

**Recommendation T/CD 04-02 E (Innsbruck 1981)
concerning the requirements for permission to connect non-PTT equipment
to public data networks using X.20 or X.20bis interfaces**

Recommendation proposed by Working Group T/WG 10 "Data Communication" (CD)

Text of the Recommendation adopted by the "Telecommunications" Commission:

"The Conference of European Post and Telecommunications Administrations,

Considering

- that public data networks are implemented or will be implemented in the future;
- that harmonization of requirements for permission to connect non-PTT equipment is essential;
- that the administrative procedure for approvals are covered in Recommendation T/SF 13.

Recommends

the view that the following technical information must be obtained in order that Administrations may determine whether permission to connect to public data networks may be given."

1. **GENERAL INFORMATION**

DTE type:

Factory No.:

Manufacturer (name, address, telephone & telex number):

Agent (name, address, telephone & telex number):

2. **INTERFACES USED**

2.1. **With which CCITT Recommendation does the DTE conform**

X.20	
X.20bis	

*

2.2. **Network type application**

Circuit switched	
Leased line	

*

* Cross applicable.

2.3. **Remarks:**

3. **DATA SIGNALLING RATE, CODE AND ALPHABET**

Data signalling rate (bit/s)	*	Indicate the signalling rate
300		
50-200		

For DTE with the X.20-interface and working with data signalling rates of 50-200 bit/s only:

Is the DTE able to signal with 200 bit/s during the call establishment phase?

* Cross applicable

 Yes

 No

Additional for both X.20 and X.20bis DTEs

What code(s) and alphabet(s) are used?

What error-checking method(s) is (are) used?

How many retransmissions are made in the case of transmission errors?

How are transmission errors indicated?

4. **MODE OF OPERATION**

Simplex	
Half-duplex	
Duplex	

*

* Cross applicable.

Only for DTE employing half-duplex operation:

How is the half-duplex operation controlled?

(a) By special DTE-to-DTE control information

*

(b) By control of interchange** circuits (105, 109)

* Cross applicable.

** *Note:* The use of circuit 105 is not possible for control of half-duplex operation in the case of the X.20bis interface.

5. INTERCHANGE CIRCUITS V.-SERIES

5.1. Data interface

V.24 interchange circuit No.	Designation	Pin No.	Electrical characteristics	
			V.10	V.28
101	Protective ground			
102	Signal ground or common return			
103	Transmitted data			
104	Received data			
105	Request to send			
106	Ready for sending			
107	Data set ready			
108.1	Connect data set line			
108.2	Data terminal ready			
109	Data channel received line signal detector			
125	Calling indicator			
141	Local loop-back			
142	Test indicator			

5.2. Use of circuits 107 and 108

*Use of circuit 107**

- Indication of ready for data.
- Indication of DCE clear indication.
- Indication of DCE clear confirmation.
- Indication of DCE clear indication inhibited by circuit 108.

*Use of circuit 108**

- Use of circuit 108.1 for call request.
- Use of circuit 108.1 for call acceptance.
- Use of circuit 108.1 for DTE clear request.
- Use of circuit 108.1 for DTE clear confirmation.
- Use of circuit 108.2 for call acceptance.
- Use of circuit 108.2 for DTE clear request.
- Use of circuit 108.2 for DTE clear confirmation.
- Circuit 108.2 not used. (Strapped to ON in the DCE.)

* Cross applicable.

6. INTERCHANGE CIRCUITS X.-SERIES

Interchange circuits used

X.24 interchange circuit No.	Designation	Pin No.	Electrical characteristics	
			X.26 (V.10)	X.27 (V.11)
G	Signal ground or common return			
Ga	DTE common return			
TA TB	Transmit			
RA RB	Receive			

7. MISCELLANEOUS

7.1. Facilities

Which of the following facilities in the network can the DTE use?

- Full number selection.
- Direct call.
- Redirection of calls.
- Abbreviated address calling.
- Charge advice.
- Calling line identification.
- Connect when free.
- Facility registration/cancellation.
- Closed user group.

7.2. Additional for X.20-DTE

- (a) How quickly can the DTE respond to an incoming call? ms
- (b) Is the DTE capable of handling Call progress signals and other DCE-provided information?

No

Yes

7.3. **X.20bis time-out**

How long time does the DTE wait to turn circuit 108 from OFF to ON after incoming call, to indicate "Call accepted".

ms

8. **ELECTRICAL CHARACTERISTICS**

The nominal values are laid down in the relevant CCITT-Recommendations.

8.1. **Generator**

(a) Integrated circuit? Yes No Cross applicable.

If yes, indicate type and manufacturer:

(b) Discrete components? Yes No Cross applicable.

If yes, indicate test results of the following characteristics:

Open circuit measurement

Binary state 0: V

Binary state 1: V

Test termination measurement

Binary state 0: V

Binary state 1: V

Short-circuit measurement

Binary state 0: mA

Binary state 1: mA

Power-off measurement

Leakage current: μA

Transition time measurement

0-1 transition: μs

1-0 transition: μs

8.2. **Receiver**

(a) Integrated circuit? Yes No Cross applicable.

If yes, indicate type and manufacturer:

(b) Discrete components? Yes No Cross applicable.

If yes, indicate test results of the following characteristics:

Input voltage-current measurement

Binary state 0: mA

Binary state 1: mA

DC sensitivity measurement

Binary state 0: mV

Binary state 1: mV

9. **MECHANICAL CHARACTERISTICS OF THE DTE INTERFACE CONNECTOR**

15-pin connector (ISO 4903)

25-pin connector (ISO 2110)

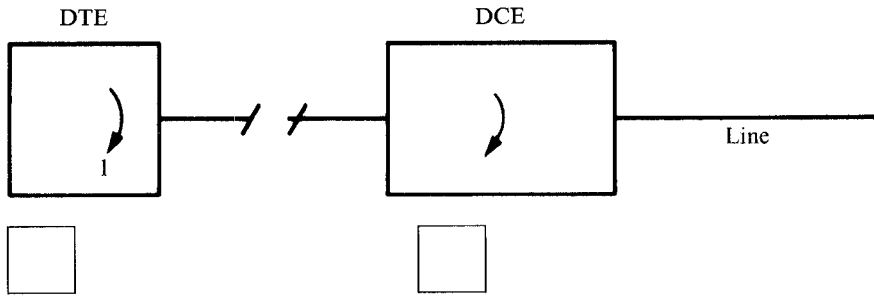
Cross applicable.

Interface adaptor to be used?

 Yes No

If yes, indicate kind of adaption:

10. TEST LOOPS



Cross the loops the DTE can operate.
Indicate other loops that can be used by the DTE:

11. ELECTRICAL SAFETY

Indicate all recognized national and/or international safety standards to which the DTE conforms. Indicate classes/types of equipment referred to in these standards where applicable. Statements of compliance with the above standards are taken to be legally binding.

Has the DTE already received electrical safety approval according to the above standards?

Yes No

If yes, indicate names, addresses of all approving authorities and approval code numbers which the DTE has received:

12. **RADIO INTERFERENCE SUPPRESSION**

Indicate all recognized national and/or international standards to which the DTE conforms.
Statements of compliance with the above standards are taken to be legally binding.

Has the DTE already received appropriate approvals according to the above standards?

 Yes No

If yes, indicate names, addresses of approving authorities and approval code numbers which the DTE has received:

The above particulars have been submitted by

Signature:

Date:

Telephone: