

Australian/New Zealand Standard™

**Information technology—
Telecommunications and information
exchange between systems—X.25 DTE
conformance testing**

**Part 3: Packet layer conformance test
suite**

AS/NZS 4157.3:2000

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT/1, Information Systems—Interconnection. It was approved on behalf of the Council of Standards Australia on 21 September 1999 and on behalf of the Council of Standards New Zealand on 20 September 1999. It was published on 10 January 2000.

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Australian/New Zealand Standard™

Information technology— Telecommunications and information exchange between systems—X.25 DTE conformance testing

Part 3: Packet layer conformance test suite

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1, Information Systems—Interconnection to supersede AS/NZS 4157.3:1994. This Standard is identical with and has been reproduced from ISO/IEC 8882-3:1995, *Information technology—Telecommunications and information exchange between systems—X.25 DTE conformance testing*, Part 3: *Packet layer conformance test suite*, and Technical Corrigendum 1:1997, which is bound at the back of this Standard.

The objective of this Standard is to provide designers of X.25 networks with a definition for testing data terminal equipment (DTE) connected to data circuit terminating or with another DTE equipment conforming with X.25 protocols.

This Standard is Part 3 of AS/NZS 4157, *Information technology—Telecommunications and information exchange between systems—X.25 DTE conformance testing*, which is published in Parts as follows:

Part 1: General principles

Part 2: Data link layer conformance test suite

Part 3: Packet layer conformance test suite (this Standard)

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

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- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
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| <i>Reference to International Standard</i> | <i>Australian or Australian/New Zealand Standard</i> |
|---|--|
| ISO/IEC | AS/NZS |
| 7498 Information technology—Open Systems Interconnection—Basic Reference Model | 2777 Information technology—Open Systems Interconnection—Basic reference model |
| 7498-1 Part 1: The Basic Model | 2777.1 Part 1: The basic model |
| 7776 Information technology—Telecommunications and information exchange between systems—High-level data link control procedures—Description of the X.25 LAPB-compatible DTE data link procedures. | 3512 Information technology—Telecommunications and information exchange between systems—High-level data link control procedures—Description of the X.25 LAPB-compatible DTE data link procedures |
| 8208 Information technology—Data communications—X.25 Packet Layer Protocol for Data Terminal Equipment | 3621 Information technology—Data communications—X.25 packet layer protocol for data terminal equipment |
| 8208/Amd.1 Amendment 1: Alternative Logical Channel Identifier Assignment | |
| 8208/Amd.3 Amendment 3: Conformance requirements | |

| ISO/IEC | | AS/NZS | |
|--------------|---|--------|--|
| 8824 | Information technology—Open Systems Interconnection—Specification of Abstract Syntax Notation One (ASN.1) | — | |
| 8882 | Information technology—Telecommunications and information exchange between systems—X.25 DTE conformance testing Part 1: General principles | 4157 | Information technology—Telecommunications and information exchange between systems X.25 DTE conformance testing Part 1: General principles |
| 8882-1 | | 4157.1 | |
| 8886 | Information technology—Telecommunications and information exchange between systems—Data link service definition for Open Systems Interconnection | 3701 | Information technology—Telecommunications and information exchange between systems—Data link service definition for Open Systems Interconnection |
| 9646 | Information technology—Open Systems Interconnection—Conformance testing methodology and framework | 4103 | Information technology—Open Systems Interconnection—Conformance testing methodology and framework |
| 9646-1 | Part 1: General concepts | 4103.1 | Part 1: General concepts |
| 9646-2 | Part 2: Abstract Test Suite specification | 4103.2 | Part 2: Abstract test suite specification |
| 9646-3 | Part 3: The Tree and Tabular Combined Notation (TTCN) | 4103.3 | Part 3: The tree and tabular combined notation |
| 9646-4 | Part 4: Test realization | 4103.4 | Part 4: Test realization |
| 9646-5 | Part 5: Requirements on test laboratories and clients for the conformance assessment process | 4103.5 | Part 5: Requirements on test laboratories and clients for the conformance assessment process |
| CCITT | | | |
| Rec. X.25 | Interface Between Data Terminating Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode on the Public Data Networks | — | |
| Rec. X.25 | Interface Between Data Terminating Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit | — | |
| Rec. X.25 | Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit | — | |

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AUSTRALIAN/NEW ZEALAND STANDARD

Information technology — Telecommunications and information exchange between systems — X.25 DTE conformance testing —

Part 3:

Packet layer conformance test suite

1 Scope

This part of ISO/IEC 8882 specifies a set of abstract tests for verifying that the implementation of X.25 protocols, for use by Data Terminal Equipment (DTE), conform to the requirements of International Standards that specify those protocols.

This part of ISO/IEC 8882

- a) specifies a PIXIT proforma;
- b) describes the relationship of the PICS to the test suite;
- c) describes the relationship of the PIXIT to the test suite;
- d) specifies a set of abstract tests using TTCN Graphical notation.

This part of ISO/IEC 8882 defines the testing of a DTE operating at the packet layer designed to access a public or private packet-switched network conforming to CCITT Recommendation X.25 (1980, 1984) or another DTE conforming to ISO/IEC 8208. The specification of test cases in executable/machine processable TTCN is outside the scope of this part of ISO/IEC 8882.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 8882. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 8882 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards, and ITU-T maintains published editions of its current Recommendations.

ISO/IEC 7498-1: 1994, *Information technology -- Open Systems Interconnection -- Basic Reference Model: The Basic Model* (See also CCITT Recommendation X.200).

ISO/IEC 7776: 1995, *Information technology -- Telecommunications and information exchange systems -- High-level data link control procedures -- Description of the X.25 LAPB-compatible DTE data link procedures*.

ISO/IEC 8208: 1990, *Information technology -- Data communications -- X.25 Packet Layer Protocol for Data Terminal Equipment*.

ISO/IEC 8208/Amd.1: 1990, *Information technology -- Data communications -- X.25 Packet Layer Protocol for Data Terminal Equipment -- Amendment 1: Alternative Logical Channel Identifier Assignment*.

ISO/IEC 8208/Amd. 3: 1991, *Information technology -- Data communications -- X.25 Packet Layer Protocol for Data Terminal Equipment -- Amendment 3: Conformance requirements*.

ISO/IEC 8824: 1990, *Information technology -- Open Systems Interconnection -- Specification of Abstract Syntax Notation One (ASN.1)* (See also CCITT Recommendation X.680).

ISO/IEC 8882-1: 1993, *Information technology -- Telecommunications and information exchange between systems -- X.25-DTE conformance testing -- Part 1: General principles*.

ISO/IEC 8886: 1992, *Information technology -- Telecommunications and information exchange between systems -- Data link service definition for Open Systems Interconnection*.

ISO/IEC 9646-1: 1994, *Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 1: General concepts*. (See also CCITT Recommendation X.290).

ISO/IEC 9646-2: 1994, *Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 2: Abstract Test Suite specification*. (See also CCITT Recommendation X.291).

ISO/IEC 9646-3: 1992, *Information technology -- Open Systems Interconnection -- Conformance testing meth-*