

# INTERNATIONAL STANDARD

**ISO  
2110**

Third edition  
1989-10-01

**AMENDMENT 1**  
1991-09-15

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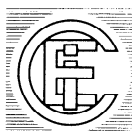
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## Information technology — Data communication — 25-pole DTE/DCE interface connector and contact number assignments

**AMENDMENT 1: Interface connector and contact  
assignments for a DTE/DCE interface for data  
(signalling rates above 20 000 bit/s)**

*Technologies de l'information — Communication de données — Connecteur  
d'interface ETDD/ETCD à 25 pôles et affectation des numéros de contacts*

*AMENDEMENT 1: Connecteur d'interface et affectation des numéros de contacts à  
l'interface ETDD/ETCD pour un débit binaire supérieur à 20 kbit/s*



Reference number  
ISO 2110 : 1989/Amd.1 : 1991 (E)

## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Amendment 1 to International Standard ISO 2110 : 1989 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Annex B of this Amendment is for information only.

# Information technology — Data communication — 25-pole DTE/DCE interface connector and contact number assignments

## AMENDMENT 1: Interface connector and contact assignments for a DTE/DCE interface for data signalling rates above 20 000 bit/s

Page 1

Pages 4 and 5

### Clause 1

Add the following:

"In the case where operation exceeding 20 000 bit/s is required, the electrical characteristics shall be in accordance with CCITT Recommendation V.10 and CCITT Recommendation V.11."

### Clause 2

Insert the following after "CCITT Recommendation S.16 : 1989":

"CCITT Recommendation V.10 : 1988, *Electrical characteristics for unbalanced double-circuit interchange circuits for general use with integrated circuit equipment in the field of data communications.*"

CCITT Recommendation V.11 : 1988, *Electrical characteristics for balanced double-circuit interchange circuits for general use with integrated circuit equipment in the field of data communications.*"

Table 1

Add the following column and add the following notes:

	Electrical characteristics	M Operation above 20 000 bit/s <sup>13)</sup>
		V. 11 / V. 10 <sup>14)</sup>
1		1)
2		103-A
3		104-A
4		105-A / 133-A
5		106-A
6		107 <sup>15)</sup>
7		102-A
8		109-A
9		115-B
10		109-B
11		113-B
12		114-B
13		106-B
14		103-B
15		114-A
16		104-B
17		115-A
18		141 <sup>15)</sup>
19		105-B / 133-B
20		108 <sup>15)</sup>
21		140 <sup>15)</sup>
22		125 <sup>15)</sup>
23		102-B
24		113-A
25		142

13 Reference to the appropriate V. Series Recommendation(s) to be added when CCITT specifies the use of these electrical characteristics in the said Recommendations.

14 Equipment designers shall take note of the fact that the predominant use of this connector is in devices using electrical characteristics conforming to CCITT Recommendation V.28. Therefore, equipment using V. 10/V. 11 electrical characteristics must be designed so that it can withstand the higher voltages normally associated with V.28 electrical characteristics because of the possibility of incorrect interconnection with these devices.

15 V.10 electrical characteristics.

Page 6

Table 2

Add the following:

Circuit number	Description
133	Ready for receiving

Page 14

Annex B (new)

Add the following:

Annex B  
(informative)

Interoperation with adapters

B.1 CCITT Recommendation V.36  
and CCITT Recommendation V.37

Interoperation is possible between equipment using this International Standard, table 1, column M, and existing equipment designed to support wideband modems as specified in CCITT Recommendation V.36 and CCITT Recommendation V.37.

Table B.1 illustrates the contact assignments for ISO 4902 with a cross reference to the corresponding CCITT Recommendation V.24 circuit assignments for the above column. It should be noted that Circuits 107 and 108 have an "A" and "B" assignment (use CCITT V.11 electrical characteristics) in ISO 4902, whereas they have a single assignment (use CCITT V.10 electrical characteristics) in ISO 2110, column M. Therefore, they require the use of an active interconnect circuit, similar to that shown in figure B.1, on circuits where a V.11 driver is being used with a V.10 receiver.

B.2 CCITT Recommendation V.35

Although CCITT Recommendation V.35 is no longer recommended for use by CCITT, interoperation between ISO 2110, column M, and this equipment is possible. The use of an active circuit (similar to that shown in figure B.1) is recommended for the case where a V.11 driver is connected to a V.35 unbalanced (V.28) receiver.

Table B.1 illustrates the contact assignments for ISO 2593 (associated with CCITT Recommendation V.35) and the corresponding contacts for ISO 2110, column M operation, specifying the type of interconnecting device to be used.

Table B.1 — Interconnection of ISO 2110, column M,  
with ISO 4902 and ISO 2593

	ISO 2110 column M	ISO 4902, CCITT V.36/V.37	ISO 2593, CCITT V.35
Circuit	Contact	Contact	Contact
	2) 103-A	4	P
	104-A	6	R
	105-A	7	C <sup>1)</sup>
	106-A	9	D <sup>1)</sup>
	107	11, 29 <sup>1)</sup>	E
	102-A	19	B
	109-A	13	F <sup>1)</sup>
	115-B	26	X
	109-B	31	F <sup>1)</sup>
	113-B	35	W
	114-B	23	AA
	106-B	27	D <sup>1)</sup>
	103-B	22	S
	114-A	5	Y
	104-B	24	T
	115-A	8	V
	141	10	L
	105-B	25	C <sup>1)</sup>
	108	12, 30 <sup>1)</sup>	H
	140	14	N
	125	15	J
	102-B	20	B
	113-A	17	U
	142	18	NN <sup>1)</sup>
1) May require active interconnect circuit.			
2) See table 1, note 1.			

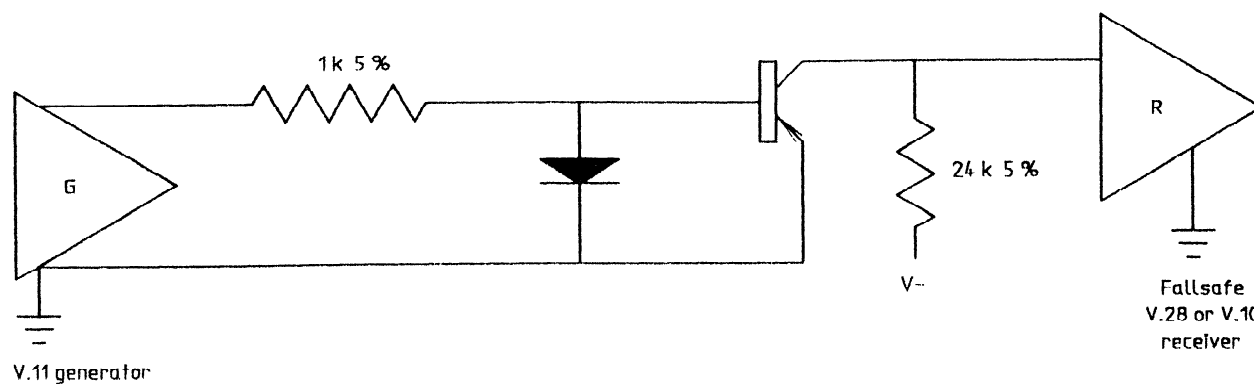


Figure B.1 — Active interconnect circuit

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**UDC 681.327.8 : 621.316.541**

**Descriptors:** data processing, data transmission, network interconnection, data communication equipment, connecting equipment, electric connectors, multi-contact connectors, connector pins, specifications, dimensions, layout, numbering.

Price based on 3 pages

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