



**SLOVENSKI STANDARD
SIST EN 3745-301:2004**

01-maj-2004

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 301: Attenuation

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Luft- und Raumfahrt - Faseroptische Leitungen für Luftfahrzeuge - Prüfverfahren - Teil 301: Optische Dämpfung

Série aérospatiale - Fibres et câbles optiques a usage aéronautique - Méthodes d'essais - Partie 301: Atténuation

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Ta slovenski standard je istoveten z: EN 3745-301:2002

ICS:

49.060 Štejni sistemski opremljenosti za letalske elektronske naprave in sisteme
Aerospace electric equipment and systems

SIST EN 3745-301:2004

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3745-301

June 2002

ICS 49.060

English version

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Luftfahrzeuge - Prüfverfahren - Teil 301: Optische
Dämpfung

This European Standard was approved by CEN on 1 March 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 3745-301:2002 (E)**Foreword**

This document (EN 3745-301:2002) has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2002, and conflicting national standards shall be withdrawn at the latest by December 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies procedures for the practical measurement of the attenuation and variation in attenuation of optical fibre or optical cable (both hereafter referred to as fibre). Methods A and B are intended for fibre acceptance testing and shall be performed on fibre lengths greater than 1 km. Method C is intended for attenuation measurement required during environmental and mechanical testing and shall be performed on fibre lengths less than 100 m.

2 Normative references

This European Standard incorporates by dated or undated reference provisions for other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 2591-100	Aerospace series – Elements of electrical and optical connection – Test methods – Part 100: General ¹⁾
EN 2591-601	Aerospace series – Elements of electrical and optical connection – Test methods – Part 601: Optical elements – Insertion loss
EN 2591-602	Aerospace series – Elements of electrical and optical connection – Test methods – Part 602: Optical elements – Variation of attenuation and optical discontinuity
EN 3745-100	Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 100: General ²⁾
EN 188000	General specification for optical fibres

3 Preparation of specimens

3.1 The fibre ends shall conform to the fibre end preparation criteria specified in EN 2591-100.

3.2 The length of fibre to be tested shall be in accordance with the product specification.

3.3 All other aspects of specimen preparation shall be in accordance with EN 188000 method 301, or method 302, or EN 2591-602 method A, depending on the test being performed.

4 Apparatus

4.1 The light launch system for methods A and B shall conform to the criteria specified in EN 188000. The light launch system for method C shall conform to the criteria specified in EN 2591-100.

4.2 The light detection system shall be compatible with the light launch system as discussed in EN 2591-100.

¹⁾ Published as AECMA Prestandard at the date of publication of this standard

²⁾ In preparation at the date of publication of this standard

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4.3 All other aspects of the apparatus shall be in accordance with EN 188000 method 301, EN 2591-601 method 1 or 4, or EN 2591-602 method A, depending on the method being performed.

4.4 Test conditions for attenuation or attenuation variation measurement shall be as specified in EN 3745-100 unless stated otherwise in the product specifications.

5 Methods**5.1 Method A (Cut-back technique)**

Procedure: the test method shall conform to EN 188000 method 301.

5.2 Method B (Insertion loss)

Procedure: the test method shall conform to EN 188000 method 302.

5.3 Method C (Attenuation variation)

Procedure: the test method shall conform to EN 2591-602 method A.

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