IEC 61189-2-719

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 2-719: Test methods for materials for interconnection structures – Relative permittivity and loss tangent (500 MHz to 10 GHz)

Méthode d'essai pour les matériaux électriques, les cartes imprimées et autres structures d'interconnexion et ensembles – Partie 2-719: Méthodes d'essai des matériaux pour structures d'interconnexion – Permittivité relative et tangente de perte (500 MHz à 10 GHz)

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International Standard IEC 61189-2-719 has been prepared by IEC technical committee 91: Electronics assembly technology.

The text of this standard is based on the following documents:

FDIS	Report on voting
91/1366/FDIS	91/1380/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61189 series, published under the general title *Test methods for electrical materials, printed boards and other interconnection structures and assemblies*, can be found on the IEC website.

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TEST METHODS FOR ELECTRICAL MATERIALS, PRINTED BOARDS AND OTHER INTERCONNECTION STRUCTURES AND ASSEMBLIES –

Part 2-719: Test methods for materials for interconnection structures – Relative permittivity and loss tangent (500 MHz to 10 GHz)

1 Scope

This part of IEC 61189 specifies a test method of relative permittivity and loss tangent of printed board and assembly materials, expected to be determined 2 to 10 of relative permittivity and 0,001 to 0,050 of loss tangent at 500 MHz to 10 GHz.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60194, *Printed board design, manufacture and assembly - Terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60194 apply.

4 Test methods

4.1 Test specimens

4.1.1 General

The requirements with respect to test specimens are as follows.

a) Specimens shall be copper clad laminate.

b) Specimens shall be cut not less than 25 mm from the edge of the sheet.

c) A minimum of four specimens shall be tested.

4.1.2 Size

The size of each specimen shall be ((200 ± 0,5) × (50 ± 1)) mm.

4.1.3 Thickness of dielectric

The dielectric thickness of each specimen shall be 0,6 mm to 1,6 mm. Typically 0,8 mm is suitable.

4.1.4 Thickness of copper foil

The copper foil thickness of each specimen should be 0,010 mm to 0,040 mm.