AS/NZS 2967:2014

Australian/New Zealand Standard™

Optical fibre communication cabling systems safety

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 6 February 2014 and on behalf of the Council of Standards New Zealand on 7 February 2014.
This Standard was published on 28 February 2014.

The following are represented on Committee CT-001:

Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Information Industry Association
BICSI Australia
BICSI New Zealand
Electrical Trades Union
Energy Networks Association
Engineers Australia
National Electrical and Communications Association
Telecommunications Users Association of New Zealand
Telstra Corporation

Additional Interests:

Australian Communications and Media Authority
Communications Alliance

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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 DR2 AS/NZS 2967.

Australian/New Zealand Standard™

Optical fibre communication cabling systems safety

First published as AS/NZS 2967:2010.
Second edition 2014.

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140.

ISBN 978 1 74342 669 2

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling, to supersede AS/NZS 2967:2010.

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/CA S008 and AS/CA S009)

Volume 2: Standards
AS/NZS 3080, AS/NZS ISO/IEC 24702 and AS/NZS ISO/IEC 14763.3 and AS/NZS 2967 (this Standard)

CONTENTS

Page

FOREWORD 4
1 SCOPE 5
2 REFERENCED DOCUMENTS 5
3 DEFINITIONS 5
4 HAZARD CLASSIFICATION LEVELS 6
5 GENERAL HEALTH AND SAFETY 7
6 WORK AREAS 8
7 OPTICAL FIBRE MATERIALS 8
8 CHEMICAL AGENTS 9
9 LIGHT SOURCES 10

FOREWORD

In recent years 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.

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) cabling systems safety up to laser hazard classification level 2M;

(b) handling, use and disposal of optical fibre materials and associated chemicals;

(c) testing and use of laser light sources; and

(d) use, installation and operation of an optical fibre cabling system (OFCS).

2 REFERENCED DOCUMENTS

The following documents are referenced in this Standard.

AS/NZS
2430 Classification of hazardous areas
2430.3.1 Part 3.1: Examples of area classification—General

AS/NZS IEC
60825 Safety of laser products
60825.2 Part 2: Safety of optical fibre communications systems (OFCS)

AS/CA
S009 Installation requirements for customer cabling (wiring rules)

3 DEFINITIONS

For the purposes of this document, the definitions contained in AS/NZS IEC 60825.2 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 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.

3.3 Hazard level

The potential hazard at any accessible location within an OFCS. It is based on the level of optical radiation that could become accessible in a reasonably foreseeable event, for example a fibre cable break or disconnection of the connector in an active link.

NOTE: Hazard level classification is closely related to the laser classification procedure in AS/NZS IEC 60825.1.