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Australian Standard®

DATA COMMUNICATION—DTE TO DTE PHYSICAL CONNECTION USING X.24 INTERCHANGE CIRCUITS WITH DTE PROVIDED TIMING

This Australian Standard was prepared by Committee IS/1, Information Processing Systems. It was approved on behalf of the Council of the Standards Association of Australia on 8 September 1988 and published on 12 December 1988.

The following interests are represented on Committee IS/1:

Australian Association of Permanent Building Societies
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PREFACE

This Standard was prepared by the Association's Committee on Information Processing Systems. It is identical with, and has been reproduced from, International Standard ISO 8481:1987, drawn up by ISO TC 97, Information Processing Systems.

This Standard describes an arrangement for interconnection of Data Terminal Equipment (DTE), without intermediate Data Circuit-terminating Equipment (DCE), in terms of electrical, mechanical, and functional characteristics. It applies to DTEs with interface circuits standardized in CCITT Recommendation X.24 for transmission over public data networks. The interconnections are restricted to point-to-point connections.

This Standard applies to DTEs which employ the balanced electrical characteristics of CCITT Recommendation V.11 (X.27) for data signalling rates up to 10 Mbits/s.

The Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, SAA will be providing a limited interpretation service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

For the purpose of this Standard, the words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

Data communication—DTE to DTE physical connection using X.24 interchange circuits with DTE provided timing

0 Introduction

This International Standard deals with the interconnection of Data Terminal Equipment (DTE) without any signal conversion, whereby a DTE is not attached to a Data Circuit-terminating Equipment (DCE), this being part of a telecommunication facility.

The desired DTE to DTE direct connection may be totally located at the user's territory. The aim being to relate these interconnections to the elements of the CCITT recommended/ISO standardized DTE/DCE interfaces, in order to avoid equipment proliferation.

1 Scope and field of application

This international Standard describes an arrangement for interconnection of Data Terminal Equipment (DTE), without intermediate Data Circuit-terminating Equipment (DCE), in terms of electrical, mechanical, and functional characteristics. This International Standard applies to DTEs with interface circuits standardized in CCITT Recommendation X.24 for transmission over public data networks. The interconnections are restricted to point-to-point connections.

NOTE — The extension to multipoint configurations is at present under study.

This International Standard applies to DTEs which employ the balanced electrical characteristics of CCITT Recommendation V.11 (X.27) for data signalling rates up to 10 Mbits/s.

The interconnection may be used for start-stop or synchronous transmission. For synchronous transmission, signal element timing shall be interconnected by circuit X — DTE transmit signal element timing and circuit S — Signal element timing (see clause 5).

2 References

ISO 4903, *Data communication — 15-pole DTE/DCE interface connector and contact number assignments.*

CCITT Recommendation V.11 (or X.27), *Electrical characteristics for balanced double-current interchange circuits for general use with integrated circuit equipment in the field of data communications.*

CCITT Recommendation X.24, *List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) on public data networks.*

3 Interconnection configuration

Only one type of DTE to DTE interconnection configuration is considered for point-to-point connections with interfaces according to CCITT Recommendation X.24; this being shown in figure 1.

There are two lines of demarcation between the two interconnecting DTEs, one located at each DTE connector. The adaptor and any cable linking these two DTE connectors are not part of either DTE.

Intermediate balanced pair cable may be provided with a maximum length mainly dependent on the parameters of the electrical characteristics of the interchange circuits and the data signalling rate.

4 Interchange circuit requirements

The interchange circuit requirements are specified in terms of electrical, functional, mechanical and interchange point crossover characteristics.

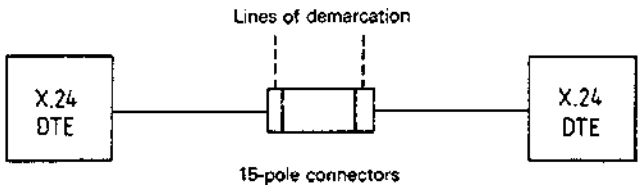

Figure 1 — DTE interconnection configuration