ISO/IEC JTC 1/SC 17
Cards and personal identification
Secretariat: BSI

Document type: Text for FDIS ballot

Title: Notification that - ISO/IEC 14443-1:2008/FDAM 1: Identification cards - Contactless integrated circuit cards - Proximity cards - Part 1: Physical characteristics - has been posted to the ISO server for FDIS ballot – Amd 1 Additional PICC classes

Status:

BACKWARD POINTER: N 3680, N 3744, N 3831, N 3832, N 3900 and N 3993

STATUS: Notification of FDIS ballot. Disposition of comments in N 3993.

WORK ITEM: 40608

DUE DATE: To be advised by ISO

Date of document: 2010-08-23

Expected action: VOTE

Email of secretary: chris.starr@ukpayments.org.uk

Committee URL: http://isotc.iso.org/livelink/livelink/open/jtc1sc17

ISO/IEC Form 10 - Electronic

	Explanatory Report	**ISO/IEC FDIS**
	ISO/IEC JTC 1/SC17 Will supersede: SC 17 N 3832	Secretariat: APACS for BSI

This form should be sent to ITTF, together with the committee draft, by the secretariat of the joint technical committee or sub-committee concerned

The accompanying document is submitted for circulation to member body vote as a FDIS, following consensus of the P-members of the committee obtained on:

	at the {DATE, LOCATION} meeting of ISO/IEC JTC 1/SC {YY} (See resolution number {XX} in document SC {YY} N {XXXXX})
✓	by postal ballot initiated on: 2009-12-10

P-members in favour:	Armenia (SARM), Austria (ASI), China (SAC), Czech Republic (UNMZ), France (AFNOR) Germany (DIN), India (BIS), Israel (SII), Italy (UNI), Japan (JISC), Korea, Republic of (KATS), Netherlands (NEN), Norway (SN), Poland (PKN), Russian Federation (GOST R) South Africa (SABS), Switzerland (SNV), United Kingdom (BSI)
P-members voting against:	USA (ANSI)
P-members abstaining:	Belgium (NBN), Canada (SCC), Finland (SFS), Kenya (KEBS), Malaysia (DSM), Slovakia (SUTN), Spain (AENOR), Sweden (SIS)
P-members who did not vote:	Australia (SA), Denmark (DS), Luxembourg (ILNAS), Portugal (IPQ), Romania (ASRO) Singapore (SPRING SG)

Remarks:
Disposition of comments contained in N 3993.

Project: 40608

I hereby confirm that this draft meets the requirements of part 2 of the IEC/ISO Directives

Date: 2010-08-23	Name/Signature of the secretary: Chris Starr

ISO/IEC JTC 1/SC 17

Date: 2010-04-30

ISO/IEC 14443-1:2008/FDAM 1:2010(E)

ISO/IEC JTC 1/SC 17/WG 8

Secretariat: DIN

Identification cards — Contactless integrated circuit cards — Proximity cards — Part 1: Physical characteristics

AMENDMENT 1
Additional PICC classes

Cartes d'identification — Cartes à circuit(s) intégré(s) sans contact — Cartes de proximité — Partie 1: Caractéristiques physiques

AMENDEMENT 1
Classes de PICC additionnelles

Document type: International Standard
Document subtype: Amendment
Document stage: (50) Approval
Document language: E

D:\ISO_IEC\WG8 Berlin 2010\Classes\ISO-IEC_14443-1_A1_(E)V6(Classes).doc STD Version 2.1c2

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.

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

Amendment 1 to ISO/IEC 14443-1:2008 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

Identification cards — Contactless integrated circuit cards — Proximity cards — Part 1: Physical characteristics

AMENDMENT 1:
Additional PICC classes

Page 2, 4.4

Replace the paragraph with the following:

"If the PICC meets the requirements of one particular class as specified in Annex A, then the PICC, whichever form the PICC has according to 4.1, shall continue to operate as intended after continuous exposure to a magnetic field of an average level of 4/3 times H_{max} at 13,56 MHz as specified in ISO/IEC 14443-2 for this class. The averaging time is 30 seconds and the maximum level of the magnetic field is limited to 8/5 times H_{max}.

If the PICC does not claim to meet the requirements of one particular class as specified in Annex A, then the PICC, whichever form the PICC has according to 4.1, shall continue to operate as intended after continuous exposure to a magnetic field of an average level of 10 A/m rms at 13,56 MHz. The averaging time is 30 seconds and the maximum level of the magnetic field is limited to 12 A/m rms."

Page 3, Annex A

Replace the annex A with the following:

Annex A
(normative)
PICC class definitions

A.1 "Class 1"

A "Class 1" PICC shall fulfil the requirements in A.1.1 and A.1.2. The support of "Class 1" PICCs is mandatory for PCDs.

A.1.1 Antenna Location

The antenna of a "Class 1" PICC shall be located within a zone defined by two rectangles, as specified in Figure A.1:

— external rectangle: 81 mm x 49 mm;

— internal rectangle: 64 mm x 34 mm, centered in the external rectangle, with 3 mm corner radii;

except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

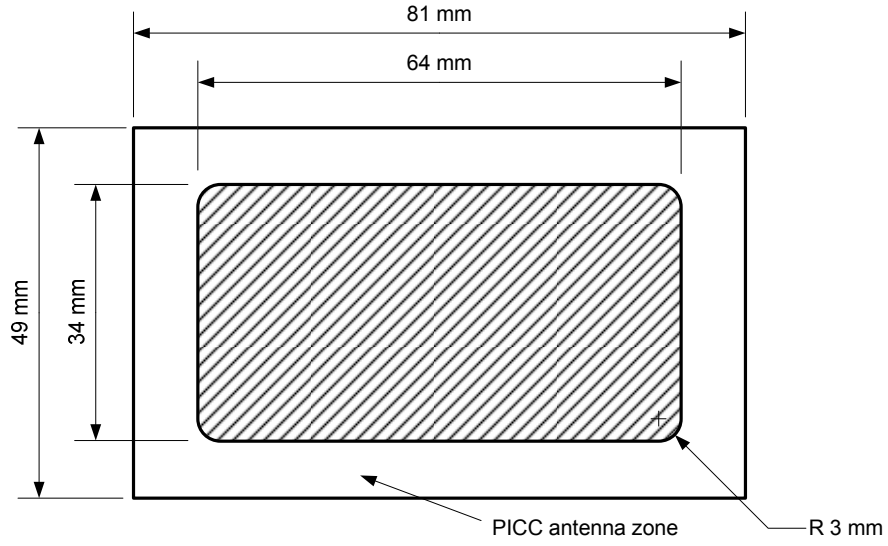

Figure A.1 – Location of the antenna of the "Class 1" PICC

NOTE The antenna of a PICC with ID-1 dimensions (as defined in ISO/IEC 7810 or ISO/IEC 15457-1) should be centered.

A.1.2 Electrical requirement

The "Class 1" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.

A.2 "Class 2"

A "Class 2" PICC shall fulfil the requirements in A.2.1 and A.2.2. The support of "Class 2" PICCs is mandatory for PCDs.

A.2.1 Antenna Location

The antenna of a "Class 2" PICC shall be located within a zone defined by two rectangles, as specified in Figure A.2:

— external rectangle: 81 mm x 27 mm;

— internal rectangle: 51 mm x 13 mm, located at 7 mm and 8,5 mm from the external rectangle, with 3 mm corners radii;

except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

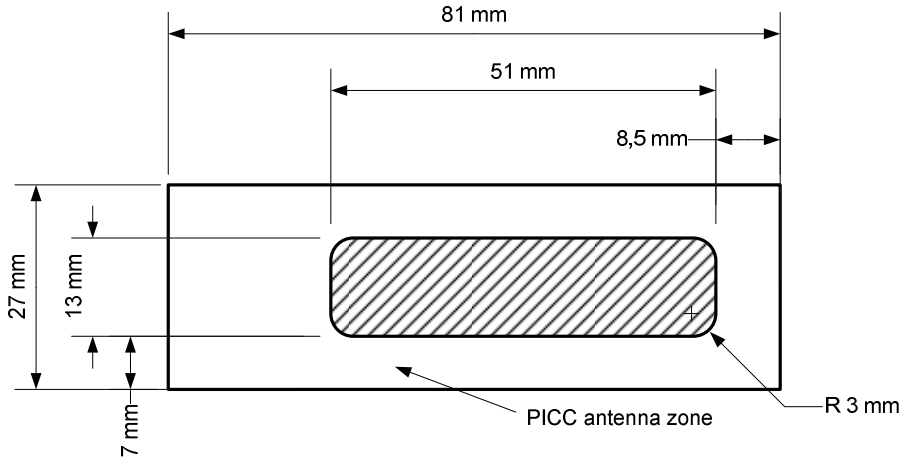

Figure A.2 – Location of the antenna of the "Class 2" PICC

A.2.2 Electrical requirement

The "Class 2" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.

A.3 "Class 3"

A "Class 3" PICC shall fulfil the requirements in A.3.1 and A.3.2. The support of "Class 3" PICCs is mandatory for PCDs.

A.3.1 Antenna Location

The antenna of a "Class 3" PICC shall be located within a zone defined by either:

— external rectangle: 50 mm x 40 mm;

— internal rectangle: 35 mm x 24 mm, centered in the external rectangle, with 3 mm corners radii;

or

— external circle with diameter 50 mm;

— internal circle with diameter 32 mm, concentric with the external circle;

as specified in Figure A.3, except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

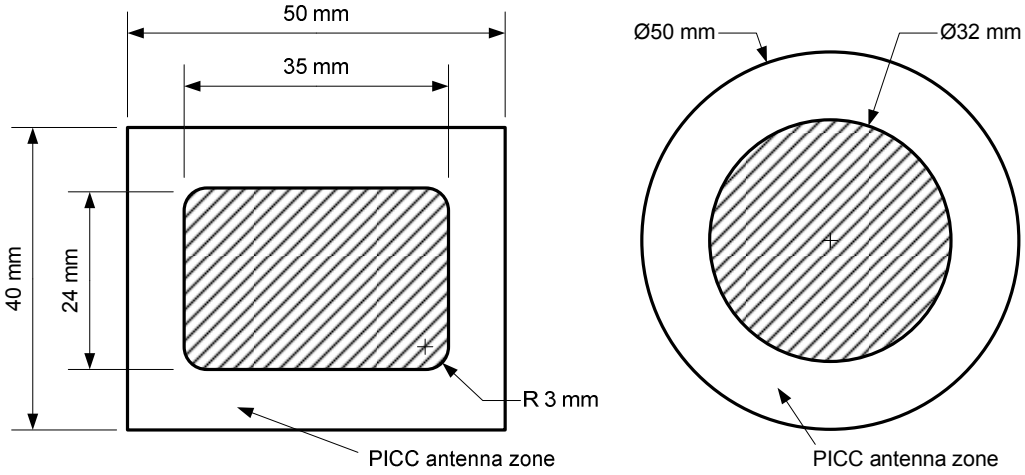

Figure A.3 – Location of the antenna of the "Class 3" PICC

A.3.2 Electrical requirement

The "Class 3" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.

A.4 "Class 4"

A "Class 4" PICC shall fulfil the requirements in A.4.1 and A.4.2. The support of "Class 4" PICCs is optional for PCDs.

A.4.1 Antenna Location

The antenna of a "Class 4" PICC shall be located within a zone defined by either:

— external rectangle: 50 mm x 27 mm;

— internal rectangle: 35 mm x 13 mm, centered in the external rectangle, with 3 mm corners radii;

or

— external circle with diameter 41 mm;

— internal circle with diameter 24 mm, concentric with the external circle;

as specified in Figure A.4, except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

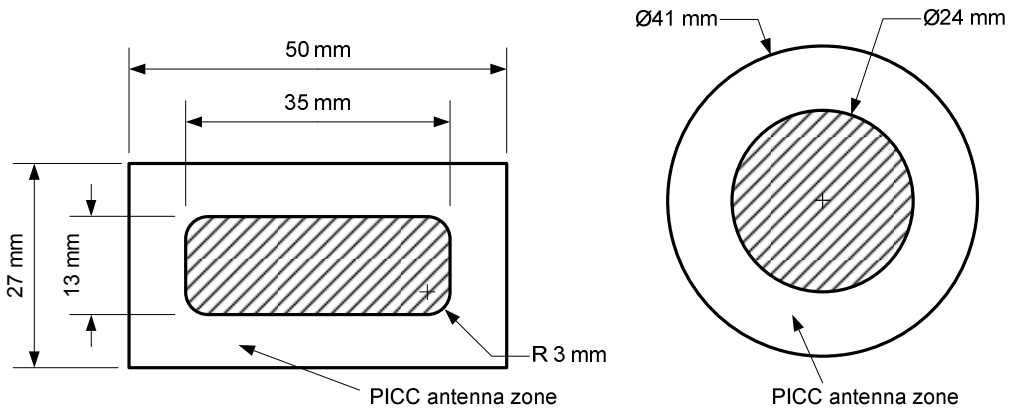

Figure A.4 – Location of the antenna of the "Class 4" PICC

A.4.2 Electrical requirement

The "Class 4" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.

A.5 "Class 5"

A "Class 5" PICC shall fulfil the requirements in A.5.1 and A.5.2. The support of "Class 5" PICCs is optional for PCDs.

A.5.1 Antenna Location

The antenna of a "Class 5" PICC shall be located within a zone defined by either:

— external rectangle: 40,5 mm x 24,5 mm;

— internal rectangle: 25 mm x 10 mm, centered in the external rectangle, with 3 mm corners radii;

or

— external circle with diameter 35 mm;

— internal circle with diameter 18 mm, concentric with the external circle;

as specified in Figure A.5, except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

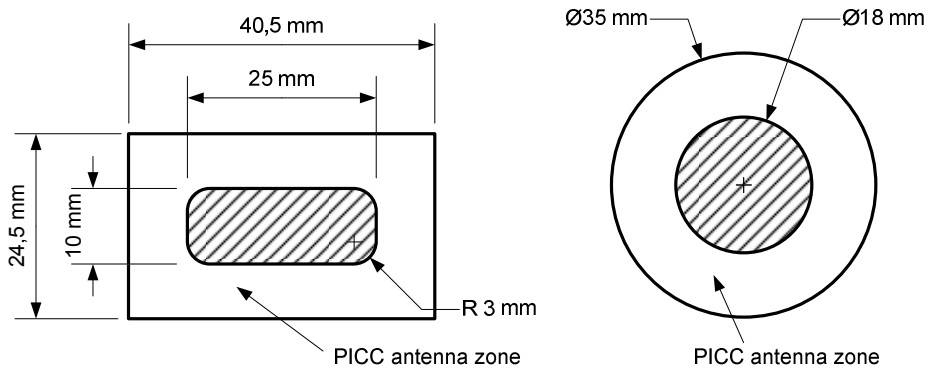

Figure A.5 – Location of the antenna of the "Class 5" PICC

A.5.2 Electrical requirement

The "Class 5" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.

A.6 "Class 6"

A "Class 6" PICC shall fulfil the requirements in A.6.1 and A.6.2. The support of "Class 6" PICCs is optional for PCDs.

A.6.1 Antenna Location

The antenna of a "Class 6" PICC shall be located within a zone defined by either a rectangle of dimensions 25 mm x 20 mm or a circle of 25 mm diameter, as specified in Figure A.6, except for the connections to the ends of the antenna coil, with a maximum area of 300 mm^2.

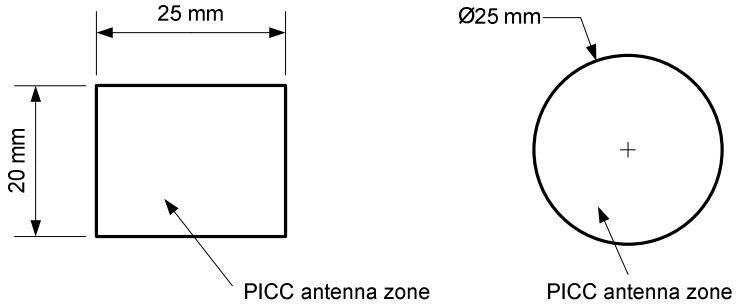

Figure A.6 – Location of the antenna of the "Class 6" PICC

A.6.2 Electrical requirement

The "Class 6" PICC shall also pass the PICC maximum loading effect test defined in ISO/IEC 10373-6:2010/AMD8, 7.2.4.