

## **Customer Interface Publication: KCOM (Hull) CIP008**

# Technical Characteristics of the 34368kbit/s (34Mbit/s) digital leased line

**Issue: 1.2** 

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The information in this document is provided in accordance with the requirements of the Radio Equipment and Telecommunications Terminal Equipment Regulations 2000 (Statutory Instrument 2000 No. 730) to publish (in accordance with the EC Radio and Telecommunications Terminal Equipment Directive 99/05/EC) technical characteristics of interfaces to the public fixed telephone network.

Users of this document should not rely solely on the information in this document, but should carry out their own tests to satisfy themselves that terminal equipment will work with the networks of KCOM Group PLC.

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Note: This replaces Kingston Communications Ltd CIP007 on the same subject – see document history.

## 1. Scope

This document specifies the technical characteristics of a 34Mbit/s digital leased line interface operated by KCOM Group PLC delivered to a customer at the Network Terminating Point (NTP). This interface is applicable to the "Megaline" service.

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:

KCOM Group PLC Regulatory Affairs and Technology Development 37 Carr Lane, Kingston Upon Hull. HU1 3RE

Telephone: 01482 602100 E-mail: regulatory@kcom.com

#### 2. The Network Termination Point

The network termination point shall be two unbalanced 75ohm BNC sockets labelled TFC IN and TFC OUT. The sockets shall be mounted on the Network Terminating and Test Apparatus (NTTA) / Network Terminating Equipment.

#### 3. Electrical Characteristics of the Interface

The 34368 kbit/s (34Mbit/s) digital leased line interface service is unstructured and is delivered using a digital bearer in accordance with clause 11 of ITU-T recommendation G.703 [2]

## 4. Safety & EMC Information

#### 4.1 Safety

The normal working voltages of the 34368 kbit/s (34Mbit/s) digital leased line interface are defined in clause 11 of ITU-T recommendation G.703 <sup>[2]</sup>. The interface presented to the customer is classified as unexposed as defined in CENELEC Report/ETSI Guide ROBT-002/EG 201 212 <sup>[3]</sup>.

#### **4.2 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.

### 5. Terminal Equipment Specifications

The minimum recommended terminal equipment performance specification is specified in BS PD 7026<sup>[1]</sup>. 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.

## 6. Glossary

BSI British Standards Institute
EC European Community

EMC Electromagnetic Compatibility

ETS European Telecommunication Standard

ETSI European Telecommunications Standards Institute

ITU-T International Telecommunications Union – Telecommunications Sector

NTE Network Termination Equipment

NTP Network Terminating Point

NTTA Network Terminating and Test Apparatus

PD Published Document
TE Terminal equipment

TFC IN Traffic In Traffic Out

## 7. References

Ref	Standard	Title	Date
[1]	PD 7026: 1995	Essential requirements for Terminal Equipment intended for connection to digital leased lines with 75 ohm G.703 interfaces and rates of 34Mbit/s unstructured	1995
[2]	ITU-T Recommendati on G.703	Physical/Electrical Characteristics of hierarchical digital interfaces	2001
[3]	R0BT-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: 0208 996 9001 Facsimile: 0209 996 7001

## 11. History

Date	Issue	Comments	Author
		Precursor Document: Technical Characteristics of the 34368kbit/s (34Mbit/s) digital leased line [Issue 1.0 May 2000] KCL CIP007	M. Budd
December 2003	Issue 1.0	Kingston Communicatoins (HULL) PLC publication to replace the above	M. D. Crowther
August 2007	Issue 1.1	KCOM Group PLC publication to replace the above	M. D. Crowther
April 2016	Issue 1.2	KC name change to KCOM and document formatting changes	Amanda Woodard