

**Aerospace series - Elements of
electrical and optical connection - Test
methods - Part 605: Optical elements;
Return loss**

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elements; Return loss

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 2591-605:2002 sisaldab Euroopa standardi EN 2591-605:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.11.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 2591-605:2002 consists of the English text of the European standard EN 2591-605:2002.</p> <p>This document is endorsed on 15.11.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard specifies a method of measuring the return loss of optical connection elements (including permanent connections) and fibre optic couplers. It shall be used together with EN 2591 00</p>	<p>Scope:</p> <p>This standard specifies a method of measuring the return loss of optical connection elements (including permanent connections) and fibre optic couplers. It shall be used together with EN 2591 00</p>
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ICS 49.060

Võtmesõnad: aerospace transport, air transport, back- scattering, electric plugs, electrical, electrical components, electrical installations, fasteners, optical elements, space transport, specification (approval), specifications, testing, testing conditions

ICS 49.060

English version

**Aerospace series - Elements of electrical and optical connection
- Test methods - Part 605: Optical elements - Return loss**

Série aérospatiale - Organes de connexion électrique et
optique - Méthodes d'essais - Partie 605: Organes optiques
- Coefficient de réflexion

Luft- und Raumfahrt - Elektrische und optische
Verbindungselemente - Prüfverfahren - Teil 605: Optische
Elemente - Rückstreuverluste

This European Standard was approved by CEN on 8 February 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.



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

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Foreword

This document (EN 2591-605:2002) 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 a method of measuring the return loss of optical connection elements (including permanent connections) and fibre optic couplers.

It shall be used together with EN 2591-100.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from 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⁾

3 Definition

For the purposes of this standard, the following definition apply :

Return loss

Ratio of reflected optical power to incident optical power.

4 Preparation of specimens

4.1 Specimens shall be fitted with normal accessories and terminated as specified in the product standard. Cavities with unterminated contacts shall have filler plugs fitted (where applicable).

If not at standard test conditions, the specimen shall be subjected to standard test conditions and stabilized at these conditions for 24 h as defined in EN 2591-100.

4.2 Unless otherwise specified in the technical specification, the following details shall be stated :

- type and length of cable/fibre;
- permitted value (in dB) of the return loss;
- coupler characteristics.

5 Apparatus

It shall comprise :

- a Light Launch System (LLS) as defined in EN 2591-100;
- a Light Detector System (LDS) as defined in EN 2591-100;
- an optical fibre Y coupler with splitting ratio $K_{i,j}$ (equipped with connectors or not) whose characteristics have been established at wavelength λ_0 under standard temperature.

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