MasterCard Contactless – Device Approval Application Note #3

This document contains an application note concerning MasterCard mobile payment devices approval acceptance criteria.

The acceptance criteria apply to the following mobile payment devices:

- A NFC mobile device with Embedded Secure Element
- A NFC mobile device using a Single Wire Protocol (SWP) UICC
- A NFC mobile device supporting Host Card Emulation (HCE) technology.
- Single Wire Protocol (SWP) UICC
- Embedded Secure Element.
- Single Wire Protocol (SWP) MicroSD
- Fully Encapsulated Secure Elements for example MicroSD, Sleeves
Revised Acceptance Criteria

Background

MasterCard published the Mobile MasterCard PayPass Application Note #7 in May 2014 which defined a new performance requirement for Secure Elements using a key length of 128.

To meet the increased demands for fast and secure transactions from sectors such as transit this Application Note sets new targets for 2016.

Performance Acceptance Criteria

The performance requirements for all Secure Elements with a Mobile MasterCard PayPass or an M/Chip Mobile application are as follows:

<table>
<thead>
<tr>
<th>Transaction type</th>
<th>~ up to June 30th 2013</th>
<th>July 1st 2013 ~</th>
<th>July 1st 2014 ~</th>
<th>Jan 1st 2016 ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC Key Length</td>
<td>96 Bytes</td>
<td>96 Bytes</td>
<td>128 Bytes</td>
<td>128 Bytes</td>
</tr>
<tr>
<td>PayPass – M/Chip Transaction</td>
<td>500ms(SE + Test Board)</td>
<td>400ms(SE + Test Board)</td>
<td>380ms(SE only) (*)</td>
<td>300ms(SE only) (*)</td>
</tr>
<tr>
<td>PayPass – Mag Stripe Transaction</td>
<td>220ms(SE + Test Board)</td>
<td>170ms(SE + Test Board)</td>
<td>170ms(SE only) (*)</td>
<td>170ms(SE only) (*)</td>
</tr>
</tbody>
</table>

Note (*): The performance requirement with the 128 Byte ICC key samples will be for the SE processing only.

The performance requirements for all NFC mobile devices (SWP, eSE and HCE) are as follows:

<table>
<thead>
<tr>
<th>Transaction type</th>
<th>~ up to June 30th 2013</th>
<th>July 1st 2013 ~</th>
<th>July 1st 2014 ~</th>
<th>Jan 1st 2016 ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>PayPass – M/Chip Transaction</td>
<td>500ms</td>
<td>450ms</td>
<td>410ms</td>
<td>330ms</td>
</tr>
<tr>
<td>PayPass – Mag Stripe Transaction</td>
<td>220ms</td>
<td>200ms</td>
<td>200ms</td>
<td>200ms</td>
</tr>
</tbody>
</table>
Type Approval

New Products

• All new products will be assessed against the performance criteria applicable at the date when the type approval performance test is successful.

• For secure element approval where the new product is an applet only update for deployment to an existing platform, then the product will be assessed against the performance criteria under which the existing platform was last approved.

Product Renewals

• All products submitted for renewal will be assessed according to the performance criteria under which the original product was approved.

• Upon vendor request, a product renewal may be assessed against the latest performance criteria.

Derivative Products

• A product recognized by MasterCard as a derivative of a previously approved product needs to be compliant with the performance criteria under which the parent product was approved.

Reminders

• The Letter of Approval will state which specification and performance target the product has been tested against.

• Any testing methodology used will always be the one applicable at the date where the performance test is successful.

For further questions, please email mobilepartner@mastercard.com