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Suppliers' Information Note

For The BT Network

BT International MegaStream 45

Service Description

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1 Introduction

This Suppliers' Information Note (SIN) describes the BT International MegaStream 45 Service and provides technical information for terminal equipment (TE) manufacturers and suppliers.

2 Service Outline

The BT International MegaStream 45 Service provides an international high capacity digital service operating at 44.736Mbit/s. The Service is presented to the customer via an ITU-T Recommendation G.703 [1] interface using the Bipolar with Three-Zero Substitution (B3ZS) line code.

3 Service Availability

This service is available where network capacity exists and correspondent agreement exists with other international PTOs.

For service availability to other countries please contact the International Bandwidth Team as given in section 7.

4 Technical Specification

4.1 Physical

Physically, the presentation of the G.703 interface is via a pair of BNC unbalanced 75 Ohm sockets, one for each direction of transmission. The sockets conform to BS9210; N0001; Part2; Issue2, October 1982; Figure 3 [2].

The digital distribution frame (DDF) mentioned in clause 5 of G.703 is not included in the network terminating equipment (NTE). The DDF allowance of 0.6dB can be taken by the customers' equipment and cabling, however, BT would advise that this allowance is reserved for losses in the connectors.

4.2 Electrical

Electrically, the presentation conforms to clause 5 of G.703. The line code is B3ZS as defined in G.703 Annex A.

4.3 Frame Structure

The service is structured and therefore data will need to be structured in accordance with ITU-T Recommendation G.752 [3].

4.4 Timing

The service will support customers transmit signal timing within the limits of 44 736 kbit/s ± 20 ppm which is in accordance with subclause 5.2 of G.703.

4.5 Jitter

The jitter requirements for this service are as specified in clause 1.3.5 of G.752 [3].

5 Network Terminating Equipment (NTE) Power

The NTE requires a -50Volt power feed and consumes between 350 and 600 Watts of power, dependant on the customer option. This -50Volt supply can be supplied by BT, or a customer provided power supply can be used (see note). A customer supplied mains power source will be required close to the installation to operate the BT -50V power supply.

Where the NTE is powered by a customer provided -50Volts, the NTE will be supplied with a connection lead which will be presented as wires only. As power supplies can vary slightly in output voltage and characteristics, the NTE will function with customer provided power supplies which are in accordance with the British Telecom Network Requirement, (BTNR) 2511 [4].

Note - Customer provided power supplies for connection to this service shall conform with relevant safety standards.

6 Service Maintenance

There are no mandatory maintenance facilities associated with this service.

7 Further Information Contact Point

For "sales and marketing" information about this service please telephone the International Bandwidth Team on 01277 326788 / 01977 596622.

Alternatively please contact either:

- Your Company's BT account manager.
- For personal customers, BT sales on 0800 800150 for product and service information, sales, and rental enquiries.
- For business customers, BT sales on 0800 800152 for product and service information, sales, and rental enquiries.

Enquiries relating to this document should be directed to the SIN helpline which is given on the title page.

8 References

[1]	G.703	Physical/Electrical characteristics of hierarchical digital interfaces.	1991
[2]	BS9210: N0001: Part2:	Control drawings. Mating face details and gauge information.	Issue 2: 1982
[3]	G.752	Charateristics of digital multiplex equipments based on a second order bit rate of 6312 kbit/s and using positive justification.	1980
[4]	BTNR 2511	Interface of telecomms equipment with a nominal 48v negative dc power supply.	

For further information or copies of referenced sources, please see document sources at http://www.btplc.com/sinet/

9 Abbreviations

BTNR	British Telecom Network Requirement
B3ZS	Bipolar with three-zero substitution
CCITT	Now known as ITU-T
DDF	Digital distribution frame
ITU-T	International Telecommunications Union For Telecommunications (formerly CCITT)
NTE	Network Terminating Equipment
PTO	Public Telecommunications Operator
SIN	Suppliers' Information Note
TE	Terminal Equipment

10 History

Issue 1	May 1996, First Issued.
Issue 1.1	December 2001, Editorial changes.
Issue 1.2	January 2004, Approval Requirements statement removed, information available via SINet Useful Contacts page. Section and reference numbering amended.
Issue 1.3	Change SINet site references from http://www.sinet.bt.com to http://www.btplc.com/sinet/

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