



IPC-1791A

Trusted Electronic Designer, Fabricator and Assembler Requirements

Developed by the Trusted Supplier Task Group (2-19b) of the Electronic Product Data Description Committee (2-10) of IPC

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

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Table of Contents

1	SCOPE	1	1.6.20	Printed Board Assembler	4
1.1	Purpose and Background	1	1.6.21	Printed Board and Assembly Design	4
1.1.1	Source Technology and Capability	1	1.6.22	Printed Board and Assembly Design Organization	4
1.1.2	Interpretation of Requirements for the Purposes of this Standard	1	1.6.23	Printed Board Trusted Assembler	4
1.1.3	Benefits of Using Organizations Certified to this Standard	1	1.6.24	Printed Board Trusted Design Organization	4
1.1.4	Additional Detail	1	1.6.25	Printed Board Trusted Fabricator	4
1.2	Classification	1	1.6.26	Procedure	4
1.3	Definition of Requirements	2	1.6.27	Product-Specific Special Case	4
1.4	Certification	2	1.6.28	Quality	4
1.4.1	Type 1 – Printed Board Design Organizations	2	1.6.29	Security	4
1.4.2	Type 2 – Printed Board Fabrication Organizations	2	1.6.30	Supply Chain Risk Management (SCRM)	5
1.4.3	Type 3 – Printed Board Assembly Organizations	2	1.6.31	Trust	5
1.4.4	Length of Certification	2	1.6.32	Trusted Source or Trusted Supplier	5
1.4.5	Ownership Changes	2	2	APPLICABLE DOCUMENTS	5
1.4.6	Management Changes	2	2.1	IPC	5
1.5	Abbreviations and Acronyms	2	2.2	Joint Standards	5
1.6	Terms and Definitions	2	2.3	Center for Development of Security Excellence	5
1.6.1	Chain of Custody (ChoC)	3	2.4	National Institute of Standards and Technology (NIST)	5
1.6.2	Commercial and Government Entity (CAGE) Code	3	2.5	SAE International	5
1.6.3	Confidentiality	3	2.6	U.S. Department of Defense (DoD)	6
1.6.4	Controlled Technical Information	3	2.6.1	Directives and Instructions	6
1.6.5	Controlled Unclassified Information (CUI)	3	2.6.2	Specifications	6
1.6.6	Covered Contractor Information System	3	2.7	U.S. House of Representatives Office of the Law Revision Council	6
1.6.7	Covered Defense Information	3	2.8	U.S. Office of the Federal Register - Code of Federal Regulations (CFR)	6
1.6.8	Cyber Incident	3	3	REQUIREMENTS	6
1.6.9	Deemed Export	3	3.1	Quality Requirements	6
1.6.10	Department of Defense (DoD) Prime Contractor	3	3.1.1	Type 1 – Printed Board Design Organization	6
1.6.11	Department of State Proforma for Permanent Export (DSP-5)	3	3.1.2	Type 2 – Printed Board Fabrication Organization	6
1.6.12	Export Administration Regulations (EAR)	3	3.1.3	Type 3 – Printed Board Assembly Organization	7
1.6.13	Federal Bureau of Investigation (FBI) Channeler	3	3.2	Supply Chain Risk Management (SCRM) Policy	7
1.6.14	Foreign Person	3	3.2.1	Commercial and Government Entity (CAGE) Code / NATO Commercial and Government Entity (NCAGE)	7
1.6.15	Information Technology (IT)	4	3.3	Security	7
1.6.16	International Traffic in Arms Regulations (ITAR) Registered	4	3.3.1	Responsible Security Officer and Team	7
1.6.17	Organization	4	3.3.2	Personnel Security Requirements	9
1.6.18	Personnel	4	3.3.3	Publication Approval	9
1.6.19	Policy	4			

3.3.4	Physical Protection	9
3.4	Chain of Custody (ChoC) for Type 1, 2 and 3 Organizations	10
3.4.1	Traceability Records	10
3.4.2	Serialization and Identification	11
3.4.3	Sample Materials	11
3.4.4	Destruction of Scrap (In-Process or Finished Design Data, Layers and Panels, Subassemblies and Assemblies)	11
3.4.5	Repeat Orders	11
3.4.6	Shipping	11
3.4.7	Training	11
3.5	Additional Chain of Custody (ChoC) Requirements for Type 1 Organizations	12
APPENDIX A	Defense Background	13
APPENDIX B	Export Control Compliance	14
APPENDIX C	NIST SP 800-171 Security Framework Explanation	15
APPENDIX D	Requirements for Trust Certification of Non-U.S. Electronic Design, Fabrication and Assembly Organizations	16
APPENDIX E	Index of Acronyms and Abbreviations	19

Figures

Figure 3-1	Printed Board Design Schema	12
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Tables

Table 3-1	Supply Chain Risk Management (SCRM) Policy and/or Procedure Guidelines	8
Table 3-2	Supplier Assessment Procedure Requirements	8
Table C-1	NIST SP 800-171 Security Requirement Families	15

Trusted Electronic Designer, Fabricator and Assembler Requirements

1 SCOPE

This standard provides minimum requirements, policies and procedures for printed board design, fabrication and assembly organizations and/or companies to become trusted sources for markets requiring high levels of confidence in the integrity of delivered products. These trusted sources **shall** ensure quality, supply chain risk management (SCRM), security and chain of custody (ChoC).

Trusted source certification of non-U.S. printed board design, fabrication and assembly organizations requires a sponsor and are required to meet the requirements in Appendix D, in lieu of section 3.3 and Appendix B.

Demonstration of the ability to meet and maintain the requirements of this standard as trusted design, fabrication or assembly organization benefits customers that provide end-products for markets desiring a high level of integrity assurance (e.g., commercial, industrial, military, aerospace, automotive and medical).

In the context of this standard, the terms trust and trusted are used to reflect a commitment to delivered product and process integrity assurance by printed board designers, fabricators and assemblers. The user should not confuse this certification with defense-microelectronics-specific “Trusted Supplier” accreditation administered by the Defense Microelectronics Activity (DMEA) Trusted Access Program Office. IPC-1791 certification does not include U.S. Department of Defense (DoD) facility clearance unless compelled by customer-specific requirements and pursued independent of this standard.

1.1 Purpose and Background

1.1.1 Source Technology and Capability Design, fabrication and assembly organizations have different levels of capability in terms of technology, materials, product complexity, capacity and lead times. This standard assumes the customer has certified the capability of their chosen supplier.

1.1.2 Interpretation of Requirements for the Purposes of this Standard This standard covers requirements for quality, SCRM, security and ChoC:

- Quality and performance requirements (e.g., IPC-2000 series, IPC-6000 series, IPC-A-600, IPC-A-610, MIL-PRF-31032, AS9100, National Aerospace and Defense Contractors Accreditation Program (Nadcap), etc.) **shall** be as defined in this standard for the type of organization.
- Requirements for SCRM **shall** be as defined in this standard for the type of organization.
- Security requirements **shall** be the same for all types of organizations.
- The requirements for ChoC **shall** be the same for all types of organizations.

1.1.3 Benefits of Using Organizations Certified to this Standard By using designers, printed board fabricators and printed board assemblers that have been certified to this standard, customers will be assured that their supplier(s):

- Maintains a quality system
- Maintains a SCRM system to ensure any threats related to disruption in supply are understood and managed
- Manages a security system to protect products and services from unauthorized access, particularly in support of export control
- Provides an ensured ChoC system for electronic and physical materials

1.1.4 Additional Detail See Appendix A for additional explanatory material.

1.2 Classification IPC standards recognize that electrical and electronic assemblies are subject to classifications by intended end-item use. Three general end-product classes have been established to reflect differences in manufacturability, complexity, functional performance requirements, and verification (inspection/test) frequency. It should be recognized that there may be overlaps of equipment between classes.