AMEX Clearing and Settlement Technical Specifications Document

Version 2.0

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1. Purpose
   1. Purpose of This document:

To specify the interface requirements for the AMEX Clearing and Settlement System.

1. Document Overview
   1. Glossary of Terms

|  |  |
| --- | --- |
| **Acquiring Bank** | Means the participant (Financial Institution) collecting the payment instruction |
| **AEVV** | American Express Verification Value |
| **AMEX** | American Express |
| **AXS** | Automated Clearing Bureau Transmission System |
| **BIN** | Bank Identification Number |
| **Carriage Fee** | The fee for the processing bank charges the Issuer. |
| **DMC&S** | Dual Message Clearing and Settlement system |
| **Issuing Bank** | Means the Participant (Financial Institution) that issues cards. |
| **Held-over** | Means if we receive data on a non-processing day/holiday, no processing will be done until the next processing day/business day. |
| **MIS** | Management Information System |
| **PCH PG** | Payment Clearing House Participant Group |
| **POS** | Point Of Sale device |
| **SafeKey** | American Express SafeKey® is an industry-standard Authentication method that,when employed by Issuers, Cardmembers, Acquirers, and Internet merchants, provides greater security for Internet Transactions. |
| **SAMOS** | South African Multiple Option System |
| **SARB** | South Africa Reserve Bank |
| **Service Establishment (S/E Merchant or Card Acceptor)** | Any Person that has entered into a contract with an Acquirer wherein such entity agrees to:  i. Permit any Cardmember to charge purchases of Goods and Services at or from such entity by means of the Card and  ii. Transfer such Charges to an Acquirer. |
| **VAT** | Value Added Tax |
| **TC** | Transaction Code |
| **TCR** | Transaction Component Record |
| **VET** | Validation prior to Extraction of Transaction |
| **Z1** | Delivery begin of service control file |
| **Z9** | Delivery end of sub-service control file |

* 1. Background

This document provides technical specifications for input and output for AMEX to the Dual Message Clearing and Settlement System. This Dual Message Clearing and Settlement System will process card transactions for the AMEX payment stream.

This document details the formats and layouts of input and output card transactions, specifications for the controls of files containing such transactions and identifies all reports output by the system. The document also provides South African specific requirements for card transactions.

1. Scope

The scope of this document is to

* Specify AMEX file and transaction formats for input into the Dual Message Clearing and Settlement System, highlighting local requirements of these formats.
* Detail item charge calculations, transaction fee VAT.
* Specify AMEX file and transaction layouts for output to banks.
* Specify validations that will be applied and validation reporting.
* Specify settlement reporting of card transactions processed

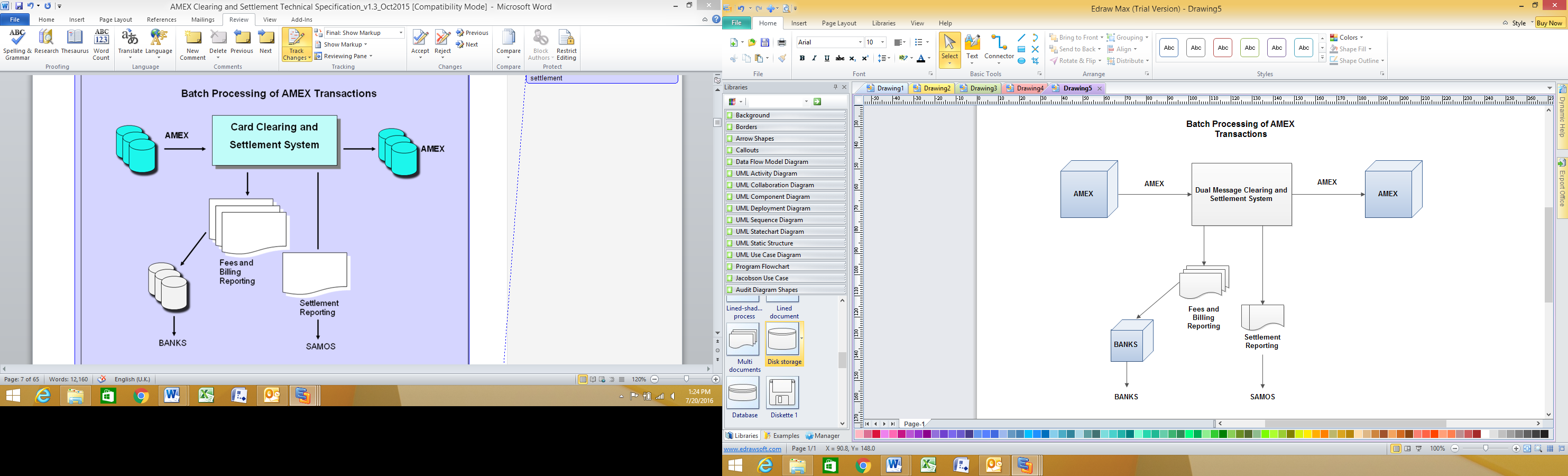
It must be noted that message and field content rules of AMEX transactions are defined and enforced by the international card association. Banks recognize and adhere to these rules. This document does not attempt to impose any additional field specifications or processing rules to those defined by AMEX card association. The document is intended to identify and detail local interpretations of AMEX transactions allowing banks to exchange transactions in agreed formats.

For this reason, explicit detail which is not relevant to agreed local interpretation has not been replicated in this document and is available in documentation from the card association.

**Exclusions**

* The development of a merchant database.
* The Request for Copy transaction
* Chargebacks

1. System Overview



AMEX transactions are submitted by banks in files to BankservAfrica. BankservAfrica will send the files on to Nedbank for processing as Nedbank is currently the only Agent (Issuing and Acquiring) bank for AMEX. Card transactions are validated and output to banks in a standard format as detailed in this specification.

Settlement of card transactions is reported to SAMOS. Settlement reports and reports containing fee calculations are packaged into files and transmitted to banks. Tax Invoices for Billing and Settlements will be distributed in files for banks.

1. Input

Banks must submit AMEX card transactions in the file layouts defined in this specification. Card settlement is reported to the South African Reserve Bank.

Card transactions may be separated by destination bank on input, or banks may deliver card transactions for all banks in the same file. Banks must limit the number of card transactions written to XCOM files to 100 000 transactions per file.

The actual number of records on the file may exceed 100 000 records to accommodate continuation records and control records.

Duplicate file checking is performed on input. Files with the same file name and file number will be rejected by the delivery system at time of receipt. The delivery system will send a negative acknowledgement to the originator for duplicate files detected.

Controls associated with input files will be checked at time of loading to the database and files with the same controls will be deemed to be duplicates and flagged for operational confirmation to the banks. Based on confirmation from the banks the file either accepted or rejected files are included on exception reports.

* 1. AMEX Input

AMEX transactions must be delivered in files bound by AXS header and trailer records. Files must be named according to established XCOM file naming convention as detailed in the AXS Transmission System Specification document and repeated in the section below (Refer to AXS Specifications document).

The first record in a file must be an AXS control record with a record identifier of 01. The last record of the file must be an AXS trailer record, containing file control records and having a file identifier of 99. The last file in the daily batch must contain an end-of-service record (98 record) before the end-of-file record (99 record).

AMEX allows for batches of card transactions to be defined by a batch control record (91 record). Bank may opt to sort and submit card transactions in batches by issuing bank, bound by batch control records, in the same file. There is no restriction on when a 91 control record may be used or how many are included on input files.

AMEX allows for more than one TCR (Transaction Component Record) for a single card transaction. AMEX allows the following TCR’s:

* TCR 0
* TCR 1
* TCR 3
* TCR 5
* TCR 7

All TCRs in a transaction have the same two-character transaction code (Positions 1 and 2). The Transaction Component Sequence Number (position 4) gives the TCR number. TCR numbers are not necessarily consecutive; that is, the TCR sequence may skip a number. For example TCR 0, TCR 1, and TCR 4. The TCRs must be in ascending order within the transaction, however. A card transaction is considered complete when the next TCR0 or control record is detected.

The first AMEX transaction record in a financial card transaction must be a TCR0 record. Associated TCR records will follow the financial TCR0 record. All TCR records will be captured and cleared in the same sequence to destination banks.

* + 1. **AMEX Draft Transactions**

DINERS support’s the following data draft transactions

* Sales Draft (**TC 05**) — Original purchase
* Credit Voucher (**TC 06**) — Original credit voucher or Cardholder Funds Transfer
  + 1. **DINERS Reversal Transactions**

DINERS support’s the following reversal transactions

* Reversal, Sales Draft (**TC 25**)—Reversal of an original purchase or re-presentment transaction
* Reversal, Credit Voucher (**TC 26**)—Reversal of an original credit voucher transaction.

1. Processing Requirements
   1. BIN Table Maintenance

BINs are maintained on the Dual Message Clearing and Settlement System for identifying member banks for settlement and for identifying card types for fee calculations.

BINs are 6 – 9 digits long and must be on the BIN list as provided by the bank.

Note: Currently BINs are 6 digits long however in the new BIN list we are catering for up to 9 digits.

* 1. Validation of Card Transctions

Input files must conform to files structures detailed in this document. Invalid file structure will result in total file rejection on input.

The Transaction Code is required for item charge calculations and will be validated on input. An invalid transaction code will result in transaction rejection.

Card transactions submitted in AMEX format are subjected to BIN validation on input.

Card transactions failing BIN validations will not be included in the settlement and will not be cleared. An exception report will be provided detailing transactions failing validation (Refer to Report Manual). Banks may opt to have failed transactions returned in files. The structure of such files is included in later sections in this document.

Totals contained on file trailer records will be compared to volumes processed. Invalid totals on trailer records will result in file rejection. Reasons for file rejection will be included on the exception report. Control records (91 records) on AMEX input will be compared to transactions processed.

Should a file be rejected, the originator will be notified immediately so that a replacement file may be delivered before the end-of-service. The Dual Message Clearing and Settlement service will not be “closed” for settlement until all rejected files have been addressed.

The following table contains validation error codes that can be expected on failed transactions returned in files. The list is not complete and more error codes will be added as required: Refer to Annexure M.

* 1. Carriage Fee Calculations

|  |  |  |
| --- | --- | --- |
| **Transaction Type** | **Credit Card** | **Inter-bank fee payable by** |
| Sales Draft (SD) | Rx.xx + VAT | Issuer to Acquiring |
| Credit Vouchers (CV) | Rx.xx + VAT | Acquiring to Issuer |
| Cash Advances (CA) | Rx.xx + VAT | Acquiring to Issuer |

BIN and transaction types on transactions will identify the agreed bilateral charge and fee calculation algorithms that will be applied.

Parameters will be held for calculating item charges /carriage fees and VAT.

A three-party model means the Issuing Bank (having the relationship with the cardholder) and the Acquiring Bank (having the relationship with the Merchant) is the same entity.

The carriage fees are bilaterally agreed between the Issuer and Acquirer/Agent Bank.

Carriage fee calculations will be performed at Sub-service level. Transactions failing validation will not attract item charges or transaction fees.

VAT is calculated after item charge and transaction fee calculations are complete and are applied at Sub-service level.

Refer to reports manual for all fee reporting.

* 1. Card Transaction Clearing

Card transactions input into the system will be extracted for distribution to banks. All card transactions input will be cleared on the same day except on Sundays and public holidays.

Card transactions received for input into the system on a Public Holiday will be held-over and only extracted and cleared on the next business day. No input files will be processed or held-over on Sundays.

The output will be packaged and delivered in batch files.

* 1. Settlement of Card Transactions

Card transaction principal amounts will be accrued by bank on bank and presented to a settlement service. The settlement service will perform inter-bank settlement with the South Africa Reserve Bank at end of card processing.

Card transactions received for input into the system on a Public Holiday will be held-over and only settled on the next business day. No input files will be processed or held-over on Sundays.

1. Output
   1. Card Transaction Output to Banks

AMEX transactions will be extracted and delivered to Nedbank in separate file per Issuing bank.

Reports will be packaged into transmission files and will be delivered electronically with file controls. (Refer to AXS Specifications).

1. Dual Message Clearing and Settlement Reporting

**Refer to Report manual**

The Dual Message Clearing and Settlement system will provide the following reports:

* Fees and charges report: CCR002
* Exception Report: CCR003
* Fees and Item processing statement: CCR001/CCR005
* Vet Report: CSR023
* Exposure and bilateral settlement reports: SV03 & SV05B

All reports will be produced in 132 character record format and delivered via transmission to banks in files bounded by XCOM header and trailer records. (Refer to AXS specification and reports manual).

1. File and Transaction Specifications
   1. AMEX File Specifications

File identifier : CABBnnna (see naming convention)

File description : AMEX file

File type : Sequential

Media type : Disk/Line Sequential

Recording format : ASCII

Record length : 168 characters

Blocking factor : 1

File size : Parameterised

Records : See file structure below

The AMEX input file structure is as follows:

* **01 AXS Header Record (Refer to AXS Specification)**
* Header Record (90)
* Card Transaction (TC 05, TC 06, TC 25 or TC 26)
* Card Transaction (TCR0, TCR1, TCR3, TCR5, TCR7)
* Card Transaction
* Card Transaction Batch Trailer Record 1 (91)
* Card Transaction (TCR0, TCR1, TCR3, TCR5, TCR7)
* Card Transaction
* Card Transaction
* Batch Trailer Record XX (91)
* File Trailer Record (92)
* End of Service (98)
* **99 AXS Trailer Record (Refer to AXS Specification)**
  + 1. **AMEX Record Layouts**

**AMEX AXS Header Record 01: Refer to AXS Specifications**

**AMEX Header record 90**

| **Field** | **Length** | **Description** |
| --- | --- | --- |
| Transaction Code | 9(02) | Must contain 90 |
| Processing BIN | X(06) | The field can be spaces or the BIN for this processing center. |
| Processing Date | 9(05) | YYDDD Julian date |
| Reserved | X(16) | space |
| Test Option | X(04) | Blank for live, TEST for test |
| Reserved | X(29) | space |
| Security Code | X(08) | The field can be spaces or the Security Code for this processing center. |
| Reserved | X(06) | space |
| Outgoing File Id | 9(03) | ID used to identify the outgoing file. The entry must be numeric and can contain zeros  or the unique processing center. ID number for the file. |
| Reserved | X(89) | Space |

**AMEX TCR0 Transaction record:**

| **Field** | **Length** | **Description** |
| --- | --- | --- |
| Transaction Code | 9(02) | Contains 05, 06, 25 or 26. |
| Tran Code Qualifier | 9(01) | 0 = Default  1 = Account Funding  2 = Original Credit |
| TCR Number | 9(01) | Must contain a 0 |
| Account Number | 9(16) | Contains a concatenated BIN number and account number |
| Acc No Extension | 9(03) | A three-digit extension of the account number that allows account numbers up to 19 digits. If the account number exceeds 16 digits, the extension field entry must be numeric, left-justified, and any remaining positions zero-filled. |
| Floor Limit Indicator | X(01) | Indicates if the transaction was above or below the merchant’s floor limit for the date of the purchase.  Valid values are:  Space = Floor limit validation not performed  I = Insufficient information to determine floor limit  Z = Zero floor limit  A = Above floor limit by more than 20%  B = Below floor limit by more than 20%  C = Above floor limit by 20% or less  D = Below floor limit by 20% or less, or at the floor limit.  This edit applies to all presentments except credit vouchers. Space if validation not performed |
| Exception file Ind | X(01) | Valid values: Space, I, N or Y Indicates that the account number on the card used in the transaction was listed in the Card Recovery Bulletin Visa card pickup bulletin: - Account number  - Mail/telephone indicator  - Merchant location  - Transaction date  - Authorization code  - Floor limit indicator.  The field applies to original sales drafts, cash disbursements, and first chargebacks with reason codes 28 or 70, which were not authorized and have a transaction amount at or below the merchant’s floor limit. |
| PCAS Indicator | X(01) | Indicates that the transaction’s authorization code was generated during Visa stand-in authorization (STIP-Stand-In Processor) using the Positive Cardholder Authorization Service (PCAS). CRS evaluates the following elements to determine the authorization status:  - Account number  - Authorization code  - Transaction date The appropriate code:  Space = Unknown; no determination can be made. Does not imply that the authorization was issued by PCAS  N = Authorization was not issued by PCAS |
| Acq Reference No | 9(23) | A 23 – digit identification number assigned by the acquirer and include in a Clearing Record.  The ARN should be unique although duplicate ARNs will not be rejected.  **-Format Code: Position (27) – Length (1)**  Description: Code used to ensure a valid Visa Reference Number (see above). (TC 05, Usage Code = 2) must contain a 7. Usage Code = 1 may contain either a 2 or 7. Credit vouchers and cash transactions: (TC 06, 07, 26, 27, Usage Code = 1 or 2) must contain a 7. National—CPS Participating Countries: Original purchase transactions: (TC 05; Usage Code = 1) must contain a 2 in this field.  **-BIN: Position (28-33) – Length (6)**  Description: Bank Identification Number (BIN), usually six digits, assigned by Visa to member financial institutions to uniquely identify them, distinguish their card issuing and acquiring programs, and to provide for the proper routing of messages. A BIN may also be assigned to non-member processors for identification purposes.  The entry must be a valid six-digit acquiring BIN per the current BIN Table. May be an issuing BIN for cash disbursements.  **-Date: Position (34-37) – Length (4)**  Description: A four-digit numeric in the format YDDD (year and Julian day).  The date should be either the data capture date or the pre-edit program run date.  **-Film Locator: Position (38-48) – Length (11)**  Description: A number used to identify film records of the transaction.  Original Draft Transactions: (TC 05, 06, and 07; Usage Code=1) must not be zeros.  **-Check Digit: Position (49) – Length (1)**  Description: Digit used to validate the Acquirer Reference Number. The entry must be a valid standard modulus-10 check digit of the preceding 22 digits (positions 27–48). |
| Acq Business ID | 9(08) | Contains the Visa-assigned business ID of the acquirer that signed the merchant for processing purchase or mail/phone order transactions. In this case, the acquirer is referred to as the Merchant Sponsor. The entry must be numeric.  U.S. acquirers must provide this field on all original presentments.  For chargebacks, re-presentments, retrieval requests, and fraud advices, U.S. issuers must retain and return the Acquirer’s Business ID if it was provided by the acquirer Must be Numeric |
| Purchase Date | 9(04) | Date the purchase transaction was made. For re-presentments, the field must be the same as in the original transaction.  The entry must be a four-digit numeric (which may be zeros) in the format MMDD (month and day). Four zeros (0000) must be used only if the date is unavailable or illegible.  MMDD |
| Destination Amount | 9(10)V99 | Identifies the submitted transaction amount in the currency that is appropriate to the destination endpoint. For most transactions (drafts), it is the source amount. |
| Dest Currency Code | X(03) | The currency type presented to the member on incoming transactions. For most transactions (that is, drafts), it is the billing currency. For other transactions (for example, fee collection, chargeback), it is the settlement currency of the destination. It will contain the same value as the Source Currency Code.  Refer to Annexure B |
| Source Amount | 9(10)V99 | The purchase value in transaction currency; two decimal places are implied. The entry must be a numeric greater than zero. |
| Source Currency Code | X(03) | Currency code used in the transaction.  710 = ZAR  748 = SZL  516 = NAD  710 = ZAR (LS = Lesotho)  Refer to Annexure B |
| Merchant Name | X(25) | Name of the merchant in the original transaction. The first position in this field cannot be a space.  Entries must not exceed 25 characters. For entries less than 25, space-fill after the last character |
| Merchant City | X(13) | Refer to City and Province list (Maintained by BankservAfrica).  Merchant city, telephone number, email address, or URL. The first position in this field cannot be a space. The field must be space-filled to the right. |
| Merchant Country | X(03) | Code indicating country where the transaction occurred, regardless of the location of entry to the system. The field is critical for the proper processing of all transactions.  Refer to Annexure B  ZAR = South Africa  ZAR = Lesotho  SZL = Swaziland  NAD (Namibia Dollar) or ZAR = Namibia |
| Merchant Cat code | 9(04) | Indicates merchant’s type of business product or service. The field must contain a valid four-digit numeric Merchant Category Code (MCC). For Reimbursement Attribute 1, 2, G, or H, the entry must be 6011 |
| Merchant ZIP code | 9(05) | Postal code of the merchant where the transaction took place. The entry must be numeric; may be zeros. |
| Merchant State Code | X(03) | Refer to list of province codes below.  **South African Province codes:**   |  |  | | --- | --- | | **Province name** | **ISO 3166-2:ZA code** | | Eastern Cape | ZA-EC | | Free State | ZA-FS | | Gauteng | ZA-GT | | KwaZulu Natal | ZA-NL | | Limpopo | ZA-LP | | Mpumalanga | ZA-MP | | Northern Cape | ZA-NC | | North West | ZA-NW | | Western Cape | ZA-WC |   **Swaziland:**   |  |  | | --- | --- | | **Province name** | **ISO 3166-2:SZ code** | | Hhohho | SZ-HH | | Lubombo | SZ-LU | | Manzini | SZ-MA | | Shiselweni | SZ-SH |   **Lesotho:**   |  |  | | --- | --- | | **Province name** | **ISO 3166-2:LS code** | | Berea | LS-D | | Butha-Buthe | LS-B | | Leribe | LS-C | | Mafeteng | LS-E | | Maseru | LS-A | | Mohale’s Hoek | LS-F | | Mokhotlong | LS-J | | Qacha’s Nek | LS-H | | Quithing | LS-G | | Thaba-Tseka | LS-K | |
| Request Payment Ind | X(01) | Codes for dual-message acquirers that define their choice of a specific custom payment service in the deferred clearing transaction. The requested payment service indicates that the acquirer complied with the selected CPS authorization and clearing rules. Originals and Reversals of Originals.  Original purchases and credit vouchers and their reversals from acquirers in CPS participating countries must contain a valid value.  Original ATM cash disbursements and their reversals should contain one of the following values:  Space = not a CPS transaction  9 = CPS/ATM |
| Filler | X(01) | Space |
| Usage Code | 9(01) | Indicates whether this is the first presentment or second. The entry will be 1 on original transactions. Valid values are:  1 = First presentment |
| Reason Code | X(02) | For originals and reversals of originals, the field must contain 00. |
| Settlement Flag | 9(01) | Indicates the service used for settlement. The field must contain 0, 3, 8, or 9 per the permitted entries shown below. If the entry is 8, the Source Currency Code must be the currency of the national settlement service.  NOTE: This edit will continue to be performed by the Edit Package when the Bypass Business Edits option is used during an outgoing edit run.  0 = International settlement service  3 = Clearing-only (valid only for countries with defined service)  8 = National Net settlement service (valid only for countries with defined service)  9 = BASE II selects the appropriate settlement service based on routing and country-defined default |
| Authorisation Indicator | X(01) | Space |
| Authorisation Code | X(06) | Alphanumeric  A code that an issuer, its authorizing processor, or Stand-In Processing (STIP) provides to indicate approval of a transaction. The code is returned in the Authorization Response and is usually recorded on the Transaction Receipt.  The field must contain a six-position Authorization Code. Allowed entries are:  • Spaces  • A through Z  • 0 through 9  NOTE: In addition to the edit for the allowed entries that determines the validity of a transaction, the following entries indicate that the transaction is considered unauthorized by the issuer. |
| POS Term Capability | X(01) | Indicates the capability of the point-of-sale (POS) terminal (for example, terminal was not used, terminal can read magnetic stripe, terminal can read chip, etc.) The field must contain a space, 0 through 5, 8, or 9  **Valid values:**  Space Not specified Use to indicate that the capability of the terminal was not specified.  0 Unknown Use to indicate that the terminal type cannot be determined.  1 Terminal not used Use to indicate that a terminal was not used to capture the card data  2 Magnetic stripe read capability Use to indicate that the terminal can read the magnetic stripe on the card.  3 Barcode read capability Not used for Visa and Visa Electron cards.  4 OCR read capability Not used for Visa and Visa Electron cards.  5 Chip-capable terminal Use to indicate that the terminal can read the chip and the magnetic stripe on the card.  6 MICR Read Used for SMS POS Check Service, U.S. only.  7 MICR Read and Image-capable Used for SMS POS Check Service, U.S. only.  8 Proximity read capability Terminal This value is used to indicate that the terminal can read a proximity chip (using a Visa contactless specification) but cannot read a contact chip on a card.  9 Terminal does not have the capability to read card data Use to indicate that the terminal does not have the capability to read the chip or magnetic stripe on the card. |
| International Fee Ind | X(01) | space |
| Cardholder ID Method | X(01) | Indicates method used to identify cardholder (e.g., signature, Personal Identification Number (PIN), etc.). The field must contain a space or 1 through 4*.*Manual for a list of valid codes  Valid values:  Space Not specified  1 Signature  2 PIN  3 Unattended terminal; no PIN pad  4 Mail/Telephone or Electronic Commerce |
| Collection Only Flag | X(01) | Space. |
| POS Entry Mode | X(02) | Alphanumeric  00 = Terminal not used.  01 = Manual key entry (SafeKey)  02 = Magnetic stripe read; CVV checking may not be possible: (NOTE: Plus: Exact Track 2 contents read but transaction is not eligible for CVV checking)  03 = Barcode read.  04 = Optical Character Recognition (OCR) read  05 = Integrated circuit card read; CVV or iCVV data reliable.  06 = Track 1 read.  07 = Proximity Payment using VSDC chip data rules.  84 = MICR Reader (SMS transactions only. Not applicable to BII transactions.).  90 = Magnetic stripe read and exact content of Track 1 or Track 2 included (CVV check is possible).  91 = Proximity payment using magnetic stripe data rules.  95 = Integrated circuit card; CVV or iCVV checking may not be possible.  96 = Stored-Value from Pre-Registered Check-out Service |
| Central Proc Date | 9(04) | The date that BASE II processes this transaction or item. This field is used to ensure that the correct currency conversion rates are used.  YDDD (Julian Date). |
| Reimbursement Attrbte | X(01) | This field must contain A through Z or 0 through 9. If 1, 2, G, or H is entered, the Merchant Category Code must be 6011 and the transaction must be a cash disbursement (TC 07, 17, 27, 37). If a 6, 7, or J is entered, the transaction cannot be a cash disbursement (TC 07, 17, 27, and 37). If a 7 is entered, the transaction cannot be an original purchased or credit voucher If 8, 9, A, B, C, or J is entered, the transaction must be a sales draft (TC 05, 25, 35) or a credit voucher (TC 06, 16, 26, 36).  If A is entered, the transaction must be participating in a custom payment service (that is, the Authorization Characteristics Indicator cannot equal N). |

**AMEX TCR1 Transaction record:**

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Same as transaction code in TCR 0 |
| Transaction Code Qualifier | 9(01) | 0 = Default  1 = Account Funding  2 = Original Credit |
| Transaction Component Sequence Number | 9(01) | Must contain a 1 |
| Issuer Workstation BIN | X(06) | Issuing BIN |
| Acquirer Workstation BIN | X(06) | Acquiring BIN |
| Chargeback Reference Number | 9(06) | Issuer reference number or zero filled |
| Documentation Indicator | X(01) | This is a 1-position code identifying the status of supporting documentation. For originals, the entry must be a space. NOTE: Space = No support documentation required  0 = No support documentation provided  1 = Support documentation to follow  2 = Invalid Acquirer Reference Number and no supporting documentation required or received  3 = Invalid Acquirer Reference Number and supporting documentation was received  4 = No supporting documentation received. |
| Member Message Text | X(50) | This field is used to send text messages. All members must be able to receive and process this field. If used, the entry must be left-justified. |
| Special Condition Indicators | X(02) | Space |
| Fee Program Indicator | X(03) | Spaces |
| Issuer Charge | X(01) | Space |
| Reserved | X(01) | Space |
| Card Acceptor ID | X(15) | For all transactions, this field must reflect the assigned Amex merchant or S/E number [reason - because auth processing mandate for P42 doesn’t appear in clearing record.  S/E numbers are 10 characters in length.  S/E number must be left aligned with trailing “spaces”. Refer to Annexure D |
| Terminal ID | X(08) | Code that identifies the card acceptor terminal. For electronic point-of-sale or point-of-service (POS) terminals, when the ID is not unique to a specific terminal, Card Acceptor Identification Code can be used along with this field. An identification code of fewer than 8 positions must be left-justified and the remainder of the field space-filled. |
| National Reimbursement Fee | 9(12) | Numeric entry indicating a fee for a National Settlement transaction. It must be zeros unless the transaction is a National Settlement transaction for a country using this capability. Two decimal positions are implied.  Must be zeroes. |
| Mail/Telephone or Electronic Commerce Indicator | X(01) | Must be 1-9 if MCC code = T & E merchant  For SafeKey transactions, valid values are; “5” – authenticated with AEVV “6” – Authentication attempted with AEVV “9” – Not authenticated |
| Special Chargeback Indicator | X(01) | This subfield supplies extra information regarding chargebacks (validation requests and advices). The field must contain a space. |
| Interface Trace Number | X(06) | Space = Field is reserved |
| Unattended Acceptance Terminal Indicator | X(01) | Indicates type of acceptance terminal. The field must contain a space, 1 through 5 or 9. Valid values are:  Space = Not applicable to this transaction  1 = Unattended cardholder activated, no authorization, below-floor-limit transaction  2 = Unattended chip and PIN transactions (VE use only)  3 = Unattended cardholder activated, authorized transaction  4 = Remote Indicator (Remote Terminal)  5 = Unattended Consumer Device (LAC use only)  9 = Mobile Acceptance Solution |
| Prepaid Card Indicator | X(01) | Indicates type of prepaid card. Valid values are:  Space = Not applicable  P = Prepaid card  L = Prepaid Load |
| Service Development Field | X(01) | Indicates type of commerce. This field should be numeric. Valid values are:  0 = Not used  1 = Electronic Commerce (SafeKey)  2 = In-Flight Commerce  5 = Transponder-Initiated  6 = Relationship Participant  7 = Deferred Billing Indicator |
| AVS Response Code | X(01) | Space |
| Authorization Source Code | X(01) | Indicates whether or not card present at authorization and type of commerce or service requested. The allowable entries are a space, A through Z, or 0 through 9.  **Valid values:**  0 = Advice of Exception File update.  1 = Response provided by STIP: request timed out by Switch (Assured Transaction Response).  2 = Response provided by STIP: transaction amount below PCAS issuer limit or telecode verification only.  3 = Response provided by STIP: issuer center in Suppress Inquiries (SI) mode.  4 = Response provided by STIP: issuer not available for processing (for reasons other than SI mode).  5 = Response provided by issuer center (authorization only, authorization and address verification, or address verification only).  6 = Offline approval: POS-device generated.  7 = Acquirer approval: BankservAfrica Online.  8 = Acquirer approval: referral.  9 = No authorization source code; non-authorized transactions.  D = Referral: authorization code manually entered.  E = Offline approval: authorization code manually entered. |
| Purchase Identifier Format | X(01) | Indicates the format of additional identifying information for purchases, such as order number or invoice number, etc. Format can include free text or type of number. This field must be a space or 0, 1, 3, 4 or 5. If this field contains a value of 1, 3, 4 or 5, the Purchase Identifier field must not be all spaces. The Purchase Identifier Format value of ‘2’ for exception items of original transactions clearing prior to CPD September 27, 1997 will continue to be allowed. |
| ATM Account Selection | X(01) | Indicates type of account (savings, checking, etc.).  For TC07 with MCC = 6011 this field must be:  0 = Unavailable  1 = Savings Account  2 = Checking Account  3 = Credit Card Account  Space. |
| Installment Payment Count | X(02) | Spaces |
| Purchase Identifier | X(25) | Used to send information identifying the purchase to the issuer and cardholder. Indicates the type of identifying information (order number, invoice number, text description, etc.). If this field is not used, it should contain spaces. The entry must be left-justified. Unused positions of the field should be space-filled.  If the Purchase Identifier Format field contains a value of 1, 3, 4, or 5, this field must not be all spaces. See Annexure F for valid values for POS Data Codes (Point of Service Data Codes) for SafeKey transactions. |
| Cashback | 9(09) | Zero filled Must be numeric and equal to or less than the source amount Two (2) decimals are implied. |
| Chip Condition Code | X(01) | Provides information about magnetic stripe-read transactions. Valid values include:  space or 0 = unknown/not applicable  1 = magnetic stripe service code begins with 2 or 6 last transaction at the chip capable terminal was a successful chip read, or was not a chip transaction.  2 = magnetic stripe service code begins with 2 or 6, last transaction at the chip capable terminal was an unsuccessful chip read. |
| POS Environment | X(01) | A recurring transaction indicator, indicating that the cardholder and merchant have agreed to periodic billing for goods and services, such as utility bills, internet connection, and magazine subscriptions. Valid values are: Space = default R = Recurring Payment Transaction I = Installment Payment |

**AMEX TCR3 Tranaction record SAA Addendum:**

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Same as TCR0 |
| Transaction Code Qualifier | 9(01) | This field must contain one of the following values:  0 = Default  1 = Account Funding  2 = Original Credit |
| Transaction Component Sequence Number | 9(01) | Contain 3 |
| Reserved | X(12) | Spaces |
| Business Format Code (AI) | X(02) | Code indicating the type of business that is applicable to this transaction. If the Merchant Category Code on the TCR 0 indicates an airline or a passenger railway, this field must contain AI (Passenger Itinerary) format. This entry is not valid for cash disbursement transactions.  Must = 'SA' for SA Airways specific transactions |
| Passenger Name | X(30) | Name of Passenger |
| Ticket Number | X(15) | Alphanumeric  Ticket Number |
| First Leg of journey | X(06) | Alphanumeric  To and from country codes e.g. JHBCPT |
| Reservation Number | X(06) | Alphanumeric  Reservation number |
| IATA Office Number | X(08) | Alphanumeric  IATA office number Default zeroes |
| Order Number | X(27) | Alphanumeric  Airline order number |
| Place of Issue | X(30) | Alphanumeric  Place if Issue |
| Addendum Flag | X(01) | Alphanumeric  Valid values: Y or Space |
| FILLER | X(20) | Space filled |

**AMEX TCR5 Transaction Record:**

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Same as transaction code in TCR0 |
| Transaction Code Qualifier | 9(01) | This field must contain one of the following values:  0 = Default  1 = Account Funding  2 = Original Credit |
| Transaction Component Sequence Number | 9(01) | Must contain a 5 |
| Transaction Identifier | 9(15) | A unique value assigned to a transaction and returns to the acquirer in the authorization response. This value maintains an audit trail throughout the life cycle of the transaction and all related transactions, such as reversals, adjustments and, confirmations.  The entry must be numeric. It must be either zeros or a valid Transaction Identifier.  **Incoming:**  A Transaction Identifier is assigned to every original purchase transaction that does not already contain one. This field must be retained and returned in subsequent exception transactions.  **All Transaction Types;**  For all transaction types and all payment services, this field may contain the Transaction Identifier.  **NOTE:**  - Positions 1 and 2 contain proprietary information used by Visa;  - Position 3 contains the last digit of the current year;  - Positions 4 through 6 contain the Greenwich mean time (GMT) date (Julian date in the format DDD);  - Positions 7 through 11 contain the GMT in relative seconds since start of day;  - Positions 12 through 15 contain a sequence number. |
| Authorized Amount | 9(12) | Amount the issuer originally authorized. The entry must be numeric. Original draft transactions and their reversals, this entry may not be zeros. Credit vouchers and their reversals must contain zeros in this field. |
| Authorization Currency Code | X(03) | Currency code of the authorized source amount. The entry must be spaces or a valid ISO numeric currency code. If the Authorized Amount is not zeros, then the Authorization Currency Code must not be spaces. The source currency and the authorization currency must be the same. Credit vouchers and their reversals must contain spaces in this field. |
| Authorization Response Code | X(02) | The authorization code provided by the issuer when a transaction is approved or a “no reason to decline” code is provided. The entry must be two alphanumeric characters: spaces, A through Z, or 0 through 9. For custom payment service credit vouchers and their reversals, this field must contain spaces. |
| Validation Code | X(04) | A unique value that includes as part of the Custom Payment Service programs in each authorization response to ensure that key authorization fields are preserved in the clearing record.  For original purchase transactions and their reversals, this entry may not be spaces. Credit vouchers and their reversals must contain spaces in this field. |
| Excluded Transaction Identifier Reason | X(01) | Code indicating that a transaction identifier is not included in the transaction. |
| CRS Processing Code | X(01) | When an exception item has been edited by the Chargeback Reduction Service. A transaction not qualified for CRS validations will always contain a space in this field.  Valid values are:  Y = Edited by CRS  Space = Not edited. |
| Chargeback Rights Indicator | X(02) | Indicates chargeback rights based on whether card present, not present, etc. (TC 05) transaction:  Spaces = Indicator not set  00 = Card present/non-T&E  01 = Card present/T&E  02 = Card not present—AVS or Recurring Payment/non-T&E  03 = Card not present—AVS/T&E  04 = Card not present—Preferred Customer/T&E  05 = Card present—no verifiable cardholder identification/non-T&E  08 = Card present—key-entered/non-T&E  09 = Card present—key-entered/T&E  10 = Card not present—non-3-D secure/T&E  11 = Card not present—non-3-D secure/non-T&E  12 = Card not present—3-D secure/T&E  13 = Card not present—3-D secure/nonT&E  14 = Small-Ticket/Non-T&E or Contactless  16 = PIN Authenticated Debit Chargeback Rights Indicators  17 = Card Present—Electronically Read |
| Multiple Clearing Sequence Number | 9(02) | A sequence number that distinguishes a specific clearing message among multiple clearing messages being submitted for a single CPS authorization. |
| Multiple Clearing Sequence Count | 9(02) | Count of multiple clearing sequence. |
| Market-specific Authorization Data Indicator | X(01) | Code indicating the industry for which market-specific authorization data was included in the transaction.  Valid values are:  Space = No market-specific authorization data supplied.  A = Valid Auto Rental market-specific authorization data received.  B = Valid Bill Payment market-specific authorization data received.  E =Valid Electronic Commerce Transaction Aggregation data received.  H = Valid Hotel market-specific authorization data received.  J = Valid B2B Invoice Payment received.  M = Valid Healthcare market-specific authorization data received.  N = Invalid or not applicable market specific data received.  T = Valid Transit market-specific authorization data received. |
| Total Authorized Amount | 9(12) | Total authorized amount. This entry must be numeric. Custom payment service credit vouchers and their reversals must contain zeros in this field. CPS/ATM transactions must contain zeros in this field. |
| Information Indicator | X(01) | Indicates if the merchant or customer service telephone number is provided on the cardholder billing statement or is stored internally. Optional field.  **Valid values are:**  Y = the merchant or customer service telephone number may be provided on the cardholder statement.  N = indicates that the telephone number must not be provided on the cardholder’s statement but should be stored internally for cardholder inquiries. |
| Merchant Telephone Number | X(14) | Optional field containing the merchant or customer service telephone number. This field should be left-justified with trailing spaces. Spaces should be used if the field is not supplied.  The phone number should be in the Merchant City field for CPS/Card Not Present or CPS/Direct Marketing transactions. |
| Additional Data Indicator | X(01) | Space = Indicator not set |
| Merchant Volume Indicator | X(02) | This field indicates the amount of IRF reduction based on the merchant's volume. |
| Electronic Commerce Goods Indicator | X(02) | This field indicates the type of goods that were purchased on the Internet. The field must be left-justified and space filled. The first position must contain:  Space = Not used  D = Digital Goods  P = Physical Goods |
| Merchant Verification Value | X(10) | The value if used by Visa to determine a merchant's eligibility to participate in any special programs. The first six positions of the MVV will be assigned to participating merchants by Visa. The last four positions will be defined in conjunction with the acquirer. Acquirers must include the MVV in BASE II Clearing transactions to qualify for any special fee programs or global merchant tracking programs.  **Valid values are:**  A–F  0–9  Default value: spaces  If any position of the field has a value, then all positions must have a non-space valid value. |
| Interchange Fee Amount | 9(15) | Specifies the interchange fee amount (in the settlement currency of the member) calculated. |
| Interchange Fee Sign | X(01) | Specifies if the interchange fee amount is a credit or a debit for the receiving member.  **Valid values:**  C = Credit  D = Debit |
| Source Currency to Base Currency Exchange Rate | 9(08) | Currency Exchange Rate Positions: 108– 115 Length: 8 Format: UN Description: Specifies the currency exchange rate applied to this transaction when Visa converts the source amount to the transaction amount in the destination currency.  The format of this field is SSRRRRRR, where:  SS = Scale Factor. These positions represent number of digits to the right of the decimal point in the currency conversion rate field. The first two positions will be 00 through 12.  RRRRRR = Conversion Rate  — A scale factor of zeros means the entry is a whole number.  — A scale factor of 01 means the number has one decimal place accuracy; RRRRR.R is entered as 01RRRRRR.  — A scale factor of 02 means the number has two decimal place accuracy; RRRR.RR is entered as 02RRRRRR and so forth.  — For a scale factor greater than 6, as many leading zeros as necessary should be inserted; for example, .00RRRRRR is entered as 08RRRRRR. |
| Base Currency to Destination Currency Exchange Rate | 9(08) | Currency Exchange Rate Positions: 116– 123 Length: 8 Format: UN Description: Specifies the currency exchange rate applied to this transaction when Visa converts the source amount to the transaction amount in the destination currency.  The format of this field is SSRRRRRR where:  SS = Scale Factor. These positions represent number of digits to the right of the decimal point in the currency conversion rate field. The first two positions will be 00 through 12.  RRRRRR = Conversion Rate  — A scale factor of zeros means the entry is a whole number.  — A scale factor of 01 means the number has one decimal place accuracy; RRRRR.R is entered as 01RRRRRR.  — A scale factor of 02 means the number has two decimal place accuracy; RRRRR.RR is entered as 02RRRRRR and so forth.  — For a scale factor greater than 6, as many leading zeros as necessary should be inserted; for example, .00RRRRRR is entered as 08RRRRRR.  Optional |
| Optional Issuer ISA Amount | 9(12) | This ISO-defined field can be used for any charge type or any fee applied to a transaction. Currently, Visa uses this field to carry optional International Service Assessment (ISA) data for issuers in the LAC region. The optional issuer ISA amount in this field is not included in the destination amount. Optional issuer ISA amounts are calculated in conjunction with ISA processing, but they are not included in settlement amounts or subject to acquirer allocation. The field is calculated by the VIC when the Optional Issuer ISA percentage is defined in the members’ profile. The Optional Issuer ISA Amount is in the destination currency; two decimal places are implied. |
| Reserved | X(32) | Spaces |
| CVV2 Result Code | X(01) | Card Verification Value 2 (CVV2) is the verification result for card-not-present transactions and also for card-present CVV2 verification-only requests. This field must contain a space or a valid code. For cash disbursement transactions, this field should contain a space. |

**AMEX TCR7 Transaction Record:**

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Same as transaction code in TCR0 |
| Transaction Code Qualifier | 9(01) | This field must contain one of the following values:  0 = Default  1 = Account Funding  2 = Original Credit |
| TCR Number | 9(01) | Must contain a 7 |
| Transaction Type | X(02) | Contains the transaction type as used by the card to calculate the cryptogram. Valid values are:  00 = Goods or Service Purchase  01 = Withdrawal/Cash Advance  02 = Adjustment  03 = Check Guarantee (funds guaranteed)  11 = Quasi-Cash Transaction  17 = Script  19 = Fee Collection  20 = Return (of goods)  22 = Adjustment  29 = Funds Disbursement  30 = Available Funds Inquiry  40 = Cardholder Account Transfer  A0 = COPAC Goods or Service Purchaser (Obsolete)  A1 = COPAC Withdrawal Cash Advance (Obsolete). |
| Card Sequence Number | 9(03) | Contains the number assigned to a specific card when two or more cards are associated with a single account number. This field must be numeric. |
| Terminal Transaction Date | 9(06) | Contains the local date at the terminal on which the transaction was authorized. This field must be numeric. Date is in YYMMDD format. |
| Terminal Capability Profile | 9(06) | Indicates the card input data, the Cardholder Verification Method (CVM), and the security capabilities that are supported by the terminal. |
| Terminal Country Code | 9(03) | Contains the country code of the country where the terminal is located.  This field must be numeric. |
| Terminal Serial Number | X(08) | Alphanumeric |
| Unpredictable Number | X(08) | Display Hexadecimal - Contains the number used in the generation of the cryptogram for chip transactions. Provide variability and uniqueness to the cryptogram. |
| Application Transaction Counter | X(04) | Contains the count of the transactions performed within the application. This field increment’s by 1 each time a transaction is initiated. Multiple authorization requests for the same transaction will have the same ATC; for example, when online PIN fails and the next authorization represents a different PIN try for the same transaction, the ATC will be the same. For reversals and advices, the ATC is the value from the original message. |
| Application Interchange Profile | X(04) | Display Hexadecimal - Provides a series of indicators that reflect the specific functions supported by the chip card account. |
| Cryptogram | X(16) | Display Hexadecimal - Contains the clearing cryptogram used to validate transaction processing in the event of a dispute. |
| Issuer Application Data, Byte 2 | X(02) | Display Hexadecimal - Depending on type of chip card used. |
| Issuer Application Data, Byte 3 | X(02) | Display Hexadecimal - Depending on type of chip card used |
| Terminal Verification Results | X(10) | Display Hexadecimal - Series of indicators from the terminal perspective. These indicators are available to members in the online message and clearing transaction. |
| Issuer Application Data, Byte 4–7 | X(08) | Display Hexadecimal - Depending on type of chip card used. |
| Cryptogram Amount | X(12) | Unpacked Numeric - Contain the cryptogram amount when it differs from the authorized amount |
| Issuer Application Data, Byte 8 | X(02) | Display Hexadecimal - Depending on type of chip card used |
| Issuer Application Data, Byte 9–16 | X(16) | Display Hexadecimal - Depending on type of chip card used. |
| Issuer Application Data, Byte 1 | X(02) | Display Hexadecimal - Depending on type of chip card used |
| Issuer Application Data, Byte 17 | X(02) | Display Hexadecimal - Depending on type of chip card used. |
| Issuer Application Data, Byte 18–32 | X(30) | Display Hexadecimal - Depending on type of chip card used |
| Reserved | X(30) | Space |
| Issuer Script 1 Results | X(10) | Display Hexadecimal - Identifies the update command that the Issuers sends in the authorization response to the card during online processing. With the command the card updates the card parameters and records the success or failure of the updates in the Issuer Script 1 results field. |

**AMEX Trailer records 91 and 92:**

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Must contain 91 or 92 |
| Tran Code Qualifier | 9(01) | The field must contain a zero. |
| Tran Sequence No | 9(01) | The field must contain a zero. |
| BIN | 9(06) | A Bank Identification Number assigned to financial institutions that are members. It identifies them and distinguishes their card issuing and acquiring programs and is also assigned to non-member processors for identification purposes. |
| Processing Date | 9(05) | Processing Date Field will contain the Batch Trailer VisaNet processing date in the YYDDD Julian date format; for the file trailer (TC 92), the field will contain the BASE II Central Processing Date. |
| Destination Amount | X(15) | Submitted transaction amount. This field contains two implied decimal places. |
| No Money Transfers | X(12) | Batch Trailer: field will contain the count for the batch.  File Trailer: field will contain the count for the file. |
| Batch Number | X(06) | Unique identifier of the batch. |
| Number of TCRs | 9(12) | The count includes all TCRs including trailers. TC 90 header records are not included in this count. TC 90 header records can be optionally supplied by the processing center and therefore are not included in this count. |
| Reserved 1 | 9(06) | This field is reserved for future use. EP will always space-fill. |
| Centre Batch Indicator | 9(08) | Identifier issued by the processing center. Batch Trailer:  Incoming = Spaces  File Trailer = Spaces |
| No of Transactions | 9(09) | The number includes all transactions including trailers. TC 90 header records are not included in this count. TC 90 header records can be optionally supplied by the processing center and therefore are not included in this count.  Batch Trailer = Count for batch  File Trailer = Count for file |
| Reserved 2 | X(18) | This field is reserved for future use. EP will always space-fill. |
| Source Amount | 9(13V99) | Identifies the submitted transaction amount in the currency that is appropriate to the source endpoint. The field contains two implied decimal places.  Batch Trailer = Sum of transaction source amounts for the batch  File Trailer = Sum of transaction source amounts for the file |
| Filler | X(52) | Space-filled. |

**AMEX End of Service record 98 Layout:**

| **Field** | **Length** | **Description** |
| --- | --- | --- |
| Record identifier | 9 (02) | The end-of-service record must have a record identifier of 98. |
| Output date | 9 (08) | Date on which file was produced YYYYMMDD |
| Service type | X (04) | This must contain “CARD” |
| Sub-service type | X (10) | This must contain “AMEXbbbbbb” |
| Bank Member number | 9 (04) | This is not used and must contain zeroes. |
| Number of transmission files | 9 (04) | Total number of AMEX files delivered. |
| Number of credit records | 9 (08) | This must contain zeroes. |
| Number of debit records | 9 (08) | This the total number of AMEX card transactions including negative records |
| Value of credit records | 9 (16) | This must contain zeroes. |
| Value of debit records | 9 (16) | This field contains the sum of the values of TCR0 card transactions. |
| Hash Total of Account number | 9 (12) | This field contains a hash sum of all the Account numbers contained on TCR0 records. These Account numbers must be hashed into an 18-digit field in working field and then the least significant twelve digits must be moved to this field. |
| Filler | X(76) |  |

**AMEX End of file record layout (99): refer to AXS Specifications**

**Note:** AMEX Input layout will be the same as AMEX output layout.

**Output AMEX Exception Report File**

File identifier : CMBBnnnD

File description : Card Transactions Exception Report File

File type : Sequential

Media type : Disk/Line Sequential

Recording format : ASCII

Record length : 220 characters

File size : 5000 records

Records : Control record File records

**AMEX AXS Header Record (01):**

Refer to AXS Specifications

**AMEX Exception Record Format for TCR0:**

Refer to Input layout AMEX TCR0 Transaction record.

**AMEX Exception Transaction Component Record Format:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field No** | **Field** | **Length** | **Description** |
| 1 | Transaction Code | 9(02) | Contains 05,06,07, 24,25,26,27 |
| 2 | Tran Code Qualifier | 9(01) |  |
| 3 | Tran Sequence No | 9(01) |  |
| 4 | Card Transaction | X(164) | Contains card fields |
| 5 | Record Type | X(01) |  |
| 6 | Field Number | 9(02) |  |
| 7 | Error Code | X(03) |  |
| 8 | Filler | X(52) |  |

**AMEX Exception File End of Service Record Layout:**

Refer to Input layout Amex End of Service Record Layout (98).

**AMEX AXS Exception File End of File Record Layout:**

Refer to AXS Specifications for layout (99).

* 1. Reports in Files: Refer to Report Manual
     1. **Report File Specifications**

File identifier : CRBBnnna (see naming convention)

File description : CARD Report file

File type : Sequential

Media type : Disk/Line Sequential

Recording format : ASCII

Record length : 132 characters

File size : Parameterised

Records : 132-character print line

The Card report file structure is as follows:

01 AXS Header Record: Refer to AXS Specifications

132-character print line

132-character print line

132-character print line

132-character print line

99 AXS Trailer Record: Refer to AXS Specifications

The first file CRBB0001D will always contain the AMEX Validation report.

**Report File AXS Header Record (01):**

Refer to AXS Specifications

**Report File End of File Record Layout (99):**

Refer to AXS Specifications

Annexure A

|  |  |
| --- | --- |
| **Error Code** | **Description** |
| 01 | File error, invalid date on header |
| 02 | File error, Test file in live system |
| 03 | File error, Processor BIN/originator invalid |
| 04 | File structure error, record sequence error |
| 05 | File structure error, incorrect card transaction in file |
|  |  |
| 10 | Acquiring BIN number invalid |
| 11 | Issuing BIN number invalid |
| 12 | Source amount is not numeric |
| 13 | Source amount is zero |
| 14 | Invalid Transaction code/Process Code |
|  |  |
| 22 | Card number not numeric |
|  |  |
| 31 | Transaction date month invalid not numeric |
| 34 | Transaction amount exceed PASA limit |
|  |  |
| 40 | Invalid Transaction Sequence Number |
| 41 | Invalid Message number |
| 43 | Invalid Source Currency code |
| 44 | Invalid Purchase/Fuel combination |
|  |  |
| 81 | Invalid Message Reason Code |
|  |  |
| 90 | File error, transaction count in trailer invalid |
| 91 | File error, sum of amounts/checksum invalid |
| 92 | File trailer error, Processor BIN invalid |

Annexure B

|  |  |  |  |
| --- | --- | --- | --- |
| **ISO Country Name** | **ISO Alpha Country (2 characters)** | **ISO Alpha Currency code** | **Code** |
| Lesotho | LS | ZAR – Rand | 710 |
| Namibia | NA | NAD – Namibian Dollar | 516 |
| Namibia | NA | ZAR – Rand | 710 |
| South Africa | ZA | ZAR - Rand | 710 |
| Swaziland | SZ | SZL - Lilangeni | 748 |

Annexure C

AMEX TCR1 Transaction record:

|  |  |  |
| --- | --- | --- |
| **Field** | **Length** | **Description** |
| Transaction Code | 9(02) | Same as transaction code in TCR 0 |
| Transaction Code Qualifier | 9(01) | Must contain a value – Unpacked Numeric |
| Transaction Component Sequence Number | 9(01) | Must contain a 1 |
| Issuer Workstation BIN | X(06) |  |
| Acquirer Workstation BIN | X(06) |  |
| Chargeback Reference Number | 9(06) |  |
| Documentation Indicator | X(01) |  |
| Member Message Text | X(50) |  |
| Special Condition Indicators | X(02) |  |
| Fee Program Indicator | X(03) |  |
| Issuer Charge | X(01) |  |
| Reserved | X(01) |  |
| Card Acceptor ID | X(15) | For all transactions, this field must reflect the assigned Amex merchant or S/E number [reason - because auth processing mandate for P42 doesn’t appear in clearing record.  S/E numbers are 10 characters in length.  S/E number must be left aligned with trailing “spaces”. |
| Terminal ID | X(08) |  |
| National Reimbursement Fee | 9(12) |  |
| Mail/Telephone or Electronic Commerce Indicator | X(01) | Must be 1-9 if MCC code = T & E merchant  For Safekey transactions, valid values are;  “5” – authenticated with AEVV  “6” – attempted with AEVV  “9” – Not authenticated |
| Special Chargeback Indicator | X(01) |  |
| Interface Trace Number | X(06) | Field is reserved |
| Unattended Acceptance Terminal Indicator | X(01) |  |
| Prepaid Card Indicator | X(01) |  |
| Service Development Field | X(01) | For SafeKey transactions valid value of “1” (electronic commerce) must be used. |
| AVS Response Code | X(01) |  |
| Authorization Source Code | X(01) |  |
| **Purchase Identifier Format** | **X(01)** | **Value 9** |
| ATM Account Selection | X(01) |  |
| Instalment Payment Count | X(02) |  |
| **Purchase Identifier** |  |  |
| (POS Data Codes) |  |  |
| Card Data Input Capacity | X(01) | Value = See Annexure J |
| Card Member Auth Capacity | X(01) | Value = See Annexure J |
| Card Capture Capability | X(01) | Value = See Annexure J |
| Operating Environment | X(01) | Value = See Annexure J |
| Card Member Present | X(01) | Value = See Annexure J |
| Card Present | X(01) | Value = See Annexure J |
| Card Data Input Mode | X(01) | Value = See Annexure J |
| Card Member Authentication | X(01) | Value = See Annexure J |
| Card Member Auth Entity | X(01) | Value = See Annexure J |
| Card Data Output Capability | X(01) | Value = See Annexure J |
| Terminal Output Capability | X(01) | Value = See Annexure J |
| PIN Capture Capability | X(01) | Value = See Annexure J |
| IAD Byte 33 | X(01) |  |
| CID | X(01) |  |
| Filler | X(11) | Value = Spaces |
| Cashback | 9(09) | Must be numeric and equal to or less than the source amount Two (2) decimals are implied |
| Chip Condition Code | X(01) | Chip specific field |
| POS Environment | X(01) |  |

Annexure D

**AMEX SE Number validation:**

An invalid AMEX Merchant SE Number constitutes contravention of AEGNS Message Format Rules and will lead to Nedbank incurring fines.

BankservAfrica to validate the AMEX Merchant SE Number on all incoming AMEX transactions. Should the AMEX Merchant SE Number fail the validation check, BankservAfrica is requested to reject the transaction. A Rejection description “Invalid AMEX Merchant SE” to be used for reporting purposes (CCR003).

Validation Rules for AMEX SE Number:



Annexure E

**VISA File Mapping Transaction Type 00**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Yellow Highlighted fields are fields that could not be mapped to the Visa layouts and are included in a TC05 TCR01 record** | | | | |  |  |  |
| **AMEX Acquirer transaction** | | | | | | | |
| **Description** | **Position** | **Field Length** | **TAGS** | **VALUES** | **MAPPED TO** |  |  |
|  |  |  |  |  |  |  |  |
| **BNK-HEADER-RECORD** |  |  |  |  |  |  |  |
| BNK-TRAN-CODE |  | Numeric 2 |  |  |  |  |  |
| BNK-DATE-CREATED |  | Numeric 8 |  |  |  |  |  |
| BNK-SUSPENSE-ACC-NO |  | Numeric 10 |  | **Not used** |  |  |  |
| BNK-PERIOD |  | Numeric 5 |  | **Not used** |  |  |  |
| BNK-IDENTIFIER |  | Character 3 |  | **Used for duplicate checking** |  |  |  |
| FILLER |  | Character 272 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **BNK-DATA-RECORD** |  |  |  |  |  |  |  |
| BNK-TRAN-CODE |  | Numeric 2 |  | 05 Normal transaction, 25 Normal reversal transaction | TCR 0 | Transaction Code |  |
| BNK-CARDMEMBER-NO |  | Numeric 15 |  |  | TCR 0 | Account Number | Left justified |
| BNK-TRAN-DATE |  | Numeric 8 |  |  | TCR 0 | Purchase Date | Only MMDD |
| BNK-PROCESS-DATE |  | Numeric 8 |  |  |  |  |  |
| BNK-AMOUNT |  | Numeric 12 |  |  | TCR 0 | Source Amount |  |
| BNK-DESC |  | Character 25 |  |  | TCR 0 | Merchant Name |  |
| BNK-SE-REF-NO |  | Numeric 8 |  | Not used |  |  |  |
| BNK-FILLER |  | Character 5 |  |  |  |  |  |
| BNK-BUDGET-PERIOD |  | Numeric 2 |  | Not used |  |  | 00,03,06,09,12,18,24 |
| BNK-REFERENCE-NO |  | Numeric 8 |  | See BNK-BATCH-NO |  |  |  |
| FILLER |  | Numeric 3 |  | See BNK-BATCH-NO |  |  |  |
| BNK-BATCH-NO |  | Numeric 5 |  | Moved to HACCAMMA-DEPH-BTCH-NBR |  |  |  |
| BNK-AUTHORISATION-NO |  | Numeric 6 |  |  | TCR 0 | Authorization Code |  |
| BNK-MERCHANT-NO |  | Numeric 10 |  | S/E Number | TCR 1 | Card Acceptor ID |  |
| BNK-TERMINAL-NO |  | Character 10 |  |  | TCR 1 | Terminal ID | X(8) |
| BNK-WSP-POS-IND |  | Numeric 1 |  | Not used |  |  |  |
|  |  |  |  |  |  |  |  |
| **ADDENDUM DATA FOR SAA** |  |  |  |  |  |  |  |
| BNK-PASSENGER-NAME |  | Character 30 |  |  | TCR 3 | PASSENGER-NAME |  |
| BNK-TICKET-NO |  | Character 15 |  |  | TCR 3 | TICKET-NO |  |
| BNK-FIRST-LEG-OF-JOURNEY |  | Character 6 |  |  | TCR 3 | FIRST-LEG-OF-JOURNEY |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| BNK-RESERVATION-NO |  | Character 6 |  |  | TCR 3 | RESERVATION-NO |  |
| BNK-IATA-OFFICE-NO |  | Character 8 |  |  | TCR 3 | IATA-OFFICE-NO |  |
| BNK-ORDER-NO |  | Character 27 |  |  | TCR 3 | ORDER-NO |  |
| BNK-PLACE-OF-ISSUE |  | Character 30 |  |  | TCR 3 | PLACE-OF-ISSUE |  |
| BNK-ADDENDUM-FLAG |  | Character 1 |  |  | TCR 3 | ADDENDUM-FLAG |  |
| FILLER |  | Character 57 |  |  |  |  |  |
| **NEW CHIP RELATED FIELDS** |  |  |  |  |  |  |  |
| CHIP-POS-DATA-CODE |  | Character 12 |  |  | TCR1 | Purchase identifier (Byte 1 to 12) |  |
|  |  |  |  |  |  |  |  |
| ICC Header Version Name |  | Character 4 |  | AGNS |  |  |  |
| ICC header Version Number |  | Character 2 |  | 1 |  |  |  |
| Application Cryptogram |  | Character 8 | 9F26 |  | TCR 7 | Cryptogram |  |
| Issuer Application Data (IAD) |  | Character 33 | 9F10 |  |  |  |  |
| Issuer Application Data (IAD) byte 1 |  | Character 1 | 9F10 |  | TCR 7 | Issuers Application Data 1 |  |
| Issuer Application Data (IAD) byte 2 |  | Character 1 | 9F10 |  | TCR 7 | Issuer Application Data, Byte 2 |  |
| Issuer Application Data (IAD) byte 3 |  | Character 1 | 9F10 |  | TCR 7 | Issuer Application Data, Byte 3 |  |
| Issuer Application Data (IAD) byte 4-7 |  | Character 6 | 9F10 |  | TCR 7 | Issuer Application Data, Byte 4 - 7 |  |
| Issuer Application Data (IAD) byte 8 |  | Character 1 | 9F10 |  | TCR 7 | Issuers Application Data 8 |  |
| Issuer Application Data (IAD) byte 9-16 |  | Character 16 | 9F10 |  | TCR 7 | Issuers Application Data 9 - 16 |  |
| Issuer Application Data (IAD) byte 17 |  | Character 1 | 9F10 |  | TCR 7 | Issuers Application Data 17 |  |
| Issuer Application Data (IAD) byte 18-32 |  | Character 30 | 9F10 |  | TCR 7 | Issuers Application Data 18 - 32 |  |
| Issuer Application Data (IAD) byte 33 |  | Character 1 | 9F10 |  | TCR 1 | Purchase Identifier (Byte 13) |  |
| Unpredictable Number |  | Character 4 | 9F37 |  |  | Unpredictable Number |  |
| Application Transaction Counter (ATC) |  | Character 2 | 9F36 |  |  | Application Transaction Counter |  |
| Terminal Verification Results (TVR) |  | Character 5 | 95 |  |  | Terminal Verification Results |  |
| Transaction Date |  | Character 3 | 9A |  |  | Terminal Transaction Date |  |
| Transaction Type |  | Character 5 | 9C |  |  | Transaction Type |  |
| Amount, Authorized |  | Character 1 | 9F02 |  |  |  |  |
| Transaction Currency Code |  | Character 6 | 5F2A |  |  |  |  |
| Terminal Country Code |  | Character 2 | 9F1A |  |  | Terminal Country Code |  |
| Application Interchange Profile (AIP) |  | Character 2 | 9F1A |  |  | Application Interchange Profile |  |
| Amount, Other |  | Character 6 | 9F03 |  |  |  | Must be zero filled if cash back not allowed |
| Application PAN Sequence Number |  | Character 1 | 5A and 5F34 |  |  | Card Sequence Number |  |
| Cryptogram Information Data |  | Character 1 | 9F27 |  | TCR1 | Purchase identifier (Byte 14) |  |
|  |  |  |  |  |  |  |  |
| BNK-TRAILER-RECORD |  |  |  |  |  | Trailer different from Visa's TCR91/92, but can change the validation to apply to Visa's format |  |
| BNK-TRAN-CODE |  | Numeric 2 |  |  |  |  |  |
| BNK-NO-MONETARY-RECS |  | Numeric 6 |  |  |  |  |  |
| BNK-HASH-TOTAL |  | Numeric 12.2 |  | Used to check all detail records are processed and for duplicate checking |  |  |  |
| BNK-VALUE-OF-CR |  | Numeric 12.2 |  | Used to check all detail records are processed and for duplicate checking |  |  |  |
| BNK-VALUE-OF-DR |  | Numeric 12.2 |  | Used to check all detail records are processed and for duplicate checking |  |  |  |
| FILLER |  | Character 250 |  |  |  |  |  |

Annexure F

**Point of Service Data Codes**

**Overview:** The Point of Service Data Code is a series of codes that identify terminal capability, security data, and specific conditions present at the time a Transaction occurred at the point of service. The POS Data Code consists of twelve positions, and each position has its own list of values. For example, Position 1 indicates the Card Data Input Capability, which may be one (1) of several values such as Magnetic stripe read, Integrated Circuit Card (ICC), Key entered, and so on. Similarly, each of the other positions identifies a particular value related to the transaction. All twelve values are captured whenever the POS Data Code is used in a message. Use the Point of Service Data Code values in the following records: The following table provides the value and description for each Point of Service Data Code.

|  |  |  |  |
| --- | --- | --- | --- |
| **Record Name** | **Message** | **Type** | **Position Field Name** |
| POS Authorization Request | 1100 | Bit 22 | Point of Service Data Code |
| POS Authorization Advice | 1120 | Bit 22 | Point of Service Data Code |
| ATM Financial Transaction Request | 1200 | Bit 22 | Point of Service Data Code |
| ATM Financial Transaction Response | 1210 | Bit 22 | Point of Service Data Code |
| First and Second Presentment | 1240 | 155-166 | Point of Service Data Code |
| On-Us First and Second Presentment | 1340 | 155-166 | Point of Service Data Code |
| On-Us ATM First Presentment | 1340 | 155-166 | Point of Service Data Code |
| Commercial Card GMIS First and Second  Presentment  Information is included in the  *Commercial Card Guidelines.* | 1342 | 155-166 | Point of Service Data Code |
| Commercial Card GMIS ATM First  Presentment  Information is included in the  *Commercial Card Guidelines.* | 1342 | 155-166 | Point of Service Data Code |

**Point of Service Data Codes**

|  |  |
| --- | --- |
| **Position** | **Point of Service Data Code Name** |
| 1 | Card Data Input Capability |
| 2 | Card member Authentication Capability |
| 3 | Card Capture Capability |
| 4 | Operating Environment |
| 5 | Card member Present |
| 6 | Card Present |
| 7 | Card Data Input Mode |
| 8 | Card member Authentication |
| 9 | Card member Authentication Entity |
| 10 | Card Data Output Capability |
| 11 | Terminal Output Capability |
| 12 | PIN Capture Capability |

For SafeKey transactions, Point of Service Data Codes should reflect the following values;

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Positions | | | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| 6 | 0 | 0 | S or T | S | 0 | 6 | 0 | 0 | 0 | 0 | 1 |

*\*Valid values for SafeKey have been high-lighted in yellow in the tables below.*

**Position 1 – Card Data Input Capability**

The Point of Service (POS) Data Code in Position 1 indicates the Card Data Input Capability. This is the primary capability of the terminal for entering Card information.

|  |  |
| --- | --- |
| **Card Input Capability Code** | **Card Input Capability Description** |
| 0 | Unknown |
| 1 | Manual, no terminal |
| 2 | Magnetic stripe read |
| 3 | Bar code |
| 4 | Optical Character Recognition (OCR) |
| 5 | Integrated Circuit Card (ICC) |
| 6 | Key entered |
| 7 | Reserved for ISO use |
| 8 | Reserved for national use |
| 9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-W | Reserved for private use |
| X | Reserved for AEGNS (Signature of magnetic stripe) |
| Y-Z | Reserved for private use |

**Position 2 – Card Member Authentication Capability**

The Point of Service (POS) Data Code in Position 2 indicates the primary Card member Authentication Capability of the terminal. This is the method available to verify the Card member at this terminal. When no order of priorities can be made, value “6” shall be used.

|  |  |
| --- | --- |
| **Card Member Authentication**  **Capability Code** | **Card Member Authentication**  **Capability Code Description** |
| 0 | No electronic authentication |
| 1 | PIN |
| 2 | Electronic signature analysis |
| 3 | Biometrics |
| 4 | Biographic |
| 5 | Electronic authentication inoperative |
| 6 | Other |
| 7 | Reserved for ISO use |
| 8 | Reserved for national use |
| 9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |
|  |  |
|  |  |

**Position 3 – Card Capture Capability**

The Point of Service (POS) Data Code in Position 3 indicates the Card Capture Capability of the terminal in use.

|  |  |
| --- | --- |
| **Card Capture**  **Capability Code** | **Card Capture**  **Capability Code Description** |
| 0 | None |
| 1 | Capture |
| 2-4 | Reserved for ISO use |
| 5-7 | Reserved for national use |
| 8-9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |

**Position 4 – Operating Environment**

The Point of Service (POS) Data Code in Position 4 indicates the Operating Environment. This indicates if the terminal is attended by the Card Acceptor, and the terminal location.

|  |  |
| --- | --- |
| **Operating Environment Code** | **Operating Environment Code Description** |
| 0 | No terminal used |
| 1 | On premise of Card Acceptor, attended |
| 2 | On premise of Card Acceptor, unattended |
| 3 | Off premise of Card Acceptor, attended |
| 4 | Off premise of Card Acceptor, unattended |
| 5 | On premise of Card member, unattended |
| 6-7 | Reserved for ISO use |
| 8 | Reserved for National use |
| 9 | Delivery mode unknown, unspecified |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S | Electronic delivery of product (typically an internet transaction) |
| T | Physical Delivery of product (typically an internet transaction) |
| U-W | Reserved for AEGNS use |
|  |  |
| X | Mobile remote |
| Y | Reserved for Private use |
| Z | Transit Access Terminal (TAT) |

**Position 5 – Card Member Present**

The Point of Service (POS) Data Code in Position 5 indicates whether or not the Card member is present at the point of service. If the Card member is not present for this transaction authorization, it provides a reason.

|  |  |
| --- | --- |
| **Operating Environment Code** | **Operating Environment Code Description** |
| 0 | Card member present |
| 1 | Card member not present, unspecified |
| 2 | Card member not present, mail order |
| 3 | Card member not present, telephone |
| 4 | Card member not present, standing authorization |
| 5-6 | Reserved for ISO use |
| 7-8 | Reserved for national use |
| 9 | Card member not present, recurring billing |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S | Card member not present, internet transaction |
| T | Card member present at Participant’s bank |
| U-Z | Reserved for private use |

**Position 6 – Card Present**

The Point of Service (POS) Data Code in Position 6 indicates whether the Card is present at the point of service.

|  |  |
| --- | --- |
| **Operating Environment Code** | **Operating Environment Code Description** |
| 0 | Card not present |
| 1 | Card present |
| 2-4 | Reserved for ISO use |
| 5-7 | Reserved for national use |
| 8-9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-V | Reserved for private use |
| W | Reserved for AEGNS (Transponder (RFID)) |
|  |  |
| X | Contactless Transaction |
| Y | Reserved for AEGNS use |
| Z | Reserved for AEGNS use |

**Position 7 – Card Data Input Mode**

The Point of Service (POS) Data Code in Position 7 indicates the Card Data Input Mode. This is the method used to input the information from the Card to the terminal.

|  |  |
| --- | --- |
| **Card Data Input Mode** | **Card Data Input Mode Code Description** |
| 0 | Unspecified |
| 1 | Manual, no terminal |
| 2 | Magnetic stripe read |
| 3 | Bar code |
| 4 | Optical Character Recognition (OCR) |
| 5 | Integrated Circuit Card (ICC) |
| 6 | Key entered |
| 7 | Reserved for ISO use |
| 8 | Reserved for national use |
| 9 | Chip card Fallback. Chip cannot be read |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S | Keyed Card Account Number and Keyed 3CSC/4CSC  (4DBC) key-entered at Point of Sale |
| T | Reserved for private use |
| U | Reserved for private use |
| V | Voice authorization Network to Issuer Only |
| W | Magnetic stripe read and 3CSC/4CSC (4DBC)  key-entered at Point of Sale |
| X | Reserved for AEGNS (Signature of magnetic stripe) |
| Y | Reserved for AEGNS (Signature of magnetic stripe  and keyed 4CSC) |
| Z | Reserved for private use |

**Position 8 – Card Member Authentication**

The Point of Service (POS) Data Code in Position 8 indicates the Card member Authentication. This is the method used to verify the Card member identity.

|  |  |
| --- | --- |
| **Card Member Authentication Code** | **Card Member Authentication**  **Code Description** |
| 0 | Not authenticated |
| 1 | PIN |
| 2 | Electronic signature analysis |
| 3 | Biometrics |
| 4 | Biographic |
| 5 | Manual signature verification |
| 6 | Other manual verification (e.g., drivers license) |
| 7 | Reserved for ISO use |
| 8 | Reserved for national use |
| 9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S | Electronic Ticket Environment |
| T | Reserved for private use |
| U-Z | Reserved for private use |

**Position 9 – Card Member Authentication Entity**

The Point of Service (POS) Data Code in Position 9 indicates the Card member Authentication Entity. This is the component or person who verified the Card member identity reported in Card member Authentication (Position 8).

|  |  |
| --- | --- |
| **Card Member Authentication Entity Code** | **Card Member Authentication**  **Entity Code Description** |
| 0 | Not authenticated |
| 1 | Integrated Circuit Card (ICC) |
| 2 | Card Acceptor Device (CAD) |
| 3 | Authorizing agent (identified in authorizing agent  institution identification code) |
| 4 | By merchant |
| 5 | Other |
| 6 | Reserved for ISO use |
| 7 | Reserved for national use |
| 8-9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |

**Position 10 – Card Data Output Capability**

The Point of Service (POS) Data code in Position 10 indicates the Card Data Output Capability. This is the ability of the terminal to update the Card.

|  |  |
| --- | --- |
| **Card Data Output**  **Capability Code** | **Card Data Output**  **Capability Code Description** |
| 0 | Unknown |
| 1 | None |
| 2 | Magnetic stripe write |
| 3 | Integrated Circuit Card (ICC) |
| 4-5 | Reserved for ISO use |
| 6-7 | Reserved for national use |
| 8-9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |

**Position 11 – Terminal Output Capability**

The Point of Service (POS) Data Code in Position 11 indicates the Terminal Output Capability. This is the ability of the terminal to print and display messages.

|  |  |
| --- | --- |
| **Terminal Output**  **Capability Code** | **Terminal Output**  **Capability Code Description** |
| 0 | Unknown |
| 1 | None |
| 2 | Printing |
| 3 | Display |
| 4 | Printing and display |
| 5-6 | Reserved for ISO use |
| 7-8 | Reserved for national use |
| 9 | Reserved for private use |
| A-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |

**Position 12 – PIN Capture Capability**

The Point of Service (POS) Data Code in Position 12 indicates the length of PIN that the terminal can capture.

|  |  |
| --- | --- |
| **PIN Capture**  **Capability Code** | **PIN Capture**  **Capability Code Description** |
| 0 | No PIN capture capability |
| 1 | Device PIN capture capability unknown |
| 2-3 | Reserved for ISO use |
| 4 | Four characters |
| 5 | Five characters |
| 6 | Six characters |
| 7 | Seven characters |
| 8 | Eight characters |
| 9 | Nine characters |
| A | Ten characters |
| B | Eleven characters |
| C | Twelve characters |
| D-I | Reserved for ISO use |
| J-R | Reserved for national use |
| S-Z | Reserved for private use |