

# **IPC-6018CS**

**2016 - July**

**Space and Military Avionics  
Applications Addendum to  
IPC-6018C Qualification and  
Performance Specification for  
High Frequency (Microwave)  
Printed Boards**

*An international standard developed by IPC*

*Association Connecting Electronics Industries*



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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

**Standards Should Not:**

- Inhibit innovation
- Increase time-to-market
- Keep people out
- Increase cycle time
- Tell you how to make something
- Contain anything that cannot be defended with data

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Applications Addendum to  
IPC-6018C *Qualification and  
Performance Specification  
for High Frequency  
(Microwave) Printed Boards***

Developed by the High Speed/High Frequency Board Performance  
Subcommittee (D-22) of the High Speed/High Frequency Committee  
(D-22) of IPC

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

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## Acknowledgment

Any document involving a complex technology draws material from a vast number of sources across many continents. While the principal members of the High Speed/High Frequency Board Performance Subcommittee (D-22) of the High Speed/High Frequency Committee (D-20) are shown below, it is not possible to include all of those who assisted in the evolution of this standard. To each of them, the members of the IPC extend their gratitude.

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## Space and Military Avionics Applications Addendum to IPC-6018C *Qualification and Performance Specification for High Frequency (Microwave) Printed Boards*

**0.1 Scope** This addendum provides requirements to be used in addition to, and in some cases, in place of, those published in IPC-6018C to ensure the reliability of printed boards that must survive the vibration, ground testing, and thermal cycling environments of space and military avionics.

**0.1.1 Purpose** When required by procurement documentation/drawings, this Addendum replaces specifically identified requirements of IPC-6018C. Specify space applications when required.

**0.1.2 Precedence** The procurement documentation takes precedence over this Addendum and referenced standards. In the event of a conflict between this Addendum and the applicable documents cited herein, this Addendum takes precedence. Where referenced criteria of this addendum differ from the published IPC-6018C, this Addendum takes precedence.

**0.1.3 Existing or Previously Approved Designs** This Addendum **shall not** constitute the sole cause for the redesign of previously approved designs. When drawings for existing or previously approved designs undergo revision, they should be reviewed and changes made that allow for compliance with the requirements of this Addendum.

**0.1.4 Use of this Addendum** This addendum **shall not** be used as a stand-alone document.

Where criteria are not supplemented, the Class 3 requirements of IPC-6018C **shall** apply. Where IPC-6018C criteria are supplemented or new criteria are added by this Addendum, the clause is listed in IPC-6018CS, Table 1, Space and Military Avionics Applications Requirements, and the entire IPC-6018C clause and its associated Table 4-3 entry is replaced by this Addendum except as specifically noted.

The clauses modified by this Addendum do not include subordinate clauses unless specifically stated (i.e., changes made to 3.5 do not affect 3.5.1 unless 3.5.1 is also addressed in this Addendum.)

**0.1.5 Superseded Specifications** This addendum supersedes and replaces IPC-6018B Appendix A and its collection of supplemental requirements previously referred to as Class 3/A.