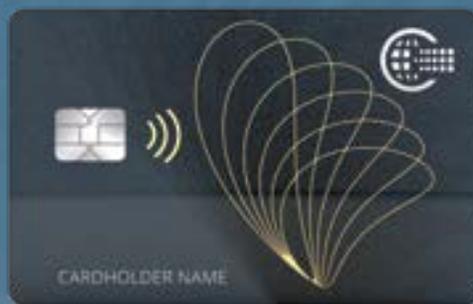


# Catching the Dual Interface Wave



## Abstract

### **A future of contactless is on the horizon for the U.S. and the time is right for issuers to ride the dual interface wave.**

With an increase in global adoption, issuers can capitalize on potential opportunities including differentiation, top-of-wallet status, incremental transactions, and more. This whitepaper from CPI Card Group Inc. details various factors contributing to this momentum, including the fast, frictionless experience for cardholders, technology and design capabilities, and benefits to issuers.



## Background

With years of momentum behind the trend, contactless payments are continuing to conquer the globe. From payment cards and objects utilizing radio frequency (RF) chip technologies to mobile payment apps equipped with near-field communication (NFC), contactless transactions are being enabled for consumers everywhere. The U.S. is due for a contactless transformation, considering the number of leading countries with high volumes of contactless transactions. Fintech analysts at Juniper Research estimate that the global value of contactless transactions will reach \$1.3 trillion in 2019 – more than twice the \$560 billion estimated for 2017<sup>1</sup>. Furthermore, contactless cards are expected to account for 80 percent of total global contactless transactions in 2019, with the global value of contactless debit/credit transactions predicted to exceed \$2 trillion by 2021<sup>2</sup>. In fact, ABI Research predicts that U.S. contactless card shipments will hit 196.8 million in 2021, a huge increase over the 25.7 million shipments in 2016<sup>3</sup>.

Dual interface EMV® cards – payment cards with an embedded chip and antenna enabling both contact transactions (inserted or swiped at payment terminals) and contactless transactions (waved at payment terminals) – will likely play a major role in the growth of contactless in the U.S.

Despite a multitude of emerging technologies and trends, payment cards will maintain a firm position in payments for quite some time. In fact, ABI Research projects that the number of payment cards in circulation will increase through 2022, with a CAGR of 1.1% between the years of 2017 and 2022<sup>4</sup>. In the near term, it's expected that next generation payment form factors including mobile devices, wearables and payment objects will complement traditional cards and that dual interface technology will help to make the overall payment experience consistent and seamless.

EMV is a registered trademark or trademark of EMVCo LLC in the United States and other countries.

Copyright 2018 CPI Card Group



## A seamless consumer payment experience

Consumers are likely to be enthusiastic champions of dual interface cards simply because they foster a convenient, fast, frictionless experience at the point of sale. These cards provide the security of EMV chip technology so consumers can feel secure with their card payments, regardless of whether they insert or wave the card at point-of-sale terminals. Relative to digital and mobile payments, dual interface provides consistency in the payment experience, opening up multiple seamless ways for consumers to pay - whether one uses a card, mobile device, wearable or other payment object.

Another attractive reason for consumers to embrace this technology is their ability to pay in a standardized fashion regardless of whether they're in the U.S. or

traveling abroad. In the U.K., a country leading the way in contactless adoption, over a third of card payments were contactless in June 2017<sup>5</sup> and in Canada, contactless payments saw a 36 percent year-over-year gain from Q2 2016 to Q2 2017<sup>6</sup>.

Consumers also prefer to pay quickly when making every day, small-dollar purchases, which nicely positions contactless payments to overtake cash transactions. The use of non-cash payment methods continues to grow worldwide, with the U.S. ranking 5th in the world in terms of countries embracing cashless technology<sup>7</sup>. Unsurprisingly, Millennials are major proponents of this trend, with nearly one in five predicting a cashless society in the future where currency is no longer used for transactions<sup>8</sup>.

## Better technology, better design

**For issuers, the timing for initiating or upgrading programs to dual interface could not be better, as the technology and card design capabilities available today are the most advanced yet.**



Since the introduction of dual interface cards, manufacturing has been dominated by flex bump technology. This technology requires a physical connection between a card's chip and antenna to enable the communications necessary for contactless transactions. It also calls for a high level of compression in the manufacturing process as the components are glued together between layers and shaped into a usable card.

Today, air coupling technology is the alternative go-to option for dual interface cards. Air coupling doesn't require a physical connection between chip and card antenna - allowing them to communicate the same way a card communicates with a terminal during a transaction. As well, air coupling simplifies steps in the manufacturing process leading to greater throughput in production.

Furthermore, dual interface technology allows issuers to be creative and imaginative with their card design. A partner with strong design capabilities and high-definition printing technology can deliver a variety of card treatments including: foil, spot gloss, deboss treatments, colored core, silk screen finishes and a wealth of potential imagery. An exceptional card design reflecting personality and brand, combined with the convenience and speed of contactless payments can make for an exceptional cardholder experience and support top-of-wallet status.

-  Foil
-  Spot gloss
-  Deboss treatments
-  Colored core
-  High-definition print technology
-  Silk screen finishes



**Improved transaction speeds via contactless cards could have positive, incremental impacts on issuers' businesses.**

## Issuer benefits

Acting soon can enable issuers to take advantage of expanding merchant acceptance and the projected volume of contactless transactions expected over the next few years. Merchants accepting contactless payments increased from 200K-250K in 2014 to 750K in 2017<sup>9</sup>, while further infrastructural groundwork is being laid in the U.S. to accept EMV and contactless. At this time, roughly 3 million out of 12 million merchant terminals and counting are fully EMV and contactless capable<sup>10</sup>.

Improved transaction speeds via contactless cards could have positive, incremental impacts on issuers' businesses. A Mastercard Advisors Study on Contactless Payments showed an average lift of approximately 30% in total spend in the first 12 months, post contactless adoption in the U.S.<sup>11</sup> And with the potential of contactless transactions overtaking certain cash transactions, these purchases can translate into interchange revenue opportunities. In Australia, a survey found that payments made using credit or debit cards outpaced cash for the first time in 2016 - with the sizable adoption of contactless cards considered a major contributing factor<sup>12</sup>.

Events such as music festivals and conferences are increasingly going cashless to streamline transactions and combat long ticket, food, beverage, and merchandise lines<sup>13</sup>. Some are now deploying wearable devices, payment objects, and mobile applications to facilitate and expedite these processes. Issuers may consider a combination of form factors, including dual interface cards, to address these trends.

Dual interface cards also afford opportunities for partner and supplier collaboration with chips that can bring faster, stronger capabilities via flash memory and larger memory size. A multitude of applications and data can be securely compartmentalized on the chip to enable physical or logical access, privileges and payments for customers. For example, if an issuer were to partner with a sporting or concert event and issue contactless cards, those cards could be used for payment or access, transit tickets, parking passes, game tickets, concessions, VIP access, loyalty discounts and more.



## Forging a rewarding contactless partnership

### **A perfect storm of factors – consumer appeal, increasing U.S. acceptance, advances in technology, expanded design capabilities and organizational benefits – make the timing right for dual interface.**

A provider with a level of manufacturing maturity can prove fruitful from both a quality and cost-efficiency standpoint. CPI, for example, has produced dual interface cards for over a decade and is one of the first to manufacture in large volume with air coupling technology. CPI's customers can choose from a variety of certified chips and inlays paired with aluminum etched or embedded copper wire air coupled antennae, and a number of post and pre-lamination embellishments. Additionally, it will be important to choose a provider with equipment and expertise to personalize dual interface cards. Unlike EMV cards, dual interface cards have

two profiles – one for the contact interface and one for the contactless technology. Issuers can benefit from a partner with expert teams who can take the entire project from concept to finished product.

The reasons to catch the dual interface wave today are abundant; however, they are primarily driven by consumer trends and issuer desires to provide exceptional cardholder experiences through physical and digital form factors. Dual interface contactless technology can easily be the wave that pushes payments transformation in the U.S. forward.

**For more about dual interface (contact and contactless) chip choice, visit <https://www.cpicardgroup.com/elements/emv/emv-chips/>**

## About CPI Card Group

CPI Card Group is a leading provider in payment card production and related services, offering a single source for credit, debit and prepaid debit cards including EMV chip and dual interface, personalization, instant issuance, fulfillment and digital payment services. With more than 20 years of experience in the payments market and as a trusted partner to financial institutions, CPI's solid reputation of product consistency, quality and outstanding customer service supports our position as a leader in the market. Serving our customers from locations throughout the United States and Canada, we have the largest network of high security facilities in North America, each of which is certified by one or more of the payment brands: Visa, Mastercard®, American Express, Discover and Interac in Canada. Learn more at [www.cpicardgroup.com](http://www.cpicardgroup.com).



## Sources

- <sup>1</sup> "Contactless Retail Payments to Exceed \$1 Trillion in Transaction Value by 2019," Juniper Research, May 2017. (<https://www.juniperresearch.com/press/press-releases/contactless-retail-payments-to-exceed-1-trillion>)
- <sup>2</sup> Ibid.
- <sup>3</sup> "Payment & Banking Card Technologies Report," ABI Research, 1Q 2018.
- <sup>4</sup> Ibid.
- <sup>5</sup> "The contactless revolution ten years on," Visa, September 2017. (<https://www.visaeurope.com/media/pdf/45299.pdf>)
- <sup>6</sup> "Spending up in Canada 3.88 per cent in the second quarter of 2017," Moneris, July 2017. (<https://www.newswire.ca/news-releases/spending-up-in-canada-388-per-cent-in-the-second-quarter-of-2017-635572203.html>)
- <sup>7</sup> "The World's Most Cashless Countries," Forex Bonuses, October 2017. (<http://www.forexbonuses.org/cashless-countries/>)
- <sup>8</sup> "Winning Affluent Millennials," LinkedIn, 2015. ([https://business.linkedin.com/content/dam/business/marketing-solutions/global/en\\_US/campaigns/pdfs/affluent-millennial-research-whitepaper-eng-us.pdf](https://business.linkedin.com/content/dam/business/marketing-solutions/global/en_US/campaigns/pdfs/affluent-millennial-research-whitepaper-eng-us.pdf))
- <sup>9</sup> "Contactless 'tap-and-go' cards finally enter US market," Carmen Chai, Creditcards.com, November, 2017. (<https://www.creditcards.com/credit-card-news/contactless-tap-and-go-cards-us-market.php>)
- <sup>10</sup> "Why Is the U.S. So Behind on Contactless Payments?" Joe Lynam, Founder and CEO of xPresstap, December 2017. (<http://plugandplaytechcenter.com/2017/03/13/contactless-payments-united-states/>)
- <sup>11</sup> "New Mastercard Advisors Study on Contactless Payments Shows Almost 30% Lift in Total Spend Within First Year of Adoption," Mastercard, May 2012. (<https://newsroom.mastercard.com/press-releases/new-mastercard-advisors-study-on-contactless-payments-shows-almost-30-lift-in-total-spend-within-first-year-of-adoption/>)
- <sup>12</sup> "Aussies Are Using Card Over Cash For The First Time," Ellie McLachlan, Canstar, July 2017. (<https://www.canstar.com.au/credit-cards/aussies-using-card-cash-first-time/>)
- <sup>13</sup> "No Cash, No Card, No Problem At Coachella As Cashless Payments Evolve With Mobile Wallets," Brian Hernandez, Forbes, April 2016. (<https://www.forbes.com/sites/brianhernandez1/2016/04/15/cashless-coachella-mobile-payments-apple-android-samsung-pay/#1c508580661e>)



**[www.cpicardgroup.com](http://www.cpicardgroup.com)**

**U.S. 1-800-446-5036    Canada 905-761-8222**