Interoperability Specification for ICCs and Personal Computer Systems

Part 3. Supplemental Document

Axalto

HID Global

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SCM Microsystems

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Revision History

Revision	Issue Date	Comments
2.00.00	April 1, 2005	First version
2.00.01	April 19, 2005	Minor edits
2.00.02	May 6, 2005	Added RID number
2.01.00	June 22, 2005	Final release
2.01.01	September 29, 2005	Changed Schlumberger to Axalto
2.01.02	November 24,2005	Some cards added, part 4 compliant storage cards removed
2.01.03	June 20, 2007	LRI64 tag added
2.01.04	July 23, 2007	Added Cherry GmbH as participant
2.01.05	March 02, 2009	New cards added
2.01.06	June 16, 2009	i-Code SL2 added
2.01.07	November 05, 2010	MIFARE Plus and FeliCa added
2.01.08	June 03, 2011	Low frequency added, Table caption added
2.01.09	June 07, 2013	Added NN byte for MIFARE Ultralight EV1

Contents

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1 Scope

This document provides additional information to part 3 of the PC/SC specification for IFD subsystem implementers. It contains vendor- and product-specific information, which is subject to frequent updates, and is therefore provided as a separate document.

2 Storage-Card ATR Relevant Information

This section defines fields of the Storage Card ATR that are likely to change (to be extended) in the future. It shall be noted that existing definitions remain the same.

2.1 AID Definition

The bytes are listed from lowest to highest index.

2.1.1 RID

This is the *Registered Application Provider Identifier*. The PC/SC Workgroup has its own 5-byte RID:

B[0]	B[1]	B[2]	B[3]	B[4]
A0	00	00	03	06

Table 1: Registered Application Identifier for PC/SC Workgroup

The specification mandates to use this RID for compliant IFD subsystems.

2.1.2 PIX

2.1.2.1 SS - Byte For Standard

This describes the standard a Storage Card (that has been detected by the IFD subsystem) is working under.

b7	b6	b5	b4	b3	b2	b1	b0	Description
0	0	0	0	0	0	0	0	No information given
0	0	0	0	0	0	0	1	ISO 14443 A, part 1
0	0	0	0	0	0	1	0	ISO 14443 A, part 2
0	0	0	0	0	0	1	1	ISO 14443 A, part 3
0	0	0	0	0	1	0	0	RFU
0	0	0	0	0	1	0	1	ISO 14443 B, part 1
0	0	0	0	0	1	1	0	ISO 14443 B, part 2
0	0	0	0	0	1	1	1	ISO 14443 B, part 3

b7	b6	b5	b4	b3	b2	b1	b0	Description
0	0	0	0	1	0	0	0	RFU
0	0	0	0	1	0	0	1	ISO 15693, part 1
0	0	0	0	1	0	1	0	ISO 15693, part 2
0	0	0	0	1	0	1	1	ISO 15693, part 3
0	0	0	0	1	1	0	0	ISO 15693, part 4
0	0	0	0	1	1	0	1	Contact (7816-10) I^2C
0	0	0	0	1	1	1	0	Contact (7816-10) Extended I^2C
0	0	0	0	1	1	1	1	Contact (7816-10) 2WBP
0	0	0	1	0	0	0	0	Contact (7816-10) 3WBP
0	0	0	1	0	0	0	1	FeliCa
…								RFU
0	1	0	0	0	0	0	0	Low frequency contactless cards[1]
…								RFU
1	1	1	1	1	1	1	1	RFU

Table 2: SS Byte for standard

2.1.2.2 NN – Bytes For Card Name

The two bytes for Card Name represent a number which will be assigned by the PC/SC Workgroup upon request:

Card Name	Two Byte - Identifier
No information given	00 00
Mifare Standard 1K	00 01
Mifare Standard 4K	00 02
Mifare Ultra light	00 03
SLE55R_XXXX	00 04
SR176	00 06
SRI X4K	00 07
AT88RF020	00 08
AT88SC0204CRF	00 09
AT88SC0808CRF	00 0A
AT88SC1616CRF	00 0B
AT88SC3216CRF	00 0C
AT88SC6416CRF	00 0D
SRF55V10P	00 0E
SRF55V02P	00 0F
SRF55V10S	00 10

[1] The Low frequency is the range < 135 kHz. The typical frequency is 125 kHz.

Card Name	Two Byte - Identifier
SRF55V02S	00 11
TAG_IT	00 12
LRI512	00 13
ICODESLI	00 14
TEMPSENS	00 15
I.CODE1	00 16
PicoPass 2K	00 17
PicoPass 2KS	00 18
PicoPass 16K	00 19
PicoPass 16Ks	00 1A
PicoPass 16K(8x2)	00 1B
PicoPass 16KS(8x2)	00 1C
PicoPass 32KS(16+16)	00 1D
PicoPass 32KS(16+8x2)	00 1E
PicoPass 32KS(8x2+16)	00 1F
PicoPass 32KS(8x2+8x2)	00 20
LRI64	00 21
I.CODE UID	00 22
I.CODE EPC	00 23
LRI12	00 24
LRI128	00 25
Mifare Mini	00 26
my-d move (SLE 66R01P)	00 27
my-d NFC (SLE 66RxxP)	00 28
my-d proximity 2 (SLE 66RxxS)	00 29
my-d proximity enhanced (SLE 55RxxE)	00 2A
my-d light (SRF 55V01P))	00 2B
PJM Stack Tag (SRF 66V10ST)	00 2C
PJM Item Tag (SRF 66V10IT)	00 2D
PJM Light (SRF 66V01ST)	00 2E
Jewel Tag	00 2F
Topaz NFC Tag	00 30
AT88SC0104CRF	00 31
AT88SC0404CRF	00 32
AT88RF01C	00 33
AT88RF04C	00 34
i-Code SL2	00 35
MIFARE Plus SL1_2K	00 36
MIFARE Plus SL1_4K	00 37

Card Name	Two Byte - Identifier
MIFARE Plus SL2_2K	00 38
MIFARE Plus SL2_4K	00 39
MIFARE Ultralight C	00 3A
FeliCa	00 3B
Melexis Sensor Tag (MLX90129)	00 3C
MIFARE Ultralight EV1	00 3D
…	RFU
Others	To be assigned

Table 3: NN Byte for card name

2.1.2.3 RR RFU Bytes

These bytes are RFU. They have to be *zero*.