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Identification cards — Proximity cards — Part 2: Radio frequency power and signal interface

AMENDMENT 4
Additional PICC classes

Cartes d'identification — Cartes de proximité — Partie 2: Interface radio fréquence

AMENDEMENT 4
Classes de PICC additionnelles

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Foreword

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Amendment 4 to ISO/IEC 14443-2:2010 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

Identification cards — Proximity cards — Part 2: Radio frequency power and signal interface

AMENDMENT 4:
Additional PICC classes

Page 4 of FCD ISO/IEC 14443-2, Clause 6

Replace 6.2 by the following subclause:

6.2 Operating field

The PCD shall generate a field strength of at least H_{min} and not exceeding H_{max} at manufacturer specified positions (operating volume) under unmodulated conditions.

The PCD shall support PICCs of classes 1, 2 and 3 and may optionally support PICCs of classes 4 and/or 5.

PCD requirements measured with Reference PICCs 1, 2 and 3 are mandatory for all PCDs.

PCD requirements measured with Reference PICC 4 are only mandatory for PCDs supporting operation with Class 4 PICCs.

PCD requirements measured with Reference PICC 5 are only mandatory for PCDs supporting operation with Class 5 PICCs.

PCD requirements measured with Reference PICC 6 are only mandatory for PCDs supporting operation with Class 6 PICCs.

Table 1 — PCD field strength

	PCD	
	H_{min}	H_{max}
Measured with Reference PICC 1	1,5 A/m (rms)	7,5 A/m (rms)
Measured with Reference PICC 2	1,5 A/m (rms)	10 A/m (rms)
Measured with Reference PICC 3	1,5 A/m (rms)	10 A/m (rms)
Measured with Reference PICC 4 (optional)	2,0 A/m (rms)	12 A/m (rms)
Measured with Reference PICC 5 (optional)	2,5 A/m (rms)	14 A/m (rms)
Measured with Reference PICC 6 (optional)	4,5 A/m (rms)	18 A/m (rms)

The PCD shall not generate a field strength higher than the value specified in ISO/IEC14443-1:2008, 4.4 (alternating magnetic field) in any possible PICC position and orientation, measured with Reference PICC 1.

Test methods for the PCD operating field are defined in ISO/IEC 10373–6 and use a dedicated Reference PICC for each Class.

The PICC shall operate as intended continuously between H_{min} and H_{max} defined for its Class. This includes all PICC requirements defined in this standard and processing of the manufacturer specified set of commands.

If the PICC does not meet the requirements of one particular Class as specified in ISO/IEC 14443-1/AMD1, then the requirements for Class 1 shall apply.

Table 2 — PICC operating field strength

	PICC	
	H_{min}	H_{max}
"Class 1" PICC	1,5 A/m (rms)	7,5 A/m (rms)
"Class 2" PICC	1,5 A/m (rms)	10 A/m (rms)
"Class 3" PICC	1,5 A/m (rms)	10 A/m (rms)
"Class 4" PICC	2,0 A/m (rms)	12 A/m (rms)
"Class 5" PICC	2,5 A/m (rms)	14 A/m (rms)
"Class 6" PICC	4,5 A/m (rms)	18 A/m (rms)

NOTE Margins are effectively included by the test methods as specified in ISO/IEC 10373–6.