AS/NZS 14763.3:2017
(Incorporating Amendment No. 1)

AS/NZS 14763.3:2017

Australian/New Zealand Standard™

Information technology – Implementation and operation of customer premises cabling

Part 3: Testing of optical fibre cabling (ISO/IEC 14763-3:2014, MOD)

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Information technology — Implementation and operation of customer premises cabling

Part 3: Testing of optical fibre cabling (ISO/IEC 14763-3:2014, MOD)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling,Telecommunications installations—Implementation and operation of customer premises cabling, Part 3: Testing of optical fibre cabling (ISO/IEC 14763-3:2011, MOD) to supersede AS/NZS ISO/IEC 14763.3:2012, *Telecommunications installations—Implementation and operation of customer premises cabling*, Part 3: *Testing of optical fibre cabling (ISO/IEC 14763-3:2011, MOD)*.

This Standard incorporates Amendment No. 1 (June 2018). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This edition includes the following significant technical changes with respect to the previous edition:

(a) General requirements (Clause 5) have been revised and the concept of normalization has been replaced by reference measurements.

(b) OTDR characterization (6.2) and requirements for cabling interface adapters (6.3) and test cords have been revised and requirements for single-mode fibre test cords (6.4) have been removed.

(c) Enhanced three-test-cord reference method has been introduced (9.3.1.2).

(d) Requirements for the attenuation measurement of cords (10.6) have been revised.

(e) Annex A 'Launched modal distribution (LMD)' has been simplified and the new title now reads 'Launched modal conditions for testing multimode optical fibre cabling'.

(f) Visual inspection criteria for connectors have been reworked (Annex B).

(g) Information on optical time domain reflectometry (Annex C) has been revised.

(h) Examples of calculations of channel and permanent link limits (Annex G) have been revised.

(i) Information regarding cleaning and inspection of fibre optic connections have been added (Annex H).

The objective of this Standard is to specify systems and methods for the inspection and testing of installed optical fibre cabling designed in accordance with premises cabling standards including AS/NZS 3080, ISO/IEC 24764, ISO/IEC 24702 and ISO/IEC 15018. The test methods refer to existing standards-based procedures where they exist.

This Standard is an adoption with national modifications and has been reproduced from ISO/IEC 14763-3:2014, *Information technology—Implementation and operation of customer premises cabling*, Part 3: *Testing of optical fibre cabling*, and its Corrigendum 1 (2015) which has been added at the end of the source text. This Standard has been varied as indicated to take account of Australian/New Zealand conditions. The modifications are specified in Appendix ZZ.

A1 Correction Amendment AS/NZS 14763.3:2017 Amd 1:2018 removes from Appendix ZZ corrections to the main text that are covered by Corrigendum 1. Please refer to Corrigendum 1 in conjunction with Appendix ZZ.

As this Standard is reproduced from an International Standard, the following applies:

(i) In the source text 'this part of ISO/IEC 14763' should read 'this Australian/New Zealand Standard'.

(ii) A full point substitutes for a comma when referring to a decimal marker.

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References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
ISO/IEC		AS/NZS	
11801	Information technology—Generic cabling for customer premises	3080	Information technology—Generic cabling for customer premises (ISO/IEC 11801:2011, MOD)

Reference to International Standard		*Australian/New Zealand Standard*	
ISO/IEC		AS/NZS ISO/IEC	
14763	Information technology—Implementation and operation of customer premises cabling	14763	Information technology—Implementation and operation of customer premises cabling
14763-2	Part 2: Planning and installation	14763.2	Part 2: Planning and installation
IEC		AS/NZS IEC	
60825	Safety of laser products	60825	Safety of laser products
60825-2	Part 2: Safety of optical fibre communication systems (OFCS)	60825.2	Part 2: Safety of optical fibre communication systems (OFCS)

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative or informative references may be used interchangeably. Refer to the online catalogue for information on specific standards.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex or appendix to which they apply. A ‘normative’ annex or appendix is an integral part of a Standard, whereas an ‘informative’ annex or appendix is only for information and guidance.

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INTRODUCTION

This International Standard is one of four prepared in support of International Standard ISO/IEC 11801 and other cabling standards.

Figure 1 below shows the inter-relationship between ISO/IEC 11801 and other International Standards and for cabling systems with related standards.

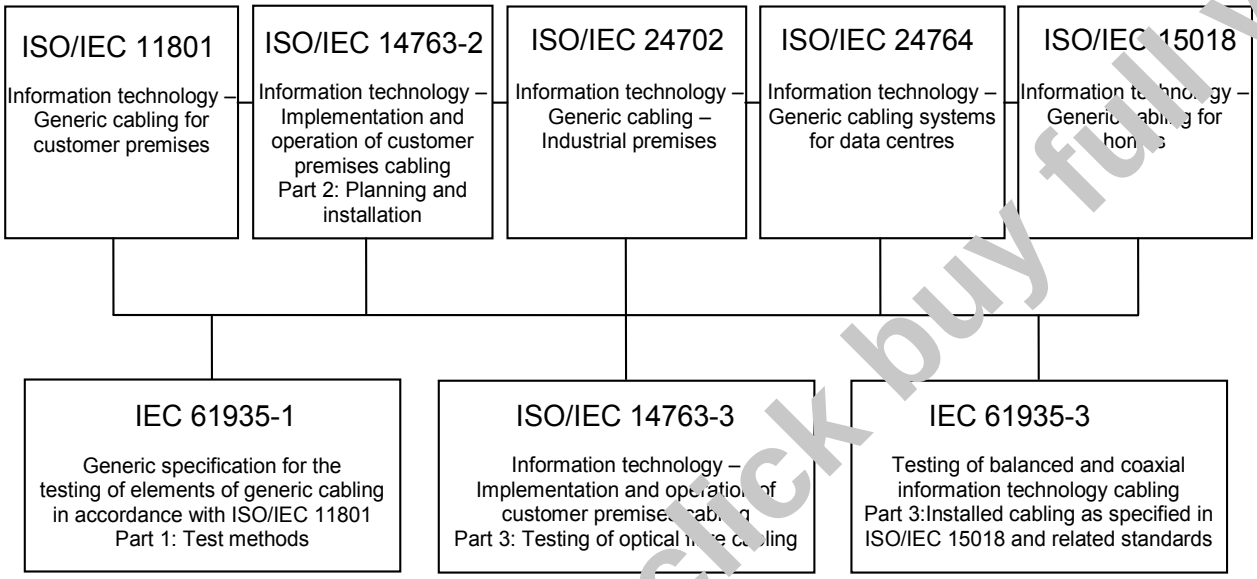

Figure 1 – Relationship of related International Standards

ISO/IEC 14763-3 details the inspection and test procedures for optical fibre cabling,

a) designed in accordance with premises cabling standards including ISO/IEC 11801, ISO/IEC 24764, ISO/IEC 24702 and ISO/IEC 15018, and

b) installed according to the requirements and recommendations of ISO/IEC 14763-2.

Users of this International Standard should be familiar with relevant premises cabling standards and ISO/IEC 14763-2.

The quality plan for each installation will define the acceptance tests and sampling levels selected for that installation. Requirements and recommendations for the development of a quality plan are described in ISO/IEC 14763-2.

NOTE: JTC 1/SC 25, in cooperation with IEC/TC 86, is currently developing an overall quantitative model to calculate total measurement uncertainty as stated in the reference planes of ISO/IEC 11801. When such a model has been verified, it is expected to be incorporated into this standard in form of an Amendment, thereby removing pertinent clauses currently marked “ffs” (for further study).

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AUSTRALIAN/NEW ZEALAND STANDARD

Information technology—Implementation and operation of customer premises cabling

Part 3:
Testing of optical fibre cabling (ISO/IEC 14763-3:2014, MOD)

1 Scope

This part of ISO/IEC 14763 specifies systems and methods for the inspection and testing of installed optical fibre cabling designed in accordance with premises cabling standards including ISO/IEC 11801, ISO/IEC 24764, ISO/IEC 24702 and ISO/IEC 15018. The test methods refer to existing standards-based procedures where they exist.

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.

ISO/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 14763-2, *Information technology – Implementation and operation of customer premises cabling – Part 2: Planning and installation*

IEC 60050-731, *International Electrotechnical Vocabulary – Chapter 731: Optical fibre communication*

IEC 60825-2, *Safety of laser products – Part 2: Safety of optical fibre communication systems (OFCS)*

IEC 60874-14-3, *Connectors for optical fibres and cables – Part 14-3: Detail specification for fibre optic adapter (simplex) type SC for single-mode fibre*

IEC 60874-19-1, *Fibre optic interconnecting devices and passive components – Connectors for optical fibres and cables – Part 19-1: Fibre optic patch cord connector type SC-PC (floating duplex) standard terminated on multimode fibre type A1a, A1b – Detail specification*

IEC 61280-1-3, *Fibre optic communication subsystem test procedures – Part 1-3: General communication subsystems – Central Wavelength and spectral width measurement*

IEC 61280-1-4, *Fibre optic communication subsystem test procedures – Part 1-4: General communication subsystems – Light source encircled flux measurement method*

IEC 61280-4-1, *Fibre-optic communication subsystem test procedures – Part 4-1: Installed cable plant – Multimode attenuation measurement*

IEC 61280-4-2, *Fibre optic communication subsystem basic test procedures – Part 4-2: Fibre optic cable plant – Single-mode fibre optic cable plant attenuation*

IEC 61300-3-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation*

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