

Australian/New Zealand Standard™

**Optical fibre communication cabling
systems safety**



AS/NZS 2967:2010

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CT-001, Communications Cabling. It was approved on behalf of the Council of Standards Australia on 16 February 2010 and on behalf of the Council of Standards New Zealand on 19 February 2010.
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The following are represented on Committee CT-001:

- Australian Chamber of Commerce and Industry
- Australian Communications and Media Authority
- Australian Industry Group
- Australian Information Industry Association
- BICSI Australia
- Communications Alliance
- Energy Networks Association
- Engineers Australia
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- National Electrical and Communications Association
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS 2967.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling.

The objective of this Standard is to provide rules for safe practices in the handling, installation, testing, use and disposal of optical fibre cabling and associated materials and equipment.

This Standard is one of a series of Handbooks and Standards known collectively as the Communications Cabling Manual (CCM). The CCM has been compiled by Standards Australia Committee CT-001, Communications Cabling, representing carriers, the Communications Alliance, the Australian Communications and Media Authority (ACMA), cable manufacturers, cablers and end-users.

The CCM is designed to provide essential information to the communications cabling industry and is available in two volumes.

Volume 1: Handbooks, Regulations and Codes

Australian regulatory arrangements (HB 243)

Communications cabling handbook (HB 29)

Residential communications cabling handbook (HB 252)

Regulatory Standards
(AS/ACIF S008 and AS/ACIF S009)

Volume 2: Standards

AS/NZS 3080, AS/NZS ISO/IEC 24702 and AS/NZS IEC 14763-3 and
AS/NZS 2967 *Optical fibre communication systems safety*)

While the information contained in this Standard is the latest available at the time of printing, users should ensure they consult the latest edition of any referenced Standard, amendments to the Telecommunications Act and its regulations, and use the references herein as a guide only.

FOREWORD

In the first decade of the 21st century there has been an escalation in the use of optical fibre communication systems for industrial, commercial and residential premises.

The increased bandwidth required has resulted in optical fibre communication systems being implemented in a wide variety of environments to which both cabling practitioners and the general public have access.

Optical fibre communication systems have special hazards associated with them.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Optical fibre communication cabling systems safety****1 SCOPE**

This Standard provides safety rules for optical fibre communication systems and associated materials and equipment, covering—

- (a) Handling, use and disposal of optical fibre materials and associated chemicals;
- (b) Testing and use of laser light sources; and
- (c) Use, installation and operation of an optical fibre cabling system (OFCS).

2 REFERENCED DOCUMENTS

The following documents are referenced in this Standard.

AS/NZS

2211 Safety of laser products

2211.1 Part 1: Equipment classification, requirements and user's guide
(IEC 60825-1:2001, MOD)

IEC

60825 Safety of laser products

60825-1 Part 1: Equipment class

3 DEFINITIONS

For the purposes of this document, the definitions contained in IEC 60825-1 as well as the following definitions apply.

3.1 Accessible location

Any part or location within an OFCS at which, under reasonably foreseeable events, human access to laser radiation is possible without the use of a tool.

3.2 Automatic power reduction (APR)

A feature of an OFCS by which the accessible power is reduced to a specified level within a specified time, whenever there is an event that could result in human exposure to radiation, e.g. a fibre cable break.

NOTE: The term 'automatic power reduction' (APR) used in this standard encompasses the following terms used in recommendations of the International Telecommunication Union ITU:

- (a) automatic laser shutdown (ALS);
- (b) automatic power reduction (APR);
- (c) automatic power shutdown (APSD).

3.3 End-user

Person or organization using the OFCS in the manner the system was designed to be used.

NOTES:

- 1 The end-user cannot necessarily control the power generated and transmitted within the system.
- 2 If the person or organization is using the OFCS for a communications application in a manner other than as designed by the manufacturer, then that person/organization assumes the responsibilities of a manufacturer or installation organization.