

MasterCard Worldwide
2000 Purchase Street
Purchase, NY 10577
U.S.A



Gemalto
945 Avenue du Pic de Bertagne
BP100
13881 Gemenos
France

November 25, 2009

MasterCard® *PayPass*™ Vendor Product – Letter of Approval

Approval Identifier: CLOA-GEMA090802-091125(a), expires on September 3, 2012
Product Vendor: Gemalto
Product Commercial Name: Optelio Contactless D36 R3
Product Technical Name: GCX4.6-E36-MchpPP2.9R-Cxy-FullA
Registration Number: DI/GEMA/0908/02/PPMC4/Cxy

Under the terms of the *PayPass* Specification License Agreement dated December 13, 2004, this letter permits you to advise your customers that the above product has successfully completed the requirements for a vendor product approval by MasterCard as a ***PayPass* – M/Chip 4 v1.3.1, 4 lines embossing ID-1 Card with a Half antenna (Type A + Type B; T=0 + T=1)..**

Please see page 2 for the Conditions of Approval.

This letter does not constitute an endorsement or warranty by MasterCard regarding the functionality, quality or performance of the submitted product, including without limitation any warranties of merchantability, fitness for purpose or non-infringement, all of which are expressly disclaimed by MasterCard.

The product will be listed on the MasterCard *PayPass* web site as an approved *PayPass* vendor product until the Approval Expiration Date. Any change to the product must be promptly notified to MasterCard.

MasterCard reserves the right to use any approved *PayPass* product as a reference for future testing, certification or approval of other *PayPass* products.

Yours sincerely,

Arnaud du Chéné,
Senior Business Leader
Chip Center of Excellence
MasterCard Worldwide

Details of Vendor Product Approval

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Registration Number:	DI/GEMA/0908/02/PPMC4/Cxy
CAST References:	CCN0393, expires on September 3, 2012
Test Assessment References:	PPMC4 A-GEMA090601A1-Cxy-FIM-0910-C014 PPMC4 P-GEMA090601A1-Cxy-FIM-0910-C014

MasterCard Reference Specifications

<i>PayPass</i> – ISO/IEC 14443 Implementation Specification – Version 1.1– Mar. 2006
<i>PayPass</i> – M/Chip Technical Specifications – Version 1.3.1 – September, 2008
<i>PayPass</i> – M/Chip Application Note #12 – September 15, 2008
<i>PayPass</i> Application Note #3 (170 / 400 ms Performance Policy) – January 13, 2009
Chip Authentication Program Functional Architecture – February 2007

Conditions of Approval

None

Product Technical Restrictions

The application manages the Application Cryptogram Session Key Counter (CTRac) for EPI SKD as if it was the CSK SKD: the counter is not updated during the 2nd GENERATE AC while it should and the Application Cryptogram Session Key Counter Limit (LIMac) might then be reached twice as slowly as if the counter was properly implemented.

Issuer Implementation Notes

The issuer must set the Application Cryptogram Session Key Counter Limit as if it was a product supporting CSK SKD.