

Connectors for electronic equipment — Tests and measurements —

Part 25-6: Test 25f: Eye pattern and jitter

The European Standard EN 60512-25-6:2004 has the status of a
British Standard

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National foreword

This British Standard is the official English language version of EN 60512-25-6:2004. It is identical with IEC 60512-25-6:2004.

The UK participation in its preparation was entrusted by Technical Committee EPL/48, Electromechanical components and mechanical components, to Subcommittee EPL/48/2, Connectors for electronic equipment, which has the responsibility to:

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**Connectors for electronic equipment -
Tests and measurements
Part 25-6:
Test 25f: Eye pattern and jitter
(IEC 60512-25-6:2004)**

Connecteurs pour équipements
électroniques -
Essais et mesures
Partie 25-6:
Essai 25f: Diagramme de l'oeil et gigue
(CEI 60512-25-6:2004)

Steckverbinder für elektronische
Einrichtungen -
Mess- und Prüfverfahren
Teil 25-6:
Prüfung 25f - Augendiagramm und Jitter
(IEC 60512-25-6:2004)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 48B/1429/FDIS, future edition 1 of IEC 60512-25-6, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60512-25-6 on 2004-07-01.

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Endorsement notice

The text of the International Standard IEC 60512-25-6:2004 was approved by CENELEC as a European Standard without any modification.

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CONNECTORS FOR ELECTRONIC EQUIPMENT – TESTS AND MEASUREMENTS –

Part 25-6: Test 25f: Eye pattern and jitter

1 Introduction

1.1 Scope and object

This part of IEC 60512 is applicable to electrical connectors, cable assemblies, or interconnection systems within the scope of IEC TC 48.

This standard describes methods for measuring an eye pattern response and jitter in the time domain.

1.2 Terms and definitions

For the purpose of this part of IEC 60512, the following terms and definitions apply.

1.2.1

eye pattern

oscilloscope display of synchronized pseudo-random digital data (signal amplitude versus time), showing the superposition of accumulated output waveforms

1.2.2

jitter

difference between the earliest and latest times at which a signal crosses a specified reference voltage level

1.2.3

bit period

time interval between the successive like edges (rise to rise or fall to fall) of the clock signal. This is the reciprocal of the clock frequency

1.2.4

skew

difference in propagation delay between two signal paths

1.2.5

measurement system rise time

rise time measured with fixture in place, without the specimen, and with filtering (or normalization). The rise time is typically measured from 10 % to 90 % levels

2 Test resources

2.1 Equipment

2.1.1 High speed pattern generator with clock output capable of producing a signal with specified rise and fall times and data pattern.