



PURE Contactless Terminals

Operational specification management

Version: 2.0

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Revision status

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1.0	July 05, 2017	Document creation
2.0	September 27, 2018	Document release

1 About this document

1.1 Presentation

This document describes the operational management rules Gemalto follows as provider of the PURE Contactless Reader specifications.

EMVCo maintains specifications describing the general architecture of EMV[®] capable payment terminals and introduce the definition of the ‘reader’ and ‘kernel’ components. These components execute a card payment transaction with a contactless device hosting an EMV payment application. The EMV modular architecture enables the coexistence of independent kernels in the same payment terminal, to support several payment technologies.

The PURE Contactless Reader specifications describe the implementation of a contactless reader or a contactless kernel designed to operate a contactless payment transaction with a PURE Payment card or mobile device. As a technical solution, PURE is used by payment acceptance networks looking for a white label payment technology.

The targeted audience are the payment terminal manufacturers interested in implementing and commercializing payment terminals capable to interact with payment systems based on PURE technology as well as operators of such payment systems.

1.2 References

Reference	Name	Version	Issue date
[PUREK]	Specifications: PURE Contactless Reader	2.1.8	22-07-2016
		2.1.7	16-02-2015
[PURETK]	Test plans: PURE Contactless Reader	1.4	12-05-2017
		1.3	04-07-2016

Prior versions of the above documentations are out of scope of this document.

1.3 Contacts

This document is maintained by Gemalto in quality of specification owner. Queries about the PURE Contactless Reader specifications in general and this document in particular may be addressed to the generic entry point:

pure-contact@gemalto.com

[®] 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.

2 Intellectual Property

2.1 EMV compatibility

The PURE Contactless Reader specification describes a software component that integrates into and interacts with a technical architecture compliant with EMV specifications.

For sake of clarity, the EMV specifications are provided “AS IS” by EMVCo to Gemalto. Gemalto shall not be liable if the EMV specifications are infringing the intellectual property of a third party.

For sake of clarity, the EMV specifications are provided solely by EMVCo. Compliance or reference to them in the PURE Contactless Reader specification express no proposition from Gemalto to provide them.

2.2 Specifications

The PURE Contactless Reader specification is the intellectual property of Gemalto. Gemalto has conducted extensive intellectual property investigations without finding reasonable evidence of infringement of any third party intellectual property when implementing the PURE Contactless Reader specification at the time of these investigations.

Gemalto licenses the PURE Contactless Reader specifications “AS IT IS” with no warranty of any kind and at no cost. Licensee remains responsible to evaluate and validate that its implementation or application of the PURE Contactless Reader specification is not subject to intellectual property claims from third parties.

Gemalto is the sole owner of the PURE Contactless Reader specifications intellectual property.

2.3 Test plans

In addition to the PURE Contactless Reader specifications, Gemalto maintains test plans to verify the compliance of an implementation with the specification provisions.

Gemalto has developed the test plans and owns the associated intellectual property rights. Gemalto provides the PURE Contactless Reader test plans “AS IT IS”, with no warranty of any kind.

Gemalto is the sole owner of the PURE Contactless Reader test plans intellectual property.

2.4 Branding

The PURE Contactless Reader technology is offered in White Label mode, which means that a licensee is permitted to rebrand it according to its own marketing needs and to promote its brand to customers and end users.

Regardless, it is advised to also maintain a technical affiliation reference to the PURE technology in industry related publications. Such reference will increase the licensee’s technical visibility as PURE technology user and foster reuse of on the shelves offers such as testing and certification services or integration with payment systems bases on PURE technology. It can also be used, in connection with a due compliance certificate, as an interoperability label.

3 Interested parties

Parties described herein are exclusively listed as stakeholders of the PURE Contactless Reader specifications and operational management is specifically aiming at providing them with a business friendly environment, and protect their investments.

3.1 Implementers of EMV contactless payment accepting devices.

The PURE Contactless Reader specifications are meant to be used to implement the support of contactless transactions with PURE payment cards and consumer devices in an EMV payment terminal. Implementers of card payment terminals are the principal interested parties and are expected to use the specification to develop a “contactless kernel” to be integrated in the payment terminal architecture as described in EMVCo documents and to ensure the interoperable acceptance of PURE payment transaction.

In order to both anticipate and consolidate the investment to implement a PURE contactless support, it is important for implementers that the specifications remain stable as much as possible and enable a wide reusability of the implementation.

3.2 Test and certification actors

The PURE Contactless Reader specifications are used by various implementers to build contactless payment accepting devices. The PURE Contactless Reader specifications have been developed are designed to guarantee interoperability with PURE payment devices compliant with other PURE specifications relevant for the card issuer. The interoperability is ensured by the successful submission of implementations to the PURE evaluation and certification program.

This program has been created to ensure a common and trusted evaluation process for implementers of the PURE Contactless Reader specification. After conducting a selection process Gemalto has delegated the operational management of the certification program to Paycert, an independent certification body. Gemalto outlines that while other candidate satisfying the criterias may propose an alternative certification scheme, sponsoring such option is not considered.

Functional Testing is carried out by laboratories accredited by Paycert, using qualified testing tools.

The certification body, testing laboratories eligible for Paycert accreditation and testing tool editors with the technical capacity to develop a test tool based on the PURE Contactless Reader test plans have an obvious operational interest in PURE Contactless Reader test plans and specifications.

3.3 Payment acceptance network users of PURE technology

Payment acceptance network users of PURE technology for the issuance and acceptance of card payments have an indirect vested interest in the PURE Contactless Reader specifications which provide the support and interoperability required to enable contactless payment on the network.

Even if they don't implement the technical PURE specifications, payment acceptance networks are responsible for the operational environment for those devices approved for deployment in their systems.

Payment acceptance networks have an obvious interest in the proper maintenance of the PURE Contactless Reader specifications so that the interoperability of conformant implementations is maintained in future.

Indirectly, payment acceptance networks are also interested in both implementers and certification actors adhering widely to these specifications.

4 Licensing

The PURE Contactless Reader specifications and test plans are under copyright from Gemalto and may only be obtained from Gemalto or a channel approved in writing by Gemalto. Depending on the intended use, different contractual options are available for obtaining access to the documentation.

Appropriate copyright markings are visible on all the pages of the documentation. A general terms and conditions specific section has been included in all the PURE documents. In any case, it is strictly forbidden to make any change or to remove any of these copyright markings and specific terms and conditions sections.

4.1 Confidentiality agreement

At the discretion of Gemalto, the PURE Contactless Reader specifications may be provided under the terms of a confidentiality agreement. Such agreement does not grant any right to the relevant PURE Intellectual Property. This agreement is a temporary convenience intended to allow any interested party to better evaluate the resources required to implement the specifications as well as to better assess the business opportunity represented by PURE prior to engage into a formal licensing agreement.

4.2 Licensing agreement

When the interest for the PURE Contactless Reader specifications goes beyond the simple consultation, a licensing agreement is required.

The primary motivation is to provide a mutually protecting framework in order to grant to the requesting party the right to use the PURE Contactless Reader specifications or test plans for the purpose described below. To support this objective, the request for a license is not held to be considered when the requesting party:

- has a general history of material breach with its legal and regulatory obligations or
- has been the subject of any formally instituted legal claim or proceeding that it has infringed Gemalto's intellectual property rights.

4.2.1 Specification

Gemalto will grant to any interested party a licence of the PURE Contactless Reader Specification for the purpose of implementing contactless accepting devices.

4.2.2 Test plans

Test plans are edited in conjunction with the specification to validate the correct functional behaviour of implementation. No test plan can pretend to be complete so they should never be used as reference for an implementation. They are therefore proposed for license to Test and certification actors only for the mandatory purpose to implement test solutions.

4.3 Licensing conditions

The following table presents the standard terms developed by the license agreement depending on the license object. Parties interested in different terms may contact Gemalto for a dedicated license agreement; such type of license agreement is out of the scope of this document and not subject to conditions described in this section.

Object	Test plans	Specifications
Purpose	Test/evaluation tools/services	Contactless accepting devices
Restriction	'Test and certification actors' stakeholders only	-
Implement	✓	✓
Sell/Distribute	✓	✓
Use (products)	✓	✗
Modify	✗	✗
Rebrand	✗	✗
Sub-license	✗	✗
Test/Evaluate	✓	✗
Territory	World-Wide	World-Wide
Duration	Not limited	Not Limited
Cost	Not communicated	Free

No royalty scheme is applied on the products implemented on the PURE Contactless Reader specifications and test plans.

Test plans are proposed for a fee designed to cover the cost of development and maintenance of the test plans; this fee shall follow “FRAND” principles to avoid creating market distortion.

5 Governance

5.1 Governing structure

The PURE Contactless Reader specifications have been produced by Gemalto and proposed to several customers. Gemalto has made sure to keep all interested parties satisfied by the PURE market environment and by the evolutions of the specifications.

The following stems from this historical situation:

- Gemalto is currently the sole participant in the governing structure;
- Gemalto is the sole owner of the PURE Contactless Reader specifications.

In order to better take into consideration the variety of constraints and needs across the different stakeholders, Gemalto proposes to open the governance for shared participation.

Ownership of the PURE Contactless Reader specifications is not proposed for shared participation; in particular, Gemalto will remain the sole owner of the specifications and test plans regardless of evolutions initiated under the participation dispositions presented in this section.

5.2 Participation process

Participation to the evolution of the PURE Contactless Reader specifications is open to any interested party who can demonstrate a good faith interest in their evolution, maintenance and promotion.

An interested party who wants to see a particular performed on the PURE Contactless Reader specifications should contact Gemalto with an operational description of the required new or modified behaviour and evidences to demonstrate a commitment to deploy products including the proposed evolution, either in its own quality or through a sponsoring user of the PURE technology.

5.3 Decision making process

The maintenance of the PURE Contactless Reader specifications is a process which may be initiated by two different types of events to be managed in different ways:

- A major event (§5.3.1) is an evolution of the specifications with functional consequences.
- A minor event (§5.3.2) is an evolution of the specifications with no functional consequences.

Consequences are measured according to the functional impact of the specification update on conformant implementations. A minor event with non-functional consequences but that translate into notable effects on test tools implementations might also be considered as a major one.

5.3.1 Major event management

The decision to implement major events is either taken unilaterally by the specification owner when the evolution proposal is self initiated, or the result of a discussion between the specification owner, the evolution requestor and the evolution supporters when applicable.

The decision process will examine the following criterias:

- Compatibility with the current specifications, and in particular the possibility to address the request in a way that achievable interoperability with existing products.
- Support of at least one interested party with a license to use the specifications and an intention to use the proposed evolution.
- Financial agreement to support the cost of the evolution and, when applicable, propagation to essential certification processes and tools.

The cost of an evolution is determined by the complexity of the requirement and the need to carry propagation to the certification process and tools. For reference, daily rates shall not exceed

- 1500€ / day to cover specification redaction by specification owner
- 3500€ / day to cover for test plan redaction by specification owner and certification process update by certification body.
- 2500€ / day to cover for test tool update by at least one accredited laboratory, qualification of test tool by certification body and technical support to both by specification owner

This rates may be re-evaluated each year.

5.3.2 Minor event management

The decision to implement a minor event is taken spontaneously by the specification owner to ensure essential properties expected from the specifications such as interoperability with relevant PURE Technologies, reproductibility of tests or disambiguation of the specification interpretation.

5.4 Creation process

Once a major event has been agreed upon, or a minor event confirmed as such, the specification owner undertakes to update the specification.

The update candidate may be submitted to the requester, and optionally its supporter, technical expert in order to, and only to, confirm that the proposition meets the functional requirements of the requested evolution. In case of disagreement between the technical expert of the specification owner, the opinion of a third party from the test and certification actors is queried.

Once a major specification update has been validated by the stakeholders' technical experts and confirmed for publication by them, or when a minor specification update has been carried, the specification owner also undertakes to perform associated updates on the test plans and to coordinate the updates to be supported through the certification process when applicable

The specification and relevant test plans update are finalized and relevant stakeholders are notified of their availability. In the case of an evolution requested by an interested party, this shall not occur later than six month after agreeing to carry the evolution.

Propagation to the certification process may involved update of the certification procedures, of the testing tools and of the testing procedures. When agreed so with the evolution requestor and supporter(s), the specification owner will ensure that certification procedures are updated, and at least one test tool and test service are updated.

6 Maintenance

The maintenance of the PURE Contactless Reader specifications and test plans is a highly controlled process intended to help implementations to reflect the market needs. The decision to review of PURE may result from

- the introduction of new functionalities required by the market,
- the update of the former functionalities to take into consideration technology evolution,
- the improvement of performances,
- the improvement of the interoperability as a result of in-field experience,
- the need to correct mistakes and
- editorial improvement.

6.1 Evolution principles

Both the PURE Contactless Reader specifications and associated test plans are maintained and published in response to the following objectives:

- To ensure the functional interoperability with payment card and mobile payment applications implemented on the respective PURE Dual Interface Card and Mobile PURE specifications.
- To ensure a stable payment acceptance context, where a POI deployment is expected to remain operational for several years and in-field maintenance not always possible.
- To ensure an acceptance technology aligned with the payment experience evolutions. Especially, the PURE Contactless Reader specifications must ensure:
 - EMV compatibility
 - Regulatory compliance where applicable, including to the ECSG Volume Book of Requirements.

In any case:

- The new versions of the PURE Contactless Reader specifications shall support backward compatibility; and
- The test plan shall be simultaneously updated to verify the proper implementation of the new functionalities.

6.2 Release process

The release process starts with a trigger event and contains the following steps, described in the relevant section of this document:

- The Decision making process explains how a maintenance action is decided on the specifications and test plan.
- The Creation process described how the decided maintenance action is carried.

Any stakeholder may reach towards a member of the governing structure to generate a trigger event, in the form of a feature suggestion or clarification request.

A notable type of event is triggered by the certification committed of the certification body when a majority of seats reach a conclusion that diverges from the content of the PURE Contactless Reader specifications or test plan.

6.3 Versions management

As the conclusion of the release process, new versions of the PURE Contactless Reader specifications and/or test plans are published and notified to stakeholders. In absence of better channel, they are in any case advertised on the certification portal.

In addition, pursuant to their respective license, relevant documents may be spontaneously pushed to licensed stakeholders.

It is important to note that the object of the PURE Contactless Reader specifications is strictly to provide a technical environment. In particular, as Specification Provider, Gemalto – or the replacing association that may be – doesn't issue operational rules for the use of the technology:

- The specification provider expresses no mandate to use a specific version
- The specification provider expresses no sunset of version

Such prerogatives are indeed under the payment environment authority.

It is also important to note that according to the commitment to maintain backward compatibility as expressed in Evolution principles, provides the stakeholder with a non-compelling choice while still enabling new potential applications to be deployed.

7 Certification of implementations

7.1 PURE Contactless Reader test plans

The test plans are maintained in order to enable the validation of an implementation conformity to the specifications functional requirements. They are updated in conjunction with the specification to ensure that any change in the requirements is effectively reflected in the test coverage.

Because the scope of the PURE Contactless Reader specification is only the description of the functional behaviour expected to conduct a contactless payment transaction with a PURE payment device, the test plans are only addressing this level of testing. In particular, security or communication layers are not considered in the test coverage.

7.2 Certification Scheme

The certification scheme defines the procedures to certify a contactless payment accepting device based on PURE Contactless Reader specifications and maintain the certification environment.

For implementers submitting a product, it covers

- Prerequisite for certification
- Confidentiality conditions
- Procedural flow
- Service level agreement

For test laboratories, it covers

- Prerequisites for accreditation
- Confidentiality conditions
- Criteria for accreditation

The certification scheme is endorsed and operated by the certification body.

Public information about the certification scheme is accessible at www.pure-payments.com.

7.3 Certification Body

The certification body operates the certification scheme according to the requirements of and ISO 17065 accreditation, which it must possess.

While it is missioned to operate the certification scheme, it is important to note that it operates independently and deliver conformity certificate under its own name with operational sovereignty.

The role of the certification body is to present implement the certification process with impartiality. It possesses the relevant technical knowledge to assess this of the test laboratories and review the test results provided by accredited test laboratories.

Paycert SA is the active certification body, holding its ISO 17065 accreditation from COFRAC.

7.4 Test laboratories

Test laboratories conduct the functional testing of products submitted to certification according to the procedures mandated by the certification body and according to the requirements of an ISO 17025 accreditation, which may be required by the certification body, or whose conformance may be evaluated by the same.

The operational requirements include confidentiality, traceability of operations, as well as a relevant knowledge of work.

A test laboratory must commit to be accredited by the certification body to receive access to the test plans.

7.5 Test tool editors

Test tools editors are generally the test laboratories themselves but may also be independent entity. They implement test tools based on the PURE Contactless Reader test plans.

In order to uphold interoperability of the products and impartiality of the certification evaluation, equivalence must be found in the test tools. This is why test tools must be qualified against golden samples.

The golden sample for the PURE Contactless Reader test plans is a software implementation of the PURE Contactless Reader specifications maintained by the specification owner; qualification is conducted under the supervision of the certification body.

A test tool editor must commit to have his tool(s) qualified by the certification body to receive access to the test plans.

8 Annexes

8.1 Terms and Conditions

The following text is present in page 2 of the PURE Contactless Reader specifications:

Terms and Conditions of Use of the PURE contactless reader specifications for PURE Dual-interface card and Mobile PURE

Any information, product and related material disclosed in this PURE contactless reader Specifications for PURE Dual-interface card and Mobile PURE (hereafter referred to as the Documentation) are only furnished pursuant and subject to the following Terms and Conditions of Use.

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These Terms and Conditions of Use shall in no case be construed as granting you, whether expressly, impliedly or otherwise, any license, proprietary right, title or interest whatsoever with respect to the Documentation. In particular Gemalto does not grant any right to use the Kernel Specifications to develop contactless payment applications designed for use on a Card (or components of such applications). As used in these Terms and Conditions of Use, the term "Card" means a proximity integrated circuit card or other device containing an integrated circuit chip designed to facilitate contactless payment transactions. Additionally, a Card may include a contact interface and/or magnetic stripe used to facilitate payment transactions. To use the Specifications to develop contactless payment applications designed for use on a Card (or components of such applications), please contact Gemalto. To use the Specifications to develop or manufacture products, or in any other manner not provided in the Gemalto Terms and Conditions of Use, please contact Gemalto.

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You shall not remove, modify, or obscure any term, any copyright, trademark, patent or any other notices that appear on or in the Documentation and/or on or in the Documentation as delivered to you.

You shall not use any name or trademark confusingly similar to or undertake any other action that will interfere with or diminish Gemalto's right, title or interest in any of its technology or any other of its trademark(s) or trade name(s).

You shall promptly return or destroy the Confidential Information received upon Gemalto's request and shall retain no copies. You shall promptly notify Gemalto if you learn about any unauthorized use or disclosure of the Documentation.

8.2 License agreement

PURE Contactless Kernel - Licence Agreement - rev H Available on request.

8.3 Support to implementers

8.3.1 General contact

Entry point: pure-contact@gemalto.com

Any general enquiry about the PURE Contactless reader specification and test plans, or more generally the PURE technology for payments will be answered by the specification owner.

8.3.2 Technical support

Entry point: pure-support@gemalto.com

Complementary technical support is available to licensed implementers of the PURE Contactless Reader specifications. The support is provided through e-mail communication by a highly experienced team of consultants and is dedicated to address clarification or to solve any inconsistency found in the PURE Contactless Reader specifications.

This support is provided on voluntary basis and no warrantee is expressed.

8.3.3 Certification contact

Entry point: certification@pure-payments.com

Web site: www.pure-payments.com

Any enquiry about the certification of PURE Contactless Reader implementations will be answered by the certification body. A lot of information is also available on the certification website.

8.3.4 Dedicated training

Entry point: pure-contact@gemalto.com

Subject to commercial conditions, the specification owner may provide a dedicated technical training by consultants having a direct involvement in the specification maintenance.

End of the document