

Apparatus for connection to private circuits run by certain public telecommunication operators —

**Part 8: Specification for apparatus for
connection to digital circuits with
interfaces according to CCITT G-series
Recommendations —**

**Section 8.2 G.703 64 kbit/s service using
codirectional option**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Telecommunications Standards Policy Committee (TCT/-) to Technical Committee TCT/6, upon which the following bodies were represented:

- British Approvals Board for Telecommunications
- British Facsimile Industry Consultative Committee
- British Gas plc
- British Telecommunications plc
- Department of Trade and Industry (Telecommunications and Posts Division)
- Electricity Association
- EEA (The Association of Electronics Telecommunications and Business Equipment Industries)
- Mercury Communications Ltd.
- National Computing Centre Ltd.
- OFTEL (Office of Telecommunications)
- Telecommunications Users' Association (TUA)

This British Standard, having been prepared under the direction of the Telecommunications Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 July 1993

© BSI 08-1999
First published October 1990
Second edition July 1993

The following BSI references relate to the work on this standard:
Committee reference TCT/6
Draft for comment 92/94435 DC

ISBN 0 580 21762 0

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions and abbreviations	1
3 General requirements	2
4 Connection requirements	3
5 Service requirements	4
6 Marking	7
7 Information to be provided by the supplier	7
Appendix A Tests for compliance specific to the 64 kbit/s service	9
Appendix B Performance characteristics of media between the NTP and apparatus	11
Appendix C Jitter planning	11
Figure 1 — Mask of a single pulse at the 64 kbit/s interface	5
Figure 2 — Mask of a double pulse at the 64 kbit/s interface	5
Figure 3 — Limit of tolerable jitter at the apparatus input port for 64 kbit/s service (with specific reflected jitter performance requirements)	7
Table 1 — Services covered	1
Table 2 — Connector pin designation for connection to the 64 kbit/s service	3
Table 3 — Minimum return loss for 64 kbit/s service	4
Table 4 — Limits for maximum peak-to-peak jitter for 64 kbit/s service (with specific reflected jitter performance requirements)	6
Publication(s) referred to	Inside back cover

Foreword

This Section of BS 6328 has been prepared under the direction of the Telecommunications Standards Policy Committee. It forms one of a series of British Standards that is being produced following the commencement of liberalization in October 1981 of the supply of certain telecommunications apparatus within the United Kingdom.

This edition introduces technical changes to the 1990 edition but it does not reflect a full review or revision of the standard which will be undertaken in due course. The changes have been made in order to maintain alignment of the standard with the changing and developing aspects of the UK liberalized telecommunications environment, rectify errors and remedy deficiencies discovered during application of the standard.

This edition supersedes BS 6328-8.2:1990 which is withdrawn.

This series of standards includes product and facility specifications giving particular requirements for individual items of apparatus and facilities, together with standards covering general requirements for the connection of apparatus to various public telecommunication systems (i.e. any telecommunication system designated as a public telecommunication system by an order made under Section 9 of the Telecommunications Act 1984). At the present time, these systems include the public switched telephone networks, the telex networks, the packet switching network, and leased private circuits run by British Telecommunications plc, Kingston Communications (Hull) plc and Mercury Communications Ltd.

The requirements specified in the standards are intended to ensure that apparatus complying with them, when connected to public or branch telecommunication systems, will neither adversely affect any public system nor interfere with the service available to other users of public telecommunication systems.

Private circuits run by British Telecommunications plc, Kingston Communications (Hull) plc and Mercury Communications Ltd. are classified into the following groups:

- a) speechband circuits;
- b) baseband circuits;
- c) direct current circuits;
- d) telegraph circuits using SCVF signalling;
- e) wideband (FDM) circuits;
- f) programme circuits;
- g) digital circuits.

This Part of BS 6328 deals with digital circuits according to CCITT G-series Recommendations and is published in Sections dealing with the different services. BS 6328-7 deals with digital circuits with interfaces according to CCITT Recommendation X.21 bis.

Other Parts of this standard cover apparatus for connection to other private circuits.

Information on the circuits of British Telecommunications plc, Kingston Communications (Hull) plc and Mercury Communications Ltd. is available from those organizations.

The private circuits, to which apparatus complying with this Part of BS 6328 may be connected, operate at several different rates with CCITT Recommendation G.703 interfaces. For the purposes of defining technical requirements these data rates and interfaces are grouped into “service categories”. Identical technical requirements apply to all the data rates within any one service category. British Telecommunications plc, Kingston Communications (Hull) plc and Mercury Communications Ltd. do not necessarily offer services at all the data rates within a particular service category. Users should consult these operators for appropriate details of the services offered by each.

This Section of BS 6328 is presented for designation under the Telecommunications Act 1984.

It is stipulated in the Telecommunications Act 1984 that apparatus within the scope of a designated standard may only be approved for connection to a telecommunication system if it complies with that standard. Exceptions may be determined by or under the designation, which may stipulate variations of, or additions to, the requirements of the standard and may also set conditions that have to be complied with as regards the apparatus, or its connection, or its use.

A copy of any designation will be included when available with all copies of this standard. Any further information on, or details of, the designation can be obtained from the Office of Telecommunications (OFTEL), Export House, 50 Ludgate Hill, London EC4M 7JJ.

Some apparatus may incorporate facilities for which a mandatory standard is necessary, but for which no standard has yet been designated for approval purposes under the Telecommunications Act 1984. Other apparatus may incorporate innovative features not foreseen when the relevant standard was written and designated and for which that standard is not fully appropriate. The British Approvals Board for Telecommunications (BABT) can sometimes deal with these cases by writing a “Special investigation test schedule” (SITS), which has the effect of stating requirements where there is no designated standard or of supplementing or varying the requirements in the application of the designated standard. Information on any relevant SITS may be obtained from the Director, BABT Claremont House, 34 Molesey Road, Hersham, Walton-on-Thames, Surrey KT12 4RQ.

Since this standard was originally published, several directives concerning the provision of telecommunication services have been promulgated by the Commission of the European Communities. As a result, the European Telecommunications Standards Institute (ETSI) has been authorized to produce European Telecommunication Standards (ETSS) and Technical Bases for Regulation (TBRs) from which Common Technical Requirements will be derived. Consequently, it is anticipated that national standards will eventually be replaced.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations. In particular, attention is drawn to the Telecommunications Act 1984.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

