



EMV Receipt Best Practices

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U.S. Payments Forum

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About the U.S. Payments Forum

The U.S. Payments Forum, formerly the EMV Migration Forum, is a cross-industry body focused on supporting the introduction and implementation of EMV chip and other new and emerging technologies that protect the security of, and enhance opportunities for payment transactions within the United States. The Forum is the only non-profit organization whose membership includes the entire payments ecosystem, ensuring that all stakeholders have the opportunity to coordinate, cooperate on, and have a voice in the future of the U.S. payments industry. Additional information can be found at <http://www.uspaymentsforum.org>.

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1. Introduction

EMV is being implemented in the United States, as it has in other countries, with the goal of reducing counterfeit card-present fraud. In particular, counterfeit card-present fraud can be significant among overall payment card fraud in the U.S. and EMV can be an effective tool in reducing this fraud once the number of chip-enabled cards and chip-supporting payment acceptance devices reaches critical mass.

In connection with EMV processing and certification, each payment network, acquirer processor and various other industry stakeholders have specific written requirements, recommendations and guidelines, which include receipt printing for EMV transactions. For all stakeholders, navigating these sometimes conflicting and confusing requirements can be challenging.

This white paper aims to clarify applicable recommendations and requirements regarding data elements most commonly found on receipts for chip-on-chip transactions, and focuses on EMV-related items. It does not replace or propose any approach inconsistent with applicable rules or requirements published by payment networks, processors, EMVCo or other stakeholders. Merchants, acquirers, processors, integrators and others ultimately need to make their own independent decisions regarding transaction receipt data elements, keeping in mind applicable rules, requirements and guidance. The information provided in this paper is intended to help all relevant stakeholders – including merchants, acquirer processors, consumers and payment networks – make informed decisions in this regard.

2. Stakeholders

The U.S. Payments Forum Communications and Education Working Committee created a sub-group to provide an educational resource for the industry identifying the data elements for receipts in connection with EMV transactions. The Working Committee compiled data from several sources in order to do this, including U.S. Payments Forum members, issuers, acquirer processors, merchants, payment networks and EMV specifications.

Several stakeholder groups are impacted by what is printed and included electronically for consumer and merchant EMV transaction receipts. Examples of areas which may be impacted for stakeholders are as follows:

1. Acquirer processors: trouble-shooting information
2. Issuers: dispute and error resolution
3. Merchants: dispute, return processing and error resolution
4. Consumers: dispute resolution and return processing
5. Payment networks: operating rules

Other complexities add to the variation in receipts at the POS such as:

- Differences in customer receipt and merchant transaction record. A customer receipt is different than a merchant copy of the transaction record. Therefore, copies printed for merchant and consumer use can be unique. As an example:
 - Merchant receipts typically print more data and are used for dispute and error resolution.
 - Consumer receipts vary by whether they are printed or electronically provided.
- Online or offline EMV processing

- Paper receipt length and complexity
- Variation in returns processing by merchant

Dispute processing can be accomplished without additional data on the receipt and usually occurs without the consumer having a receipt (except in tip-capable restaurants).¹

3. Receipt Recommendations by Payment Network for Online-Authorized Transactions

Table 1 shows merchant and consumer receipt recommendations by payment network for online EMV transactions.

Under payment network rules, including all EMV chip data on the receipt is not required. Neither disputes nor chargeback processing require data to be printed on the consumer receipt. However, with many payment networks, the merchant receipt is required to be provided to the payment network for chargeback processing.

The table below shows receipt items by payment network and notes whether the item is:

- Required. If the item is required, a failure to comply will result in a fine or other penalty.
- Recommended. If the item is recommended, there is no penalty for non-compliance.
- Optional. If the item is optional, there is no penalty for non-compliance.
- Conditional. If the item is conditional, there is a penalty for non-compliance under certain conditions.

These recommendations include both the consumer and merchant receipts.

Table 1. Receipt Item Table by Payment Network

Key: RQ – Required; RM – Recommended; OPT – Optional; CD – Conditional

	AID	EMV Chip Indicator	AID Label or Preferred Name	PIN Statement	TVR/CVR	Transaction Status Information	Cryptogram/Transaction Certificate
American Express (approved)	RQ	OPT	RQ	CD	-	-	OPT
American Express (declined)	RQ	-	RQ	-	-	-	OPT
Discover Network*	RQ	-	OPT	OPT	OPT	OPT	OPT
MasterCard (approved)	RQ	RM	RQ	-	OPT	RM	OPT
MasterCard (declined)	RM	RM	RM	-	OPT	RM	OPT

¹ In tip-capable restaurants where the restaurant server has incorrectly entered the tip into the POS after the consumer enters the amount by hand and leaves the restaurant, error resolution can be handled with the present receipt data (as it has been with magnetic stripe cards).

	AID	EMV Chip Indicator	AID Label or Preferred Name	PIN Statement	TVR/CVR	Transaction Status Information	Cryptogram/Transaction Certificate
Visa	RQ	-	RM	RM	-	-	-
UnionPay International	RQ	-	-	-	-	-	OPT

* Discover Network receipt recommendations/requirements apply to all chip card transactions processed by Discover Network including JCB and UnionPay chip card transactions when applicable.

For a definition of most commonly used EMV terms, please refer to the Forum’s “Standardization of Terminology” glossary.²

4. Receipt Recommendations by Payment Network for Offline-Authorized Transactions

For solutions using EMV offline authorization (as defined in the U.S. Payments Forum white paper, “Merchant Processing during Communications Disruptions”³), the above referenced table can be used to learn required, recommended, optional or conditional receipt data. However, if a merchant chooses to force post a transaction during offline situations, they may want to additionally include the optional cryptogram information on the merchant copy of the receipt for analysis.

5. Receipt Input - Other Stakeholders

Receipt input comes from a number of other sources such as testing and certification tools vendors, acquirer processors, EMV specifications, certain provisions of Reg E, and state laws. Input is divided below under categories of EMV Only and non-EMV specific.

Specific to EMV only:

- EMVCo specifications. If a signature CVM is used, the signature line must be printed on the consumer receipt or captured electronically. Only the AID is required to be printed on the receipt for an EMV transaction.⁴

Not specific to EMV:

- PCI DSS. PCI DSS states that the PAN (primary account number) must be masked such that only personnel with a legitimate business need can see more than the first six/last four digits of the PAN.
- State rules. These vary by state.
- Federal rules. Reg E states receipt requirements but not anything specific to EMV.

² <http://www.emv-connection.com/standardization-of-terminology/>

³ <http://www.emv-connection.com/merchant-processing-during-communications-disruption/>

⁴ EMV Version 4.3, Book 4, Section 11.4 Receipt: Whenever a receipt is provided, it shall contain the AID in addition to the data required by payment system rules. The AID shall be printed as hexadecimal characters.

- Other regulations. The Fair and Accurate Credit Transactions Act, among other regulations, contain legal requirements related to receipts (for example, truncation of the card number).⁵
- Merchant processing. Merchants have specific consumer return policies; while not specific to EMV, these may require certain receipt data elements to be printed.

6. Legal Notice

This information does not constitute legal advice and should not be relied on for any legal purpose, whether statutory, regulatory, contractual or otherwise. All warranties of any kind are disclaimed, including all warranties relating to or arising in connection with the use of or reliance on the information set forth herein. Any person that uses or otherwise relies in any manner on the information set forth herein does so at his or her sole risk.

Without limiting the foregoing, it is important to note that the information provided in this document is limited to the payment networks and other sources specifically identified, and that applicable rules, processing, liability and/or results may be impacted by specific facts or circumstances.

Additionally, each payment network determines its own rules, requirements, policies and procedures, all of which are subject to change.

Merchants, issuers, acquirers, processors and others implementing EMV chip technology in the U.S. are therefore strongly encouraged to consult with all applicable stakeholders regarding applicable rules, requirements, policies and procedures for transaction receipts, including but not limited to their respective payment networks, testing and certification entities, and state and local requirements.

⁵ <https://www.ftc.gov/enforcement/statutes/fair-accurate-credit-transactions-act-2003>