



## 1. Information about this document

This document contains tests, which make it possible for the integrator to check the functionality of its solution. A conscientious execution of all tests permits to make a reliable statement about the quality of the integration and reduces the examine time of SIX and the costs for the integrator.

**Remark:** *Changes in this document are reserved at any time, improvement and extension suggestions from the integrators part are expressly desired.*

## 2. Integration

### 2.1 minimum function need

So that the requirement of the card issuers and the SIX Payment Services AG are fulfilled, at least following functionality must be realized:

<i>Open</i>	<i>Transaction</i>	<i>DeviceControl</i>
<i>Close</i>	<i>debit</i>	<i>configure</i>
<i>Balance</i>	<i>reversal</i>	<i>initialize</i>

#### 2.1.1 Shift treatment

A shift serves for the fact that with a change of the ECR personnel an account can be made. A shift opening (open) always must be accomplished before the first transaction will be made, because only with open shift it is possible to release a transaction. A shift should be closed (close) if the ECR personnel changes.

#### 2.1.2 Transaction

For a safe completion of an electronic payment at least the transaction types **debit and reversal** are needed. A debit transaction charges the card owner and the reversal cancels a transaction so that the card owner is not charged. A transaction can be accomplished only with an opened shift (see Shift treatment).

#### 2.1.3 Balance

The daily closing is made usually at the end of a day and releases the cash flow. A daily closing can take place only with a closed shift (see Shift treatment).

#### 2.1.4 control functions

For the support of the terminal the function **device control** is used. The configuration (configure) and initialization (initialize) are necessary for a problem-less functioning.

### **3. Examination**

#### **3.1 Preparation**

The integrator tests its solution with the help of the tests described in chapter 3 and signs these after completion. If the solution of the integrator differs from the behavior recommended in this document, it is to be documented in reference to the test number. All receipts, which are generated during the tests, are to be provided with the test number and have to be submitted together with this document for the registration.

#### **3.2 Registration**

A registration to the acceptance test takes place with the submission of the complete test document i.e. test script, documentation of the differences, all receipts and a description of the solution. For the registration of an acceptance date the integrator contacts SIX Payment Services AG (exact address see at the beginning of this document).

#### **3.3 Acceptance test**

The integrator gives its system (without EFT-Terminal) for the acceptance test to SIX.

#### **3.4 Pendings**

The pending list created during the acceptance test is to be settled before the registration of a new date.

#### **3.5 Certification**

After a successful acceptance test the integrator receives a written permission of its solution for the implementation with terminals from SIX Card Solutions.

##### **3.5.1 Duration**

According to our experience the duration of the acceptance test normally takes half a day for a thoroughly tested and smooth running system.

### **3.5.2 Test location**

Usually the acceptance test will take place in the premises of SIX. In an exceptional case the acceptance test can be made outside of SIX.

### **3.5.3 Costs and accounting**

The correct functioning of the integration and the EFT terminal lies in the common interest of the integrator and SIX Payment Services AG. For this reason SIX Payment Services AG carries the costs for the first half day acceptance test. In the case that the test is outside of the SIX the travel expenses will be charged to the integrator.

### **3.5.4 Questions and problems**

For questions and problems with the interpretation of the test script please contact SIX Payment Services AG (exact address see at the beginning of this document).

### 3.5.5 Test cards

There is no need for test cards if the tests are made with the EFT terminal simulator. For tests with EFT terminals test cards are available as follows:

#### maestro cards:

maestro-CASH	(ec Card old generation)	Price CHF 30.--
maestro-EMV-CASH	(ec Card new generation)	Price CHF 30.--

#### Order address:

SIX Payment Services AG	Testcards@six-group.com
Department DPS-AQR	
Hardturmstrasse 201	
8021 Zürich	

#### Post Card:

POSTCARD	Free
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#### Order address:

Die Schweizerische Post, PostFinance	
Integration PF 53.2	Email <a href="mailto:eftpospf53@postfinance.ch">eftpospf53@postfinance.ch</a>
EFT/POS-Terminals	
Engehaldenstrasse 35	
3030 Bern	

**Attention:** exact orders -, calculation as well as the ship-to-address is needed!

**Other cards:** Visa, MasterCard and other Brands must be ordered by the appropriate publishers.

## 4. Testings

### 4.1 Shift

#### 4.1.1 Shift opening

In the following tests describes situations, which are in connection with the shift opening procedure:

4.1.1	Open the shift	expected result	OK	Date and visa
4.1.1-a	<b>normal shift opening</b> The shift will be opened.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- The MPD is started</li> <li>- Terminal was recognized</li> <li>- Driver object is initialized</li> <li>- ECR- and cashier code are set</li> </ul>	<b>Result:</b> the opening is successful  <b>Control:</b> Check the receipt: <ul style="list-style-type: none"> <li>- ECR- und Cashier-ID</li> <li>- Date and time</li> </ul>		
4.1.1-b	<b>already open shift</b> open the shift with already opened shift  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> </ul>	<b>Recommendation:</b> The solution permits a repeated shift opening  <b>Result:</b> the opening is successful.  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		



4.1.1	Open the shift	expected result	OK	Date and visa
4.1.1-c	<p><b>Disconnected terminal</b> The shift will be opened.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- The MPD is started</li> <li>- Terminal was recognized</li> <li>- Driver object is initialized</li> <li>- ECR- and cashier code are set</li> <li>- Disconnect the terminal</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101.</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.1.1-d	<p><b>No current supply of the terminal</b> The shift will be opened.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- The MPD is started</li> <li>- Terminal was recognized</li> <li>- Driver object is initialized</li> <li>- ECR- and cashier-ID are set</li> <li>- Interrupt the current supply of the terminal</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101.</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.1.1-e	<p><b>after error</b> The shift will be opened.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.1-c or 4.1.1-d</li> </ul>	<p><b>Result:</b> The opening is successful</p> <p><b>Control:</b> Check the receipt:</p> <ul style="list-style-type: none"> <li>- ECR- and cashier-ID</li> <li>- Date and time</li> </ul>		

#### 4.1.2 shift closing

In the following tests are described, which are in connection with the shift closing operation:

4.1.2	Shift closing	expected result	OK	Date and visa
4.1.2-a	<b>normal shift closing</b> Close the shift.  <b>Preparation:</b> - execute test 4.1.1-a	<b>Result:</b> the closing is successful  <b>Control:</b> Check the receipt: - ECR- and cashier-ID - Date and time		
4.1.2-b	<b>closed shift</b> Close the shift with already closed shift.  <b>Preparation:</b> - execute test 4.1.2-a	<b>Recommendation:</b> The solution permits a repeated closing of the shift  <b>Result:</b> the closing is successful.  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		
4.1.2-c	<b>Disconnected connection to the terminal</b> Closing the shift.  <b>Preparation:</b> - execute test 4.1.1-a - Disconnect the terminal	<b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.  <b>Result:</b> error code 101.  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		

4.1.2	Shift closing	expected result	OK	Date and visa
4.1.2-d	<p><b>Interrupted power supply of the terminal</b> The shift will be opened.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> <li>- interrupt power supply of the terminal</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101.</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.1.2-e	<p><b>after error</b> the shift will be closed.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.2-c or 4.1.2-d</li> </ul>	<p><b>Result:</b> the shift end is successfully</p> <p><b>Control:</b> check the receipt:</p> <ul style="list-style-type: none"> <li>- ECR-ID and cashier code</li> <li>- date and time</li> </ul>		

## 4.2 Control functions

### 4.2.1 Configuration

4.2.1	Configuration	expected result	OK	Date and visa
4.2.1-a	Execute Device-Control function (setup configure)  <b>Preparation:</b> - Execute test 4.1.2-a	<b>Result:</b> The configuration takes place without an error message		
4.2.1-b	A Device-Control function is released with interrupted connection to the terminal (setup configure)  <b>Preparation:</b> - Execute test 4.2.1-a	<b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.  <b>Result:</b> Error code 101.  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		

#### 4.2.2 Initialization

4.2.2	Initialization	expected result	OK	Date and visa
4.2.2-a	Device-Control Function (setup initialize)  <b>Preparation:</b> - Execute test 4.2.1-a	<b>Result:</b> The initialization takes place without error message		
4.2.2-b	Device-Control Function on connection interruption to the terminal (setup initialize)  <b>Preparation:</b> - Execute test 4.2.2-a	<b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.  <b>Result:</b> Error code 101.  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		

### 4.3 Balance

#### 4.3.1 Balance operation

In the following tests are described, which are in connection with the balance operation:

4.3.1	Execute the balance operation	expected result	OK	Date and visa
4.3.1-a	<b>normal balance</b> Execute a balance.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- The MPD is started</li> <li>- Terminal was recognized</li> <li>- Driver object is initialized</li> <li>- ECR-ID is set</li> </ul>	<b>Result:</b> the balance is successful  <b>Control:</b> check the receipt: <ul style="list-style-type: none"> <li>- ECR-ID and cashier code</li> <li>- date and time</li> </ul>		

4.3.1	Execute the balance operation	expected result	OK	Date and visa
4.3.1-b	<p><b>Opened shift</b> A balance is released with opened shift.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> </ul>	<p><b>Recommendation:</b> The open shift is closed automatically and the balance is released</p> <p><b>Result:</b> The shift was closed (receipt) and a balance is executed.</p> <p><b>Control:</b> Check the shift end and the balance receipts:</p> <ul style="list-style-type: none"> <li>- ECR-ID</li> <li>- date and time</li> </ul> <p><b>Remark:</b> If the balance is released while the shift is opened, an error code 410 will be generated. The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented.</p>		
4.3.1-c	<p><b>Disconnected terminal</b> A balance is released with interrupted connection to the terminal</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.2-a</li> <li>- Disconnect the terminal</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101.</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented.</p>		

4.3.1	Execute the balance operation	expected result	OK	Date and visa
4.3.1-d	<p><b>no current supply of the terminal</b> A balanced is released during interrupted current supply of the terminal</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.2-a</li> <li>- Interrupt the current supply of the terminal</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101.</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.3.1-e	<p><b>after error</b> The shift will be opened.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.3.1-c or 4.3.1-d</li> <li>- repair the connection to the terminal or current supply</li> </ul>	<p><b>Result:</b> the balance is successful</p> <p><b>Control:</b> Check the receipt:</p> <ul style="list-style-type: none"> <li>- ECR-ID</li> <li>- date and time</li> </ul>		



#### 4.4 Transactions

##### 4.4.1 Transaction with NIP

In the following tests are described, which are in connection with NIP based transactions:

**Remark:** No NIP can be entered by using the eft simulator i.e. for this test a Postcard or an ec-maestro card has to be used. NIP-based transactions generates only one receipt (see *ReceiptCopyCount=1*).

4.4.1	Execute Transaction with NIP	expected result	OK	Date and visa
4.4.1-a	<b>Transaction with NIP</b> Execute a NIP based transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> <li>- transaction amount <b>CHF</b> 5.00</li> <li>- release the transaction</li> </ul>	<b>Result:</b> the transaction is successful  <b>Control:</b> The receipt will be printed  Note the reference number: .....		
4.4.1-b	<b>Transaction cancellation</b> Execute a reversal transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.4.1-a</li> </ul>	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....  <b>Remark:</b> The reversal transaction is depending on the terminal type and could generate the error code 611 Note the behavior: .....		

4.4.1	Execute Transaction with NIP	expected result	OK	Date and visa
4.4.1-c	<p><b>A second time cancellation of the transaction</b> Execute a reversal transaction.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.4.1-b</li> </ul>	<p><b>Result:</b> the reversal transaction is refused</p> <p><b>Control:</b> Error code 611</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.4.1-d	<p><b>Transaction with NIP is stopped by the card owner</b> A transaction (debit) with NIP is started. The card owner stops the transaction during entering the NIP.</p>	<p><b>Result:</b> Signalling on ECR "cardholder abort"</p> <p><b>Control:</b> Error code 604</p> <p><b>Remark:</b> no receipt is printed</p>		
4.4.1-e	<p><b>Transaction is aborted because of timeout by entering the NIP</b> A debit with NIP is started. Wait for timeout during entering the NIP.</p>	<p><b>Result:</b> Signalling on ECR "cardholder timeout"</p> <p><b>Control:</b> Error code 605</p> <p><b>Remark:</b> no receipt is printed</p>		
4.4.1-f	<p><b>Transaction with NIP</b> A debit with NIP ist started with the same amount of the previous transaction.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> <li>- transaction amount <b>CHF</b> 5.00</li> <li>- release the transaction</li> </ul>	<p><b>Result:</b> Signalling on ECR "double operation"</p> <p><b>Control:</b> Error code 603</p> <p><b>Remark:</b> no receipt is printed</p>		

#### 4.4.2 Transactions without NIP

In the following tests are described, which are in connection with transactions without NIP:

**Remark:** No NIP can be entered by using the eft simulator i.e. for this test a credit card (VISA, MasterCard, American Express etc.) has to be used. Signature-based transactions generates two receipt (see ReceiptCopyCount=2).

4.4.2	Execute Transactions without NIP	expected result	OK	Date and visa
4.4.2-a	<b>Transaction without NIP</b> Execute a transaction without NIP.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.1.1-a</li> <li>- Transaction amount CHF 10.00</li> <li>- release the transaction</li> <li>- use a MasterCard</li> </ul>	<b>Result:</b> the transaction is successful  <b>Control:</b> Two receipts will be printed  Note the card number: ..... Note the reference number: .....		
4.4.2-b	<b>Cancellation of a transaction without NIP</b> Execute a reversal transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.4.2-a</li> </ul>	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....  <b>Remark:</b> The reversal transaction is depending on the terminal type and could generate the error code 611 Note the behavior: .....		



4.4.2	Execute Transactions without NIP	expected result	OK	Date and visa
4.4.2-c	<b>A second time cancellation of the transaction</b> Execute a reversal transaction.  <b>Preparation:</b> - execute test 4.4.2-b	<b>Result:</b> the reversal transaction is refused  <b>Control:</b> error code 611  <b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented		

### 4.4.3 TIP Transactions

In the following tests are described, which are in connection with TIP transactions:

4.4.3	TIP Transactions	expected result	OK	Date and visa
4.4.3-a	<b>TIP Transaction</b> Execute a TIP transaction with Card.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- activate the TIP function in the eft simulator</li> <li>- execute test 4.4.2-a</li> <li>- enter TIP of CHF 1.00</li> <li>- release the Transaction</li> </ul>	<b>Result:</b> the TIP transaction is successful  <b>Control:</b> The receipt will be printed  Note the reference number: .....		
4.4.3-b	<b>TIP Transaction cancellation</b> Execute a reversal transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- execute test 4.4.3-a</li> <li>- use of the Reference number</li> <li>- Insert card</li> </ul>	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....  <b>Remark:</b> The reversal transaction is depending on the terminal type and could generate the error code 611 Note the behavior: .....		



4.4.3	TIP Transactions	expected result	OK	Date and visa
4.4.3-c	<b>Transaction cancellation</b> Execute a reversal transaction.  <b>Preparation:</b> <ul style="list-style-type: none"><li>- execute test 4.4.3-b</li><li>- use the reference number from Test 4.4.2-a</li></ul>	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The receipt will be printed  Reference number check: .....		
4.4.3-d	<b>TIP Transaction</b> Execute a reversal transaction without a card  <b>Preparation:</b> <ul style="list-style-type: none"><li>- activate the TIP function in the eft simulator</li><li>- execute test 4.4.2-a</li><li>- enter TIP of CHF 1.00</li><li>- enter the card number manually (from Test 4.4.2-a)</li><li>- release transaction</li></ul>	<b>Result:</b> the TIP transaction is successful  <b>Control:</b> two receipts will be printed  Note the reference number: .....		

#### 4.4.4 Reservation

4.4.4	Reservation	expected result	OK	Date and visa
4.4.4-a	<b>Reservation</b> Execute a reservation transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF</b> 15.00</li> <li>- use the MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> Two receipts will be printed  Note the reference number: .....		
4.4.4-b	<b>Extension of Reservation</b> Execute a reservation extend transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.4-a</li> <li>- Transaction amount <b>CHF</b> 10.00</li> <li>- use the same MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> Two receipts will be printed  Check the reference number: .....		
4.4.4-c	<b>Debit on Reservation</b> Execute a reserved transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.4-b</li> <li>- Transaction amount <b>CHF</b> 20.00</li> <li>- use the same MasterCard</li> </ul>	<b>Result :</b> The transaction is successful.  <b>Control:</b> Two receipts will be printed  Check the reference number: .....		



4.4.4	Reservation	expected result	OK	Date and visa
4.4.4-d	<b>Storno of debit on Reservation</b> Execute a reversal transaction  <b>Preparation:</b> <ul style="list-style-type: none"><li>- Execute test 4.4.4-c</li><li>- use the same MasterCard</li></ul>	<b>Result:</b> the reversal transaction is successful  <b>Control:</b> The receipt will be printed		



#### 4.4.5 Credit

4.4.5	Credit	expected result	OK	Date and Visa
4.4.5-a	<b>Credit</b> Execute a credit transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF</b> 75.00</li> <li>- use the MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Note the reference number: ..... Note the card number: ..... Note the expiry date: .....		
4.4.5-b	<b>Storno Credit</b> Execute a reversal transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.5-a</li> <li>- use the same MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....		
4.4.5-c	<b>manual Storno Credit</b> Execute a reversal transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.5-a</li> <li>- enter the card number and date of expiry manually (see test result 4.4.5-a)</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....		

#### 4.4.6 Manual card number input

4.4.6	manual card number input	expected result	OK	Date and Visa
4.4.6-a	<b>manual card number input</b> execute a debit transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- enter the card number and the expiry date of an MasterCard manually</li> <li>- Transaction amount <b>CHF 25.00</b></li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Note the reference number: ..... Note the card number: ..... Note the expiry date: .....		
4.4.6-b	<b>Storno debit manual card number input</b> Execute reversal transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.6-a</li> <li>- enter the card number and date of expiry manually (siehe Test result 4.4.6-a)</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....		

#### 4.4.7 Cash Advance

4.4.7	Cash Advance	expected result	OK	Date and Visa
4.4.7-a	<b>Cash Advance</b> Execute a cash-advance transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF</b> 35.00</li> <li>- Use MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Note the reference number: .....		
4.4.7-b	<b>Storno Cash Advance</b> Execute reversal transaction  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.4.7-a</li> <li>- Use MasterCard</li> </ul>	<b>Result:</b> The transaction is successful  <b>Control:</b> The receipt will be printed  Check the reference number: .....		

## 4.5 DCC Transactionen

In the following tests are described, which are in connection with DCC transactions:

### 4.5.1 Normal DCC transaction

4.5.1	DCC Transaction	expected result	OK	Date and visa
4.5.1-a	<b>DCC Transaction</b> Exceute a DCC transaction.  <b>Preparation:</b> - activate DCC in the EFT terminal simulator <input checked="" type="checkbox"/> DCC mode	<b>Result:</b> The DCC transaction is successful  <b>Control:</b> The DCC receipt will be printed Check the receipt Note the reference number: .....		
4.5.1-b	<b>Stornieren DCC Transaction</b> Execute a reversal transaction.  <b>Preparation:</b> - Execute test 4.5.1-a - use DCC card	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The DCC reversal receipt will be printed  <b>Remark:</b> The reversal transaction is depending on the card and terminal type and could generate the error code 611 Note the behavior: .....		

#### 4.5.2 DCC Credit

4.5.2	DCC Credit	expected result	OK	Date and visa
4.5.2-a	<b>DCC Credit</b> Execute a DCC credit transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- activate DCC in the EFT terminal simulator               <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> DCC mode</li> </ul> </li> <li>- Set the date</li> <li>- Transaction amount <b>CHF 75.00</b></li> <li>- Use MasterCard</li> </ul>	<b>Result:</b> The DCC credit transaction is successful  <b>Control:</b> The DCC credit receipt will be printed  Datum des Bezugs: .....  <b>Remark:</b> If no date information is set, so the current date will be used for the DCC credit transaction.		
4.5.2-b	<b>Storno DCC Credit</b> Execute a reversal transaction.  <b>Preparation:</b> <ul style="list-style-type: none"> <li>- Execute test 4.5.2-a</li> <li>- Use the same Mastercard</li> </ul>	<b>Result:</b> The reversal transaction is successful  <b>Control:</b> The DCC reversal receipt will be printed		

### 4.5.3 DCC TIP Transaction

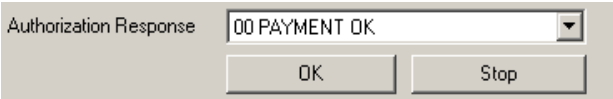
4.5.3	DCC TIP Transaction	expected result	OK	Date and visa
4.5.3-a	<p><b>DCC TIP Transaction</b> Execute a DCC TIP transaction.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Execute test 4.5.1-a</li> <li>- Choose TIP <b>CHF</b> 1.00</li> <li>- Execute the transaction</li> </ul>	<p><b>Result:</b> The DCC TIP transaction is successful</p> <p><b>Control:</b> Two receipts will be printed</p> <p>Note the sequence number: .....</p>		
4.5.3-b	<p><b>Reversal DCC TIP transaction</b> Execute a reversal transaction.</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Execute test 4.5.3-a</li> <li>- Use the same reference number</li> <li>- Insert card</li> </ul>	<p><b>Result:</b> The reversal transaction is successful</p> <p><b>Control:</b> The storno receipt will be printed</p> <p><b>Remark:</b> The reversal transaction is depending on the card and terminal type and could generate the error code 611</p> <p>Note the behavior: .....</p>		

#### 4.5.4 DCC Currency receipt

4.5.4	DCC Currency receipt	expected result	OK	Date and visa
4.5.4-a	<b>Print DCC Currency Receipt</b> Execute the device control method (0x05 0x01).	<b>Result:</b> a currency receipt will be printed		

## 4.6 Errors at the terminal

### 4.6.1 Cardholder aborts the transaction by pressing the stop key

4.6.1	Transaction abort by pressing stop	Expected result	OK	Date and Visa
4.6.1-a	<p><b>Transaction abort by pressing stop</b> Execute a debit transaction and press stop at the eft simulator</p>  <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF 25.00</b></li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 604</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		

### 4.6.2 Cardholder does not introduce the card

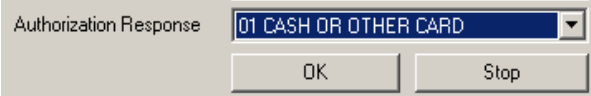
4.6.2	Cardholder does not introduce the card	Expected result	OK	Date and Visa
4.6.2-a	<p><b>Cardholder does not introduce the card</b> Execute a debit transaction without inserting a card</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF 25.00</b></li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 605</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		



### 4.6.3 invalid Currency



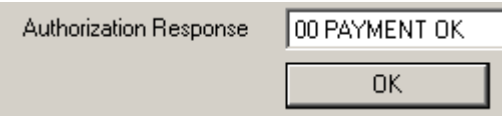
4.6.3	invalid Currency	Expected result	OK	Date and Visa
4.6.3-a	<p><b>Transaction with foreign currency</b> Execute a debit transaction</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Transaction amount <b>EUR</b> 25.00</li> <li>- Configure the terminals simulator as follows:               <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> currency only CHF</li> </ul> </li> <li>- use an ec-maestro card</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 508</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.6.3-b	<p><b>Transaction with unknown currency</b> Execute a debit transaction</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Transaction amount <b>XXS</b> 15.00</li> <li>- use an ec-maestro card</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 508</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		

#### 4.6.4 Wrong NIP

4.6.4	Wrong NIP	Expected result	OK	Date and Visa
4.6.4-a	<p><b>Wrong NIP</b> Execute a debit transaction and set the Authorisation response 01 on the eft simulator</p>  <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Transaction amount <b>CHF 25.00</b></li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 611</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		

#### 4.6.5 Interruptions

4.6.5	Interruptions	Expected result	OK	Date and Visa
4.6.5-a	<p><b>Interruption of circuit</b> Execute a debit transaction and simulate an connecting interruption</p> <p><input type="checkbox"/> has Connection</p> <p><b>Preparation:</b> - Transaction amount <b>CHF</b> 25.00</p>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.6.5-b	<p><b>Connecting interruption</b> Execute a debit transaction and simulate an connecting interruption</p> <p><input type="checkbox"/> has Connection</p> <p><b>Preparation:</b> - Transaction amount <b>CHF</b> 25.00</p>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		

4.6.5	Interruptions	Expected result	OK	Date and Visa
4.6.5-c	<p><b>Connecting interruption during the transaction</b> Execute a debit transaction and insert a card at the eft simulator</p>  <p>afterwards interrupt the connection afterwards at the eft simulator</p>  <p>confirm the transaction with OK</p>  <p><b>Preparation:</b> - Transaction amount <b>CHF 25.00</b></p>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 101</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		

#### 4.6.6 Invalid state

4.6.6	Invalid state	Expected result	OK	Date and Visa
4.6.6-a	<p><b>Transaction attempt with closed shift</b></p> <p>Execute a debit transaction</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Execute test 4.1.2-a</li> <li>- Transaction amount <b>CHF 25.00</b></li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 504</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		
4.6.6-b	<p><b>Balance attempt with opened shift</b></p> <p>Execute a balance</p> <p><b>Preparation:</b></p> <ul style="list-style-type: none"> <li>- Execute test 4.1.1-a</li> </ul>	<p><b>Recommendation:</b> With an error code and an error message it is signaled to the responsible person that the procedure failed.</p> <p><b>Result:</b> Error code 410</p> <p><b>Remark:</b> The recommended behavior is not compelling! If the integration solution has a different behavior then this is to be documented</p>		