

Standards Manager Web Standards List
IPC-Association Connecting Electronic Industries

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51	WP-021	Considerations of New Classes of Coatings for IPC-CC-830 Revision C	2019	IPC	12
52	WP-026	PC Technology Solutions White Paper on Blockchain and the Electronics Industry: A Review of the Current State of Blockchain Technology and Its Potential Applications in Electronics Manufacturing	2019	IPC	20
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54	1791 AM1	Trusted Electronic Designer, Fabricator and Assembler Requirements	2019	IPC	9
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59	HERMES-9852	The Global Standard for Machine-to-Machine Communication in SMT Assembly	2019	IPC	52
60	WP-025	PC White Paper on A Framework for the Engineering and Design of E-Textiles	2018	IPC	24
61	9301	Numerical Analysis Guidelines for Microelectronics Packaging Design and Reliability	2018	IPC	92
62	CC-830C	Qualification and Performance of Electrical Insulating Compound for Printed Wiring Assemblies	2018	IPC	32
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72	IPC/JEDEC J-STD-033D	Handling, Packing, Shipping and Use of Moisture, Reflow, and Process Sensitive Devices	2018	IPC	32
73	PERM-WP-022	Mitigation of Pure Tin Risk by Tin-Lead SMT Reflow Results of an Industry Round-Robin Final Report	2018	IPC	28
74	J-STD-001GS FRENCH	Annexe des produits électroniques des applications spatiales et militaires à la norme J-STD-001G, Exigences des Assemblages électriques et électroniques Brasés	2018	IPC	32
75	6013D AMD 1	Qualification and Performance Specification for Flexible and Rigid-Flexible Printed Boards	2018	IPC	8
76	1754	Materials Declaration Standard for Aerospace and Defense - Includes Access to Additional Content	2018	IPC	53
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78	2292	Design Standard for Printed Electronics on Flexible Substrates	2018	IPC	72
79	WP-023	IPC Technology Solutions White Paper on Performance-Based Printed Board OEM Acceptance Via Chain Continuity Reflow Test: The Hidden Reliability Threat - Weak Microvia Interface	2018	IPC	24
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81	2221B APPENDIX A	Generic Standard on Printed Board Design - Version 2.0	2018	IPC	23
82	IPC/WHMA-A-620C-S	Space Applications Electronic Hardware Addendum to IPC/WHMA-A-620C	2018	IPC	40
83	7621	Guideline for Design, Material Selection and General Application of Encapsulation of Electronic Circuit Assembly by Low Pressure Molding with Thermoplastics	2018	IPC	40
84	4412B AMD 2	Specification for Finished Fabric Woven from E-glass for Printed Boards	2018	IPC	13
85	J-STD-001G AMD 1	Requirements for Soldered Electrical and Electronic Assemblies	2018	IPC	10
86	WP-019A	An Overview on Global Change in Ionic Cleanliness Requirements	2018	IPC	24
87	PERM-2901	Pb-free Design & Assembly Implementation Guide	2018	IPC	40
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103	A-640	NULL	2017	IPC	124
104	IPC-WHMA-A-620C	NULL	2017	IPC	428

105	J-STD-001FS	Space Applications Electronic Hardware Addendum to IPC J-STD-001F Requirements for Soldered Electrical and Electronic Assemblies	2017	IPC	36
106	J-STD-002E	NULL	2017	IPC	68
107	J-STD-006C AMD 1	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications	2017	IPC	12
108	A-610G	Acceptability of Electronic Assemblies	2017	IPC	440
109	WP-019		2017	IPC	22
110	J-STD-001G	Requirements for Soldered Electrical and Electronic Assemblies	2016	IPC	92
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115	9262		2016	IPC	52
116	1071B		2016	IPC	28
117	1601A		2016	IPC	36
118	4556 AMD 1	Specification for Electroless Nickel/Electroless Palladium/ Immersion Gold (ENEPIG) Plating for Printed Circuit Boards	2016	IPC	9
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125	1782	NULL	2016	IPC	40
126	2223D	NULL	2016	IPC	60
127	9252B	NULL	2016	IPC	28
128	9691B	NULL	2016	IPC	48
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130	6018CS	NULL	2016	IPC	24
131	A-610-AMD 1	NULL	2016	IPC	436
132	D-640	NULL	2016	IPC	100
133	J-STD-001 AND 1	NULL	2016	IPC	84
134	J-STD-046	NULL	2016	IPC	14
135	D-620	NULL	2015	IPC	69
136	HDBK-4691	NULL	2015	IPC	76
137	JEDEC-9702 AMD1	NULL	2015	IPC	3
138	6903	NULL	2015	IPC	20
139	4103A-WAM1 AMD2	NULL	2015	IPC	7
140	1072	NULL	2015	IPC	28
141	J-STD-001FS	Space Applications Electronic Hardware Addendum to IPC J-STD-001F Requirements for Soldered Electrical and Electronic Assemblies	2015	IPC	32

142	IPC/JEDEC J-STD-020E	Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices	2015	IPC	24
143	6012DS	Space and Military Avionics Applications Addendum to IPC-6012D Qualification and Performance Specification for Rigid Printed Boards	2015	IPC	24
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148	T-50M	Terms and Definitions for Interconnecting and Packaging Electronic Circuits	2015	IPC	132
149	TM-650 2.1.1F	Microsectioning, Manual and Semi or Automatic Method	2015	IPC	8
150	IPC/JEDEC J-STD-033C-	Handling, Packing, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices	2014	IPC	28
151	J-STD-001F	Requirements for Soldered Electrical and Electronic Assemblies	2014	IPC	84
152	J-STD-003C	Solderability Tests for Printed Boards - Incorporates Amendment 1: May 2014	2014	IPC	48
153	J-STD-030A	JOINT INDUSTRY STANDARD Selection and Application of Board Level Underfill Materials	2014	IPC	48
154	SM-817A	General Requirements for Dielectric Surface Mounting Adhesives	2014	IPC	24
155	TM-650 2.4.9E	Peel Strength, Flexible Dielectric Materials	2014	IPC	6
156	TM-650 2.4.16B	Initiation Tear Strength, Flexible Insulating Materials	2014	IPC	2
157	TM-650 2.6.26A	DC Current Induced Thermal Cycling Test	2014	IPC	10
158	4101D	NULL	2014	IPC	168
159	J-STD-030A	NULL	2014	IPC	48
160	1071A	Best Industry Practices for Intellectual Property Protection in Printed Board Manufacturing - Effective Date: 6/21/2010	2014	IPC	24
161	1755	Conflict Minerals Data Exchange Standard	2014	IPC	44
162	4101D	Specification for Base Materials for Rigid and Multilayer Printed Boards - Includes Amendment 1: July 2015	2014	IPC	168
163	4103A	Specification for Base Materials for High Speed/High Frequency Applications - Incorporates Amendment 1	2014	IPC	0
164	7711B/7721B AMD2	REWORK, MODIFICATION AND REPAIR OF ELECTRONIC ASSEMBLIES	2014	IPC	15
165	8701	Final Acceptance Criteria Standard for PV Modules-Final Module Assembly	2014	IPC	68
166	A-610F	Acceptability of Electronic Assemblies	2014	IPC	440
167	FC-234A	Pressure Sensitive Adhesive (PSA) Assembly Guidelines for Flexible, Rigid or Rigid-Flex Printed Boards	2014	IPC	36
168	HDBK-630	Guidelines for Design, Manufacture, Inspection and Testing of Electronic Enclosures	2014	IPC	188
169	4203A-AMD 1	NULL	2014	IPC	4
170	4204A AMD 1	NULL	2014	IPC	14
171	4412B AMD 1	NULL	2014	IPC	9
172	J-STD-003C AMD1	NULL	2014	IPC	16
173	WHMA-A-620B AMD 1	NULL	2013	IPC	14
174	4204A-AMD 1	NULL	2013	IPC	4
175	2581B	NULL	2013	IPC	244
176	4203A	Cover and Bonding Material for Flexible Printed Circuitry	2013	IPC	52
177	4412B	Specification for Finished Fabric Woven from "E" Glass for Printed Boards	2013	IPC	32

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181	7095C	Design and Assembly Process Implementation for BGAs	2013	IPC	176
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186	J-STD-002D	NULL	2013	IPC	64
187	IPC-JEDEC-9706	NULL	2013	IPC	28
188	IPC-WHMA-A-620B-S	NULL	2013	IPC	41
189	JPCA-2291	Design Guideline for Printed Electronics	2013	IPC	40
190	J-STD-003C	NULL	2013	IPC	44
191	J-STD-006C	Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders for Electronic Soldering Applications	2013	IPC	36
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195	2221B	Generic Standard on Printed Board Design	2012	IPC	184
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198	7527	Requirements for Solder Paste Printing	2012	IPC	28
199	9151D	Process Capability, Quality, and Relative Reliability (PCQR2) Benchmark Test Standard and Database	2012	IPC	20
200	9203	Users Guide to IPC-9202 and the IPC-B-52 Standard Test Vehicle	2012	IPC	40
201	9252A AMD 1	NULL	2012	IPC	3
202	9592B	Requirements for Power Conversion Devices for the Computer and Telecommunications Industries	2012	IPC	136
203	AJ-820A	Assembly and Joining Handbook	2012	IPC	316
204	HDBK-001E	Handbook and Guide to Supplement J-STD-001	2012	IPC	116
205	HDBK-850	Guidelines for Design, Selection and Application of Potting Materials and Encapsulation Processes Used for Electronics Printed Circuit Board Assembly	2012	IPC	88
206	J-STD-033C GERM	NULL	2012	IPC	32
207	J-STD-033C HUNG	NULL	2012	IPC	32
208	J-STD-033C	NULL	2012	IPC	28
209	IPC-JEDEC-9704A	NULL	2012	IPC	32
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211	IPC-WHMA-A-620B GERMAN	NULL	2012	IPC	408
212	IPC-WHMA-A-620B SPANISH	NULL	2012	IPC	408
213	IPC-WHMA-A-620B	NULL	2012	IPC	408
214	J-STD-005A	Requirements for Soldering Pastes	2012	IPC	24
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219	TM-650 2.5.34	NULL	2012	IPC	4
220	TM-650 2.6.2D	NULL	2012	IPC	2
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222	2223C GERMAN	Sectional Design Standard for Flexible Printed Boards	2011	IPC	52
223	2223C	Sectional Design Standard for Flexible Printed Boards	2011	IPC	52
224	4103A	Specification for Base Materials for High Speed/High Frequency Applications	2011	IPC	68
225	4204A	Flexible Metal-Clad Dielectrics for Use in Fabrication of Flexible Printed Circuitry	2011	IPC	60
226	6018B	Qualification and Performance Specification for High Frequency (Microwave) Printed Boards	2011	IPC	56
227	7093	Design and Assembly Process Implementation for Bottom Termination Components	2011	IPC	124
228	7525B GERMAN	Stencil Design Guidelines	2011	IPC	36
229	7525B	Stencil Design Guidelines	2011	IPC	36
230	9202	Material and Process Characterization/Qualification Test Protocol for Assessing Electrochemical Performance	2011	IPC	20
231	9850A	Surface Mount Placement Equipment Characterization	2011	IPC	60
232	CH-65B CHINESE	NULL	2011	IPC	215
233	CH-65B	Guidelines for Cleaning of Printed Boards and Assemblies	2011	IPC	216
234	CMDD	IPC Conflict Minerals Due Diligence Guide	2011	IPC	20
235	IPC-JEDEC-9707	NULL	2011	IPC	24
236	JIG-101	Material Composition Declaration for Electrotechnical Products - Ed 4.0	2011	IPC	48
237	TM-650 2.4.3E	NULL	2011	IPC	1
238	TM-650 2.6.21B	NULL	2011	IPC	5
239	J-STD-004B AMD 1	NULL	2011	IPC	8
240	9708	NULL	2010	IPC	25
241	A-600	NULL	2010	IPC	200

242	4821 AMD 1	NULL	2010	IPC	10
243	1071	Best Industry Practices for Intellectual Property Protection in Printed Board Manufacturing	2010	IPC	24
244	1601	Printed Board Handling and Storage Guidelines	2010	IPC	28
245	1751A	Generic Requirements for Declaration Process Managemnt - Incorporates Amendment 1: November 2012	2010	IPC	44
246	1752A	Materials Declaration Management - Incorporates Amendment 1: November 2012	2010	IPC	60
247	1756	Manufacturing Process Data Management - Version 2.0	2010	IPC	36
248	2222A	Sectional Design Standard for Rigid Organic Printed Boards	2010	IPC	44
249	2611	Generic Requirements for Electronic Product Documentation	2010	IPC	36
250	2612-1	Sectional Requirements for Electronic Diagramming Symbol Generation Methodology	2010	IPC	44
251	2612	Sectional Requirements for Electronic Diagramming Documentation (Schematic and Logic Descriptions)	2010	IPC	40
252	2614	Sectional Requirements for Board Fabrication Documentation	2010	IPC	72
253	4202A	Flexible Base Dielectrics for Use in Flexible Printed Circuitry	2010	IPC	36
254	6012C	Qualification and Performance Specification for Rigid Printed Boards	2010	IPC	60
255	7351B	Generic Requirements for Surface Mount Design and Land Pattern Standard - Includes Access to Additional Content; Includes CD-ROM; Subscription customers can obtain one complimentary copy from IHS by contacting IHS Customer Care at +1 800 IHS-CARE (+1 800	2010	IPC	112
256	9631 GERMAN	Users Guide for IPC-TM-650, Method 2.6.27, Thermal Stress, Convection Reflow Assembly Simulation	2010	IPC	24
257	9631	Users Guide for IPC-TM-650, Method 2.6.27, Thermal Stress, Convection Reflow Assembly Simulation	2010	IPC	24
258	A-600H FRENCH	Acceptability of Printed Boards	2010	IPC	166
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262	A-610E HEBREW	Acceptability of Electronic Assemblies (Hebrew)	2010	IPC	420
263	A-610E HINDI	Acceptability of Electronic Assemblies (Hindi Language)	2010	IPC	420
264	A-610E HUNGARIAN	Acceptability of Electronic Assemblies (Hungarian Language)	2010	IPC	420
265	A-610E ROMANIAN	Acceptability of Electronic Assemblies	2010	IPC	420
266	A-610E	Acceptability of Electronic Assemblies	2010	IPC	420
267	J-STD-609A	NULL	2010	IPC	24
268	J-STD-001E FRENCH	NULL	2010	IPC	72
269	J-STD-001E HUNGARIAN	Requirements for Soldered Electrical and Electronic Assemblies - Hungarian	2010	IPC	76
270	J-STD-001E	Requirements for Soldered Electrical and Electronic Assemblies	2010	IPC	72
271	J-STD-001ES	Space Applications Electronic Hardware Addendum to IPC J-STD-001E Requirements for Soldered Electrical and Electronic Assemblies	2010	IPC	26
272	SM-840E	Qualification and Performance Specification of Permanent Solder Mask and Flexible Cover Materials	2010	IPC	30
273	SPVC-LAT1	ANALYTICAL PROCEDURES FOR PORTABLE LEAD-FREE ALLOY TEST DATA	2010	IPC	10
274	TM-650 2.6.28	Moisture Content and/or Moisture Absorption Rate, (Bulk) Printed Board	2010	IPC	2

275	TR-586	NULL	2009	IPC	61
276	2152	Standard for Determining Current Carrying Capacity in Printed Board Design	2009	IPC	108
277	4553A	Specification for Immersion Silver Plating for Printed Boards	2009	IPC	44
278	5704	Cleanliness Requirements for Unpopulated Printed Boards	2009	IPC	16
279	6017	Qualification and Performance Specification for Printed Boards Containing Embedded Passive Devices	2009	IPC	20
280	7094	Design and Assembly Process Implementation for Flip Chip and Die Size Components	2009	IPC	88
281	IPC-JEDEC-9703	NULL	2009	IPC	48
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283	TM-650 2.5.5.11	Propagation Delay of Lines on Printed Boards by TDR	2009	IPC	16
284	TM-650 2.5.7.2A	Dielectric Withstanding Voltage (Hipot Method) - Thin Dielectric Layers for Printed Boards	2009	IPC	3
285	TM-650 2.6.27	Thermal Stress, Convection Reflow Assembly Simulation	2009	IPC	8
286	WP-009	A Summary of Tin Whisker Research References	2009	IPC	20
287	CC-830B AMD 1	NULL	2008	IPC	5
288	4562A	Metal Foil for Printed Board Applications	2008	IPC	36
289	4781	Qualification and Performance Specification of Permanent, Semi-Permanent and Temporary Legend and/or Marking Inks	2008	IPC	28
290	4811	Specification for Embedded Passive Device Resistor Materials for Rigid and Multilayer Printed Boards	2008	IPC	32
291	9252A	Requirements for Electrical Testing of Unpopulated Printed Boards	2008	IPC	24
292	J-STD-020D.1	NULL	2008	IPC	24
293	J-STD-075	NULL	2008	IPC	20
294	J-STD-004B	Requirements for Soldering Fluxes - Incorporates Amendment 1: November 2011	2008	IPC	32
295	2316	Design Guide for Embedded Passive Device Printed Boards	2007	IPC	64
296	2582	Sectional Requirements for Implementation of Administrative Methods for Manufacturing Data Description	2007	IPC	17
297	2583	Sectional Requirements for Implementation of Design Characteristics for Manufacturing Data Description	2007	IPC	29
298	2584	Sectional Requirements for Implementation of Printed Board Fabrication Data Description	2007	IPC	44
299	2588	Sectional Requirements for Implementation of Part List Product Data Description	2007	IPC	14
300	4554	Specification for Immersion Tin Plating for Printed Circuit Boards - Incorporates Amendment 1: January 2012	2007	IPC	56
301	4563	Resin Coated Copper Foil for Printed Boards Guideline	2007	IPC	28
302	5702	Guidelines for OEMs in Determining Acceptable Levels of Cleanliness of Unpopulated Printed Boards	2007	IPC	24
303	7526	Stencil and Misprinted Board Cleaning Handbook	2007	IPC	32
304	7711B-7721B FRENCH	NULL	2007	IPC	380
305	7711B-7721B KOREAN	NULL	2007	IPC	360
306	7711B-7721B	NULL	2007	IPC	360
307	9201A	Surface Insulation Resistance Handbook	2007	IPC	100
308	9691A GERMAN	NULL	2007	IPC	32
309	9691A	User Guide for the IPC-TM-650, Method 2.6.25, Conductive Anodic Filament (CAF) Resistance Test (Electrochemical Migration Testing)	2007	IPC	32

310	9851	SMEMA Standard Mechanical Equipment Interface Standard	2007	IPC	20
311	DR-572A	Drilling Guidelines for Printed Boards	2007	IPC	32
312	TM-650 2.3.2G	Chemical Resistance of Flexible Printed Board Materials	2007	IPC	3
313	TM-650 2.3.42	Solder Mask - Resistance to Solvents and Cleaning Agents	2007	IPC	1
314	TM-650 2.3	Chemical Test Methods - Revision Y	2007	IPC	2
315	TM-650 2.4.7.1	Solder Mask - Determination of Machineability	2007	IPC	2
316	TM-650 2.4.21F	Land Bond Strength, Unsupported Component Hole	2007	IPC	2
317	TM-650 2.4.28.1F	Solder Mask Adhesion - Tape Test Method	2007	IPC	2
318	TM-650 2.4.29C	Solder Mask - Adhesion to Flexible Circuits	2007	IPC	1
319	TM-650 2.4	Mechanical Test Methods - Revision Z	2007	IPC	3
320	TM-650 2.5.5.13	Relative Permittivity and Loss Tangent Using a Split-Cylinder Resonator	2007	IPC	4
321	TM-650 2.5.6.1B	Solder Mask - Dielectric Strength	2007	IPC	1
322	TM-650 2.5	Electrical Test Methods - Revision X	2007	IPC	2
323	TM-650 2.6.1G	Fungus Resistance of Printed Board Materials	2007	IPC	3
324	TM-650 2.6.3.1E	Solder Mask - Moisture and Insulation Resistance	2007	IPC	5
325	TM-650 2.6.3.7	Surface Insulation Resistance	2007	IPC	4
326	TM-650 2.6.11D	Solder Mask - Hydrolytic Stability	2007	IPC	1
327	TM-650 2.6.14D	Solder Mask - Resistance to Electrochemical Migration	2007	IPC	4
328	TM-650 2.6	Environmental Test Methods - Revision Y	2007	IPC	2
329	TM-650	TEST METHODS MANUAL	2007	IPC	1034
330	WP-TR-584A	NULL	2007	IPC	40
331	4761	Design Guide for Protection of Printed Board Via Structures	2006	IPC	28
332	4821	Specification for Embedded Passive Device Capacitor Materials for Rigid and Multilayer Printed Boards	2006	IPC	40
333	9261A	In-Process DPMO and Estimated Yield for PCAs	2006	IPC	24
334	9591	Performance Parameters (Mechanical, Electrical, Environmental and Quality/Reliability) for Air Moving Devices	2006	IPC	28
335	9701A	Performance Test Methods and Qualification Requirements for Surface Mount Solder Attachments	2006	IPC	36
336	HDBK-005	Guide to Solder Paste Assessment	2006	IPC	60
337	HDBK-840	Solder Mask Handbook	2006	IPC	84
338	JP002	Current Tin Whiskers Theory and Mitigation Practices Guideline	2006	IPC	32
339	TM-650 2.3.41	Test Method for Total Halogen Content in Base Materials	2006	IPC	3
340	TM-650 2.4.24.6	TEST METHODS MANUAL	2006	IPC	2
341	TR-585	Time, Temperature and Humidity Stress of Final Board Finish Solderability	2006	IPC	64
342	1065	Material Declaration Handbook	2005	IPC	72
343	2546 AMD 2	Sectional Requirements for Shop-Floor Equipment Communication Messages (CAMX) for Printed Circuit Board Assembly	2005	IPC	92

344	8497-1	Cleaning Methods and Contamination Assessment for Optical Assembly	2005	IPC	48
345	J-STD-001D ROMANIAN	Requirements for Soldered Electrical and Electronic Assemblies	2005	IPC	76
346	TM-650 2.5.5.10	High Frequency Testing to Determine Permittivity and Loss Tangent of Embedded Passive Materials	2005	IPC	8
347	WP-008	Setting Up Ion Chromatography Capability	2005	IPC	16
348	1710A	OEM Standard for Printed Board Manufacturers' Qualification Profile	2004	IPC	46
349	1720A	Assembly Qualification Profile	2004	IPC	57
350	2141A	Design Guide for High-Speed Controlled Impedance Circuit Boards	2004	IPC	64
351	7912A	End-Item DPMO for Printed Circuit Board Assemblies	2004	IPC	24
352	9194	Implementation of Statistical Process Control (SPC) Applied to Printed Board Assembly Manufacture Guideline	2004	IPC	36
353	CM-770E	Guidelines for Printed Board Component Mounting	2004	IPC	164
354	D-326A	Information Requirements for Manufacturing Printed Boards and Other Electronic Assemblies	2004	IPC	20
355	IPC-JEDEC- 9702	NULL	2004	IPC	28
356	TM-650 2.1.1.2A	Microsectioning-Semi or Automatic Technique Microsection Equipment (Alternate)	2004	IPC	5
357	TM-650 2.1.1E	Microsectioning, Manual Method	2004	IPC	5
358	TM-650 2.1	Visual Test Methods - Revision K	2004	IPC	1
359	TM-650 2.3.13A	Determination of Acid Value of Liquid Solder Flux - Potentiometric and Visual Titration Methods	2004	IPC	3
360	TM-650 2.3.15D	Purity, Copper Foil or Plating	2004	IPC	2
361	TM-650 2.3.28.1	Halide Content of Soldering Fluxes and Pastes	2004	IPC	3
362	TM-650 2.3.32D	Flux Induced Corrosion (Copper Mirror Method)	2004	IPC	2
363	TM-650 2.3.33D	Presence of Halides in Flux, Silver Chromate Method	2004	IPC	2
364	TM-650 2.3.34C	Solids Content, Flux	2004	IPC	2
365	TM-650 2.3.35.1A	Fluorides by Spot Test, Fluxes - Qualitative	2004	IPC	1
366	TM-650 2.3.35.2A	Fluoride Concentration, Fluxes - Quantitative	2004	IPC	3
367	TM-650 2.3.35C	Halide Content, Quantitative (Chloride & Bromide)	2004	IPC	2
368	TM-650 2.3.38C	Surface Organic Contaminant Detection Test	2004	IPC	2
369	TM-650 2.3.39C	Surface Organic Contaminant Identification Test (Infrared Analytical Method)	2004	IPC	4
370	TM-650 2.4.1E	Adhesion, Tape Testing	2004	IPC	1
371	TM-650 2.4.14.2A	Liquid Flux Activity, Wetting Balance Method	2004	IPC	3
372	TM-650 2.4.18.1A	Tensile Strength and Elongation, In-House Plating	2004	IPC	3

373	TM-650 2.4.36C	Rework Simulation, Plated-Through Holes for Leaded Components	2004	IPC	2
374	TM-650 2.4.41.2A	Coefficient of Thermal Expansion-Strain Gage Method	2004	IPC	4
375	TM-650 2.4.46A	Spread Test, Liquid, Paste or Solid Flux, or Flux Extracted from Solder Paste, Cored Wires or Preforms	2004	IPC	2
376	TM-650 2.5.5.7A	Characteristic Impedance of Lines on Printed Boards by TDR	2004	IPC	23
377	TM-650 2.5.7D	Dielectric Withstanding Voltage, PCB	2004	IPC	2
378	TM-650 2.6.3.3B	Surface Insulation Resistance, Fluxes	2004	IPC	4
379	TM-650 2.6.3.5	Bare Board Cleanliness by Surface Insulation Resistance	2004	IPC	4
380	TM-650 2.6.3.6	Surface Insulation Resistance - Fluxes - Telecommunications	2004	IPC	3
381	TM-650 2.6.3F	Moisture and Insulation Resistance, Printed Boards	2004	IPC	4
382	TM-650 2.6.4B	Outgassing, Printed Boards	2004	IPC	2
383	TM-650 2.6.5D	Physical Shock, Multilayer Printed Wiring	2004	IPC	1
384	TM-650 2.6.7.2B	Thermal Shock, Continuity and Microsection, Printed Board	2004	IPC	3
385	TM-650 2.6.8E	Thermal Stress, Plated-Through Holes	2004	IPC	2
386	TM-650 2.6.9B	Vibration, Rigid Printed Wiring	2004	IPC	1
387	TM-650 2.6.15C	Corrosion, Flux	2004	IPC	3
388	0040	Optoelectronics Assembly and Packaging Technology	2003	IPC	176
389	2226	Sectional Design Standard for High Density Interconnect (HDI) Printed Boards	2003	IPC	60
390	2251	Design Guide for the Packaging of High Speed Electronic Circuits	2003	IPC	100
391	2501	Definition for Web-Based Exchange of XML Data (Message Broker)	2003	IPC	36
392	4411A	Specification and Characterization Methods for Nonwoven Para-Aramid Reinforcement	2003	IPC	32
393	5701	Users Guide for Cleanliness of Unpopulated Printed Boards	2003	IPC	12
394	8413-1	Specification for Process Carriers Used to Handle Optical Fibers in Manufacturing	2003	IPC	28
395	J-STD-027	Mechanical Outline Standard for Flip Chip and Chip Size Configurations	2003	IPC	20
396	SPVC-WP-006	ROUND ROBIN TESTING AND ANALYSIS LEAD-FREE ALLOYS TIN, SILVER and COPPER	2003	IPC	25
397	TM-650 1.2A	Calibration	2003	IPC	1
398	TM-650 1.6A	Numerical Reporting	2003	IPC	1
399	TM-650 1.7A	Reporting, Invalid Test Results	2003	IPC	1
400	TM-650 1.8 GUIDE	Measurement Precision Calculator Users Guide For Use with Test Method 1.8, Measurement Systems Analysis for Binary Data	2003	IPC	5
401	TM-650 1.8A	Measurement Precision Estimation for Binary Data	2003	IPC	6
402	TM-650 1.9 GUIDE	Measurement Precision Calculator Users Guide For Use with Test Method 1.9, Measurement Systems Analysis for Variables Data	2003	IPC	10
403	TM-650 1.9A	Measurement Precision Estimation for Variables Data	2003	IPC	10
404	TM-650 2.6.3.4A	Moisture and Insulation Resistance - Conformal Coating	2003	IPC	2
405	2252	Design Guide for RF/Microwave Circuit Boards	2002	IPC	40

406	2511B	Generic Requirements for Implementation of Product Manufacturing Description Data and Transfer MXL Schema Methodology	2002	IPC	182
407	2547	Sectional Requirements for Shop-Floor Equipment Communication Messages (CAMX) for Printed Circuit Board Test, Inspection and Rework	2002	IPC	56
408	9199	Statistical Process Control (SPC) Quality Rating	2002	IPC	52
409	CC-830B	Qualification and Performance of Electrical Insulating Compound for Printed Wiring Assemblies - Incorporates Amendment 1: October 2008	2002	IPC	24
410	D-356B	Bare Substrate Electrical Test Data Format	2002	IPC	72
411	J-STD-032	Performance Standard for Ball Grid Array Balls	2002	IPC	20
412	TR-583	An In-Depth Look At Ionic Cleanliness Testing	2002	IPC	231
413	2541	Generic Requirements for Electronics Manufacturing Shop-Floor Equipment Communication Messages (CAMX)	2001	IPC	175
414	2546	Sectional Requirements for Shop-Floor Equipment Communication Messages (CAMX) for Printed Circuit Board Assembly - Incorporates Amendment 1: January 2003	2001	IPC	114
415	2571	Generic Requirements for Electronics Manufacturing Supply Chain Communication - Product Data eXchange (PDX)	2001	IPC	43
416	2576	Sectional Requirements for Electronics Manufacturing Supply Chain Communication of As-Built Product Data - Product Data eXchange (PDX)	2001	IPC	14
417	2578	Sectional Requirements for Supply Chain Communication of Bill of Material and Product Design Configuration Data - Product Data eXchange (PDX)	2001	IPC	34
418	7530	Guidelines for Temperature Profiling for Mass Soldering Processes (Reflow & Wave)	2001	IPC	26
419	TR-486	Report on Round Robin Study to Correlate Interconnect Stress Test (IST) with Thermal Stress/Microsectioning Evaluations for Detecting the Presence of Inner-Layer Separations	2001	IPC	56
420	1131	Information Technology (IT) Guide for PWB Manufacturers	2000	IPC	20
421	1331	Voluntary Safety Standard for Electrically Heated Process Equipment	2000	IPC	14
422	1730A	Laminator Qualification Profile	2000	IPC	38
423	1731	Strategic Raw Materials Supplier Qualification Profile	2000	IPC	36
424	2512A	Sectional Requirements for Implementation of Administrative Methods for Manufacturing Data Description [ADMIN]	2000	IPC	18
425	2513A	Sectional Requirements for Implementation of Drawing Methods for Manufacturing Data Description [DRAWG]	2000	IPC	26
426	2514A	Sectional Requirements for Implementation of Printed Board Fabrication Data Description [BDFAB]	2000	IPC	23
427	2515A	Sectional Requirements for Implementation of Bare Board Product Electrical Testing Data Description [BDTST]	2000	IPC	20
428	2516A	Sectional Requirements for Implementation of Assembled Board Product Manufacturing Data Description [BDASM]	2000	IPC	19
429	2517A	Sectional Requirements for Implementation of Assembly In-Circuit Testing Data Description [ASEMT]	2000	IPC	24
430	2518A	Sectional Requirements for Implementation of Part List Product Data Description [PTLST]	2000	IPC	18
431	2615	Printed Board Dimensions and Tolerances	2000	IPC	76
432	4121	Guidelines for Selecting Core Constructions for Multilayer Printed Wiring Board Applications	2000	IPC	20
433	9251	Test Vehicles for Evaluating Fine Line Capability	2000	IPC	4
434	IPC-JPCA-2315	NULL	2000	IPC	40
435	IPC-JPCA-6801	NULL	2000	IPC	41
436	TM-650 2.3.25.1	Ionic Cleanliness Testing of Bare PWBs	2000	IPC	4
437	TM-650 2.4.5.1	Flexibility - Conformal Coating	2000	IPC	1
438	TM-650 2.6.11.1	Hydrolytic Stability - Conformal Coating	2000	IPC	2
439	2524	PWB Fabrication Data Quality Rating System	1999	IPC	19
440	2531	SMEMA Standard Recipe File Format Specification	1999	IPC	132

441	6016	Qualification and Performance Specification for High Density Interconnect (HDI) Layers or Boards	1999	IPC	28
442	9191	General Guidelines for Implementation of Statistical Process Control (SPC)	1999	IPC	52
443	9502	PWB Assembly Soldering Process Guideline for Electronic Components	1999	IPC	23
444	IPC ENVIRONMENT	Printed Circuit Board Industry an Environmental Best Practice Guide	1999	IPC	112
445	IPC-EIA J-STD-026	NULL	1999	IPC	48
446	IPC-EIA J-STD-028	NULL	1999	IPC	36
447	J-STD-035	NULL	1999	IPC	20
448	IPC-JPCA-4104	NULL	1999	IPC	58
449	IPC-JPCA-6202	NULL	1999	IPC	107
450	QE-605A	Printed Board Quality Evaluation Handbook	1999	IPC	56
451	TM-650 2.4.22C	Bow and Twist (Percentage)	1999	IPC	5
452	2224	Sectional Standard for Design of PWBs for PC Cards	1998	IPC	31
453	2225	Sectional Design Standard for Organic Multichip Modules (MCM-L) and MCM-L Assemblies	1998	IPC	32
454	4110	Specification and Characterization Methods for Nonwoven Cellulose Based Paper for Printed Boards	1998	IPC	23
455	4130	Specification and Characterization Methods for Nonwoven "E" Glass Mat	1998	IPC	23
456	6015	Qualification and Performance Specification for Organic Multichip Module (MCM-L) Mounting and Interconnecting Structures	1998	IPC	32
457	9504	Assembly Process Simulation for Evaluation of Non-IC Components (Preconditioning Non-IC Components)	1998	IPC	27
458	FC-234	PSA Assembly Guidelines for Single-Sided and Double-Sided Flexible Printed Circuits	1998	IPC	31
459	TA-724	Technology Assessment Series on Cleanrooms	1998	IPC	197
460	TM-650 2.0	Printed Wiring Board Test Methods	1998	IPC	1
461	TM-650 2.2.4C	Dimensional Stability, Flexible Dielectric Materials	1998	IPC	2
462	TM-650 2.2.21	Planarity of Dielectrics for High Density Interconnection (HDI)/Microvia Technology	1998	IPC	4
463	TM-650 2.3.10.1	Flammability of Soldermask on Printed Wiring Laminate	1998	IPC	4
464	TM-650 2.3.17.1B	Resin Flow of Adhesive Coated Films and Unsupported Adhesive Films	1998	IPC	1
465	TM-650 2.3.37B	Volatile Content of Adhesive Coated Dielectric Films	1998	IPC	3
466	TM-650 2.4.9.1	Peel Strength of Flexible Circuits	1998	IPC	1
467	TM-650 2.4.9.2	Bonding Process	1998	IPC	2
468	TM-650 2.4.13F	Solder Float Resistance Flexible Printed Wiring Materials	1998	IPC	1
469	TM-650 2.4.19C	Tensile Strength and Elongation, Flexible Printed Wiring Materials	1998	IPC	2
470	TM-650 2.4.24.4	Glass Transition and Modulus of Materials Used in High Density Interconnection (HDI) and Microvias - DMA Method	1998	IPC	5
471	TM-650 2.4.24.5	Glass Transition Temperature and Thermal Expansion of Materials Used in High Density Interconnection (HDI) and Microvias - TMA Method	1998	IPC	5

472	TM-650 2.4.42.2	Die Shear Strength	1998	IPC	2
473	TM-650 2.4.42.3	Wire Bond Pull Strength	1998	IPC	3
474	TM-650 2.5.5.5.1	Stripline Test for Complex Relative Permittivity of Circuit Board Materials to 14 GHz	1998	IPC	11
475	TM-650 2.5.5.5C	Stripline Test for Permittivity and Loss Tangent (Dielectric Constant and Dissipation Factor) at X-Band	1998	IPC	25
476	TM-650 2.5.5.9	Permittivity and Loss Tangent, Parallel Plate, 1 MHz to 1.5 GHz	1998	IPC	5
477	TM-650 2.5.10.1	Insulation Resistivity for Adhesive Interconnection Bonds	1998	IPC	2
478	TM-650 2.5.17.2	Volume Resistivity of Conductive Materials Used in High Density Interconnection (HDI) and Microvias, Two-Wire Method	1998	IPC	3
479	TM-650 2.5.17E	Volume Resistivity and Surface Resistance of Printed Wiring Materials	1998	IPC	2
480	TM-650 2.5.33.1	Measurement of Electrical Overstress from Soldering Hand Tools - Ground Measurements	1998	IPC	3
481	TM-650 2.5.33.2	Measurement of Electrical Overstress from Soldering Hand Tools - Transient Measurements	1998	IPC	4
482	TM-650 2.5.33.3	Measurement of Electrical Overstress from Soldering Hand Tools - Current Leakage Measurements	1998	IPC	3
483	TM-650 2.5.33.4	Measurement of Electrical Overstress from Soldering Hand Tools - Shielded Enclosure	1998	IPC	3
484	TM-650 2.5.33	Measurement of Electrical Overstress from Soldering Hand Tools	1998	IPC	5
485	TM-650 2.6.16.1	Moisture Resistance of High Density Interconnection (HDI) Materials Under High Temperature and Pressure (Pressure Vessel)	1998	IPC	2
486	TM-650 2.6.24	Junction Stability Under Environmental Conditions	1998	IPC	3
487	TP-1114	Laymans ¹ s Guide to Qualifying a Process to J-STD-001B	1998	IPC	14
488	TP-1115	Selection and Implementation Strategy for a Low-Residue No-Clean Process	1998	IPC	116
489	CF-152B	Composite Metallic Material Specification for Printed Wiring Board	1997	IPC	33
490	PE-740A	Troubleshooting for Printed Board Manufacture and Assembly	1997	IPC	0
491	QL-653A	Certification of Facilities That Inspect/Test Printed Boards, Components and Materials	1997	IPC	28
492	SMC-WP-004	Design for Success	1997	IPC	88
493	SMC-WP-005	PWB Surface Finishes	1997	IPC	49
494	TM-650 2.2.1A	Mechanical Dimensional Verification	1997	IPC	1
495	TM-650 2.2.2B	Optical Dimensional Verification	1997	IPC	1
496	TM-650 2.2.5A	Dimensional Inspections Using Microsections	1997	IPC	1
497	TM-650 2.3.24.2A	Porosity of Metallic Coatings on Copper-Base Alloys and Nickel (Nitric Acid Vapor Test)	1997	IPC	2
498	TM-650 2.5.3B	Current Breakdown, Plated Through-Holes	1997	IPC	1
499	TR-476A	Electrochemical Migration: Electrically Induced Failures in Printed Wiring Assemblies	1997	IPC	22
500	3406	Guidelines for Electrically Conductive Surface Mount Adhesives	1996	IPC	23
501	3408	General Requirements for Anisotropically Conductive Adhesive Films	1996	IPC	21
502	6011	Generic Performance Specification for Printed Boards	1996	IPC	23
503	A-311	Process Controls for Phototool Generation and Use	1996	IPC	18

504	D-279	Design Guidelines for Reliable Surface Mount Technology Printed Board Assemblies	1996	IPC	146
505	TP-1090	Layman's Guide to Qualifying New Fluxes for MIL-STD-2000A or MT-0002	1996	IPC	32
506	TR-465-3	Evaluation of Steam Aging on Alternative Finishes Round Robin Test Program Phase IIA	1996	IPC	21
507	TR-467	Supporting Data and Numerical Examples for ANSI/J-STD-001B: Appendix D (Control of Fluxes)	1996	IPC	22
508	9501	PWB Assembly Process Simulation for Evaluation of Electronic Components	1995	IPC	24
509	CA-821	General Requirements for Thermally Conductive Adhesives	1995	IPC	17
510	D-325A	Documentation Requirements for Printed Boards, Assemblies and Support Drawings	1995	IPC	102
511	D-355	Printed Board Assembly Description in Digital Form	1995	IPC	40
512	DW-424	General Specification for Encapsulated Discrete Wire Interconnection Board	1995	IPC	43
513	TM-650 2.2.14	Solder Powder Particle Size Distribution - Screen Method for Types 1-4	1995	IPC	2
514	TM-650 2.2.20	Solder Paste Metal Content by Weight	1995	IPC	2
515	TM-650 2.3.27.1	Rosin Flux Residue Analysis - HPLC Method	1995	IPC	3
516	TM-650 2.3.27	Cleanliness Test - Residual Rosin	1995	IPC	5
517	TM-650 2.3.34.1B	Percentage of Flux on/in Flux-Coated and/or Flux-Cored Solder	1995	IPC	1
518	TM-650 2.3.40	Thermal Stability	1995	IPC	1
519	TM-650 2.4.1.5A	Determination of Treatment Transfer	1995	IPC	2
520	TM-650 2.4.1.6	Adhesion, Polymer Coating	1995	IPC	2
521	TM-650 2.4.18.3	Tensile Strength, Elongation, and Modulus	1995	IPC	3
522	TM-650 2.4.22.2	Substrate Curvature: Silicon Wafers with Deposited Dielectrics	1995	IPC	2
523	TM-650 2.4.24.2	Glass Transition Temperature of Organic Films - DMA Method	1995	IPC	2
524	TM-650 2.4.24.3	Glass Transition Temperature of Organic Films - TMA Method	1995	IPC	2
525	TM-650 2.4.27.1B	Abrasion (Taber Method) Solder Mask and Conformal Coating	1995	IPC	1
526	TM-650 2.4.34.1	Solder Paste Viscosity - T-Bar Spindle Method (Applicable at Less Than 300,000 Centipoise)	1995	IPC	2
527	TM-650 2.4.34.2	Solder Paste Viscosity - Spiral Pump Method (Applicable for 300,000 to 1,600,000 Centipoise)	1995	IPC	2
528	TM-650 2.4.34.3	Solder Paste Viscosity - Spiral Pump Method (Applicable at Less Than 300,000 Centipoise)	1995	IPC	2
529	TM-650 2.4.34.4	Paste Flux Viscosity - T-Bar Spindle Method	1995	IPC	1
530	TM-650 2.4.34	Solder Paste Viscosity - T-Bar Spin Spindle Method (Applicable for 300,000 to 1,600,000 Centipoise)	1995	IPC	2
531	TM-650 2.4.35	Solder Paste - Slump Test	1995	IPC	3
532	TM-650 2.4.41.3	In-Plane Coefficient of Thermal Expansion, Organic Films	1995	IPC	2
533	TM-650 2.4.41.4	Volumetric Thermal Expansion Polymer Coatings on Inorganic Substrates	1995	IPC	1
534	TM-650 2.4.43	Solder Paste - Solder Ball Test	1995	IPC	3

535	TM-650 2.4.44	Solder Paste - Tack Test	1995	IPC	1
536	TM-650 2.4.45	Solder Paste - Wetting Test	1995	IPC	1
537	TM-650 2.4.47	Flux Residue Dryness	1995	IPC	2
538	TM-650 2.4.48	Spitting of Flux-Cored Wire Solder	1995	IPC	2
539	TM-650 2.4.49	Solder Pool Test	1995	IPC	2
540	TM-650 2.4.50	Thermal Conductivity, Polymer Films	1995	IPC	1
541	TM-650 2.4.51	Self Shimming Thermally Conductive Adhesives	1995	IPC	1
542	TM-650 2.5.5.8	Low Frequency Dielectric Constant and Loss Tangent, Polymer Films	1995	IPC	5
543	TM-650 2.6.9.1	Test to Determine Sensitivity of Electronic Assemblies to Ultrasonic Energy	1995	IPC	5
544	TM-650 2.6.9.2	Test to Determine Sensitivity of Electronic Components to Ultrasonic Energy	1995	IPC	4
545	TR-466	Wetting Balance Standard Weight Comparison Test	1995	IPC	16
546	CI-408	Solderless Surface Mount Connector Design Characteristics and Application Guidelines	1994	IPC	41
547	ML-960	Qualification and Performance Specification for Mass Laminated Panels for Multilayer Printed Boards	1994	IPC	29
548	TM-650 2.1.6.1	Weight of Fabric Reinforcements	1994	IPC	1
549	TM-650 2.1.7C	Thread Count of Glass Fabric	1994	IPC	1
550	TM-650 2.1.8B	Workmanship	1994	IPC	1
551	TM-650 2.1.10A	Visual Inspection for Undissolved Dicyandiamide	1994	IPC	3
552	TM-650 2.2.18.1	Determination of Thickness of Metallic Clad Laminates, Cross- Sectional	1994	IPC	1
553	TM-650 2.2.18	Determination of Thickness of Laminates by Mechanical Measurement	1994	IPC	2
554	TM-650 2.2.19.1	Length, Width and Perpendicularity of Laminate and Prepreg Panels	1994	IPC	1
555	TM-650 2.3.7.2A	Alkaline Etching Method	1994	IPC	2
556	TM-650 2.3.10B	Flammability of Laminate	1994	IPC	3
557	TM-650 2.3.16.2	Treated Weight of Prepreg	1994	IPC	2
558	TM-650 2.3.16B	Resin Content of Prepreg, by Burn-Off	1994	IPC	1
559	TM-650 2.4.4.1A	Flexural Strength of Laminates (at Elevated Temperature)	1994	IPC	2
560	TM-650 2.4.4B	Flexural Strength of Laminates (at Ambient Temperature)	1994	IPC	2
561	TM-650 2.4.8.2A	Peel Strength of Metallic Clad Laminates at Elevated Temperature (Hot Fluid Method)	1994	IPC	3
562	TP-1113	Circuit Board Ionic Cleanliness Measurement: What Does It Tell Us?	1994	IPC	8
563	TR-581	IPC Phase 3 Controlled Atmosphere Soldering Study	1994	IPC	96
564	TR-582	Cleaning and Cleanliness Testing Program Test Results for: Phase 3 - Low Solids Fluxes and Pastes Processed in Ambient Air	1994	IPC	166
565	MS-810	Guidelines for High Volume Microsection	1993	IPC	42
566	OI-645	Standard for Visual Optical Inspection Aids	1993	IPC	51
567	S-816	SMT Process Guideline and Checklist	1993	IPC	46
568	SMC-WP-003	Chip Mounting Technology (CMT)	1993	IPC	35

569	TM-650 2.4.22.1C	Bow and Twist - Laminate	1993	IPC	2
570	TM-650 2.4.37.2	Evaluation of Hand Soldering Tools on Heavy Thermal Loads	1993	IPC	4
571	TM-650 2.6.23	Test Procedure for Steam Ager Temperature Repeatability	1993	IPC	3
572	TR-465-1	Round Robin Test on Steam Ager Temperature Control Stability	1993	IPC	21
573	TR-465-2	Effect of Steam Aging Time and Temperature on Solderability Test Results	1993	IPC	54
574	TR-551	Quality Assessment of Printed Boards Used for Mounting and Interconnecting Electronic Components	1993	IPC	126
575	D-330	Design Guide Manual	1992	IPC	645
576	D-350D	Printed Board Description in Digital Form	1992	IPC	83
577	FA-251	Assembly Guidelines for Single-Sided and Double- Sided Flexible Printed Circuits	1992	IPC	44
578	MC-790	Guidelines for Multichip Module Technology Utilization	1992	IPC	139
579	QF-143	Specification for Finished Fabric Woven from Quartz (Pure Fused Silica) for Printed Boards	1992	IPC	20
580	SG-141	Specification for Finished Fabric Woven from "S" Glass for Printed Boards	1992	IPC	20
581	SM-785	Guidelines for Accelerated Reliability Testing of Surface Mount Solder Attachments	1992	IPC	58
582	D-310C	Guidelines for Phototool Generation and Measurement Techniques	1991	IPC	86
583	SMC-WP-001	Soldering Capability	1991	IPC	38
584	TA-723	Technology Assessment of Surface Mounting	1991	IPC	453
585	TM-650 2.4.3.2C	Flexural Fatigue and Ductility, Flexible Metal-Clad Dielectrics	1991	IPC	3
586	TM-650 2.4.12A	Solderability, Edge Dip Method	1991	IPC	3
587	TM-650 2.4.37A	Evaluation of Hand Soldering Tools for Terminal Connections	1991	IPC	2
588	TM-650 2.6.8.1	Thermal Stress, Laminate	1991	IPC	1
589	TR-485	Results of Copper Foil Rupture Strength Test Round Robin Study	1991	IPC	30
590	A-142	Specification for Finished Fabric Woven from Aramid for Printed Boards	1990	IPC	17
591	C-406	Design and Application Guidelines for Surface Mount Connectors	1990	IPC	48
592	DW-425A	Design and End Product Requirements for Discrete Wiring Boards	1990	IPC	53
593	MB-380	Guidelines for Molded Interconnection Devices	1990	IPC	37
594	SM-784	Guidelines for Chip-on- Board Technology Implementation	1990	IPC	53
595	TM-650 2.4.8.4	Carrier Release, Thin Copper	1990	IPC	1
596	TA-722		1990	IPC	479
597	D-859	Design Standard for Thick Film Multilayer Hybrid Circuits	1989	IPC	88
598	SM-817	General Requirements for Dielectric Surface Mounting Adhesives	1989	IPC	0
599	SMC-TR-001	Introduction to Tape Automated Bonding & Fine Pitch Technology	1989	IPC	73
600	TF-870	Qualification and Performance of Polymer Thick Film Printed Boards	1989	IPC	30
601	TM-650 2.5.5.6	Non-Destructive Full Sheet Resonance Test for Permittivity of Clad Laminates	1989	IPC	12
602	TR-580	Cleaning and Cleanliness Test Program Phase 1 Test Results	1989	IPC	114
603	D-390A	Automated Design Guidelines	1988	IPC	62
604	SM-780	Component Packaging and Interconnecting with Emphasis on Surface Mounting	1988	IPC	168
605	TA-721	Technology Assessment of Multilayer Boards	1988	IPC	720
606	TM-650 2.3.8.1	Flammability of Flexible Printed Wiring	1988	IPC	1

607	TM-650 2.3.23.1A	Cure (Permanency) UV Initiated Dry Film Solder Masks	1988	IPC	2
608	TM-650 2.6.3.2B	Insulation and Moisture Resistance, Flexible Base Dielectric	1988	IPC	4
609	TR-579	Round Robin Reliability Evaluation of Small Diameter Plated Through Holes in Printed Wiring Boards	1988	IPC	90
610	D-354	Library Format Description for Printed Boards in Digital Form	1987	IPC	51
611	DW-426	Specifications for Assembly of Discrete Wiring	1987	IPC	31
612	HM-860	Specification for Multilayer Hybrid Circuits	1987	IPC	35
613	TM-650 2.2.12.1	Overall Thickness and Profile Factor of Copper Foils Treated and Untreated	1987	IPC	2
614	TM-650 2.4.1.4	Adhesion, Overglaze (Hybrid Circuits)	1987	IPC	1
615	TM-650 2.4.40	Inner Layer Bond Strength of Multilayer Printed Circuit Boards	1987	IPC	1
616	TM-650 2.5.5.2A	Dielectric Constant and Dissipation Factor of Printed Wiring Board Material - Clip Method	1987	IPC	2
617	TM-650 2.5.31	Current Leakage (Through Overglaze Films)	1987	IPC	1
618	TM-650 2.5.32	Resistance Test, Plated Through Holes	1987	IPC	2
619	TR-462	Solderability Evaluation of Printed Boards with Protective Coatings over a Long Term Storage	1987	IPC	74
620	TA-720	Technology Assessment of Laminates	1986	IPC	426
621	TM-650 2.1.9	Surface Scratch Examination Metal-Clad Foil	1986	IPC	1
622	TM-650 2.2.7A	Hole Size Measurement, Plated	1986	IPC	1
623	TM-650 2.3.1.1B	Chemical Cleaning of Metal Clad Laminate	1986	IPC	1
624	TM-650 2.3.4.3	Chemical Resistance of Core Materials to Methylene Chloride	1986	IPC	1
625	TM-650 2.3.18A	Gel Time for Prepreg Materials	1986	IPC	1
626	TM-650 2.4.30	Impact Resistance, Polymer Film	1986	IPC	1
627	TM-650 2.4.32A	Fold Temperature Testing, Flexible Flat Cable	1986	IPC	1
628	TM-650 2.4.39A	Dimensional Stability, Glass Reinforced Thin Laminates	1986	IPC	3
629	TM-650 2.4.41	Coefficient of Linear Thermal Expansion of Electrical Insulating Materials	1986	IPC	3
630	TM-650 2.5.1B	Arc Resistance of Printed Wiring Material	1986	IPC	2
631	TM-650 2.5.5.1B	Permittivity (Dielectric Constant) and Loss Tangent (Dissipation Factor) of Insulating Material at 1 MHz (Contacting Electrode Systems)	1986	IPC	5
632	TM-650 2.5.6.3	Dielectric Breakdown Voltage and Dielectric Strength	1986	IPC	3
633	TM-650 2.5.6B	Dielectric Breakdown of Rigid Printed Wiring Material	1986	IPC	3
634	TR-484	Results of IPC Copper Foil Ductility Round Robin Study	1986	IPC	26
635	NC-349	Computer Numerical Control Formatting for Drillers and Routers	1985	IPC	16
636	TM-650 2.5.25A	Dielectric Withstand Voltage Flexible Flat Cable	1985	IPC	1
637	D-322	Guidelines for Selecting Printed Wiring Board Sizes Using Standard Panel Sizes	1984	IPC	14
638	MI-660	Guidelines for Incoming Inspection of Printed Board Materials	1984	IPC	0
639	TM-650 2.5.18B	Characteristic Impedance Flat Cables (Unbalanced)	1984	IPC	4

640	TM-650 2.5.19A	Propagation Delay of Flat Cables Using Time Domain Reflectometer	1984	IPC	3
641	TR-460A	Trouble Shooting Checklist for Wave Soldering of Printed Wiring Boards	1984	IPC	17
642	TR-464	Accelerated Aging for Solderability Evaluations - Incorporates Addendum: December 1987	1984	IPC	26
643	TR-483	Dimensional Stability Testing of Thin Laminates - Incorporates Addendum II: March 1991	1984	IPC	132
644	TR-578	Leading Edge Manufacturing Technology Report Results of a Round Robin Study on Minimum Conductor Width and Plated-Through Holes in Rigid, Bare Copper, Double Sided Printed Wiring Boards	1984	IPC	100
645	D-422	Design Guide for Press Fit Rigid Printed Board Backplanes	1982	IPC	27
646	TM-650 2.3.8A	Flammability, Flexible Insulating Materials	1982	IPC	7
647	TM-650 2.4.16A	Initiation Tear Strength, Flexible Insulating Materials	1982	IPC	2
648	TR-481	Results of Multilayer Test Program Round Robin V	1981	IPC	90
649	TM-650 2.4.14.1	Solderability, Wave Solder Method	1979	IPC	3
650	TR-461	Solderability Evaluation of Thick and Thin Fused Coatings	1979	IPC	34
651	TR-468	Factors Affecting Insulation Resistance Performance of Printed Boards	1979	IPC	70
652	TM-650 2.3.3A	Chemical Resistance of Insulated Materials	1978	IPC	1
653	TM-650 2.3.24	Porosity of Gold Plating (Chemical Method)	1978	IPC	2
654	TM-650 2.1.2A	Pinhole Evaluation, Dye Penetration Method	1976	IPC	1
655	TM-650 2.2.12A	Thickness of Copper by Weight	1976	IPC	1
656	TM-650 2.4.2A	Ductility of Copper Foil	1976	IPC	1
657	TM-650 2.4.15A	Surface Finish, Metal Foil	1976	IPC	1
658	TM-650 2.5.14A	Resistivity of Copper Foil	1976	IPC	3
659	TR-482	New Developments in Thin Copper Foils	1976	IPC	54
660	TM-650 2.3.6A	Etching Ammonium Persulfate Method	1975	IPC	1
661	TM-650 2.3.7A	Etching Ferric Chloride Method	1975	IPC	1
662	TM-650 2.4.7A	Machinability, Printed Wiring Materials	1975	IPC	1
663	TM-650 2.5.2A	Capacitance of Insulating Materials	1975	IPC	1
664	TM-650 2.5.5A	Dielectric Constant of Printed Wiring Materials	1975	IPC	1
665	TR-470	Thermal Characteristics of Multilayer Interconnection Boards	1974	IPC	26
666	TM-650 2.4.5	Folding Endurance, Flexible Printed Wiring Materials	1973	IPC	1
667	TM-650 2.4.6	Hot Oil	1973	IPC	1
668	TM-650 2.4.11	Shear Strength Flexible Dielectric Materials	1973	IPC	1
669	TM-650 2.4.14	Solderability of Metallic Surfaces	1973	IPC	1
670	TM-650 2.5.4	Current Carrying Capacity, Multilayer Printed Wiring	1973	IPC	1
671	TM-650 2.5.12	Interconnection Resistance, Multilayer Printed Wiring	1973	IPC	1
672	4202A- AMD 2	NULL	0	IPC	1
673	2141A ERRATE	NULL	0	IPC	4
674	1752A ERRATE	NULL	0	IPC	2

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