

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Connectors for electronic equipment –
Part 7-81: Detail specification for 8-way, shielded, free and fixed connectors, for
data transmissions with frequencies up to 2 000 MHz**

**Connecteurs pour équipements électroniques –
Partie 7-81: Spécification particulière pour les fiches et les embases blindées à
8 voies pour la transmission de données à des fréquences jusqu'à 2 000 MHz**



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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 31.220.10

ISBN 978-2-8322-3009-1

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- Table 1 – Test Group EP 15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR ELECTRONIC EQUIPMENT –**Part 7-81: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 2 000 MHz**

FOREWORD

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International Standard IEC 60603-7-81 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment.

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

FDIS	Report on voting
48B/2451/FDIS	48B/2464/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.

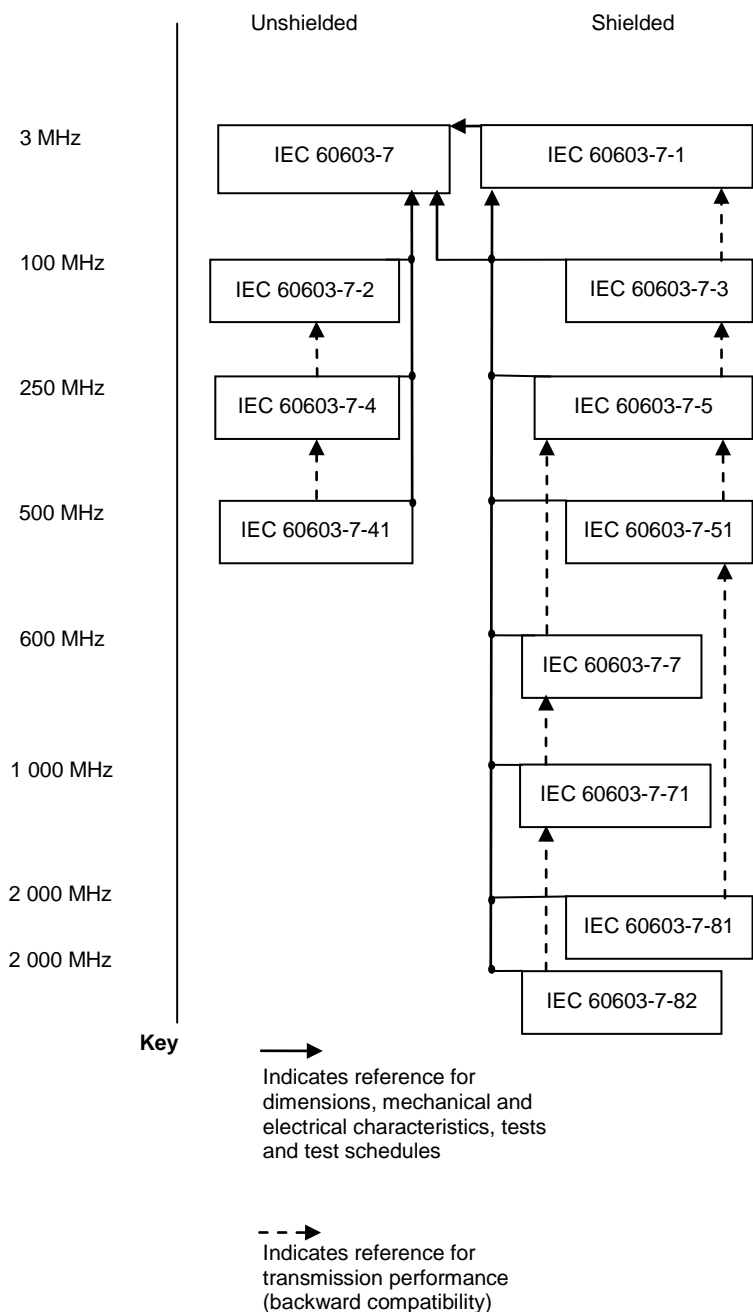
A list of all parts in the IEC 60603 series, published under the general title *Connectors for electronic equipment*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
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- replaced by a revised edition, or
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INTRODUCTION

IEC 60603-7 is the base specification of the whole series. Subsequent specifications do not duplicate information given in the base document, but list only additional requirements. For complete specification regarding a component of a higher number document all lower numbered documents shall be considered as well. The following diagram shows the interrelation of the documents:



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CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 7-81: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 2 000 MHz

1 Scope

This part of IEC 60603 covers 8-way, shielded, free and fixed connectors, references dimensional, mechanical, electrical and environmental characteristics and tests in IEC 60603-7, and specifies electrical transmission requirements, including power sum alien (exogenous) crosstalk, for frequencies up to 2 000 MHz.

These connectors are typically used as “category 8.1” connectors in “class I” cabling systems specified in ISO/IEC 11801.

These connectors are intermateable and interoperable with other IEC 60603-7 series connectors as defined in Clause 2 of IEC 60603-7.

These connectors are backward compatible with other IEC 60603-7 series connectors, except IEC 60603-7-7 and IEC 60603-7-71 connectors.

NOTE Transmission performance categories: in this IEC standard, the term “category”, when used in reference to transmission performance, refers to those categories defined by ISO/IEC 11801.

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 60512-2-1, *Connectors for electronic equipment – Tests and measurements – Part 2-1: Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level method*

IEC 60512-25-9, *Connectors for electronic equipment – Tests and measurements – Part 25-9: Signal integrity tests – Test 25i: Alien crosstalk*

IEC 60512-26-100, *Connectors for electronic equipment – Tests and measurements – Part 26-100: Measurement setup, test and reference arrangements and measurements for connectors according to IEC 60603-7 – Tests 26a to 26g*

IEC 60512-28-100: (2nd edition under consideration) *Connectors for electronic equipment – Tests and measurements – Part 28-100: Signal integrity tests up to 2 000 MHz on IEC 60603-7 and IEC 61076-3 series connectors – Tests 28a to 28g*

IEC 60603-7:2008, *Connectors for electronic equipment – Part 7: Detail specification for 8-way, unshielded, free and fixed connectors*

IEC 60603-7-1:2011, *Connectors for electronic equipment – Part 7-1: Detail specification for 8-way, shielded, free and fixed connectors*

IEC 61156 (all parts), *Multicore and symmetrical pair/quad cables for digital communications*