



Customer Interface Publication: KCOM (Hull) CIP 004

Integrated Services Digital Network (ISDN)

Technical Characteristics of the Primary Rate Interface when delivered using Digital Access Signalling System Number 2

Issue: 1.2
April 2016

The information in this document is provided in accordance with the requirements of the Telecommunications (Voice Telephony) Regulations 1997 and Radio Equipment and Telecommunications Terminal Equipment Regulations 2000 to publish (in accordance with the EC Voice Telephony Directives 95/62/EC & 98/10/EC and Radio and Telecommunications Terminal Equipment Directive 99/05) technical characteristics of interfaces to the public fixed telephone network.

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Note: this document replaces 2 previous publications KCL SIP004 and Torch Communications TCH SIP004 on the same subject – see document history.

1 Scope

This document specifies the technical characteristics of the digital interface of the ISDN Primary Rate service operated by KCOM Group PLC and delivered to a customer at the Network Terminating Point (NTP) using Digital Access Signalling System N⁰. 2. The NTP is the socket on the Network Terminating and Test Apparatus (NTTA).

In cases where the Network Termination Equipment (NTE) is mains powered, the conditions quoted in this CIP apply when mains power is being applied to the NTE. The conditions applicable when mains power is removed from the NTE may be different to those quoted in this CIP.

Much of the information contained in this document has been published previously in various documents such as ITU-T, ETSI and BSI standards.

Changes to the network that affect the correct working of approved terminal equipment will be published by KCOM Group PLC in various documents made available from the address below. If the changes impact on this document then it will be updated.

Enquiries relating to the technical content of this document and the availability of other publications should be directed to:

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2. General

KCOM Group PLC ISDN Primary Rate (DASS 2) service will support terminal equipment meeting the requirements of BSI PD7004: 1995 [1].

Note: PD 7004: 1995 in turn refers out to BS 7378 Part 1: 1991.

3. The Network Termination Point

The network termination point shall either be two unbalanced 75Ω BNC sockets labelled TFC IN and TFC OUT or one balanced (Symmetrical) 120Ω pair terminated on an RJ45 connector socket. The sockets shall be mounted on the Network Terminating and Test Apparatus (NTTA) / Network Terminating Equipment (NTE) at the customer premises.

4. Electrical Characteristics of the Interface

KCOM Group PLC ISDN Primary Rate (DASS 2) service is delivered using a digital bearer in accordance with clause 9 of ITU-T recommendation G.703 [2].

A single 2048 kbit/s system has the capability of delivering up to 30 traffic channels (Time Slots 1 – 15 & 17 – 31), the frame alignment signal (Time Slot 0) and the associated signalling channel (Time Slot 16) in accordance with ITU-T Recommendation G. 704 [3]. Signals intended for the TE from the network will be presented at the NTP (TFC OUT). Signals intended for the network should be presented by the TE at the NTP (TFC IN).

5. Call Control Procedures

The call control procedures associated with the ISDN Primary Rate (DASS 2) service are described in Clause 7 of PD 7004: 1995.

6. Safety & EMC Information

6.1 Safety

The normal working voltages of the ISDN Primary Rate (DASS2) service are defined in Clause 9 of ITU-T recommendation G.703 2001 [2].

The interface presented to the customer is classified as unexposed as defined in CENELEC Report/ETSI Guide ROBT-002/EG 201 212 [4].

6.2 EMC

The network equipment and network terminating equipment related to the provision of the interface comply with the current EMC regulations.

Whilst predominantly installed in commercial and light industrial environments, this does not preclude the interface being installed in other environments e.g. residential, industrial. This should be taken into account by the terminal equipment manufacturer when determining the limits of compliance relevant to their equipment in relation to the protection requirements of the EMC directive.

7. Terminal Equipment Specifications

The minimum recommended terminal equipment performance specification is specified in BS PD 7004^[1].

The minimum recommended terminal equipment EMC specifications are listed in the Official Journal of the European Communities for use under the Electromagnetic Compatibility Directive (89/336). The lists are updated regularly and the terminal manufacturer is recommended to comply with the listed standards applicable to their equipment and the target electromagnetic environment.

The minimum recommended terminal equipment electrical safety specifications are listed in the Official Journal of the European Communities for use under the Low Voltage Directive (73/23/EEC). The lists are updated regularly and the terminal manufacturer is recommended to comply with the listed standards applicable to their equipment.

8. Glossary

BS	British Standard
BSI	British Standards Institute
CIP	Customer Interface Publication
DASS N ⁰ .2	Digital Access Signalling System N ⁰ . 2
EC	European Community
ETS	European Telecommunication Standard
ETSI	European Telecommunications Standards Institute
ISDN	Integrated Services Digital Network
ITU-T Sector	International Telecommunications Union – Telecommunications
NT1	Network Termination Type 1
NTE	Network Termination Equipment
NTP	Network Terminating Point
NTTA	Network Terminating and Test Apparatus
PD	Published Document
PS 1	Power Source 1
TE	Terminal equipment
TFC IN	Traffic In
TFC OUT	Traffic Out

9. References

Ref	Standard	Title	Date
[1]	PD 7004: 1995	Essential requirements for Terminal Equipment intended for connection to digital interfaces of the PSTN using Digital Access Signalling System No. 2 (DASS 2)	1995
[2]	ITU-T Recommendation on G.703	Physical/Electrical Characteristics of hierarchical digital interfaces	2001

[3]	ITU-T Recommendation G.704	Synchronous Frame Structures used at Primary and Secondary Hierarchical Digital Interfaces	1998
[4]	ROBT-002/EG 201 212 V.1.2.1 (1998-11)	Electrical Safety ; Classification of interfaces for equipment to be connected to telecommunications networks	1998

The above documents may be obtained from:

British Standards Institution
Customer Services, Sales Department
389 Chiswick High Road,
London W4 4AL

Telephone: 0181 996 7000
Facsimile (Group2/3): 0181 996 7001

10. History

Date	Issue	Comments	Author
Precursor documents:			
Technical Characteristics of the Primary Rate Interface when delivered using DASS2 [Issue 3 May 2000] KCL CIP004			
Technical Characteristics of the Primary Rate Interface when delivered using DASS2 [Issue 3 May 2000] TCH CIP004			
Dec 2003	Issue 1.0	Kingston Communications (HULL) PLC publication to replace the above	M. D. Crowther
August 2007	Issue 1.1	KCOM Group PLC publication to replace the above and change of contact information.	M. D. Crowther
April 2016	Issue1.2	KC name change to KCOM and document formatting	Amanda Woodard