Groupement des Cartes Bancaires "CB"

CB TEST PRODUCTS & SERVICES

CATALOGUE

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MODIFICATIONS FOLLOW-UP

Version	Date	Modifications
7/02/2017	2.6	New version
8/03/2017	2.7	Adding ST11DrMC and ST11DdMC batches
11/05/17	2.8	Correcting § 3.5 et 3.9 tables
19/05/17	2.9	Adding information on PIN code
7/08/17	3.0	Adding information on merchant contract
05/12/17	3.1	Adding information on merchant contract
02/03/2018	3.2	Adding information on merchant contract
20/03/2018	3.3	Diagram update on p.7 and adding information about test card services on foreign country

SOMMAIRE

1 INTRODUCTION

CB proposes cards for development, integration, maintenance of payment application on acceptance systems.

There are two types of cards:

- Test cards to be used for installation, integration and maintenance of payment applications in the field.
- Development cards to be used for development, test and maintenance of payment applications in laboratory.

These cards may work through contact and possibly contactless interfaces. When a card works through both interfaces, it is said to be a dual interface card. They can be used for payment transactions.

This document describes implementation principles and the catalog of cards.

2 IMPLEMENTATION

For test and development cards to be used with an acceptance system, in France or within foreign country according to the *ARTICLE 9 – TERRITORIALITY* (Cf. « user agreement » it is required that:

- Acceptance system be loaded with at least a CB application which works through contact and/or contactless interfaces (according to the type of transaction) and initialized by an acquirer system.
- Application(s) be initialized with a merchant contract which allows the use of such cards.
- Acceptance system be connected to a test or development authorization server depending on the type of card.

2.1 CB test cards

CB test cards are accepted on live merchant acceptance system or on maintenance platform connected to an acquirer system (either an acquirer bank of a CB test acquirer). They can be used to perform offline or online transactions (connection to an authorization server).

Only the CB test authorization server (SAT) is able to provide authorizations. All CB test cards are identified on the SAT (except card with range 10 in diverse batches – 19 digits PAN length). SAT manages authorization requests issued by test cards by performing risk management (card parameters checking, flow checking, stop list) and cryptographic calculation (ARQC checking, ARPC calculation). SAT is configured so that each card has a floor limit of 15 euros on rolling 7 days.

Example of test card behaviour:

Day	Transaction amount	Transaction type	Accumulation on server	Server decision
D	5€	Online	5€	Accepted
D+1	1€	Online	6€	Accepted
D+4	7€	Online	13€	Accepted
D+7	4€	Online	17€	Declined
D+7	2€	Online	15€	Accepted
D+8	-	-	10€*	-

* **(Amount J+7) – (Amount J)**

Available services on CB test authorization server:

	CB 5.2	**Bulletin 12 V2.0**	**Bulletin 12 V2.1**	**Bulletin 12 V3**	**CB5.5**	
	Contact	Sans contact	Sans contact	Sans contact	Contact	Sans contact
Proximity payment	X	X	X	X	X	X
Remote payment	-	-	-	-	-	-
Distant payment (manual acquisition)	-	-	-	-	-	-
Vending machine payment	X	X	X	X	X	X
Quasi-cash payment	X	-	-	-	X	-
ATM Cash withdrawl	-	-	-	-	-	-
Cash withdrawl	-	-	-	-	-	-
Pre-authorisation	X	-	-	-	X	-
Payment for goods and services rental	X				X	

Only contact or contactless chip transactions (Champ 22 = 05 or 07) are authorized on the CB test authorization server and may result in accepted transactions.

Transactions may be performed without authorization request (offline transaction) if under amount and number floor limit specified for each card profile.

Two types of merchant contracts may be used with CB test cards:

- Test merchant contract.
- Merchant contract of and acquirer bank.

Only these merchant contracts can be used because they are linked to an acquirer system connected to the CB network (e-rsb) which can perform transactions routing with CB test card to the SAT.

Data provided to acquirer systems via SICB are used to initialize acceptance systems to perform transactions with CB test cards:

- BIN: 501767 (this is a test BIN which must be supported by an acquirer system to which acceptance system is connected),
- Certification authority public RSA key and parameters.

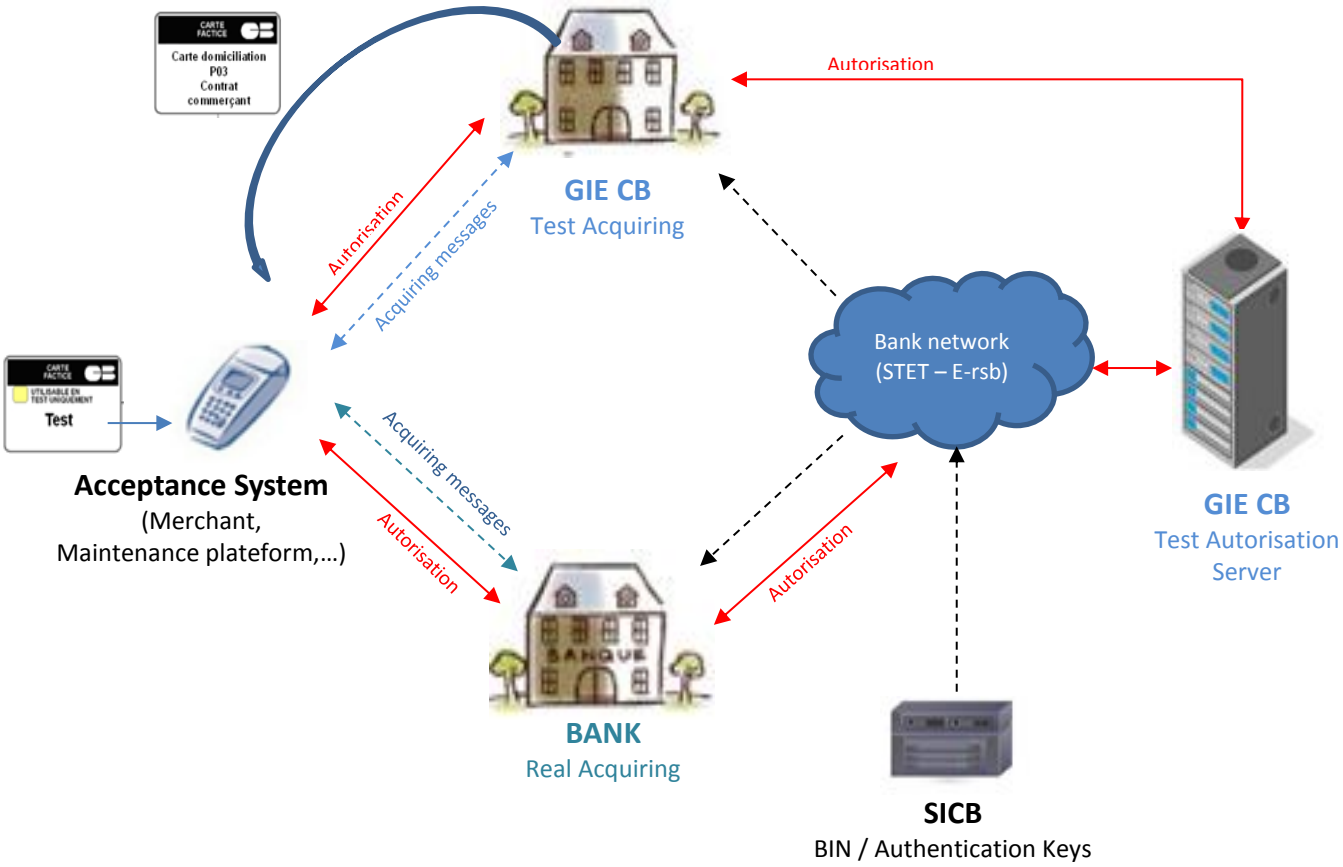
Remarks:

- Initialization of CB application with a CB test merchant contract is performed with a test merchant card (P03 card).
- Transactions performed with CB test cards are cancelled during clearing by a telecollection center (acquirer system).
- Some CB payment applications, such as vending machines payment, require a switch from production mode to test mode to perform transactions with CB test cards. Methods for switching are under responsibility of the acceptance system vendor.

IT IS MANDATORY TO PERFORM A CONTACT TRANSACTION BEFORE USING CB TEST CARD THROUGH CONTACTLESS INTERFACE.

Acceptance system issues an authorization request with the first transaction performed on the contact interface. Following a positive answer from the SAT, it shall be possible to perform transactions on the contactless interface.

Scheme for using CB test cards



2.2 CB development cards

It is the responsibility of the user of CB development cards to implement a simulator and a test authorization server. The user must check value of keys and must be sure that he knows the policy for:

- Card definition.
- Risk management (floor limits, stop list).
- Application blocking/unblocking.

CB provides the document DEVELOPMENT KEY VALUES to be used with CB development cards (cryptogram calculation, offline authentication).

It is necessary that CB payment application be initialized on acceptance system for CB development cards to work. Initialization is performed by downloading data via a simulator or a test acquirer system:

- BIN: 507100,
- Certification authority public key and other parameters provided in the document DEVELOPMENT KEY VALUES.

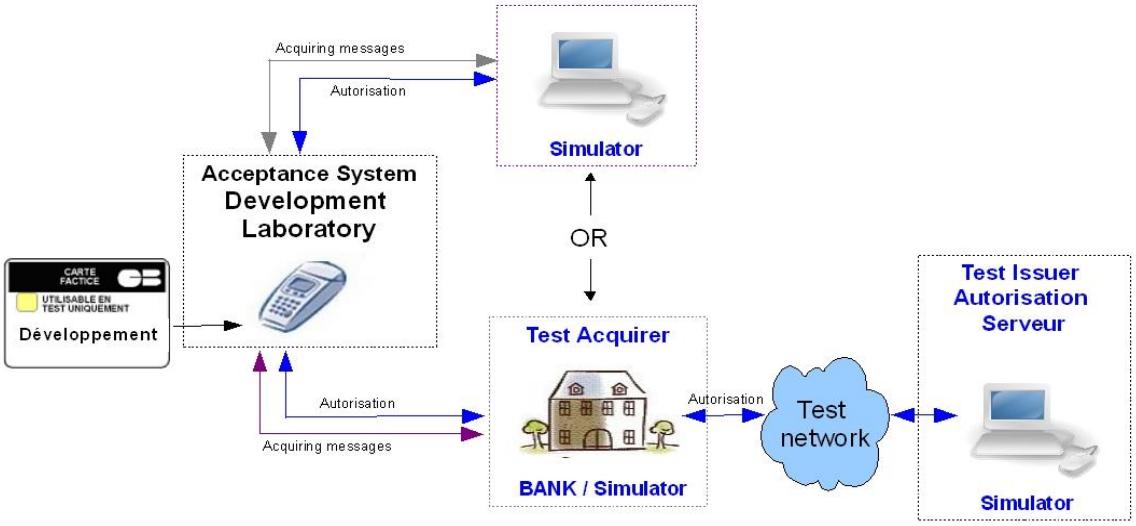
CB development cards do not work with acceptance system in the field. Online transactions are not routed by CB Network to the SAT.

Tables and scheme below explain the way to use **CB development cards**

Contact development card and Dual interface development card

	Development environnement			
	Test network		**Simulator**	
	contact	Dual interface	contact	Dual interface
« Offline » payment	Possible*	Possible*	Possible*	Possible*
« Online » payment	Possible*	Possible*	Possible*	Possible*
Withdrawal	Possible*	Impossible	Possible*	Impossible

*Possible: transactions may be accepted.



Remark :

Some CB payment applications, such as vending machines payment, require a switch from production mode to test mode to perform transactions with CB development cards. Methods for switching are under the responsibility of the acceptance system vendor.

IT IS MANDATORY TO PERFORM A CONTACT TRANSACTION BEFORE USING CB DEVELOPMENT CARD THROUGH CONTACTLESS INTERFACE.

3 CB CARD BATCHES GENERAL PRESENTATION

3.1 Main characteristics of batch

Each batch is composed of 10 cards the characteristics of which are specified in the tables below. A batch Id. is structured as follows: TL | VBA | (D) | x |BA | yy with

TL = Batch type	ST	Standard batch – all the cards in the batch are the same
	VA	Diverse batch – each card in the batch is specific
VBA= Specification version	10	M/Chip 4/PayPass 1.4 – Visa 1.4.1
	11	M/Chip Advance 1.1 – Visa 1.5.4/VCPS 2.1.2
D = Interface type	D	Optional – Dual interface (contact and contactless)
x = Card type	R	Test card
	D	Development card
BA= Scheme Specification	V	Visa
	MC	MasterCard
yy = range	01 à 10	Card number in the batch
VL = Batch version	17	17 for all batches in the current version of the catalogue

3.2 Batches

3.2.1 Standard test card batch on MasterCard specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
ST10DrMC	Standard	M/Chip 4 and PayPass 1.4	Dual interface	Test	MasterCard	-	17	OT CB V3.4	CB/MasterCard payment/withdrawal
ST11DrMC	Standard	M/Chip Advance	Dual interface	Test	MasterCard	-	17	OT CB V3.4	CB/MasterCard payment/withdrawal

3.2.2 Standard test card batch on Visa specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
ST11DrV	Standard	VIS 1.5.4 and	Dual	Test	Visa	-	17	OT CB	CB/Visa payment/withdrawal

		VCPS 2.1.2	interface					V3.4	

3.2.3 Diverse test card batch on MasterCard specification

Batch Id.	Type de lot	Version Base applicative	Techno.	Type de carte	Application Base	Card range	Batch version	Product	Caracteristics
VA10rMC01	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	1	17	OT CB V3.4	CB payment/withdrawal
VA10rMC02	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	2	17	OT CB V3.4	CB systematic authorization
VA10rMC03	Diverse	M/Chip4 and PayPass 1.4	Contact	Test.	MasterCard	3	17	OT CB V3.4	CB withdrawal
VA10rMC04	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	4	17	OT CB V3.4	CB/MasterCard payment/withdrawal
VA10rMC05	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	5	17	OT CB V3.4	CB/MasterCard systematic authorization
VA10rMC06	Diverse	M/Chip4 and PayPass 1.4	Dual	Test	MasterCard	6	17	OT CB V3.4	CB/MasterCard payment/withdrawal with card key length 1152 bits and $2^{16}+1$ exponent
VA10rMC07	Diverse	M/Chip4 and PayPass 1.4	Dual	Test	MasterCard	7	17	OT CB V3.4	CB/MasterCard payment/withdrawal with enciphered offline PIN with card key 1152 bits et exponent 3
VA10rMC08	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	8	17	OT CB V3.4	CB/MasterCard with multi-currencies supported, enciphered offline PIN with specific encipherment key 1152 bits and exponent 3
VA10rMC09	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	9	17	OT CB V3.4	CB/MasterCard payment/withdrawal with one CB debit application, one CB credit application and one MasterCard

									application
VA10rMC10	Diverse	M/Chip4 and PayPass 1.4	Contact	Test	MasterCard	10	17	OT CB V3.4	CB/MasterCard payment/withdrawal with 19 digits PAN length

3.2.4 Diverse test card batch on Visa specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Produit	Caracteristics
VA11rV01	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	1	17	OT CB V3.4	CB payment/withdrawal
VA11rV02	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	2	17	OT CB V3.4	CB systematic authorization
VA11rV03	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	3	17	OT CB V3.4	CB withdrawal
VA11rV04	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	4	17	OT CB V3.4	CB/Visa payment/withdrawal
VA11rV05	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	5	17	OT CB V3.4	CB/Visa systematic authorization
VA11rV06	Diverse	VIS 1.5.4 and VCPS 2.1.2	Dual	Test	Visa	6	17	OT CB V3.4	CB/Visa payment/withdrawal with card key length 1152 bits and $2^{16}+1$ exponent
VA11rV07	Diverse	VIS 1.5.4 and VCPS 2.1.2	Dual	Test	Visa	7	17	OT CB V3.4	CB/Visa payment/withdrawal with enciphered offline PIN with card key 1152 bits et exponent 3
VA11rV08	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	8	17	OT CB V3.4	CB/Visa with multi-currencies supported, enciphered offline PIN with specific encipherment key 1152 bits and exponent 3
VA11rV09	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	9	17	OT CB V3.4	CB/Visa payment/withdrawal with one CB debit application, one CB credit application and one Visa application

VA11rV10	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Test	Visa	10	17	OT CB V3.4	CB/Visa payment/withdrawal with 19 digits PAN length

3.2.5 Development test card batch on MasterCard specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
ST10DdMC	Standard	M/Chip 4 and PayPass 1.4	Dual interface	Dev.	MasterCard	-	17	OT CB V3.4	CB/MasterCard payment/withdrawal
ST11DdMC	Standard	M/Chip Advance	Dual interface	Dev.	MasterCard	-	17	OT CB V3.4	CB/MasterCard payment/withdrawal

3.2.6 Development test card batch on Visa specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
ST11DdV	Standard	VIS 1.5.4 and VCPS 2.1.2	Dual interface	Dev.	Visa	-	17	OT CB V3.4	CB/Visa payment/withdrawal

3.2.7 Diverse development card batch on MasterCard specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
VA10dMC01	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	1	17	OT CB V3.4	CB payment/withdrawal
VA10dMC02	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	2	17	OT CB V3.4	CB systematic authorization
VA10dMC03	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	3	17	OT CB V3.4	CB withdrawal
VA10dMC04	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	4	17	OT CB V3.4	CB/MasterCard payment/withdrawal
VA10dMC05	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	5	17	OT CB V3.4	CB/MasterCard systematic authorization
VA10dMC06	Diverse	M/Chip4 and PayPass 1.4	Dual	Dev.	MasterCard	6	17	OT CB V3.4	CB/MasterCard payment/withdrawal with card key length 1152 bits and $2^{16}+1$ exponent
VA10dMC07	Diverse	M/Chip4 and PayPass 1.4	Dual	Dev.	MasterCard	7	17	OT CB V3.4	CB/MasterCard payment/withdrawal with enciphered offline PIN with card key 1152 bits et exponent 3
VA10dMC08	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	8	17	OT CB V3.4	CB/MasterCard with multi-currencies supported, enciphered offline PIN with specific encipherment key 1152 bits and exponent 3
VA10dMC09	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	9	17	OT CB V3.4	CB/MasterCard payment/withdrawal with one CB debit application, one CB credit application and one MasterCard application

VA10dMC10	Diverse	M/Chip4 and PayPass 1.4	Contact	Dev.	MasterCard	10	17	OT CB V3.4	CB/MasterCard payment/withdrawal with 19 digits PAN length

3.2.8 Diverse development card batch on Visa specification

Batch Id.	Batch type	Specification version	Techno.	Card type	Application Base	Card range	Batch version	Product	Caracteristics
VA11dV01	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	1	17	OT CB V3.4	CB payment/withdrawal
VA11dV02	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	2	17	OT CB V3.4	CB systematic authorization
VA11dV03	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	3	17	OT CB V3.4	CB withdrawal
VA11dV04	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	4	17	OT CB V3.4	CB/Visa payment/withdrawal
VA11dV05	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	5	17	OT CB V3.4	CB/Visa systematic authorization
VA11dV06	Diverse	VIS 1.5.4 and VCPS 2.1.2	Dual	Dev.	Visa	6	17	OT CB V3.4	CB/Visa payment/withdrawal with card key length 1152 bits and $2^{16}+1$ exponent
VA11dV07	Diverse	VIS 1.5.4 and VCPS 2.1.2	Dual	Dev.	Visa	7	17	OT CB V3.4	CB/Visa payment/withdrawal with enciphered offline PIN with card key 1152 bits et exponent 3
VA11dV08	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	8	17	OT CB V3.4	CB/Visa with multi-currencies supported, enciphered offline PIN with specific encipherment key 1152 bits and exponent 3
VA11dV09	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	9	17	OT CB V3.4	CB/Visa payment/withdrawal with one CB debit application, one CB credit application and one Visa application
VA11dV10	Diverse	VIS 1.5.4 and VCPS 2.1.2	Contact	Dev.	Visa	10	17	OT CB V3.4	CB/Visa payment/withdrawal with 19 digits PAN length

4 TEST MERCHANT CONTRACT

CB merchant contract is a service composed of:

- Test acquiring service (merchant contract) which allows to operate an acceptance system by downloading CB application parameters and to acquire transaction.
- Test merchant card used for parameters downloading in an acceptance system.

Costs are detailed in the CB test products and services order form which can be downloaded from Cartes Bancaires website.

4.1 CB test merchant contract characteristics

A merchant contract number is dedicated for each client using the CB acquiring service. A merchant card linked to a test merchant contract is delivered for the acceptance system initialization. (see 4.2 merchant card characteristics (P03)).

This service is valid one year for each merchant contract. It can be renewed each year by sending an order form for contract renewal to GCB. Without renewal request, the contract is closed by GCB.

This service gives access to:

- Transaction acquiring and parameters downloading platform.
- Data acquisition.
- Authorization acquisition.

This service is working every day in every geographic zone where the acceptance systems is installed according to the *ARTICLE 9 – TERRITORIALITY* (Cf. « user agreement ».

PARAMETERS DOWNLOADING AND TRANSACTION ACQUISITION

Parameter downloading platform is used to download all parameters required for an acceptance system to work properly.

BE CAREFUL: parameters for a CB test merchant contract are used only for CB test cards.

The platform is used for transaction acquisition. No clearing is performed for transaction made with a CB test merchant contract.

Acceptance systems which can be used to perform transaction with test cards are the following ones:

- Self-sufficient POIs,
- Bunch of POIs

- Concentrated POIs,
- Integrated POIs,
- MPOS.

The applications which are accepted are the following ones:

	CB 5.2	**Bulletin 12 V2.0**	**Bulletin 12 V2.1**	**Bulletin 12 V3**	**CB5.5**	
	Contact	Contactless	Contactless	Contactless	Contact	Contactless
Proximity payment	X	X	X	X	X	X
Vending machine payment	X	X	X	X	X	X
Distant payment (manual acquisition)	X	-	-	-	X	-
Payment for goods and services rental	X	-	-	-	X	-
Vending machine payment for goods and services	X	-	-	-	X	-
Quasi-cash payment	X	-	-	-	X	-

CB test merchant contract can be used for all applications and types of payment except distant payment.

The 3D Secure remote payment can not be proceed with the CB test cards referenced in our catalog. This 3D Secure remote payment service is not available.

FLOW ACQUISITION

Platform for authorization acquisition, transaction acquisition and parameters downloading can be connected as follows:

- Full IP
- IP-X25
- RTC
- GPRS

Connection parameters for the CB test merchant contract are provided with a user guide.

Protocols which are supported are:

- CBCOM
- CB2A TLP/TLC
- CB2A authorization

AUTHORIZATION ACQUISITION

Authorization acquisition platform is used to transmit authorization requests to the CB test authorization server and get the authorization responses.

Only authorization requests issued by an acceptance system initialized with a CB merchant shall be processed.

Only authorization requests issued with CB test cards shall be processed.

4.2 CB test merchant card characteristics (P03)

A merchant card is linked to a CB test merchant contract.

A merchant card is used the initialization of an acceptance system. Card reading shall be requested with the first initialization.

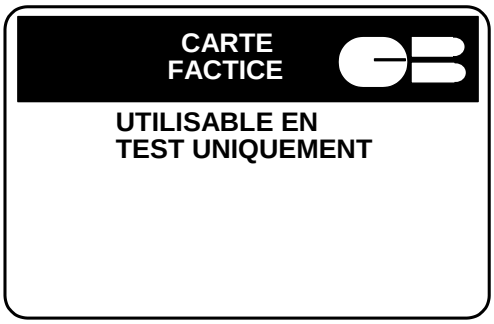
It shall be possible for the acceptance system to connect to the test acquirer system and to be identified with the CB merchant contract following merchant card reading.

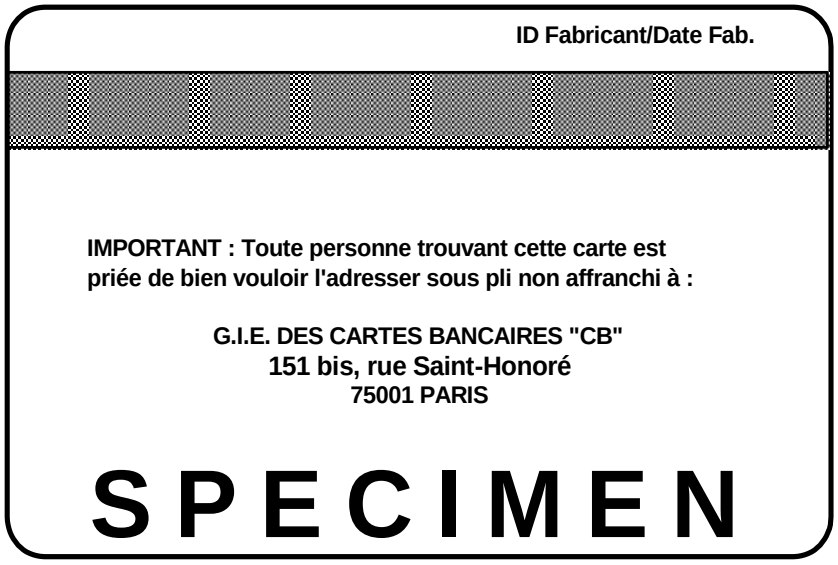
A merchant card is valid for the validity period of the merchant contract.

A merchant card is personalized with the GIE CB name and its number is the one of the merchant contract.

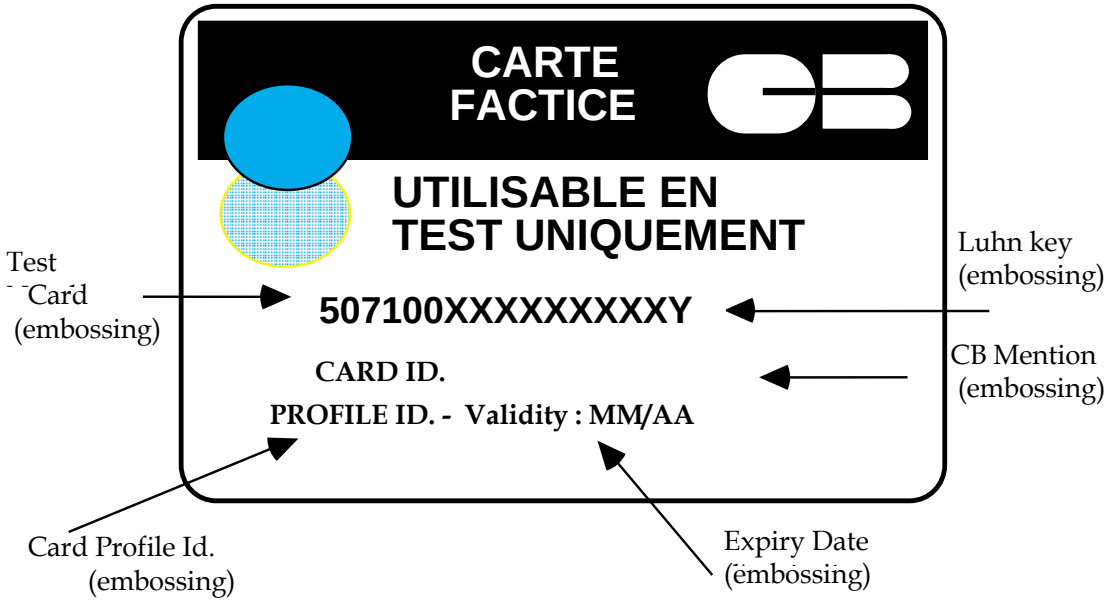
5 CARD DESIGN AND MAGSTRIPE

5.1 Design





5.2 Embossing



- **Test Card Number** = Test or Development card PAN

PIN code of test or development cards corresponds to the four penultimate numbers of the PAN such as:

- 501767XXXXXPPPPL
- 507100XXXXXPPPPL

Examples:

- 5071000000152369 ; le code PIN est 5236
- 5071000000999 le code PIN est 0099

- **Card Identifier** = Test Card or Development Card
- **Profile Reference** = Batch Identifier Number + Card range (in a diverse batch)
- **Version Batch = 17**

5.3 Magstripe Caracteristics

It is composed of three high coercivity tracks, encoding ISO1 and ISO2.
Values of service codes are 901, 903 (diverse batch range 3) or 921 (diverse batch rand 2 and 5).
Cardholder name, PAN and expiry date are the ones in the chip.
PVV date element is present; CVV and CVC are not present.

6 CARD ORDERING

Procedure for cards and services ordering and use conditions are provided in a specific CB document (order form for CB test products and services).