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ISO/IEC 8882-2:1995
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Australian/New Zealand Standard™

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

Part 2: Data link layer conformance test suite

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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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1, Information Systems—Interconnection to supersede AS/NZS 4152.2:1994. This Standard is identical with and has been reproduced from ISO/IEC 8882-2:1995, *Information technology—Telecommunications and information exchange between systems—X.25 DTE conformance testing, Part 2: Data link* 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 (this Standard)
Part 3: Packet layer conformance test suite

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.

(b) In the source text 'this part of ISO/IEC 8882' should read 'this Australian/New Zealand Standard'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

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

Reference to International Standard		*Australian or Australian/New Zealand Standard*	
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
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	4157	Information technology—Telecommunications and information exchange between systems X.25 DTE conformance testing
8882-1	Part 1: General principles	4157.1	Part 1: General principles

ISO/IEC		AS/NZS	
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	—	

CONTENTS

Page

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

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

Part 2:
Data link layer conformance test suite

1 Scope

This part of ISO/IEC 8882 defines an abstract test suite for testing the conformance of the Data Link Layer of an IUT with respect to ISO/IEC 7776 or the CCITT Recommendation X.25 (1980, 1984).

Conformance of a Data Terminal Equipment (DTE) to the above ISO International Standard or CCITT Recommendations is tested using a dedicated circuit between the tester and the DTE. It is noted that CCITT Recommendations X.25 (1980) and X.25 (1984) are written from the perspective of a DCE and therefore do not always explicitly specify the DTE's operation. In such cases it is assumed that recommended operation of a DTE is included by implication because of the need to communicate with X.25 DCEs. This part of ISO/IEC 8882 excludes the testing of the LAP procedures given in the CCITT Recommendations.

NOTE Test cases for extended mode operation (Modulo 128), multilink procedure and DTE-DTE operation as per ISO/IEC 7776 are for further study.

The tests in this part of ISO/IEC 8882 are designed for three possible interworking situations, shown in Figure 1. This part specifies tests for all three cases shown in Figure 1, but recognizes that not every test may apply to a particular DTE. A test selection procedure has to be performed to determine the applicability of a test to a particular DTE. Such selection will be based on the PICS and the PIXIT.

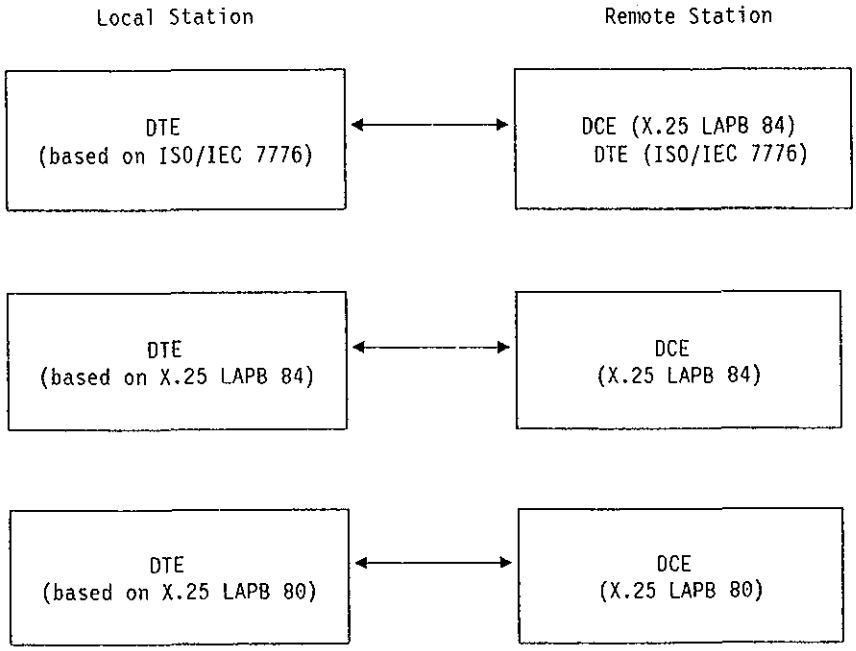

Figure 1 - Testing X.25-DTE/DCE and X.25-DTE/DTE Interworking

In the rest of this part of ISO/IEC 8882, the term "X.25 standards" means all three of CCITT Recommendation X.25 (1980), CCITT Recommendation X.25 (1984), and International Standard ISO/IEC 7776, unless stated otherwise.