

EMV® Chip



Enabling seamless and secure contact and contactless payments around the world

EMV® Chip technology helps payment card issuers and merchants improve the security of in-store payments and prevent card fraud. EMV Chip Specifications provide a blueprint for EMV Chip technology to work consistently anywhere in the world to deliver the same result - secure, seamless and reliable in-store payments.




EMV Chip Snapshot

Nearly
14 billion
EMV Chip payment cards are in use today powering nearly **95%** of in-store transactions globally¹

More than
80
countries have adopted EMV Chip²

 EMV Chip technology is recognised as providing the best protection against losses from counterfeit cards³

 The globally established EMV Chip infrastructure provides a foundation for the next generation of secure and reliable digital payments

World Pre-EMV Chip:

- ✗ Rampant counterfeit fraud
- ✗ Chip card payments only possible domestically
- ✗ Magstripe technology only option for international card payments
- ✗ Greater reliance on other payment types, e.g., cheques, travellers' cheques, cash, etc.

World With EMV Chip:

- ✓ Significantly reduced counterfeit fraud
- ✓ More than 80 countries have adopted EMV Chip
- ✓ Nearly 95% of card transactions globally are chip
- ✓ Reduction in use of less convenient payment types, e.g., cheques, travellers' cheques, cash, etc.

Did you know?

EMV Chip Specifications provide a common and secure foundation for the development and deployment of payment products that will work on a global scale, while also supporting regional requirements. For example, EMV Chip Specifications are flexible to support transaction routing choices and network competition in accordance with U.S. regulation.



¹Worldwide EMV® Deployment Statistics | ²Mastercard | ³Nilson Report, 'Issue 1068'

How Do EMV® Chip Payments Work?

EMV® Chip technology uses advanced cryptography to validate the authenticity of a card and generate a one-time use security code for every transaction, which helps prevent counterfeit, lost and stolen fraud.

- An EMV Chip transaction requires communication between the chip in the card, smartphone, or other device making the payment and the acceptance terminal.
- EMV Chip Specifications define the requirements for the chip to communicate with the acceptance terminal and exchange information to execute a transaction.
- This makes it possible for merchants anywhere in the world to accept domestic and international chip-based payments seamlessly and securely.

Ways to pay with EMV Chip

	01	02	03	04
	Contact Chip	Contactless Chip	Mobile	QR Code
WHAT:	Payment cards with chips	Contactless payment cards with chip	Smartphone, watch or another mobile NFC (Near Field Communication) device that acts as a contactless chip card	Static or dynamic QR codes
HOW:	Inserting or dipping chip card into a reader	Tapping chip card against a terminal	Tapping device against a terminal	Scanning or presenting QR code with a device
				

Benefits Of EMV Chip

The globally deployed EMV Chip infrastructure makes it possible for chip technology to be used consistently anywhere in the world to deliver the same result – secure, seamless, and reliable in-store payments. The specifications support card-based transactions across contact, contactless and mobile channels and provide a trusted foundation for new ways to pay.



Technology Providers

Global compatibility
EMV Chip Specifications provide a blueprint for developing products that will work seamlessly and securely anywhere they are used.

Flexible requirements
EMV Chip Specifications are flexible to support loyalty programmes, transit ticketing and other offerings not dedicated to payments.

Card Issuers and Merchants

Fraud prevention
Using EMV Chip technology as part of a layered approach, payment card issuers and merchants around the world prevent fraud resulting from counterfeit, lost and stolen cards, and increase the security of in-store payments.

Seamless acceptance
Global EMV Chip infrastructure makes it possible for merchants anywhere in the world to accept domestic and international chip-based payments seamlessly and securely.

Consumers

Secure and reliable payment
Consumers benefit from EMV Chip technology every day by being able to follow a familiar payment process to make secure, reliable card-based payments wherever they are in the world – whether inserting or tapping a card at a terminal or using a smartphone to make a contactless purchase.

Did you know?

EMVCo manages and licenses the Contactless Indicator, a globally recognised consumer facing mark that demonstrates an EMV contactless payment can be made. This is supported by the Contactless Symbol, signifying that a payment terminal can accept EMV Contactless payments.



Contactless Indicator



Contactless Symbol

For more information on EMVCo please visit:

www.emvco.com

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