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**Identification cards — Integrated circuit  
cards —**

Part 2:

**Cards with contacts — Dimensions and  
location of the contacts**

AMENDMENT 1: Assignment of contacts C4  
and C8

*Cartes d'identification — Cartes à circuit intégré —*

*Partie 2: Cartes à contacts — Dimensions et emplacements des  
contacts*

*AMENDEMENT 1: Attribution des contacts C4 et C8*

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## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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 ISO/IEC 7816-2:1999 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology, Subcommittee SC 17, Cards and personal identification*.

## Introduction

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draw attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning:

Title: Data transmission method and card therefor  
Schlumberger Systèmes, France  
WO 00/16255  
23 March 2000

The patent rights concern the assignment of the contacts C4 and C8 to the USB bus signals D+ and D-.

ISO and IEC take no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ISO and IEC that he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO and IEC. Information may be obtained from:

Schlumberger Systèmes  
Intellectual Property Department – Cards  
50, Avenue Jean Jaurès, BP 620-12  
France  
Fax: +33 (0) 146006308

Attention is drawn to the possibility that some elements of the document may be the subject of patent rights other than those identified above. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

## Identification cards — Integrated circuit cards —

Part 2:

### Cards with contacts — Dimensions and location of the contacts

#### AMENDMENT 1: Assignment of contacts C4 and C8

Cover and page 1

Change the title to:

Identification cards — Integrated circuit cards — Part 2: Cards with contacts — Dimensions and location of the contacts

Page 3, Clause 5

Replace Table 1 with the following:

**Table 1 — Assignment of the contacts**

Contact No.	Assignment	Contact No.	Assignment
C1	VCC (Supply voltage)	C5	GND (Ground)
C2	RST (Reset signal)	C6	VPP Variable supply voltage (e.g. programming voltage) (under reconsideration by ISO/IEC CD 7816-3)
C3	CLK (Clock signal)	C7	I/O (Data input/output)
C4	AUX1 <sup>1)</sup>	C8	AUX2 <sup>1)</sup>

1) In addition to the contacts assigned in this part, AUX1 is used by function code (FCB) for type 2 synchronous cards (ISO/IEC 7816-10).

If an interface device provides a USB interface, VCC shall be used by VBUS, AUX1 by D+ and AUX2 by D-.

The use of AUX1 and AUX2 by the USB interface does not preclude the use of these contacts by other protocols or other interface devices defined in this International Standard series. Such use is reserved by ISO/IEC JTC1/SC17.

## Bibliography

- [1] ISO/IEC 7816-10:1999, *Identification cards — Integrated circuit cards — Part 10: Cards with contacts — Electronic signals and answer to reset for synchronous cards*
- [2] Universal Serial Bus Specification Revision 2.0, April 27, 2000

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