Contactless Smartcard

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Mifare UID Decimal formats

Example:

Sector 0 Block 0 Data: 80 CD E6 D6 7D 88 04 00 88 98 00 20 00 00 00 F8

Single size UID (4-byte)

UID "in order" (Big Endian): 80 CD E6 D6

UID "in reverse bytes order" (Little Endian/Intel): D6 E6 CD 80

Decimal: 3605450112

References:

- https://www.starnfc.com/mifare-1k-uid-number-format
- https://www.mifare.net/support/forum/topic/mifare-uid-number

Contactless Smartcard Document Directory

- Proxmark's docuement directory for different contactless smartcard standards

FeliCa

FeliCa Related information

FeliCa Guide and IC Card Info

FeliCa System Code and Known service code list

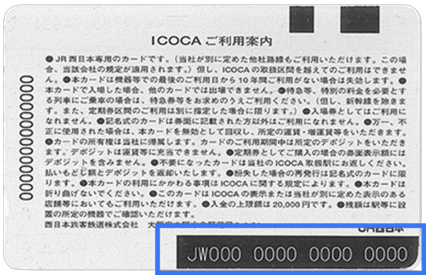
Product	SysCode	Known Service Code
Wildcard	`0x__FF`	
Wildcard (for Polling)	`0xFF__`	
IC Card - □□□ IC□□□	`0x0003`	• Balance - □□□□□□□□ `0x008B` • Usage - □□□□□□□□□□ `0x090F` • Gate entry/exit history - □□□□□□□□□ `0x108F` • SF info - SF□□□□ `0x10CB` More info
nicepass	`0x040F`	
□□ Edy	`0x04C0`	No services. (to be confirmed, from WDIC)
NDEF (NFC Data Exchange Format)	`0x12FC`	
HCE-F (Host Card Emulation)	`0x4___`	
Shenzhen Tong (1st Gen)	`0x8005`	
Omi Railway and Bus Card	`0x8074`	

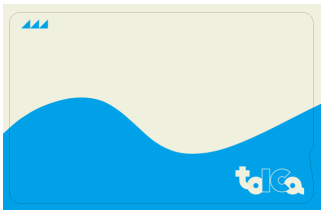
Product	SysCode	Known Service Code
IruCa	`0x80DE`? `0xDE80`	
IC e-card (Iyo Railway)	`0x80E0`	
CI-CA, Randen (?)	`0x8157`	
Rapica	`0x8194`	
NicoPa	`0x8287`	
ecomyca passca	`0x832C`	
Waon	`0x852B`	
itappy	`0x862C`	
PASPY	`0x8592`	
SAPICA	`0x865E`	
Suica	`0x86A7`	
FeliCa Lite	`0x88B4`	
NORUCA	`0x8B43`	
Randen	`0x8B98`	
Kartu Multi-Trip	`0x90B7`	
Hayakaken	`0x927A`	
MRT Jakarta	`0x9373`	
JIS X 6319-4:2016	`0xAA__`	
FeliCa Networks Common Area Edy IC Card	`0xFE00`	

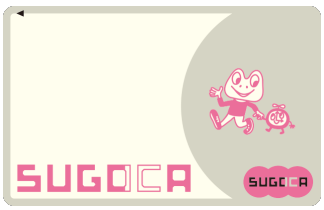
Product	SysCode	Known Service Code
FeliCa Plug	`0xFEE1`	
楽天 Edy	`0xFE00`	• Balance - 残高に関する情報 `0x1317` • Number - Edy番号の情報 `0x110B` • History - 利用履歴に関する情報 `0x170F`
nanac	`0xFE00`	• Balance - 残高に関する情報 `0x5597` • Number - 番号の情報 `0x558B` • History - 利用履歴に関する情報 `0x564F`
WAON	`0xFE00`	• Balance -残高に関する情報 `0x6817` • Number -WAON番号の情報 `0x684F` • Points - ポイントに関する情報 `0x684B` • History - 利用履歴に関する情報 `0x680B`
大学生協 ICプリペイド	`0xFE00`	• Balance - 残高に関する情報 `0x50D7` • Coop info - 大学生協に関する情報 `0x50CB` • History - 利用履歴に関する情報 `0x50CF` More info
Octopus 八達通	`0x8008`	• Balance - 残高に関する情報 `0x0117` More info

0x003 Transport Card Information 交通系 IC カード

The backside of IC card contains a "Laser Number", the first two characters represent the card issuer.



Prefix	Product	Card Face	Issuer
JH	Kitaca □□□		JR Hokkaidō
JE	Suica □□□		JR East (Tokyo & E Japan)
PB	PASMO □□□		non-JR operators in Tokyo
TP	manaca □□□		Nagoya City Transportation Bureau Development Organization & MIC
JC	TOICA □□□		JR Central
SU	PiTaPa □□□		Surutto Kansai

Prefix	Product	Card Face	Issuer
JW	ICOCA □□□		JR West (Kansai)
NR	nimoca □□□		Nishi-Nippon Railroad (Fukuoka)
JK	SUGOCA □□□		JR Kyūshū
SK	icsca □□□□		Sendai City Transportation Bureau
FC	Hayakaken □□□□□		Fukuoka City Transportation Bureau

FeliCa Parts

Reader and Reader Enclosure Manufacturer

- Daitron