SLOVENSKI STANDARD
SIST EN 3475-808:2004

01-maj-2004

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 808: Cross-talk

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Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 808: Nebensprechen

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 808: Diaphonie

Ta slovenski standard je istoveten z: **EN 3475-808:2002**

ICS:

49.060	Letalska in vesoljska elektriļna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 3475-808:2004 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 3475-808

June 2002

ICS 49.060

English version

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

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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

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

Ref. No. EN 3475-808:2002 E

Foreword

This document (EN 3475-808:2002) 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of an identical text or by endorsement, at the latest by December 2002, and conflicting national standards shall be withdrawn at the latest by December 2002.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 methods for measuring the cross-talk of a cable (multicore cables).

It shall be used together with EN 3475-100.

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 3475-100 Aerospace series – Cables, electrical, aircraft use – Test methods – Part 100: General

3 Preparation of specimens

These shall be stripped, prepared and connected to the measuring devices.

4 Methods

Unless otherwise indicated in the product standard, the measurement shall be taken on a 10 m cable section, connected as shown in figures 1 and 2.

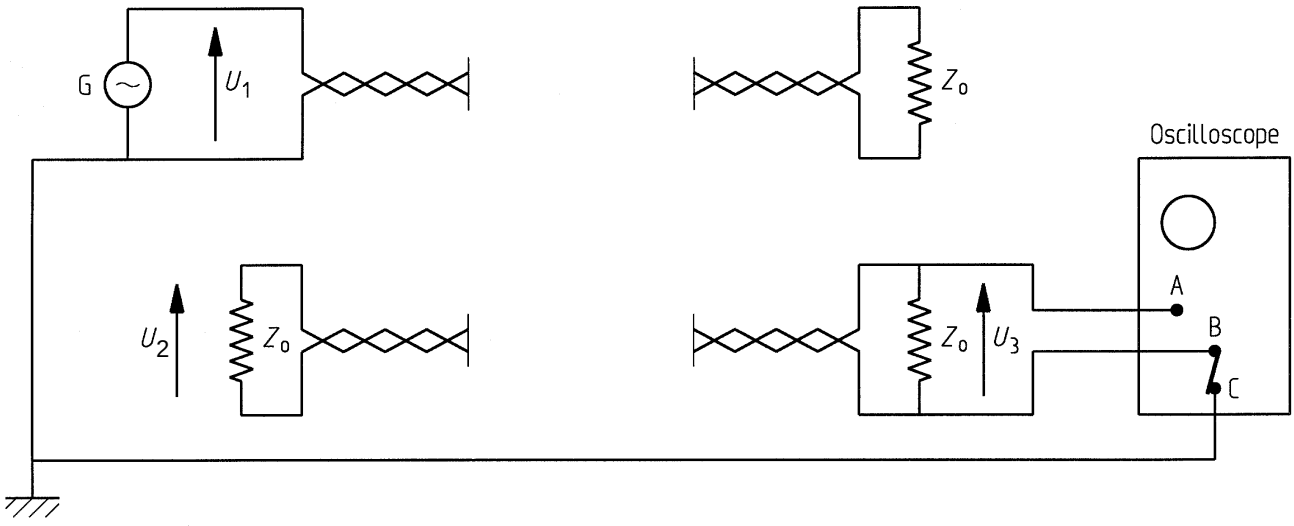

Figure 1 – Cross-talk measurement – Measurement in asymmetric mode

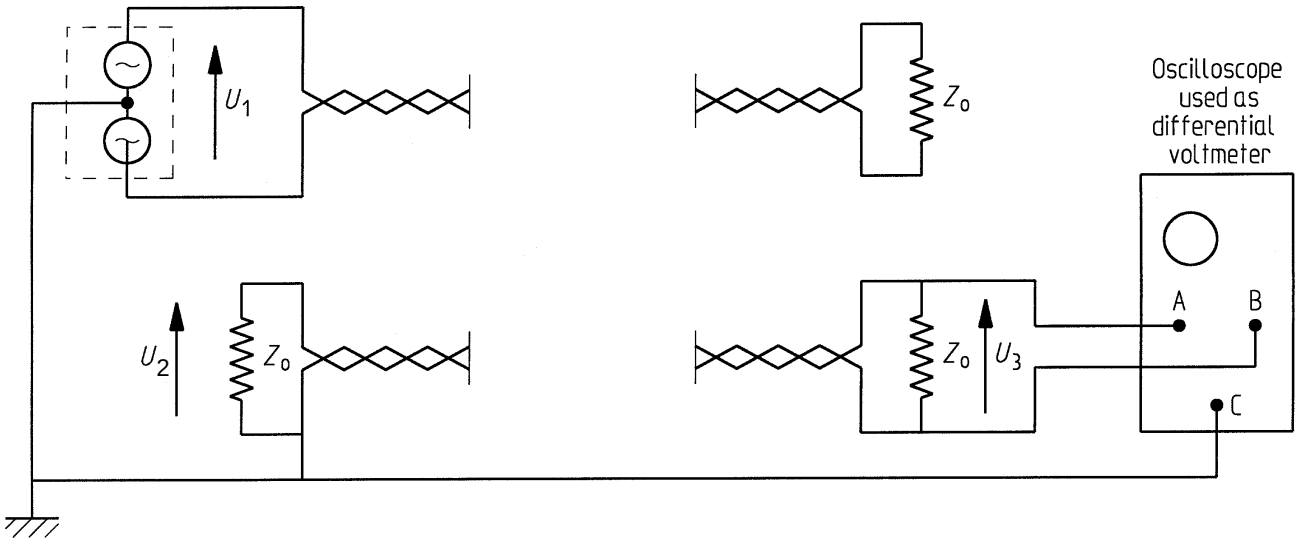

Figure 2 – Cross-talk measurement - Measurement in symmetric mode

Each pair shall be connected at each end to a resistor equivalent to the specified characteristic impedance Z_0 of the pair.

Connections shall be as short as possible so as to minimize the interaction of the ends.

The emittive pair is supplied by a generator G at a frequency of which the output impedance is as close as possible to the characteristic impedance Z_0 of the pairs.

Measure, using high input impedance voltmeter (e.g. oscilloscope):

- the voltage at the input of the emittive pair U_1;
- the voltage at the generator side of a pair next to the emittive pair (near-end cross-talk) U_2;
- the voltage at the end remote from the generator of a pair next to the emittive pair (far-end cross-talk) U_3.

Near-end cross-talk attenuation is equal to $20 \lg \frac{U_2}{U_1}$, in decibels

Far-end cross-talk attenuation is equal to $20 \lg \frac{U_3}{U_1}$, in decibels

5 Requirement

The near-end and far-end cross-talk attenuation values shall be above the values specified in the product standard, in the band indicated.