

## **EMVCo Announces Communication Enhancement of EMV® Contactless Payment Devices**

*Improvements lead to more reliable and consistent communication*

**2 June 2021** – EMV® contactless payment terminal requirements have been updated by global technical body [EMVCo](#) to help enable a more reliable and consistent payment experience through the addition of IQ demodulation requirements. The development reflects consumer use of an increasing range of card technologies, self-powered payment devices such as smartphones, and wearables to perform transactions.

Mass transit could be one sector to benefit from the enhancements provided by IQ demodulation with faster turnstile throughput, and greater flexibility in where the payment device is positioned to authorise entry into a transport network.

Modulation within a payment context refers to the process of transmitting transaction data via a carrier signal between a payment device and payment acceptance terminal. EMV compliant terminals generate the communication field on which a payment device would respond. While the response is intended to be simple, many payment devices share data in a more dynamic format. The ability of the acceptance terminal to understand this more dynamic format improves transaction speed and offers greater flexibility in where the device can be positioned. This is based on IQ demodulation.

Junya Tanaka, EMVCo Executive Committee Chair, explains: “EMVCo has been working with the card and device manufacturers, and technology providers, to ensure terminal requirements support advancements in payment technology. With more intelligent payment devices being used to pay for goods and services, it is vital that terminals can respond and accept payments to avoid future interoperability issues and transaction failures.”

The initiative has been welcomed by industry participants:

Björn Scharfen, Head of the Payment and Ticketing Solutions Product Line at Infineon Technologies, says: “We expect that well defined IQ demodulation on EMV contactless readers will improve interoperability with the latest contactless card designs and innovative passive payment device form factors and wearables, enabling smaller and more robust antenna designs.”

Alasdair Ross, Director of Secure Payment and NFC Infrastructure at NXP® Semiconductors, comments: “We are continually working to expand the NFC ecosystem and improve the technology for a seamless user experience. Our secure NFC chips will help ensure IQ demodulation requirements are met to support reliable transactions and accelerate the acceptance of new payment form factors.”

All EMV compliant terminals will be required to apply IQ demodulation techniques to receive EMVCo certification. Many terminals have this functionality today but have neither activated nor tested it within the payment environment.

The IQ modulation update has been published in [Specification Bulletin 245](#) and incorporated into the EMV Level 1 Specifications for Payment Systems, EMV Contactless Interface Specification v3.1.

[Read the FAQ to learn more.](#)

– ENDS –

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**Notes to Editors:**

EMV® is a registered trademark in the U.S. and other countries and an unregistered trademark elsewhere. The EMV trademark is owned by EMVCo, LLC.

**About EMVCo:**

EMVCo is the global technical body that facilitates the worldwide interoperability and acceptance of secure payment transactions by managing and evolving the EMV Specifications and related testing processes. EMV is a technology toolbox that enables globally interoperable secure payments across face-to-face and remote environments. Adoption of EMV Specifications and associated approval and certification processes promotes a unified international payments framework, which supports an advancing range of payment methods, technologies and acceptance environments. The specifications are available royalty free, designed to be flexible, and can be adapted regionally to meet national payment requirements and accommodate local regulations.

EMVCo is collectively owned by American Express, Discover, JCB, Mastercard, UnionPay and Visa, and focuses on the technical advancement of the EMV Specifications. To provide all payment stakeholders with a platform to engage in its strategic and technical direction, EMVCo operates an [Associates Programme](#) and encourages all interested parties to get involved.

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