsible for each of the functional areas listed below. If one person has multiple responsibilities, please list that person's name as many times as necessary.

### Chief Executive:

Name	Title/Mail Stop	Phone	Fax	E-mail
------	-----------------	-------	-----	--------

### Sales/Marketing:

Name	Title/Mail Stop	Phone	Fax	E-mail
------	-----------------	-------	-----	--------

### Finance (CFO)

Name	Title/Mail Stop	Phone	Fax	E-mail
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### Human Resources

Name	Title/Mail Stop	Phone	Fax	E-mail
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### Environmental/Safety

Name	Title/Mail Stop	Phone	Fax	E-mail
------	-----------------	-------	-----	--------

### Design/Artwork

Name	Title/Mail Stop	Phone	Fax	E-mail
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### Product Assurance

Name	Title/Mail Stop	Phone	Fax	E-mail
------	-----------------	-------	-----	--------

### Manufacturing

Name	Title/Mail Stop	Phone	Fax	E-mail
------	-----------------	-------	-----	--------

### Training

Name	Title/Mail Stop	Phone	Fax	E-mail
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### Purchasing

Name	Title/Mail Stop	Phone	Fax	E-mail
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Name	Title/Mail Stop
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Name	Title/Mail Stop
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Name	Title/Mail Stop
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Name	Title/Mail Stop
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Name	Title/Mail Stop
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Name	Title/Mail Stop
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