Technical Information Request for

TBR3

**Please complete and return this form, preferably before testing commences to avoid any unnecessary delays.**

**However, if testing is going to be witnessed operational information can be given when testing.**

# Element Materials Technology

Unit E, South Orbital Trading Park, Hedon Road, Hull, HU9 1NJ

Phone +44 (0)1482 801801 Fax +44 (0)1482 801806

E-mail [info.hull@element.com](mailto:info.hull@element.com) Web Site [www.element.com](http://www.element.com)

## SECTION A : General Information

**A.1 Applicant details**

Applicant name:

Address:

Telephone No: Fax No:

Contact Name/Title:

**A.2 Product Information**

Product name:

Model/Catalogue No/Part No:

Please give details of subassemblies.

|  |  |
| --- | --- |
| Subassembly name | Model/Catalogue No/Part No |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

If possible, please supply two complete samples of the apparatus to the laboratory for assessment. This will enable some testing to be performed in parrallel.

**A.3 Software Details**

|  |  |
| --- | --- |
| ISDN Software version: |  |
|  |  |
|  |  |
|  |  |
| ISDN Software component location: |  |
|  |  |

Is the software based on an Application Programmable Interface (API) ? (i.e. third party application software is required for the product to function as a terminal equipment)

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

Please give details

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

**A.4 Interface Details**

|  |  |
| --- | --- |
| a) | How many Basic Rate ISDN interface ports are incorporated into the apparatus ? |

|  |  |
| --- | --- |
|  |  |
|  |  |

|  |  |
| --- | --- |
| b) | Are all Basic Rate ISDN ports based on identical ISDN interface circuitry and components ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

Please ensure that all ports are operational and can be configured to provide all test modes listed in section B.3.

|  |  |
| --- | --- |
| c) | Is the apparatus of the NT2 category ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

**A.5 Power Feeding.**

|  |  |
| --- | --- |
| a) | Is the apparatus |

|  |  |  |  |
| --- | --- | --- | --- |
| Locally powered |  | Powered from PS1 |  |
|  |  |  |  |

|  |  |
| --- | --- |
| b) | Is the apparatus "Designated" for restricted power operation ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

**A.6 Please give instructions to show how a B channel call can be established and cleared.**

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

The apparatus must be able to make a call in the deactivated state (state F3).

**A.7 Can the equipment be installed in a testing laboratory for assessment, or must it be tested at another site?**

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

**A.8** **How do you intend to show compliance with the Low Voltage and EMC Directives**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Safety |  | EMC |  |
|  |  |  |  |  |  |
| Element to perform relevant testing |  |  |  |  |  |
|  |  |  |  |  |  |
| Self declaration ( Element to perform private testing) |  |  |  |  |  |
|  |  |  |  |  |  |
| Self Declaration (Results from another source) |  |  |  |  |  |

## SECTION B : Physical Level

**B.1 Connection to ISDN network.**

|  |  |
| --- | --- |
| a) | Is the apparatus to be supplied with an ISDN connecting cable? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If yes please supply the cable (or cables) to the laboratory, otherwise all testing will be performed using the Laboratory Reference Cable.

|  |  |
| --- | --- |
| b) | If YES, is the apparatus to be supplied with an integral connecting cable (i.e. a cable that cannot be removed from the apparatus without the use of tools)? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| c) | Is the apparatus only intended for permanent connection in a point-to-point wiring configuration ? (Refer to BABT Application Note 46) |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

**B.2 ISDN interface components.**

|  |  |
| --- | --- |
| a) | Please give details of the ISDN S/T interface IC. |

|  |  |  |
| --- | --- | --- |
|  | manufacturer |  |
|  |  |  |
|  |  |  |
|  | type number |  |
|  |  |  |
|  |  |  |
|  | batch number |  |
|  |  |  |
|  |  |  |
|  | package type |  |
|  |  |  |

|  |  |
| --- | --- |
| b) | Please give details of the ISDN S/T interface transformer. |

|  |  |  |
| --- | --- | --- |
|  | manufacturer |  |
|  |  |  |
|  |  |  |
|  | type number |  |
|  |  |  |

|  |  |
| --- | --- |
| c) | If a second source of the ISDN S/T transformer is to be used, please give details below. |

|  |  |  |
| --- | --- | --- |
|  | manufacturer |  |
|  |  |  |
|  |  |  |
|  | type number |  |
|  |  |  |

**B.3 Test modes.**

The following test modes are required to enable layer 1 assessment:

|  |  |
| --- | --- |
| a) | The apparatus must provide Loopback 4 (manually controlled B channel loopback).  Please indicate how this may be initialised. |

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

|  |  |
| --- | --- |
| b) | The apparatus must be able to provide INFO 1 signals for a minimum period of 1 second.  If this is not availiable in normal operation please indicate how this may be increased for testing purposes. |

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

|  |  |
| --- | --- |
| c) | The apparatus must provide a deactivated state (i.e. transmission of INFO 0) following deactivation and must remain in this state until either a call is made by the apparatus or the network attempts to activate the apparatus. |

|  |  |
| --- | --- |
| d) | Are terminating resistors built into the apparatus ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If yes please indicate how they may be disconnected for testing purposes.

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

|  |  |
| --- | --- |
| e) | Does the apparatus automatically send a layer 2 SABME frame when entering layer 1 state F7 (activated) ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

**B.5. Frame alignment.**

|  |  |  |
| --- | --- | --- |
| a) | How many bad frames are required for the apparatus to lose frame alignment (n). |  |
|  |  |  |
| b) | How many good frames are required for the apparatus to then regain frame alignment (m). |  |

**B.6. Timers supported.**

|  |  |
| --- | --- |
| a) | What is the value of timer T3 ? |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  | seconds |

|  |  |
| --- | --- |
| b) | Does the apparatus implement timer T309? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| c) | Does the apparatus implement timer T303? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

**B.7. Galvanic Isolation.**

|  |  |
| --- | --- |
| a) | Does the apparatus have an earth connection passed into it? (Even via a serial / console / admin port) |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If yes please indicate where the connection is made within the apparatus.

......................................................................................................................................

......................................................................................................................................

## SECTION C : Link Level

|  |  |
| --- | --- |
| a) | Can the apparatus be configured to operate in a point-to-point configuration? (i.e use only a single point-to-point data link on TEI 0). |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If YES how can this be configured?

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| b) | Does the apparatus support automatic TEI assignment procedures (TEI range 64-126)? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| c) | Does the apparatus use non-automatic TEI’s (TEI range 0-63)? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If non-automatic TEI’s are used how can the TEI value be configured?

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| d) | Does the apparatus support the sending of Identity Verify? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| e) | Is the apparatus stable in the TEI assigned state (S4)? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

## SECTION D : Network Level

Please tick all bearers supported by the apparatus ?

|  |  |
| --- | --- |
| Incoming | Outgoing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a) | Unrestricted Digital Information 64kbit/s |  |  |  |
|  |  |  |  |  |
| b) | Unrestricted Digital Information 56kbit/s rate adaption |  |  |  |
|  |  |  |  |  |
| c) | Speech (G.711 A-Law) |  |  |  |
|  |  |  |  |  |
| d) | Speech (G.721 32kbit/s ADPCM) |  |  |  |
|  |  |  |  |  |
| e) | Video |  |  |  |
|  |  |  |  |  |
| f) | 7kHz Audio (G.722 and G.725 7kHZ Audio) |  |  |  |
|  |  |  |  |  |
| g) | 3.1kHz Audio (G.711 A-Law) |  |  |  |
|  |  |  |  |  |

If the apparatus supports any other bearers please give details.

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| h) | Does the apparatus support the use of broadcast datalink (TEI 127) |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| i) | Does the apparatus use enbloc sending for outgoing calls? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| j) | Does the apparatus always contain the Sending Complete information element in it's SETUP message? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| k) | Does the apparatus use Overlap Sending for outgoing calls? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| l) | Does the apparatus check for incompatible bearer capability? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| m) | Does the apparatus support High Layer Compatibility Checking? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If YES please list all incoming HLC's checked by the apparatus.

................................................................................................................................

................................................................................................................................

Please give details on how to configure the apparatus for High layer Compatibility checking.

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| n) | Does the apparatus use Overlap Receiving for incoming calls? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| o) | Does the apparatus support suspend and resume procedures? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| p) | Does the apparatus support the transmission of INFORMATION PDUs |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| q) | Is the apparatus stable in state U7 for more than 4s? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| r) | Is the apparatus stable in state U9 for more than 4s? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| s) | Does the apparatus send High layer compatibility information in its outgoing SETUP? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If YES please list all outgoing HLC's sent by the apparatus.

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| t) | Does the apparatus send Lower layer compatibility information in its outgoing SETUP? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If YES please list all outgoing LLC's sent by the apparatus.

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| u) | Does the apparatus send CALL PROCEEDING PDUs? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| v) | Does the apparatus send ALERTING PDUs? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| w) | Does the apparatus send CONNECT ACKNOWLEDGE PDUs? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| x) | Can the apparatus initiate outgoing calls? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

If YES please give details on how to initiate an outgoing call from the apparatus.

................................................................................................................................

................................................................................................................................

Please give details on how to initiate a Layer 3 DISCONNECT message from the apparatus.

................................................................................................................................

................................................................................................................................

|  |  |
| --- | --- |
| y) | Does the apparatus accept Incoming Calls ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

|  |  |
| --- | --- |
| z) | Which of the following messages can the apparatus SEND? |

|  |  |  |  |
| --- | --- | --- | --- |
|  | YES |  | NO |

|  |  |  |  |
| --- | --- | --- | --- |
| ALERTING |  |  |  |
|  |  |  |  |
|  |  |  |  |
| CALL PROCEEDING |  |  |  |
|  |  |  |  |
|  |  |  |  |
| CONNECT ACKNOWLEDGE |  |  |  |
|  |  |  |  |
|  |  |  |  |
| INFORMATION |  |  |  |
|  |  |  |  |
|  |  |  |  |
| SETUP ACKNOWLEDGE |  |  |  |
|  |  |  |  |
|  |  |  |  |
| STATUS ENQUIRY |  |  |  |
|  |  |  |  |
|  |  |  |  |
| RESTART |  |  |  |
|  |  |  |  |
|  |  |  |  |
| SUSPEND |  |  |  |
|  |  |  |  |
|  |  |  |  |
| RESUME |  |  |  |
|  |  |  |  |
|  |  |  |  |

## SECTION E : Additional requirements for the French EURO-NUMERIS Network

This appendix contains details relating to the assessment of the apparatus to ITAAB Advisory Note 054 rev 1 for connection to the French Euro-Numeris ISDN.

These requirements are not mandatory for type approval against the iCTR and thus for connection in France. However, in practice compliance with ITAAB note Advisory Note 54 rev 1 is considered to be necessary for a TE to interwork with the French network and it is likely that the French distributors require verification that interworking is possible.

Applicants should complete the following requirements tables in accordance with the capabilities of the apparatus to be assessed.

Table E.1 Implementation options table

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| No | Option | Support Y/N | Comment |
|  |  |  |  |
|  |  |  |  |
| 1 | The TE complies with I-CTR3 (Commission Decision 94/797/EC) |  | Used for requirements only applicable to Basic Access |
|  |  |  |  |
| 2 | The TE complies with CTR3 |  | Used for requirements only applicable to Basic Access |
|  |  |  |  |
| 3 | The TE supports a configuration using only a single point-to-point data link |  | Used for layer 2 requirements for Basic Access |
|  |  |  |  |
| 4 | The TE uses the codeset shift procedures |  | Used for layer 3 requirements |

Table E.2 : Layer 2 requirements table

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Number | Reference | Additional French Requirement | Support |
|  |  |  | (Y/N) |
|  |  |  |  |
| 1 | A.4.1 | Receipt of UI frames and support of TEI management procedures for a point-to-point configuration |  |
|  |  |  |  |

Table E.3 :Layer 3 Requirements table

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Number | Reference | Additional French Requirement | Support |
|  |  |  | (Y/N) |
|  |  |  |  |
| 1 | A.5.1 | Restart procedure modification |  |
| 2 | A.5.2 | Status Enquiry procedure modification |  |
| 3 | A.5.3 | Codeset shift procedure modification |  |
| 4 | A.5.4 | Extension Bit management procedure modification |  |
| 5. | A.5.5 | Handling of duplicated Information Elements |  |
| 6. | A.5.6 | Type of number in Called Party Number Information Element |  |
|  |  |  |  |

## SECTION F : Protection Static Attachment Requirements

F.1. Is the interface host independent?

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |

F.2. If NO, how many host variants is the interface designed to operate with?

|  |  |
| --- | --- |
|  |  |
|  |  |

F.3. Describe the variations in PSU's, backplanes and internal wiring between hosts. State any similarities.

................................................................................................................................

................................................................................................................................

................................................................................................................................

................................................................................................................................

................................................................................................................................

F.4 Within what type of device is the interface designed to operate?

................................................................................................................................

................................................................................................................................

F.5 What transient/over voltage protection circuitry is implemented at the power supply?

................................................................................................................................

................................................................................................................................

At the ISDN interface?

................................................................................................................................

................................................................................................................................

At what voltage level does the protection circuit become operational?

................................................................................................................................

................................................................................................................................

F.6. At what points are the interface and host(s) earthed?

................................................................................................................................

................................................................................................................................

F.7 How many ISDN connections are provided and what type are they?

................................................................................................................................

................................................................................................................................

F.8 Are the interface cables and connectors provided, shielded?

|  |  |  |  |
| --- | --- | --- | --- |
| Yes |  | No |  |
|  |  |  |  |