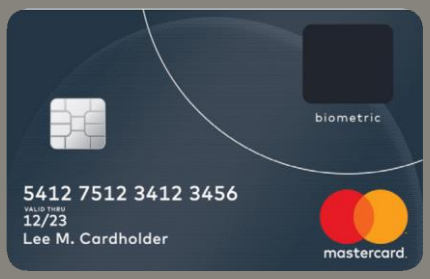
Mastercard® Biometric Card

Frequently Asked Questions



The Mastercard Biometric Card combines chip technology with biometrics to conveniently and safely identify cardholders for card-present, point-of-sale (POS) transactions. This card leverages the newest biometric technology, allowing it to work at EMV terminals worldwide, with no need for hardware or software upgrades.

How the Technology Works

1. How does the card work?

When shopping and paying in-store, the Biometric Card works like any other chip card. The cardholder simply dips/taps* the card into/on a retailer's terminal while placing their finger on the embedded sensor. The fingerprint is verified against the template and—if the biometric match is successful and the transaction is authenticated then there is no need for the cardholder to provide a signature or pin.

2. Is the Biometric Card the same thickness as a standard payment card?

Yes, the new card meets all payment card standards.

3. What are the terminal requirements for Merchants to accept the card?

The solution requires no changes for acquirers or merchant hardware or software as it is compatible with any type of EMV-enabled terminal that has satisfactorily completed the Mastercard Terminal Integration Process (TIP).

Below are terminal guidelines to ensure an optimal cardholder experience at the POS for the contact version of the Biometric Card.

Merchants should ensure that their terminals are:

- EMV-enabled
- Customer-facing
- Accessible to cardholders
- Designed so that the card sensor is not blocked from use

4. What are the benefits for merchants?

While stakeholders, economics and opportunities may differ, when it comes to preserving revenue, lowering decline rates of good cardholders and ensuring efficient operations are top priorities for merchants—with the majority indicating that innovative technology is crucial to enhancing security.

Merchants should be aware that with the Mastercard Biometric Card:

- No changes are needed to the software or hardware of a merchant's POS terminal in order to process Mastercard Biometric Card transactions.
- The biometric authentication process is as fast as PIN but saves the cardholder the effort of entering the PIN digits into the terminal's key pad.

- Accepting the Mastercard Biometric Card enables merchants to know with greater certainty that the person using the card is the genuine cardholder.
- Merchants should experience fewer declines due to forgotten PINs, incorrect PINs, and PIN bypass, as well as reduced checkout delays caused when a cardholder must switch to another form of payment.
- Merchants may see a positive impact to transaction approval rates due to greater issuer confidence in the transaction.
- As affluent customers are most interested in biometric cards, providing the best possible cardholder experience can lead to increased transaction volume.

5. Where in the payments process is this technology being used?

When a cardholder uses the card to pay in-store, the cardholder places the enrolled finger on the sensor while inserting/tapping* the card into or on the terminal. The biometric authentication immediately follows.

6. What data does the merchant see?

There is no biometric data transmitted to the merchant. The merchant's terminal receives the biometric authentication result data as part of the standard transaction data, which is then passed from the terminal to the acquirer, and then to the issuer.

7. Is there truly no potential for fraud for card-present, point-of-sale (POS) transactions?

No one single solution is "bulletproof". However, when layers of security are used in tandem, Mastercard is able to get ahead of criminals. Since the biometric data resides on the card it limits the ability of mass fraud attacks.

8. Does this product comply with all government regulations?

The Mastercard product design process not only ensures that Mastercard adheres to applicable laws, standards and policies, it ensures privacy and ethical data practices are embedded from inception to execution. Mastercard will perform a regulatory and privacy law scan in any country where the card is being issued.

Usage and Implementation

9. What happens if there's a sweaty, dirty or greasy fingerprint? Is there a second presentment or option for Cardholder Verification Method [CVM]? Or is the transaction just declined?

Mastercard is setting up performance requirements and a testing framework which will work for different climates and environmental conditions. However, there are some technical limitations. If someone has a very greasy finger, the biometrics may not work and instead the card will fall back to a secondary CVM such as PIN or signature, set by the bank.

10. What is the interchange rate on this type of card? How does the rate differ from PIN or signature?

You can expect the biometric authentication to be featured on any Mastercard card. Interchange remains as is for that card; this solution has no impact on the interchange rate.

11. Where does the chargeback liability lie?

The chargeback liability remains with the issuer as long as the biometric match is successful. If the biometric match is not successful and the fallback CVM is used, the chargeback liability follows the standard rules

*At the time of this document's release, Mastercard Biometric Cards are only available for contact payments.