



CB DEVELOPMENT CARDS CPACE

CPE12d_V/MC_20

INSTRUCTIONS FOR USE

Version : 1.0 Date : 09/02/2024

HISTORY

Version	Date	Modifications
1.0	09/02/2024	Added with CPE12d_V/MC_20 product

ABREVIATIONS

- CB Cartes Bancaires
- GCB Groupement des Cartes Bancaires

Contenu

HISTORY.....	2
ABREVIATIONS.....	2
1 INTRODUCTION.....	4
2 IMPLEMENTATION.....	5
2.1 CB development cards	5
2.2 CVN 18 - Evolution of cards based on Visa	7
2.2.1 Activating the contactless app	7
2.2.2 Management of "card" counters	7
3 GENERAL PRESENTATION OF CARD SETS.....	9
3.1 Main characteristics of a set	9
3.2 List of sets	10
3.2.1 Standard sets of CB development cards CPACE on MasterCard application-based	10
3.2.2 Standard sets of CB development cards CPACE on Visa application based	10
3.2.3 Structure of the PAN	11
3.2.4 Code PIN	11
3.2.5 Features of the magnetic stripe	11
3.2.6 Keys	11
3.3 Detailed description of the sets	14
3.3.1 CPE12dV et CPE12dMC set : CPACE PART	14
3.3.2 CPE12d_V set: VISA part	23
3.3.3 CPE12dMC set : MASTERCARD part	29

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :3/37
---	-------------	--------------	------------------	------------

1 INTRODUCTION

CB offers cards to allow the development, integration and maintenance of electronic payment applications on acceptance system.

There are two types of cards:

- **Test cards** that can be used for installation, integration, application, maintenance activities in real environment,
- **Development cards** that can be used for development, testing, application, maintenance activities in a laboratory environment..

This document deals with CB development cards CPACE : CPE12d_V/MC_20.

Development cards picture

These cards can operate in contact mode and in contactless mode. When a card works in both modes, it is called a '**dual interface**' card. They make it possible to carry out payment transactions.

This document describes the implementation principles as well as the catalogue of these cards.

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :4/37
---	-------------	--------------	------------------	------------

2 IMPLEMENTATION

In order for CB development cards to be accepted on an acceptance system, it is necessary to:

- that this system is loaded with, at least, a CB application that works in contact mode and / or contactless (depending on the type of transaction to be made) and initialized via an acquiring system.
- that the acceptance system is connected to an authorization server (development) depending on the type of card used.

2.1 CB development cards

The implementation of a test authorization simulator and server is the responsibility of the developer board user. He must ensure that the value of the keys, necessary for the proper functioning of the "CB" Development cards [CPACE](#) , are well informed and he knows the chosen policy :

- Declaration of cards
- Risk management (cap, card opposition)
- Card application blocking / unblocking

ELITT provides the document VALUES OF THE DEVELOPMENT KEYS [CPACE](#) in which are specified the values of the keys necessary for the operation of these cards (calculation of transaction cryptogram, offline authentication).

For Development CB cards to be accepted by an acceptance system, the CB payment application must be initialized. This initialization is done by loading data via a simulator or a test acquiring system. These include:

- The BIN : 507100,
- The public value of the CA key pairs and associated parameters provided by ELITT in the document VALUES OF DEVELOPMENT KEYS [CPACE](#).

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :5/37
---	-------------	--------------	------------------	------------

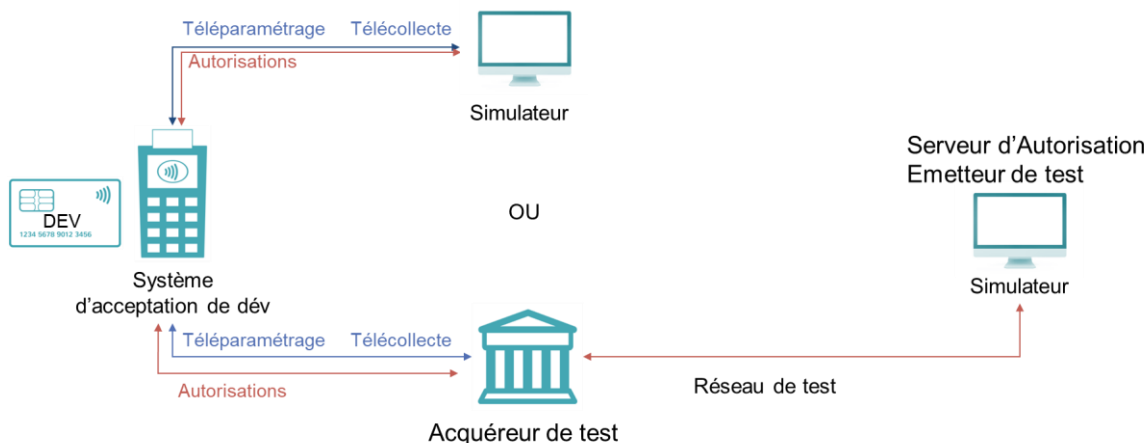
Development CB cards are not accepted on field acceptance systems. Online transactions are not routed through the interbank authorisation network to ELITT's test server.

The tables and diagram below describe the contexts of use

« CB » DEVELOPMENT CARD CPACE « DUAL Interface » :

	Development Environment (with test network)	Development Environment (with simulator)
« Offline » payment	Possible*	Possible*
« Online » payment	Possible*	Possible*
Withdrawal	Impossible	Impossible

* Possible : Transactions can be finalized.



Implementation diagram of the "CB" Development Cards CPACE

Note: certain types of "CB" payment application, such as payment on ATM, require the transition from "PRODUCTION" mode to "TEST" mode to allow the acceptance of CB Development cards CPACE in the event that the remote parameterization performed from a simulator or a test acquiring system has defined the BIN used for Development "CB" cards as a test BIN. Failover arrangements are the responsibility of the acceptance solution provider.

**IT IS IMPERATIVE TO MAKE A TRANSACTION IN CONTACT MODE
BEFORE USING THE CARD IN CONTACTLESS MODE**

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :6/37
---	-------------	--------------	------------------	------------

2.2 CVN 18 - Evolution of cards based on Visa

2.2.1 Activating the contactless app

Based on the VISA application, the transition to CVN18 requires the authorization server to manage the CSU "Card Status Update" and in particular the 2-bit 8-2-1 byte. Indeed, at the end of customization, the contactless interface is activated (DF30 ='03'), but the available funds (VLP Available Funds) are at 0.

2.2.2 Management of "card" counters

The authorization server must be updated by integrating CSU management rules to manage your new Visa based cards with CVN 18.

CVN 18 used on the Visa Application Base (LV) was introduced with the ST11 V18. However, the management of this new CVN involves having to update the response rules of the authorization server to integrate new data. " CSU " used to reset counters .

2.2.2.1 CSU

⇒ Authentication Data [Reminder : Issuer Authentication Data; conveyed in field CBAE 55-0091].

IAD pour CVN 18	
1-4	ARPC cryptogram
5-8	CSU (Card Status Update)
9-10	Proprietary Authentication Data

⇒ Rules implemented on SAE:

Item	Valorisation CSU	Emplacement
Transaction refusée – Avec ou sans saisie du code confidentiel ⇒ Compteurs « offline » et « online » non modifié	'00 00 00 00	Octet 2 bit 2-1 = '00'
Transaction acceptée - code confidentiel saisi et contrôlé "online" ou "offline" ⇒ Compteurs « offline » et « online » remis à zéro	'00 82 00 00	Octet 2 bit 8 = 1 Octet 2 bit 2-1 = '10'
Transaction acceptée – Pas de saisie de code confidentiel ⇒ Compteurs « offline » et « online » non modifié	'00 80 00 00	Octet 2 bit 8 =1 Octet 2 bit 2-1 = '00'

2.2.2.2 Gestion de l'ARPC

The ARPC will be overloaded with offset 1 to 4. Below is an explanatory table of the evolution of the IAD format to be taken into account between the IAD of CVN 10 and the IAD of CVN18:

Avec CVN 10	
1-8	ARPC cryptogram
9-10	Response code
Avec CVN 18	
1-4	ARPC cryptogram
5-8	CSU (Card Status Update)
9-10	Proprietary Authentication Data

2.2.2.3 Identification des cartes sur base Vis CVN 18

The offset 7 valued at 4 or at 5 indicates the new generations of card

3 GENERAL PRESENTATION OF CARD SETS

Preamble: the general presentation of the card sets is identical to that described in the catalog with an add-on on the 3DES and RSA keys.

3.1 Main characteristics of a set

Each set is composed of 10 cards whose main characteristics are gathered in the table below with an identifier structured as follows: TL | VBA | (D) | x | BA | yy | VL with

TL = Set Type	CPE	Standard set - all cards in the set are identical with kernel CPACE
VBA= Version Base applicative	12	M/Chip Advance 1.2.3 – Visa 1.6.3/VCPS 2.2.4
x = Card Type	d	Development card
BA= Base Applicative	V	Visa
	MC	MasterCard
yy = rang	id	Numéro de carte dans un lot
VL = Version Lot	20	20 for sets CP
RSA Keys		AC key: 1984 bits Issuer key : 1952 exponent 3 Card key : 1408 bits exponent 3

3.2 List of sets

3.2.1 Standard sets of CB development cards CPACE on MasterCard application-based

Identifier Set	Type of Set	Application Base Version	Techno.	Card Type	Applicati on Base	Card Rank	Version Set	Support Product	Characteristics
CPE12dMC	Standard	M/Chip Advance 1.2.3	Dual interface	Dev	MasterCard	-	20	SELP	APPLICATIONS CB et MCW - PAIEMENT/RETRAIT

3.2.2 Standard sets of CB development cards CPACE on Visa application based

Identifier Set	Type of Set	Application Base Version	Techno.	Card Type	Applicati on Base	Card Rank	Version Set	Support Product	Characteristics
CPE12dV	Standard	VIS 1.6.3 et VCPS 2.2.4	Dual interface	Dev	Visa	-	20	SELP	APPLICATIONS CB et VISA - PAIEMENT/RETRAIT

3.2.3 Structure of the PAN

The PAN is structured as follows: BIN | Identifier | Card sequential number| Luhn key with::

BIN	507100 for development cards
Identifier	4 digits attributed by CB
Card sequential number	5 digits assigned by the CB test cards service
Luhn key	4 digits attributed by CB

3.2.4 Code PIN

!! Le code PIN est 1234 for these development cards CPACE !!

3.2.5 Features of the magnetic stripe

It is a three-track banner with high coercivity, ISO1 and ISO2 encoding.

- The service code is valued at 901 except for 'CB only ', CB and Visa cards , CB and MC with systematic authorization (921), ' CB only' withdrawal card (903).
- The PVV data is calculated with index key 9 for development cards.
- CVV and CVC data are not present (there is no CVV in the chip)
- The discretionary data field of the ISO2 track is supplemented by 0s so that the total length encoded is 40 characters.
- The data 'Cardholder name', 'PAN', 'Card expiration date' must correspond to the custom data in the CB application.

3.2.6 Keys

3.2.6.1 3DES Keys

- All 3DES keys are 128 bits long.
- The values of the keys for the development CB cards are known.

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :11/37
---	-------------	--------------	------------------	-------------

List of keys :

- Transaction Certificate Calculation Key (TC/AAC/ARQC/ARPC)
- Secure messaging key for privacy
- Secure messaging key for integrity
- ICC Dynamic Number (IDN) Calculation Key

The algorithms used for the calculation of cryptogram depend on the application base:

- VIS : CVN = '12'h (hexadecimal value)
- MC : CVN = '10'h (hexadecimal value)
- CP : CVN='A5'h (hexadecimal value)

3.2.6.2 Track Keys

Calculation key of the online PIN verification value (by SAT or simulator / Test sending server) customized on the track

INSTRUCTIONS FOR USE CB DEVELOPMENT CARD CPACE	Référence :	Version :1.0	Date :09/02/2024	Page :12/37
---	-------------	--------------	------------------	-------------

3.2.6.3 RSA Keys

List of keys :

- Certificate Authority (CA) Key
- Transmitter key
- Card Bi-key

Set Type	Card	Application	Certificate Authority (CA) Key Pair			Issuer Key Pair		Card Key Pair	
			Index	Length	Exponent	Taille	Exposant	Taille	Index
CPE12d		CB/VISA/MC	Voir ci-dessous	1984	3	1952	3	1408	3

*PIN encryption

Type de carte	development		
Application	CB	Visa	MC
Index CA Key pair 1984 bits	E9	EB	EA

The values of the development keys CPACE are provided by ELITT in a specific document.

3.3 Detailed description of the sets

3.3.1 CPE12dV et CPE12dMC set : CPACE PART

LOT CPE12 DxCB-MC - APPLICATIONS CB - PAIEMENT/RETRAIT - DUAL INTERFACE - CPACE										
Tag	Name	Spec.	Lg. (hexa)	Format	Presence	Access	Signed	Shared	Value (Hexa)	Comment
									CB	
84	DF Name	EMV	0E	b	M	SELECT PSE		Y	31 50 41 59 2E 53 59 53 2E 44 44 46 30 31	"1PAY.SYS.DDF01" (PSE)
			0E	b	M	SELECT PPSE		Y	32 50 41 59 2E 53 59 53 2E 44 44 46 30 31	"2PAY.SYS.DDF01" (PPSE)
9F6E	Third Party Data	CSPACE	var.	b	M	READ RECORD		N		Set by vendor
4F	ADF Name	EMV	07	b	M	SELECT AID		N	A0000000421010	ADF Name CB
6F	FCI Template - PSE	EMV	15	b	M	SELECT PSE		Y	840E.....	
									84 0E 315041592E5359532E4444463031	"1PAY.SYS.DDF01"
									A5 ...	FCI Proprietary Template
									88 01 01	SFI of the Directory Elementary File
									5F2D 08 6672 656E 6465 6573	fr en de es
6F	FCI Template ADF CB Contact	25			M			N	8407...	
									84 07 A0000000421010	ADF Name CB
									A5 ...	FCI Proprietary Template
									50 02 4342	CB (Application Label)
									87 01 01	Application Priority Indicator
									BFOC 10	FCI Issuer Discretionary Data
									9F4D 02 xx19	The SFI set by the vendor is to be provided to ELITT
									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
5A	Application Primary Account Number (PAN)	EMV	var.	cn	M	READ RECORD	Y	Y	Value to be provided by ELITT	

5F34	Application Primary Account Number (PAN) Sequence number	EMV	01	n2	M	READ RECORD	Y	N	00	
5F20	Cardholder name	EMV	04	ans	M	READ RECORD		Y	2A2F	*/
	Reference PIN	EMV	var.	b	M	GET DATA PUT DATA				
9F17	PIN Try Counter	EMV	01	b	M	GET DATA PIN CHANGE UNBLOCK CSU		Y	03	
C6	PIN Try Limit	EMV	1	b	M	GET DATA PUT DATA		Y	03	
5F30	Service code	EMV	02	n3	M	READ RECORD	Y		901	
9F1F	Track1 Discretionary Data	EMV	var.	b	M	READ RECORD		Y		set by vendor
57	Track2 Equivalent Data	EMV	var.	b	M	READ RECORD	Y	Y	Value according to the PAN provided by ELITT	set by vendor
9F7E	Application Life Cycle Data	CPA	30	b	M	GET DATA	N	N	First byte = 01	set by vendor
C8	Application Issuer Life Cycle Data	CPA	20	b	M		N			set by vendor
DF62	CB life cycle (CBLC)									
9F05	Application Discretionary Data	EMV	var.	b	O	READ RECORD	Y	Y		not used
5F25	Application Effective Date	EMV	03	n6	M	READ RECORD UPDATE RECORD	Y	Y		set by vendor
5F24	Application Expiration Date	EMV	03	n6	M	READ RECORD	Y	Y		set by vendor
9F08	Application Version Number	EMV	2	b	M	READ RECORD	N	N	0003	
9F07	Application Usage Control	EMV	02	b	M	READ RECORD	N	Y	FF00	
9F42	Application Currency Code	EMV	02	n3	O	READ RECORD	N	N		not used
9F44	Application Currency Exponent	EMV	01	n1	O	READ RECORD	N	N		not used
	Master Key for AC	CPA	10	b	M			N		
	Master Key for SMC	CPA	10	b	M			N		
	Master Key for SMI	CPA	10	b	M			N		

	AC Session Key Counter	CPA	02	b	M			N	0000	
	SMI Session Key Counter	CPA	02	b	M			N	0000	
	PIN Decipherments Error Counter	CPA	02	b	M			N	0000	
C5	Security Limits	CPA	06	b	M	PUT DATA		N		
	AC Session Key Counter Limit	CPA	02	b	M	PUT DATA		N	FFFF	
	SMI Session Key Counter Limit	CPA	02	b	M	PUT DATA		N	FFFF	
	PIN Decipherments Error Counter Limit	CPA	02	b	M	PUT DATA		N	FFFF	
	Additional Master Key for AC	CPACE	10	b	O					not used
	Additional Master Key for SMC	CPACE	10	b	O					not used
	Additional Master Key for SMI	CPACE	10	b	O					not used
	Additional AC Session Key Counter	CPACE	02	b	O					not used
	Additional SMI Session Key Counter	CPACE	02	b	O					not used
	Integrated Circuit Card (ICC) Private key	EMV	var.	b	M			Y		set by vendor
9F46	Integrated Circuit Card (ICC) Public Key Certificate	EMV	var.	b	M	READ RECORD		Y		set by vendor
9F47	Integrated Circuit Card (ICC) Public Key Exponent	EMV	var.	b	M	READ RECORD		Y		set by vendor
9F48	Integrated Circuit Card (ICC) Public Key Remainder	EMV	var.	b	O	READ RECORD		Y		set by vendor
	Integrated Circuit Card (ICC) PIN Encipherment Private key	EMV	var.	b	M			Y		not used
9F2D	Integrated Circuit Card (ICC) PIN Encipherment Public Key Certificate	EMV	Ni	b	O			Y		not used
9F2E	Integrated Circuit Card (ICC) PIN Encipherment Public Key Exponent	EMV	1 oe 3	b	O			Y		not used

9F2F	Integrated Circuit Card (ICC) PIN Encipherment Public Key Remainder	EMV	var.	b	O			Y		not used
8F	Certificate Authority Public key index	EMV	01	b	M	READ RECORD		N		see Key page
5F28	Issuer Country Code	EMV	02	b	M	READ RECORD	Y	N		set by vendor
90	Issuer Public Key Certificate	EMV	var.	b	M	READ RECORD		Y		see Key page
9F32	Issuer Public Key Exponent	EMV	1 or 3	b	M	READ RECORD		Y		see Key page
92	Issuer Public Key Remainder	EMV	var.	b	O	READ RECORD		Y		see Key page
9F4A	Static Data Authentication tag list	EMV	01	b	M		Y	Y	82	
9F36	Application Transaction Counter (ATC)	EMV	02	b	M	GET DATA GEN AC		N	0000	
D6	AID-Interface File Entry	CPACE	02	b	M	GET DATA			xx02	The SFI set by the vendor is to be provided to ELITT
	AID-Interface Entry	CPACE	59	b	M	READ RECORD		N	8407....	see below
									84 07 A0000000421010	ADF Name CB
									91 01 01	Interface Descriptor - Contact
									A51A...	see FCI Proprietary Template contact
									E103...	GPO Parameters Reference Template (contact) see below
									C1 01 01	Contact GPO Parameters 1
									84 07 A0000000421010	ADF Name CB
									91 01 02	Interface Descripto - Contactless
									A519...	See FCI Proprietary Template contactless
									E103...	GPO Parameters Reference Template (contactless) see below
									C1 01 02	Contactless GPO Parameters 2
BF3E <DF01>	GPO Parameters 1	CPA	02	b	M			N	0001	No PDOL - PSD1 for contact profile
BF3E <DF02>	GPO Parameters 2	CPA	02	b	M			N	0002	No PDOL - PSD2 for contactless profile

C1	Application Control	CPACE	04	b	M	GET DATA PUT DATA		N	F70C5E15	
C7	Previous Transaction History (PTH)	CPA	02	b				N	0800	
8C	CDOL1	EMV	21	b	M	READ RECORD	Y	N	9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704 9F3501 9F3403 9F2103 9F4E14	
8D	CDOL2	EMV	0F	b	M	READ RECORD	Y	N	9108 8A02 9505 9F3704 9F0206 9F0306	
9F49	DDOL	EMV	03	b	O	READ RECORD		Y	9F3704	Used with DDA
A5 <9F38>	PDOL	EMV	var.	b	O	SELECT		N		not used
BF40	Log Data Tables	CPA	var.	b	M			N		
9F4D	Log Entry	EMV	02	b	M	SELECT		N	xx19	The SFI set by the vendor is to be provided to ELITT
9F4F	Log Format	EMV	1B	b	M	GET DATA		N	9F0206 5F2A02 9A03 9F5205 9F3602 9F2701 CA01 9F2103 9F4E14 D501	
BF40 <DF01>	First GEN AC Log Data Table	CPA	var.	b	O	GET DATA		N		not used
BF40 <DF03>	First GEN AC Unchanging Log Data Table	CPA	var.	b	O	GET DATA		N	0222032514	9F4E et 9F21 logués
BF40 <DF05>	ILDOL	CPACE	02	b	M	GET DATA PUT DATA		N	D501	Environment in use
9F10	Issuer Application Data	EMV	20	b	M	GEN AC		N	0FA5xx...	see below
DO	Issuer Static Data	CPACE	var.	b	O			N		Not used
9F52	CVR	CPACE	5	b	M			N		
BF33 <DF0x>	Additional Check Table x	CPA	var.	b	O			N		not used

BF38 <DF01>	Currency Conversion Table x	CPA	07	b	M			N	09780840008282	Euro dollar
E0 <DF01>	Contactless Command Access	CPACE	02	b	M	GET DATA PUT DATA		N	00	
D4	Contactless Control - Application	CPACE	01	b	M	GET DATA PUT DATA		N	82	
D3	Contactless Control - Card	CPACE	01	b	M	GET DATA PUT DATA		N	80	State of contactless access to card
E0 <DF02>	Contactless READ RECORD Access	CPACE	var.	b	O	GET DATA PUT DATA		N		not used
E0 <DF03>	Contactless GET DATA Access	CPACE	var.	b	O	GET DATA PUT DATA		N		not used
	Device Estimated Transmission Time for Relay Resistance R-APDU	CPACE	02	b	O			N		not used
	RRP Configuration Data Set	CPACE	06	b	O			N		not used
D9	RRP Configuration File Entry	CPACE	02	b	O	GET DATA		N		not used
	RRP Counter	CPACE	01	b	O			N		not used
	RRP Transaction Data set	CPACE	14	b	O			N		not used
C2	Profile Selection File Entry	CPA	02	b	M	GET DATA PUT DATA		N	xx02	The SFI set by the vendor is to be provided to ELITT
				b					xx	SFI containing Profile Selection File - set by the vendor
									01	1 profile selection entry
	Profile Selection Entries	CPA	09	b	M	READ RECORD		N	08010102FF02000201	
BF3F <DF01>	Profile Control 1 (contact)	CPACE	0A	b	M	GET DATA PUT DATA		N	11112121FF1F0000FFF0	
BF3F <DF02>	Profile Control 1 (contactless)	CPACE	0A	b	M	GET DATA PUT DATA		N	1223333FF2F0000FFF0	
BF3B <DF01>	Issuer Options Profile Control 1 (contact)	CPACE	0A	b	M			N	98381Fa5000010000000	
BF3B <DF02>	Issuer Options Profile Control 1 (contactless)	CPACE	0A	b	M			N	98381FA5020010000000	
BF41 <DF01>	AIP/AFL Entry 1 (contact)	CPACE	var.	b	M		Y	N	3900 + AFL	The AFL set by the vendor is to be provided to ELITT
BF41 <DF02>	AIP/AFL Entry 2 (contactless)	CPACE	var.	b	M		Y	N	1980 + AFL	The AFL set by the vendor is to be provided to ELITT
BF30 <DF01>	Accumulator 1	CPA	06	n12	M	GET DATA PUT DATA CSU		N	000000000000	Accumulates offline contact and contactless transactions

BF30 <DF11>	Accumulator 1 Limit	CPA	0C	n24	M	GET DATA PUT DATA		N	000000030000 000000040000	Contains Accumulator 1 Lower Limit 0 and Accumulator 1 Upper Limit 0
BF32 <DF01>	Accumulator 1 Control	CPACE	04	b	M	GET DATA PUT DATA		N	0978C000	
BF30 <DF02>	Accumulator 2	CPA	06	n12	M	GET DATA PUT DATA CSU		N	000000000000	Accumulates offline and online contactless transactions
BF30 <DF12>	Accumulator 2 Limit	CPA	0C	n24	M	GET DATA PUT DATA		N	000000015000 000000015000	Contains Accumulator 2 Lower Limit 0 and Accumulator 2 Upper Limit 0
BF32 <DF02>	Accumulator 2 Control	CPACE	04	b	M	GET DATA PUT DATA		N	0978C080	
BF31 <DF01>	Accumulator Profile Control 1	CPACE	03	b	M	GET DATA PUT DATA		N	E00100	Accumulator 1 Control for contact Profile
BF31 <DF02>	Accumulator Profile Control 2	CPACE	03	b	M	GET DATA PUT DATA		N	600100	Accumulator 2 Control for contact Profile
BF31 <DF03>	Accumulator Profile Control 3	CPACE	03	b	M	GET DATA PUT DATA		N	A00100	Accumulator 1/2 Control for contactless Profile
BF35 <DF01>	Counter 1	CPA	01	b	M	GET DATA		N	00	Counts contact and contactless offline transactions
BF35 <DF11>	Counter 1 Limits	CPA	02	b	M	GET DATA PUT DATA		N	0A 0A	
BF37 <DF01>	Counter 1 Control	CPACE	02	b	M	GET DATA PUT DATA		N	A0 00	
BF35 <DF02>	Counter 2	CPA	01	b	M	GET DATA		N	00	Counts contactless offline and online transactions
BF35 <DF12>	Counter 2 Limits	CPA	02	b	M	GET DATA PUT DATA		N	05 05	
BF37 <DF02>	Counter 2 Control	CPACE	02	b	M	GET DATA PUT DATA		N	A0 80	
BF35 <DF03>	Counter 3	CPA	01	b	M	GET DATA		N	00	Counts contact transaction when transaction currency is not supported
BF35 <DF13>	Counter 3 Limits	CPA	02	b	M	GET DATA PUT DATA		N	00 00	
BF37 <DF03>	Counter 3 Control	CPACE	02	b	M	GET DATA PUT DATA		N	B0 80	
BF36 <DF01>	Counter Profile Control 1	CPACE	02	b	M	GET DATA PUT DATA		N	0600	Counter 1/3 Control for contact profile
BF36 <DF02>	Counter Profile Control 2	CPACE	02	b	M	GET DATA PUT DATA		N	06 00	Counter 2 control for contact profile
BF36 <DF03>	Counter Profile Control 3	CPACE	02	b	M	GET DATA PUT DATA		N	0600	Counter 1/2/3 control for contactless profile
BF42 <DF0x>	Cyclic accumulator x	CPA	06	n	O			N		not used

BF3A <DF0x>	Cyclic accumulator x control	CPA	03	b	O	GET DATA PUT DATA		N		not used
BF3D <DF01>	MTA Profile Control 1 (contact)	CPA	04	b	M	GET DATA PUT DATA		N	09781100	
BF3C <DF01>	Limits Entry 1	CPA	06	n12		GET DATA PUT DATA		N	000000010000	
BF3D <DF02>	MTA Profile Control 2 (contactless)	CPA	04	b		GET DATA PUT DATA		N	09782100	
BF3C <DF02>	Limits Entry 2	CPA	06	n12		GET DATA PUT DATA		N	000000005000	Limits Entry 2
C3	Number of Days Offline Limit	CPACE	02	n4	O	GET DATA PUT DATA		N	9999	Not used
BF34 <DF01>	Card Issuer Actions Codes Entry 1 (contact)	CPACE	12	b	M	GET DATA PUT DATA		N	000000000000 474000FF0000 7F70FFFF1000	Contact
	Denial								00 00 00 00 00 00	
	Online								7F 70 FF FF 00 00	
	Default								47 40 00 FF 00 00	
BF34 <DF02>	Card Issuer Actions Codes Entry 2 (contactless)	CPACE	12	b	M	GET DATA PUT DATA		N	000000000000 000000010000 4400FFFF1000	Contactless
	Denial								00 00 00 00 00 00	
	Online								44 00 FF FF 10 00	
	Default								00 00 00 01 00 00	
8E	Cardholder Verification Method (CVM) list (contact)	EMV	0E 0A - 12 0E	b	M	READ RECORD UPDATE RECORD	Y	N	00000000 00000000 4201 4403 0103 0203	
8E	Cardholder Verification Method (CVM) list (contactless)	EMV	0E 0A - 12 0E	b	M	READ RECORD UPDATE RECORD	Y	N	00000000 00000000 0203 1F03	
9F0D	Issuer Action Code - Default (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	BC 40 FC 80 00	
9F0E	Issuer Action Code - Denial (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	00 10 00 00 00	

9F0F	Issuer Action Code - Online (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	BC 60 FC 80 00
9F0D	Issuer Action Code - Default (contactless)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	B4 60 64 00 00
9F0E	Issuer Action Code - Denial (Contactless)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	00 10 00 00 00
9F0F	Issuer Action Code - Online (contactless)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	B4 60 64 00 00

3.3.2 CPE12d_V set: VISA part

LOT CPE12DxCB-V APPLICATIONS VISA - PAIEMENT/RETRAIT - DUAL INTERFACE - VIS 1.5.4/VCPCS 2.2										
Tag	Name	Spec.	Lg. (hexa)	Format	Presence	Access	Signed	Shared	Value (Hexa)	Comment
9F6E	Form Factor Indicator (FFI)	VCPS	04	b	M	PUT DATA UPDATE RECORD GET DATA GPO READ RECORD		N	20 70 00 00	
4F	ADF Name							N	A0000000031010	ADF Name VISA
70	Payment System Directory Entry Record	EMV	26	b	M	READ RECORD		Y	6110...	Directory Entry 1
									4F 07 A0000000421010	ADF Name AID CB
									50 02 4342	Application Label AID CB
									87 01 01	Priority Indicator
									73 0D	
									9F0A 08 0001050100000000	
									6112...	Directory Entry 2
									4F 07 A0000000031010	ADF Name VISA
									50 04 56495341	Application Label AID VISA
									87 01 02	Priority Indicator
									73 0D	
									9F0A 08 0001050100000000	
6F	FCI Template PPSE	EMV	59	b	M	SELECT		Y	840E...	
									84 0E 325041592E5359532E4444463031	"2PAY.SYS.DDF01"
									A5 47	FCI Proprietary Template
									BF0C 4F	FCI Issuer Discretionary Data

									61 1F	Directory Entry 1
									4F 07 A0000000421010	ADF Name CB
									50 02 4342	CB
									87 01 01	Application Priority Indicator
									9F2A 01 2E	Kernel CPACE
									9F0A 08 0001050100000000	
									61 1F	Directory Entry 2
									4F 07 A0000000421010	ADF Name CB
									50 02 4342	CB (Application Label)
									87 01 01	Application Priority Indicator
									9F2A 01 02	Kernel MasterCard
									9F0A 08 0001050100000000	
									61 21	Directory Entry 3
									4F 07 A0000000031010	ADF Name VISA
									50 04 56495341	VISA (Application Label)
									87 01 02	Application Priority Indicator
									9F2A 01 03	Kernel VISA
									9F0A 08 0001050100000000	
6F	FCI Template ADF CB Contactless	EMV	24	b	M			N	840E...	
									84 07 A0000000421010	ADF Name CB
									A5 19	FCI Proprietary Template
									50 02 4342	CB
									87 01 01	Application Priority Indicator
									BF0C 0F	FCI Issuer Discretionary Data

									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
									DF61 01 04	Base applicative sans contact Visa
6F	FCI Template ADF VISA (contact)	EMV	27	b	M			N	8407...	
									84 07 A0000000031010	ADF Name VISA
									A5 1E	FCI Proprietary Template
									50 04 56495341	VISA (Application Label)
									87 01 02	Application Priority Indicator
									BF0C 0B	FCI Issuer Discretionary Data
									9F4D 02 xx19	xx SFI Log Entry - Maximum number of records 25
									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
6F	FCI Template ADF VISA (contactless)	EMV	22	b	M			N	8407...	
									84 07 A0000000031010	ADF Name VISA
									A5 17	FCI Proprietary Template
									50 04 56495341	VISA (Application Label)
									87 01 02	Application Priority Indicator
9F38	Processing Options Data object list (PDOL)	EMV	18	b	M			N	9F6604 9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704 9F4E14 9F2103	
									BF0C 0B	FCI Issuer Discretionary Data
									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
5F34	Application Primary Account Number (PAN) Sequence number							N	00	
9F08	Application Version Number								00A0	

9F07	Application Usage Control	EMV	02	b	M	READ RECORD		N	FF00	
9F42	Application Currency Code									not used
	Unique DEA Key	VIS	10	b	M			N		
	Unique Message Authentication Code (MAC) DEA Key	VIS	10	b	M			N		
8F	Certificate Authority Public key index									
9F36	Application Transaction Counter (ATC)								0000	
9F52	Application Default Action	VIS	06	b	M			N	E3 38 38 00 0E 00	
9F68	Card Additional Process (CAP)	VCPS	04	b	M			N	48248000	
9F69	Card Authentication Related data	VCPS	07	b	M	READ RECORD		N	01000000000000	
9F6C	Card Transaction Qualifiers (CTQ)	VCPS	02	b	M	GPO GET DATA PUT DATA		N	2000	
8C	CDOL1 (contact)		1C					N	9F0206 9F0306 9F4E14 9F1A02 9505 5F2A02 9A03 9C01 9F2103 9F3704 9F3403	
8D	CDOL2 (contact)		1F					N	8A02 9108 9F0206 9F0306 9F1A02 9F4E14 9505 5F2A02 9A03 9C01 9F3704 9F2103	
A5 <9F38>	PDOL									not used
9F4D	Log Entry	EMV	02	b	M	SELECT		N	x'x'y'y'	
9F4F	Log Format	EMV	19	b	M	GET DATA		N	9F0206 9F2701 9F1A02 5F2A02 9A03 9C01 DF5204 9F3602 DF3E01 9F4E14 9F2103	
9F10	Issuer Application Data		var.						06...	
9F52	CVR	VIS	4	b	M			N		
DF30	tag CB pour activation/desactivation du sans contact	VIS							03	

BF5B <DF01>	Application Capabilities	VIS	02	b	M	GET DATA PUT DATA		N	40 00	Contactless functionality enabled
BF5B <DF05>	Contactless CVM Priority List	VIS	04	b					01040203	
82	Application Interchange Profile (AIP) (contact)	EMV	02	b	M	GPO PUT DATA	Y	N	3900	
82	Application Interchange Profile (AIP) (Contactless)	EMV	02	b	M	GPO PUT DATA	Y	N	2000	
94	Application File Locator (AFL)	EMV	var.	b	M	GPO PUT DATA		N		value set by vendor
BF58 <DF1x>	Cumulative Total Transaction Amount	VIS	06	n12	M	GEN AC PUT DATA		N	000000000000	
BF58 <DF2x>	Cumulative Total Transaction Amount Limit	VIS	06	n12	M	GET DATA PUT DATA		N	000000030000	
BF58 <DF3x>	Cumulative Total Transaction Amount Upper Limit	VIS	06	n12	M	GET DATA PUT DATA		N	000000040000	
BF58 <DF41>	VLP Single Transaction Limit	VIS	06	n12	M	GET DATA PUT DATA		N	000000000000	
BF55 <DF51>	VLP Available Funds	VIS	06	n12	M	GET DATA PUT DATA CSU		N	000000015000	
BF55 <DF71>	VLP Funds Limit	VIS	06	n12	M	GET DATA PUT DATA		N	000000015000	
DF61 <BF55>	VLP Reset Threshold	VIS	06	n12	O	GET DATA PUT DATA		N		not used
9F51	Application Currency Code	VIS	2	n3					0978	
BF56 <DF1x>	Consecutive Transaction Counter (CTC x)	VIS	01	b	O	GET DATA PUT DATA CSU		N		not used
BF57 <DF1x>	Consecutive Transaction Counter International (CTCI)	VIS	01	b	O	GET DATA PUT DATA CSU		N		not used
BF57 <DF5x>	Consecutive transaction counter international country (CTCIC x)	VIS	01	b	O	GET DATA PUT DATA CSU		N		not used
BF57 <DF6x>	Consecutive Transaction International Country Limit x (CTCICL x)	VIS	01	b	O	GET DATA PUT DATA		N		not used

BF57 <DF2x>	Consecutive Transaction Counter International Limit (CTCIL x)	VIS	01	b	O	GET DATA PUT DATA		N		not used
BF57 <DF3x>	Consecutive Transaction Counter International Upper Limit (CTIUL x)	VIS			O	GET DATA PUT DATA		N		not used
BF56 <DF2X>	Consecutive Transaction Counter Limit x (CTCL x)	VIS			O	GET DATA PUT DATA		N		not used
BF56 <DF3X>	Consecutive Transaction Counter Upper Limit x (CTCUL x)	VIS			O	GET DATA PUT DATA		N		not used
BF55 <DF11>	Contactless Transaction Counter (CLTC)	VIS	01	b	O	GET DATA PUT DATA CSU		N	01	
BF55 <DF21>	Contactless Transaction Counter Lower Limit (CLTCLL)	VIS	01	b	O	GET DATA PUT DATA		N		not used
BF55 <DF31>	Contactless Transaction Counter Upper Limit (CLTCUL)	VIS	01	b	O	GET DATA PUT DATA		N		not used
BF55 <DF41>	VLP Single Transaction Limit	VIS	06	n12	M	GET DATA PUT DATA		N	000000005000	
8E	Cardholder Verification Method (CVM) list (contact)						Y	N	00000000 00000000 4201 0103 0203 1E03 1F00	
9F56	Issuer Authentication Indicator	VIS	01	b	M	GET DATA PUT DATA		Y	80	
9F0D	Issuer Action Code - Default (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	BC 40 24 80 00	
9F0E	Issuer Action Code - Denial (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	00 10 D8 00 00	
9F0F	Issuer Action Code - Online (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	BC 60 24 98 00	

3.3.3 CPE12dMC set : MASTERCARD part

LOT CPE12 DxCB-MC - APPLICATIONS MCW - PAIEMENT/RETRAIT - DUAL INTERFACE -MCHIP ADVANCE										
4F	ADF Name								A0000000041010	ADF Name MCW
70	Payment System Directory Entry Record	EMV	2C	b	M	READ RECORD		Y	6110...	Directory Entry 1
									4F 07 A00000000421010	ADF Name CB
									50 02 4342	Application Label AID CB
									87 01 01	Priority Indicator
									73 0D	
									9F0A 08 0001050100000000	
									6118...	Directory Entry 2
									4F 07 A0000000041010	ADF Name MCW
									50 0A 4D415354455243415244	Application Label AID MCW
									87 01 02	Priority Indicator
									73 0D	
									9F0A 08 0001050100000000	
6F	FCI Template PPSE	EMV	5F	b	M	SELECT		Y	840E...	
									84 0E 325041592E5359532E44444463031	"2PAY.SYS.DDF01"
									A5 4D	FCI Proprietary Template
									BF0C 4A	FCI Issuer Discretionary Data
									61 1F	Directory Entry 1
									4F 07 A00000000421010	ADF Name CB
									50 02 4342	CB (Application Label)
									87 01 01	Application Priority Indicator
									9F2A 01 2E	Kernel CPACE
									9F0A 08 0001050100000000	

								61 1F	Directory Entry 2
								4F 07 A0000000421010	ADF NameCB
								50 02 4342	CB (Application Label)
								87 01 01	Application Priority Indicator
								9F2A 01 02	Kernel MasterCard
								9F0A 08 0001050100000000	
								61 23	
								4F 07 A0000000041010	ADF Name MCW
								50 0A 4D415354455243415244	MasterCard (Application Label)
								87 01 02	Application Priority Indicator
								9F2A 01 02	Kernel Mastercard
								9F0A 08 0001050100000000	
6F	FCI Template ADF CB Contactless	24			M			8407...	
								84 07 A0000000421010	ADF Name CB
								A5 19	FCI Proprietary Template
								50 02 4342	CB (Application Label)
								87 01 01	Application Priority Indicator
								BF0C 0F	FCI Issuer Discretionary Data
								9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
								DF61 01 04	Base applicative sans contact MCW
6F	FCI Template ADF MCW (contact)	2D			M			8407...	
								84 07 A0000000041010	ADF Name MCW
								A5 22	FCI Proprietary Template

									50 0A 4D415354455243415244	MASTERCARD (Application Label)
									87 01 02	Application Priority Indicator
									BF0C 10	FCI Issuer Discretionary Data
									9F4D 02 xx19	xx SFI Log Entry - Maximum number of records 25
									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
6F	FCI Template ADF MCW (contactless)	28			M			N	8407...	
									84 07 A0000000041010	ADF Name MCW
									A5 1D	FCI Proprietary Template
									50 0A 4D415354455243415244	MASTERCARD
									87 01 02	Application Priority Indicator
									BF0C 0B	FCI Issuer Discretionary Data
									9F0A 08 0001050100000000	Application Selection Registered Proprietary Data: Debit Product
5F34	Application Primary Account Number (PAN) Sequence number								00	
5F30	Service code								901	
9F1F	Track1 Discretionary Data									set by vendor
9F7E	Application Life Cycle Data	MCW								set by vendor
9F08	Application Version Number								0002	
9F07	Application Usage Control	EMV	02	b	M	READ RECORD		Y	FF00	
9F42	Application Currency Code									not used
9F44	Application Currency Exponent									
DF02	Security Limits Status	MCHIP	01	b	M				00	

DF35	Security Limits Status (contactless)	MCHIP	01	b	M				00	
DF37	Security Limits Common	MCHIP	01	b	M				00	
E2 <DF0x>	Additional Security Limits	CPACE	04	b	O	PUT DATA		N		not used - contains Additional AC Session Key Counter Limit and Additional SMI Session Key Counter Limit
	AC Master Key (Contact)	MCHIP	10	b	M			N		
	AC Master Key (Contactless)	MCHIP	10	b	M			N		
	AC Master Key (MAS4C)	MCHIP	10	b	O			N		not used
	SMI Master Key (contact)	MCHIP	10	b	M			N		
	SMI Master Key (contactless)	MCHIP	10	b	M			N		
	SMC Master Key (contact)	MCHIP	10	b	M			N		
	SMC Master Key (contactless)	MCHIP	10	b	M			N		
	ICC Dynamic Number Master Key (contact)	MCHIP	10	b				N		not used
	ICC Dynamic Number Master Key (contactless)	MCHIP	10	b				N		not used
	KDCVC3 (contact)	MCHIP	10	b				N		not used
	KDCVC3 (contactless)	MCHIP	10	b				N		not used
	AC Session Key Counter (Contact)	MCHIP	02	b	M			N	0000	
	AC Session Key Counter (Contactless)	MCHIP	02	b	M			N	0000	
	AC Session Key Counter (MAS4C)	MCHIP	02	b	M			N		not used
DF3A	AC Session Key Counter Limit (Contact)	MCHIP	02	b	M	PUT DATA		N	FFFF	
DF34	AC Session Key Counter Limit (Contactless)	MCHIP	02	b	M	PUT DATA		N	FFFF	
DF78	AC Session Key Counter Limit (MAS4C)	MCHIP	02	b	M	PUT DATA		N		not used
	SMI Session Key Counter (contact)	MCHIP	02	b	M			N	0000	
	SMI Session Key Counter (contactless)	MCHIP	02	b	M			N	0000	

DF32	SMI Session Key counter limit (contact)	MCHIP	02	b	M			Y		FFFF	
DF33	SMI Session Key counter limit (contactless)	MCHIP	02	b	M			N		FFFF	
	PIN Decipherment Error Counter	MCHIP	02	b						0000	
DF36	PIN Decipherment Error Counter Limit	MCHIP	02	b						FFFF	
	Length of ICC Public Key Modulus	MCHIP	1	b	M						set by vendor
	Length of ICC PIN Encipherment Public Key Modulus	MCHIP	1	b	M						set by vendor
8F	Certificate Authority Public key index							N			see Key page
9F36	Application Transaction Counter (ATC)									0000	
	Application Transaction Counter limit	MCHIP	02	b	M			N		FFFF	
DF38	IVCVC3(Track1) (Contact)	MCHIP	02	b	O			N			not used
DC	IVCVC3(Track1) (Contactless)	MCHIP	02	b	O			N			not used
DF39	IVCVC3(Track2) (Contact)	MCHIP	02	b	O			N			not used
DD	IVCVC3(Track2) (Contactless)	MCHIP	02	b	O			N			not used
9F45	Data Authentication Code	MCHIP	02	b	O			N			not used
	Script Counter	MCHIP	01	b	M			N		00	
D5	Application Control (Contact)	MCHIP	06	b	M	GET DATA PUT DATA		N		0C 00 80 00 41 02	
D7	Application Control (Contactless)	MCHIP	06	b	M	GET DATA PUT DATA		N		00 00 80 10 41 02	
8C	CDOL1	EMV	27	b	M	READ RECORD	Y	N		9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704 9F3501 9F4502 9F4C08 9F3403 9F2103 9F7C14	
C7	CDOL1 related data length	MCHIP	01	b	M	GET DATA PUT DATA		N		42	
8D	CDOL2		0C		M			N		910A 8A02 9505 9F3704 9F4C08 9F0206 9F0306	

9F49	DDOL								9F3704	Used with DDA
9F51	DRDOL	MCHIP	03	b	O	READ RECORD		N		not used
A5 <9F38>	PDOL									
DE	Log Data Table	MCHIP	09	b	M			N	000000000000000000	
9F4D	Log Entry								x'x'y'y'	
9F4F	Log Format		1F		M				9F0206 9F2701 9F1A02 5F2A02 9A03 9C01 9F5206 9F3602 DF3E01 9F7C14 9F2103	
9F10	Issuer Application Data		xx	b					dd10 yyyyyyyyyyyy nnnn cc...cc ll	
9F52	CVR	MCHIP	6	b	M			N		
DF3C	CVR Issuer Discretionary Data (contact)	MCHIP	1	b	O					not used
DF3D	CVR Issuer Discretionary Data (contactless)	MCHIP	1	b	O					not used
D3	Additional Check Table	MCHIP	12	b	O			N		not used
DF3F	Read Record Filter (contact)	MCHIP	var.	b	O			N		not used
DF40	Read Record Filter (contactless)	MCHIP	var.	b	O	GET DATA PUT DATA		N		not used
DF30	Interface Enabling Switch	MCHIP	01	b	M	GET DATA PUT DATA			03	Contact and Contactless Interfaces Enabled
DF04	Max Time for Processing Relay Resistance APDU (contact)	MCHIP	02	b	O	GET DATA PUT DATA		N		not used
DF74	Max Time for Processing Relay Resistance APDU (contactless)	MCHIP	02	b	O	GET DATA PUT DATA		N		not used
DF05	Min Time for Processing Relay Resistance APDU (contact)	MCHIP	02	b	O	GET DATA PUT DATA		N		not used
DF75	Min Time for Processing Relay Resistance APDU (contactless)	MCHIP	02	b	O	GET DATA PUT DATA		N		not used
82	Application Interchange Profile (AIP) (Contact)	EMV	02	b	M	GPO PUT DATA	Y	N	3900	
D8	Application Interchange Profile (AIP) (Contactless)	MCHIP	02	b	M	GPO PUT DATA	Y	N	1980	

94	Application File Locator (AFL) (Contact)	EMV	var.	b	M	GPO GET DATA PUT DATA	N		value set by vendor
D9	Application File Locator (AFL) (Contactless)	MCHIP	var.	b	M	GPO GET DATA PUT DATA	N		value set by vendor
DF3B	Accumulator 1 Amount	MCHIP	6	n12			N	000000000000	Represents the cumulative amount of transactions accepted offline
DF11	Accumulator 1 Control (Contact)	MCHIP	01	b	M	GET DATA PUT DATA	N	C0	Always Accumulate
DF12	Accumulator 1 Control (Contactless)	MCHIP	01	b	M	GET DATA PUT DATA	N	C0	Always Accumulate
C9	Accumulator 1 Currency Code	MCHIP	02	n3	M	GET DATA PUT DATA	N	0978	Euro
D1	Accumulator 1 Currency Conversion Table	MCHIP	19	b	M	GET DATA PUT DATA	N	0978000000 0978000000 0978000000 0978000000 0978000000	
DF28	Accumulator 1 CVR Dependency Data (contact)	MCHIP	03	b	O	GET DATA PUT DATA	N		Not used
DF29	Accumulator 1 CVR Dependency Data (contactless)	MCHIP	03	b	O	GET DATA PUT DATA	N		Not used
CA	Accumulator 1 Lower Limit	MCHIP	06	n12	M	GET DATA PUT DATA	N	000000030000	
CB	Accumulator 1 Upper Limit	MCHIP	06	n12	M	GET DATA PUT DATA	N	000000040000	
DF13	Accumulator 2 Amount	MCHIP	6	n12	M		N	000000000000	Represents the cumulative amount of contactless transactions accepted offline
DF14	Accumulator 2 Control (Contact)	MCHIP	01	b	M	GET DATA PUT DATA	N	00	Never Accumulate (contact profile)
DF15	Accumulator 2 Control (Contactless)	MCHIP	01	b	M	GET DATA PUT DATA	N	C0	Always Accumulate (contactless profile)
DF16	Accumulator 2 Currency Code	MCHIP	02	n3	M	GET DATA PUT DATA	N	0978	Euro
DF17	Accumulator 2 Currency Conversion Table	MCHIP	19	bb	M	GET DATA PUT DATA	N	0978000000 0978000000 0978000000 0978000000 0978000000	
DF2A	Accumulator 2 CVR Dependency Data (contact)	MCHIP	03	b	O	GET DATA PUT DATA	N	000000	Not used
DF2B	Accumulator 2 CVR Dependency Data (contactless)	MCHIP	03	b	O	GET DATA PUT DATA	N	000000	Not used

DF18	Accumulator 2 Lower Limit	MCHIP	06	n12	M	GET DATA PUT DATA	N	000000015000	
DF19	Accumulator 2 Upper Limit	MCHIP	06	n12	M	GET DATA PUT DATA	N	000000015000	
DF1C	Counter 1 Number	MCHIP	01	b	M	GET DATA PUT DATA	N	00	Not used
DF1A	Counter 1 Control (Contact)	MCHIP	01	b	M	GET DATA PUT DATA	N	00	No Counting
DF1B	Counter 1 Control (Contactless)	MCHIP	01	b	M	GET DATA PUT DATA	N	00	No Counting
DF2C	Counter 1 CVR Dependency Data (Contact)	MCHIP	03	b	M	GET DATA PUT DATA	N	000000	Not used
DF2D	Counter 1 CVR Dependency Data (Contactless)	MCHIP	03	b	M	GET DATA PUT DATA	N	000000	Not used
9F14	Counter 1 Lower Limit	MCHIP	03	b	M	GET DATA PUT DATA	N	FF	
9F23	Counter 1 Upper Limit	MCHIP	01	b	M	GET DATA PUT DATA	N	FF	
DF20	Counter 2 Number	MCHIP	01	b	M	GET DATA PUT DATA	N	00	Not used
DF1D	Counter 2 Control (Contact)	MCHIP	01	b	M	GET DATA PUT DATA	N	00	No counting
DF1E	Counter 2 Control (Contactless)	MCHIP	01	b	M	GET DATA PUT DATA	N	00	No counting
DF2E	Counter 2 CVR Dependency Data (Contact)	MCHIP	03	b	M	GET DATA PUT DATA	N	000000	Not used*
DF2F	Counter 2 CVR Dependency Data (Contactless)	MCHIP	03	b	M	GET DATA PUT DATA	N	000000	Not used*
DF1F	Counter 2 Lower Limit	MCHIP	01	b	M	GET DATA PUT DATA	N	FF	Not used
DF21	Counter 2 Upper Limit	MCHIP	01	b	M	GET DATA PUT DATA	N	FF	Not used
C8	CRM Country Code	MCHIP	02	n3	M	GET DATA PUT DATA	N	0250	
DF24	MTA currency code	MCHIP	02	n3	M	GET DATA PUT DATA	N	0978	
DF22	MTA CVM (contact)	MCHIP	06	n12	O	GET DATA PUT DATA	N		not used
DF23	MTA CVM (contactless)	MCHIP	06	n12	O	GET DATA PUT DATA	N		not used
DF25	MTA NoCVM (contact)	MCHIP	06	n12	M	GET DATA PUT DATA	N		not used

DF26	MTA NoCVM (contactless)	MCHIP	06	n12	M	GET DATA PUT DATA		N	000000005000	
DF27	Number of Days Offline Limit	MCHIP	02	b	O	GET DATA PUT DATA		N		not used
C3	Card Issuer Action Code (Contact) - Decline	MCHIP	03	b	M	GET DATA PUT DATA		N	11 00 00	
C4	Card Issuer Action Code (Contact) - Default	MCHIP	03	b	M	GET DATA PUT DATA		N	28 58 50	
C5	Card Issuer Action Code (Contact) - Online	MCHIP	03	b	M	GET DATA PUT DATA		N	28 FF F0	
CF	Card Issuer Action Code (Contactless) - Decline	MCHIP	03	b	M	GET DATA PUT DATA		N	00 00 00	
CD	Card Issuer Action Code (Contactless) - Default	MCHIP	03	b	M	GET DATA PUT DATA		N	08 F0 F8	
CE	Card Issuer Action Code (Contactless) - Online	MCHIP	03	b	M	GET DATA PUT DATA		N	08 F4 F8	
8E	Cardholder Verification Method (CVM) list (contact)							N	00000000 00000000 4201 4103 5E03 4203 1F03	
8E	Cardholder Verification Method (CVM) list (contactless)							N	00000000 00000000 5E03 4203 1F03	
9F0D	Issuer Action Code - Default (contact)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	BC 60 24 80 00	
9F0E	Issuer Action Code - Denial (contact)	EMV	05	b		READ RECORD UPDATE RECORD	Y		00 10 D8 00 00	
9F0F	Issuer Action Code - Online (contact)	EMV	05	b		READ RECORD UPDATE RECORD	Y	N	BC 60 24 98 00	
9F0D	Issuer Action Code - Default (contactless)	EMV	05	b		READ RECORD UPDATE RECORD	Y		00 00 00 00 00	
9F0E	Issuer Action Code - Denial (Contactless)						Y		B4 70 E0 00 00	
9F0F	Issuer Action Code - Online (contactless)	EMV	05	b	M	READ RECORD UPDATE RECORD	Y	N	00 00 00 00 00	