Date: September 29, 2016

Jeongah Kim

Samsung Electronics Co., Ltd
1-1, Samsungjeonja-ro
Gyeonggi-Do
Hwaseong-si 445-330
KOREA, REPUBLIC OF

Re: ***EMVCo Letter of Approval – EMV Contactless Level 1 Mobile Product***

Approval Number:	**MTA_LOA_SAEL_00484**
Approval Date:	**September 29, 2016**
EMVCo Website Publication Date:	**September 30, 2016**
Approval Expiration Date:	**June 22, 2019**

Product Provider Name:	Samsung Electronics Co., Ltd
Registration Number:	SAEL.V 14 0068
Product Name:	SM-N930T
Product Version:	V4
Type Allocation Code (TAC) for testing sample:	35959107
Type Allocation Code (TAC) for production[1]:	35959107
Implementation Conformance Statement:	MTA_ICS_SAEL_00484_46
EMV Specification:	Version 2.5
EMV Specification Bulletins:	N/A
Contactless Level 1 Analog Test Cases:	Version 2.5a
Contactless Level 1 Digital Test Cases:	Version 2.5a
Contactless Level 1 Performance Test Cases:	Version 1.0
Contactless Level 1 Interoperability Test Requirements:	Version 1.0
Contactless Level 1 Test Cases Bulletins:	N/A

[1] The value of the TAC for production is for information purposes only. Only the TAC value of the testing sample is checked by EMVCo.

Contactless Communication Protocol:	☒ Type A ☒ Type B
Execution Environment:	☒ UICC[2] ☐ eSE ☒ HCE
Mobile Product Operating System Name and Version:	Android Version 6.0
NFC Controller Name and Version:	PN551 Version N/A
NFC Controller Firmware Name and Version:	N/A Version FW10.03.09

[2] The product was tested with a UICC provided by EMVCo. EMVCo does not guarantee that the product will function with other UICCs or in combination with other products.

Dear Jeongah Kim,

EMVCo, LLC ("EMVCo"), a Delaware limited liability company, has received your request for EMV contactless Level 1 mobile product approval for the above referenced product. In connection with your Request for Approval dated September 9, 2016 attached hereto as Attachment B, we have reviewed all reports submitted.

As a result, EMVCo has found reasonable evidence that the submitted samples passed EMVCo applicable analog and digital tests covering Book D – EMV Contactless Communication Protocol Specification and other EMVCo requirements.

For a more detailed listing of the features supported by the product please review the Implementation Conformance Statement attached hereto as Attachment C.

EMVCo hereby (a) grants your EMVCo mobile type approval, based on the requirements stated in Book D – EMV Contactless Communication Protocol Specification and other EMVCo requirements, and (b) agrees to include your EMV mobile product in EMVCo's list of approved products. EMVCo mobile type approval does not extend to portions or components of a card or application that are not defined by Book D – EMV Contactless Communication Protocol Specification. EMVCo's grant to your EMV mobile product is subject to and specifically incorporates (i) the General Terms and Conditions to the Letter of Approval enclosed as Exhibit A, and (ii) the Specific Terms and Conditions to the Letter of Approval attached hereto as Attachment A. Because EMVCo's grant is subject to such limitations, including certain events of termination, you and any third parties should confirm that such approval is current and has not been terminated by referring to the EMVCo list of approved products.

This Letter of Approval generally applies to the product only as tested. It can continue to apply to the product if it undergoes a minor change, as described in the Administrative Process document. If the product undergoes more than one minor change, or undergoes a change that is not categorized as a minor change, you must provide notice to EMVCo briefly describing such change(s) at least thirty (30) days prior to implementation of the applicable change. EMVCo may revoke this Letter of Approval if it no longer applies to the product, in which case additional testing would be required to reissue a Letter of Approval for the product

In addition, this Letter of Approval may be revoked at any time by EMVCo upon notice.

This product will appear in the public list of approved products on or after the EMVCo Website Publication Date indicated above, as required by you in your “Request for Approval (and Request for Publication)”. If the date changes, it is the product provider’s responsibility to promptly notify EMVCo CAWG Secretariat as early as possible before the EMVCo Website Publication Date.

This Letter of Approval is valid while the approval number is posted on the EMVCo website.

EMVCo, LLC

By: Fojtik, Keith

Digitally signed by Fojtik, Keith
Date: 2016.10.04 11:24:03 -07'00'

Name: Keith Fojtik

Title: EMVCo Card & Mobile Type Approval

Exhibit A
General Terms and Conditions to Letter of Approval

A.1 Incorporation by Reference of the Contract For EMVCo Mobile Type Approval

The Letter of Approval issued by EMVCo, together with any attachments thereto and these General Terms and Conditions to the Letter of Approval (the "General Terms and Conditions"), (collectively, the "Letter of Approval ") incorporates by reference all terms of that certain EMVCo Mobile Type Approval Contract ("Contract") between you ("Provider") and EMVCo, including, but not limited to, definitions, restrictions on assignment, applicability to successors and assigns, choice of law, choice of venue, prevailing party award of attorneys' fees, and notices. In addition, all terms that survive termination under Section 13.3 of the Contract shall also survive termination of the Letter of Approval. To the extent that the terms of the Letter of Approval conflict with the terms of the Contract, the terms of the Letter of Approval shall prevail.

A.2 Term

The Letter of Approval is effective upon dispatch from EMVCo, and is subject to the expiration date noted on the Letter of Approval and the termination provisions contained in these General Terms and Conditions and in the Contract (the "Term").

A.3 Permitted Publicity Regarding Approval

A.3.1 EMVCo Publication of List of Products

Provider hereby expressly agrees that EMVCo may publish the identification of the approved Product and Provider's contact information in a publicly available list to be maintained by EMVCo. Provider, at its sole expense, shall provide any information necessary to ensure that all such information provided to EMVCo is accurate. In the event the Letter of Approval is terminated, EMVCo will immediately have the right to remove the Product and/or Provider's contact information from such publicly available list.

A.3.2 Provider's Representations Regarding Product

EMVCo hereby grants Provider a limited permission to represent that its Product is EMVCo-approved in its publicity or with documentation accompanying each such Product. Such permission is subject to Provider's strict compliance with the terms of this Section A.3.2, as such compliance is judged by EMVCo in its sole discretion. In the event the Provider's publicity or documentation does not comply with the terms of this Section A.3.2, in the sole judgment of EMVCo, the limited permission granted herein may be immediately revoked by EMVCo, and Provider, at its sole cost, shall correct, recall and/or destroy all such communications as directed by EMVCo. Any publicity or documentation from Provider stating that its Product is "EMVCo Type Approved" may be made and distributed, provided that:

(a) the complete and correct identification of the Product is clearly stated;

(b) the Product has been approved by all regulatory authorities, when such an approval is required by applicable law or regulation;

(c) the Provider verifies on an ongoing basis that all individual Products are and will be in conformance with the EMV Specifications, and with the Product samples upon which EMVCo granted the Letter of Approval;

(d) the Product produced by the Provider or its suppliers or agents are materially identical to the Product samples that were submitted and tested;

(e) all written communications referring to EMVCo type approval shall contain the following legend:

"EMVCo type approval of the contactless proximity communication performed by this mobile

product (Product) shall mean only that the Product has been tested in accordance and for sufficient conformance with the EMV Specifications, as of the date of testing. EMVCo type approval is not in any way an endorsement or warranty regarding the completeness of the approval process or the functionality, quality or performance of any particular product or service. EMVCo does not warrant any products or services provided by third parties, including, but not limited to, the producer or provider of the Product and EMVCo approval does not under any circumstances include or imply any product warranties from EMVCo, including, without limitation, any implied warranties of **merchantability, fitness for purpose,** or **non-infringement**, all of which are expressly disclaimed by EMVCo. All rights and remedies regarding products and services which have received EMVCo type approval shall be provided by the party providing such products or services, and not by EMVCo and EMVCo accepts no liability whatsoever in connection therewith."; and

(f) the Provider's use of EMVCo's trade name, trademarks, service marks, logos, designs or other indicia of origin strictly complies with Section A.4.5 below.

Such permission shall immediately terminate upon the termination or revocation of the Letter of Approval for any reason. Provider shall refrain from any misleading advertisement and shall advise its clients and customers against making misleading statements concerning the approved status of the Product. For the purpose of this clause, a misleading advertisement shall include any statement that may lead a client or customer to believe that the scope of Product type approval is broader than stated in the Letter of Approval or is for a Product that has yet to be approved by EMVCo. Provider shall not make any other statements, disclosures, or representations regarding the approval of the Product except as expressly provided by the Letter of Approval.

A.3.3 Representations by Provider's Clients and Customers

Provider may permit its clients and customers to make the same statements and representations the Provider is authorized to make under the Letter of Approval if and only if Provider takes reasonable steps to insure that such clients and customers adhere to the terms of the Letter of Approval.

A.3.4 Requirements Upon Termination

If the Letter of Approval is terminated for any reason, (i) Provider shall immediately cease any publicity or advertising regarding the type approval permitted under this Section A.3, and (ii) Provider shall take reasonable steps to insure that its clients and customers cease publicity not in conformance with the Letter of Approval.

A.4 Provider's Ongoing Requirements

A.4.1 Ongoing Compliance; Certified Quality System

During the Term of the Letter of Approval, Provider shall ensure that (i) all Products are produced (A) so that they are materially identical to the Product samples upon which EMVCo granted the Letter of Approval and (B) in conformance with the EMV Specifications, and (ii) such Products remain in conformity after installation and maintenance. Any change in the Product will be subject to a requirement of a new type approval, as stated in Section 6.5 of the Contract.

A.4.2 Change Control

Provider shall keep a record of all changes to the Product, and shall implement an identification system to properly identify all changes with version numbers or any equivalent method. Provider shall maintain records to trace Products to specific versions.

A.4.3 Recordkeeping Requirements

A.4.3.1 Generally

Provider shall record, keep, and maintain all records necessary to demonstrate compliance with Section A.4.1 above, and shall require any agents who are involved in the manufacturing of any products to also record, keep, and maintain such records.

A.4.3.2 Complaint Records

Provider and its agents shall record, keep, and maintain records relating to any complaint made by any third party with respect to the Product. These records shall show clearly and in reasonable detail what problem was encountered and any corrective action undertaken.

A.4.3.3 Other Recordkeeping Requirements

All records made in application of the Letter of Approval, including, but not limited to the Contract, shall be kept and maintained by Provider.

A.4.3.4 Length of Retention of Records; Availability

All records specified in the Letter of Approval shall be maintained for a period of three (3) years following the termination of the Letter of Approval, and shall be available to EMVCo and auditors conducting an audit pursuant to Section A.5.2 below during normal business hours.

A.4.4 Change of Name

Provider shall inform EMVCo promptly in writing of any change in its name, address, the commercial brand name of an approved Product.

A.4.5 Trademark Usage

Provider shall only use EMVCo's trade name, trademarks, service marks, logos, designs or other indicia of origin in strict compliance with EMVCo's trademarks guidelines and usage policies published on the EMVCo website (www.emvco.com), as such may be amended from time to time.

A.5 Monitoring by EMVCo

A.5.1 Product Monitoring by EMVCo

EMVCo retains the right, in its sole discretion, to retest and perform additional tests on the Product as described in Sections 2.5 and 2.6 of the Contract, in which case the Provider shall supply the needed samples free of charge if not already available and functioning within the Laboratory's premises, and shall pay the Laboratory (in advance when requested by EMVCo) all expenses related to such testing. EMVCo may choose the samples for such retesting. The Provider may not claim or be entitled to receive compensation for any extra costs incurred as a result of such testing and retesting.

A.5.2 Audits

Upon thirty (30) days' prior written notice to the Provider, EMVCo may conduct an audit of the Provider's records and books of account (or records and books of other entities that are producing, installing, or maintaining Products) for the purpose of reviewing (i) the Provider's recordkeeping procedures with respect to customer complaints, (ii) complaints regarding the Product, (iii) the Provider's conformity with the requirements of Section A.4.1 above, (iv) the Provider's records with respect to any changes to the Product, and (v) any other records or documents required to be maintained under the Letter of Approval or the Contract. Any such audit shall be conducted (a) in a manner that will not unreasonably interfere with Provider's operations, and (b) by an independent certified public accounting firm that executed a nondisclosure agreement with the Provider to protect the confidentiality of Provider's records and other information. EMVCo may conduct an audit under this Section A.5.2 no more than once during any six (6) month period. EMVCo shall pay the auditor's fees for such audit; provided, however, that if any audit reveals the Provider is not complying with the terms of the Letter of Approval, the Provider shall promptly reimburse EMVCo for all reasonable expenses incurred to conduct the audit.

A.6 Provider's Representations and Warranties

By accepting the Letter of Approval, the Provider represents and warrants that

(a) Provider possesses full power and authority to perform its obligations hereunder;

(b) The Product has been approved by relevant governmental and regulatory authorities, if such approval is required by applicable law; and

(c) Production of the Products will conform with EMV Specifications and will be materially identical to the Products samples that were submitted and analyzed to generate the Test Results.

A.7 Termination of Approval

A.7.1 Grounds for Termination

EMVCo may terminate the Letter of Approval (i) if (A) the Provider does not abide by the terms of the Letter of Approval or the Provider's manufacturers, distributors, suppliers or agents take any action which, if taken by the Provider, would constitute a breach of the terms of the Letter of Approval, as judged by EMVCo in its sole discretion, (B) the Provider does not perform effective corrective actions within five (5) business days after notice from EMVCo, or (C) if EMVCo otherwise elects to terminate the Letter of Approval, in EMVCo's sole discretion; or (ii) if the Contract is terminated, in which case termination of the Letter of Approval will occur simultaneously with the termination of the Contract. The Provider may immediately terminate the Letter of Approval by giving written notice to EMVCo. If the Letter of Approval is terminated, the Provider must reapply for a type approval of its Product as provided in Section A.8 below.

A.7.2 Effect of Termination on Contract

The termination of the Letter of Approval shall not terminate the Contract unless (i) EMVCo terminates the Contract under its terms, or (ii) the Provider terminates the Contract under its terms.

A.7.3 Survival

The rights and obligations contained in Sections A.3, A.4, A.6, A.7.3, A.8, A.9, and A.10 shall survive termination of the Letter of Approval.

A.8 Application renewal Following Termination

Before the Letter of Approval is terminated by EMVCo, the Provider may apply to EMVCo for a renewal of the type approval of its Product. Such application will be reviewed by EMVCo only if the Provider satisfies the requirements of the Contract and the Approval Process documents.

If the Provider applies for a renewal of the type approval, EMVCo retains the right, in its sole discretion, to change these General Terms and Conditions and any specific terms and conditions if EMVCo issues a new Letter of Approval.

A.9 Assignment

The Letter of Approval may be assigned by the Provider upon the Provider's merger, consolidation, reorganization, reincorporation, dissolution or sale of all or substantially all of its assets only if the Provider's proposed assignee agrees, in writing, to be bound by the Letter of Approval and the Contract. Except as stated herein, the Letter of Approval may not be assigned by the Provider without the prior written approval of EMVCo, which approval may be withheld for any reason. No consent to or notice of assignment is required in the case of EMVCo's merger, consolidation, reorganization, reincorporation, dissolution or sale of all or substantially all of its assets. EMVCo may freely assign the Letter of Approval for any reason.

Attachment A
Specific Terms and Conditions to Letter of Approval

During testing, the following issues were identified. Restrictions identified must be disclosed to customers (issuers or other product providers to whom the Product Provider intends to sell the product).

Restrictions, if any:

Comments, if any:

HCE Execution environment has been tested with kernels C2, C3, C4

Attachment B
Request for Approval

EMVCo	***Mobile Product Level 1 Request for Approval (and Request for Publication)***

Date: [09/09/2016]

EMVCo Card Type Approval Secretariat
Email: card-approval@emvco.com

RE: Request for Approval– Mobile Product Level 1

Product Provider Name:	SAMSUNG ELECTRONICS Co., LTD.
Product Provider Registration:	SAEL.V 14 0068
Mobile product Commercial Name:	GALAXY NOTE 7
Mobile product Technical name:	SM-N930T
Mobile product Technical version:	V4
Type of Request	☐ **New Product** ☐ **Changed Product** ☒ **Derivative Product**
Implementation Conformance Statement:	MTA_ICS_SAEL_00484_46
Level 1 Evaluation Laboratory:	ICTK Co., Ltd.
Level 1 Test Report:	SAEL-EMT16025-ICT_V1.1
Request for Publication of the Letter of Approval	☒ **Yes** - the 'Mobile product Commercial Name' field must be filled ☐ **No** - the 'Mobile product Commercial Name' field may be empty - the Letter of Approval will be a provisional letter until the date that the Mobile Product Provider requests the Publication
If answer to previous question is Yes, the Product Provider may request to make the final Letter of Approval public from:	30/09/2016

If answer to previous question is Yes and a provisional Letter of Approval was already issued only the commercial name can be updated.

[Please complete and agree with the following terms]

☐ I hereby declare that no changes have been made to the referenced Mobile Product approved under Approval Number [insert the Approval Number as provided in provisional Letter of Approval]

I respectfully request an approval for Contactless Level 1 for the referenced Mobile Product. All documentation required for assessment by EMVCo, as described in the "EMVCo Mobile Product Level 1 Type Approval Administrative Process" is referenced above.

[Please select one of the following two sentences:]

☒ I hereby declare that the referenced Mobile Product currently conforms to the EMV specifications described in the referenced Implementation Conformance Statement without exception.

[OR]

☐ I hereby declare that the referenced Mobile Product currently conforms to the EMV specifications described in the referenced Implementation Conformance Statement with the exception of those items specifically identified in the attached documentation, which includes an impact analysis of the non-conformance.

I understand that EMVCo will not issue a Letter of Approval until all reports have been received and accepted.

Sincerely,

[Dongmin Yoo]
[Senior Engineer]
[SAMSUNG ELECTRONICS Co., LTD.]

Attachment C
Implementation Conformance Statement

EMVCo	***EMVCo Mobile Product Level 1 Implementation Conformance Statement Version 2.5b***

ICS Reference Number and Validity Period **(for EMVCo administrative use only)**	
ICS Reference Number:	**MTA_ICS_SAEL_00484_46**
Valid from:	**Sep 8, 2016**
Valid to:	**Dec 8, 2016**

Notice: ***This ICS form shall be completed for mobile products submitted for Level 1 evaluation. The form shall be completed in its entirety. All Yes and No questions shall be answered. If a feature/option is NOT supported, i.e. a question is answered "No," the sub-questions for that feature/question shall be left blank.***

A - Administrative	
Product Provider Identification	
A.1.1 – Company Legal Name: (As listed on the Letter of Registration)	SAMSUNG ELECTRONICS Co., Ltd.
A.1.2 – EMVCo Registration Number:	SAEL.V 14 0068

ICS Version Number	
A.2.1 – Is this ICS an update to a previously accepted ICS?	☐ Yes ☒ No
A.2.2 – If Yes. Please provide the reference number of the previously accepted ICS	
A.2.3 – If Yes, Please provide the reason for updating the ICS	

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Mobile product Specification References					
	Name	**Version Number**	**Release Date**	**Released by**	**Audit Report Tracking Number**
A.3.1 – EMV Contactless Specification	EMV Contactless Specifications for Payment Systems – Book D - EMV Contactless Protocol Specification	2.5	Mar. 2015		
A.3.2 – EMV Bulletins (list all applicable)					

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Mobile product Descriptions	
A.4.1 – Mobile product Commercial Name (optional – may be left blank)	Galaxy Note 7
A.4.2 – Mobile product Technical name	SM-N930T
A.4.3 – Mobile product Type Allocation Code (TAC) *Note: TAC is the initial 8 digits portion of the IMEI. If the TAC for production is not known before the test session its value may be left empty but <u>it must be provided in an updated ICS before the issuance of the Letter of Approval</u>.*	TAC for testing sample: 35959107 TAC for production: 35959107
A.4.4 – Mobile product Technical version *Note: The technical version shall be unique across all identical mobile product technical name*	V4
A.4.5 – Mobile product submitted for:	☐ Test Assessment Summary or ☒ Letter of Approval
A.4.6 – Execution Environment (EE) submitted:	☒ UICC ☐ eSE ☒ HCE
A.4.7 – Is this mobile product based off of a previously approved mobile product?	☒ Yes ☐ No
A.4.7.1 – If yes, please provide the EMVCo reference number of the previously approved mobile product	MTA_ICS_SAEL_00396_38
A.4.8 – Target Market/Operator (optional – may be left blank)	North America
A.4.9 – Mobile product Operating System (OS) name	Android
A.4.10 – Mobile product Operating System (OS) version	6.0
A.4.11 – Details of API supported by the mobile product for wallet deployment/development (e.g. JAVA, native etc.)	JAVA
A.4.12 – NFC Controller Provider Name	NXP Semiconductors
A.4.13 – NFC Controller Name	PN551
A.4.14 – NFC Controller version number	N/A
A.4.15 – NFC Controller firmware name	N/A
A.4.16 – NFC Controller firmware version number	FW10.03.09

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A.4.17 – Contactless eSE available?		☐ Yes ☒ No
	A.4.17.1 – Contactless eSE Provider Name	
	A.4.17.2 – Contactless eSE Name	
	A.4.17.3 – Contactless eSE version number	
	A.4.17.4 – Contactless eSE firmware name	
	A.4.17.5 – Contactless eSE firmware version number	
A.4.18 – UICC Form Factor		Plug-In UICC ☐ (standard) Mini UICC ☐ (micro) 4FF UICC ☒ (nano)
A.4.19 – Supports which EMV CL technologies		Type A ☒ Type B ☒
A.4.20 – Are other proprietary contactless technologies supported?		☒ Yes ☐ No
	A.4.20.1 – If yes, what other proprietary technologies are supported (e.g. Felica, ISO 15693, ISO 18092, Innovatron, etc.)?	ISO 18092, FeliCa CLT and MIFARE CLT as defined by ETSI/SCP SWP/HCI
	A.4.20.2 – Can the other proprietary technologies be disabled?	☐ Yes ☒ No
	A.4.20.3 – If yes, please indicate how they can be enabled/disabled? *Note: During testing, all ContactLess functionalities of the DUT shall be enabled (e.g. NFC-F, P2P, R/W Mode etc.).*	N/A
A.4.21 – SWP Spec Version Supported (ETSI TS 102.613)		9.3.0
A.4.22 – HCI Spec Version Supported (ETSI TS 102.622 – e.g. 11.01.00)		9.4.0
A.4.23 – Does the mobile product support Host Card Emulation (HCE)?		☒ Yes ☐ No
If yes, does the mobile product ever perform transaction in type A when used with an EEUT requesting type B only?		☐ Yes ☒ No
If yes, • please explain circumstances when it does and does not occur.		N/A
• Would any Type A parameter change. Please explain.		N/A
Note: For HCE enabled devices, the test AID "2PAY.SYS.DDF01" shall be routed to the execution environment Under Test. Please, explain how the routing for this AID to the UICC is done?		Using the RF_SET_LISTEN_MODE_ROUTING_CMD

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Please, explain how the routing for this AID to the eSE is done? Please, explain how the routing for this AID to the HCE is done?	NCI command adding the AID of this application in the routing table for the UICC. N/A Using the RF_SET_LISTEN_MODE_ROUTING_CMD NCI command adding the AID of this application in the routing table for the HCE.
A.4.24 – Middleware/CLF driver software name (in mobile product)	NFC_NCIHALx_
A.4.25 – Middleware/CLF driver software version (in mobile product)	AR30_4.5.0_M
A.4.26 – What is the default EE (Execution Environment)?	HOST
A.4.27 – How is the default EE determined?	By AID routing table
A.4.28 – What is the technology route setting on the device for each ISO/IEC 14443 protocol type supported	Type A: SWP UICC Type B: SWP UICC
A.4.29 – How is the technology route defined for each ISO/IEC 14443 protocol type supported	Type A: SWP UICC Type B: SWP UICC
A.4.30 – Does the mobile product support payment in Low Power Mode? If yes, does Low Power Mode affect the analogue and/or digital parameters? If the analogue and/or digital parameters are affected by the Low Power Mode, please, state which parameters and their values:	☒ Yes ☐ No ☒ Yes ☐ No The values at the Low power mode tab in the configuration file
Mobile product description with UICC for payment application	
A.5.1 – Does the mobile product support UICC for payment application?	☒ Yes ☐ No
If Yes, fill in sections L1A.2 and L1D.1 to L1D.2	
A.5.1.1 – If the mobile product supports UICC for payment application but is not ready for testing when the UICC has been inserted, please describe how the mobile product shall be prepared for Mobile Testing.	Select UICC application as default payment app in Setting menu, change routing setting to UICC using samsung keystring app.
A.5.1.2 – For device supporting SWP + HCE and SWP UICC is inserted, where are the protocol parameters to be used for EMV transactions defined?	Type A: SWP UICC Type B: SWP UICC
A.5.1.3 – If the mobile product supports eSE and UICC, please describe how to ensure that no application is activated in the eSE:	

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Mobile product description with eSE for payment application			
A.6.1 – Does the mobile product support eSE for payment application?			☐ Yes ☒ No
If Yes, fill in sections L1A.3 and L1D.3			
	A.6.1.1 – If the mobile product supports eSE for payment application, please describe how the mobile product shall be prepared for Mobile Testing (activate the test application):		
	A.6.1.2 – If the mobile product supports eSE for payment application, does the mobile product permit to change its contactless configuration?		☐ Yes ☐ No
	A.6.1.3 – If the mobile product supports eSE for payment application and if the mobile product permits to change its contactless configuration, please describe how to change the test profile:		
	A.6.1.4 – For device supporting eSE + HCE only, where are the protocol parameters to be used for EMV transaction defined?		Type A: Type B:
	A.6.1.5 – For device supporting eSE + HCE + SWP, where are the protocol parameters to be used for EMV transaction defined if:		
		A.6.1.5.1 – SWP UICC is inserted + eSE enabled + HCE	Type A: Type B:
		A.6.1.5.2 – Standard (non-SWP) UICC is inserted + eSE enabled + HCE	Type A: Type B:

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Level 1 Analogue Characteristics		
L1A.1 – Sample information		
	L1A.1.1 – Please give any unambiguous information on how the Top side of the device is defined. *E.g.: the top is the side with the power switch.*	The top is the side with the receiver holes
L1A.2 – Sample information with UICC as EE (Execution Environment)		
	L1A.2.1 – EMV Contactless protocol type(s) supported?	☒ A ☒ B
	L1A.2.2 – If both EMV Contactless protocol types are supported, please explain the mechanism implemented to ensure that the mobile product replies to a single Wake-up command during polling:	Once one of the technology is seen the NFC controller is not answering the other technology comand until there is a RF reset.
L1A.3 – Sample information with eSE as EE (Execution Environment)		
	L1A.3.1 – EMV Contactless protocol type(s) supported?	☐ A ☐ B
	L1A.3.2 – If both EMV Contactless protocol types are supported, please explain the mechanism implemented to ensure that the mobile product replies to a single Wake-up command during polling:	
L1A.4 – Sample information with HCE as EE (Execution Environment)		
	L1A.4.1 – EMV Contactless protocol type(s) supported?	☒ A ☒ B
	L1A.4.2 – If both EMV Contactless protocol types are supported, please explain the mechanism implemented to ensure that the mobile product replies to a single Wake-up command during polling:	Once one of the technology is seen the NFC controller is not answering the other technology command until there is a RF reset.
L1A.5 – Power supply		
	L1A.5.1 – Type of power supply?	☐ Powered by the PCD field ☒ Self-powered
	L1A.5.1.1 – If self-powered, value of the nominal voltage of the battery:	3.85V
L1A.6 – Antenna		
	L1A.6.1 – Name	WBR6T09RC301
	L1A.6.2 – Version	0.6
	L1A.6.3 – Proximity Antenna Provider Name	Samsung Electro-Mechanics
	L1A.6.4 – Proximity Antenna location in mobile product (e.g. battery, back cover etc…)	Attached between battery and back cover
	L1A.6.5 – Format, size and number of turns of the mobile product antenna. Flexible Printed Circuit Board Type, 60.65 X 103.96, 4 Turn	

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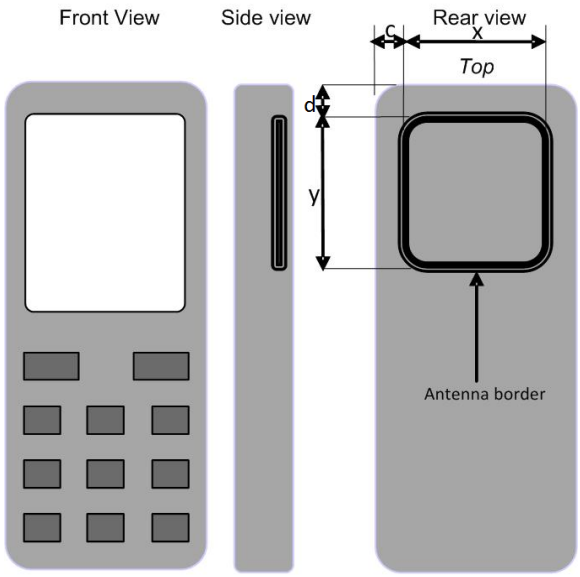
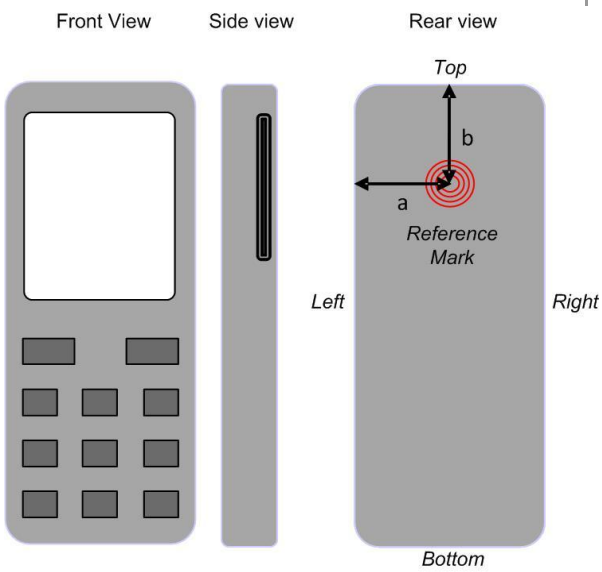
	L1A.6.6a – Does the antenna design include ferrite component?	☐ Yes ☒ No
	L1A.6.6b – If yes, provide description including ferrite part number:	N/A
	L1A.6.6c – If yes, provide the name of the ferrite manufacturer:	N/A
	L1A.6.6d – If yes, provide the ferrite serial number:	N/A
	L1A.6.6e – If yes, provide the ferrite size:	N/A
	L1A.6.6f – If yes, provide the ferrite positioning from the antenna:	N/A
	L1A.6.7 – Please complete the measurements (in mm) for the antenna size and location as show in the example diagram	c = 7.0 d = 8.5 x = 60.65 y = 103.96 
	L1A.6.8 - Please complete the measurements (in mm) for the antenna optimum performance point as shown in the example diagram a: Distance from rear Left side to Reference Mark b: Distance from rear Top side to Reference Mark	a = 36.5 b = 86.0 
L1A.7 – Resonant frequency		
	L1A.7.1 – Resonant frequency of the antenna:	13.56 MHz

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L1A.8 – Analogue parameters			
	L1A.8.1 – Does your product support active modulation?		☒ Yes ☐ No
	L1A.8.2 – Does your product support passive modulation?		☐ Yes ☒ No
	L1A.8.3 – Does the device always use the same analogue parameters for EMV Transactions regardless of AID routing?		☒ Yes ☐ No
		L1A.8.3.1 – If no, please explain what can cause the analogue parameters used by the device in the field to change?	

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Level 1 Digital Characteristics with UICC for payment application				
L1D.1 – Types of UICCs supported				
	L1D.1.1 – Does the mobile product support UICCs requesting random UID? *Note: the mobile product may support UICCs requesting random UIDs and have a fixed UID.*			☒ Yes ☐ No
	L1D.1.2 – Does the mobile product support UICCs requesting random PUPI? *Note: the mobile product may support UICCs requesting random PUPIs and have a fixed PUPI*			☒ Yes ☐ No
L1D.2 – RF configuration				
	L1D.2.1 – Can the UICC have an impact on the RF configuration of the mobile product?			☒ Yes ☐ No
		L1D.2.1.1 – If no, does the mobile product support only specific protocol configurations i.e. is the RF protocol configuration limited by the mobile itself?		☐ Yes ☐ No
			L1D.2.1.1.1 – If yes, indicate the number of configurations *Note: as indicated in EMVCo mobile product L1 administrative process, document the configurations in appendix*	

Level 1 Digital Characteristics with eSE for payment application			
L1D.3 – RF configuration			
	L1D.3.1 – Does the mobile product support only specific protocol configurations i.e. is the RF protocol configuration limited by the mobile itself?		☐ Yes ☐ No
		L1D.3.1.1 – If yes, indicate the number of configurations *Note: as indicate in EMVCo mobile product L1 administrative process, document the configurations with an appendix*	

Level 1 Digital Characteristics with HCE for payment application			
L1D.4 – RF configuration			
	L1D.4.1 – Does the mobile product support only specific protocol configurations i.e. is the RF protocol configuration limited by the mobile itself?		☐ Yes ☒ No
		L1D.4.1.1 – If yes, indicate the number of configurations *Note: as indicate in EMVCo mobile product L1 administrative process, document the configurations with an appendix*	

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Level 1 Laboratory Identification (Section to be completed by the Lab)	
Company Name:	ICTK Co., Ltd.
EMVCo Registration Number:	ICTK.L 13 0023
ICS Reviewer's Name:	Bongjae Jin
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Email Address:	bjjin@ictk.com
Signature:	Bongjae Jin
Date:	2016-09-08
Comments	

I hereby declare that the above referenced mobile product currently is and will remain in compliance with the above referenced EMV specifications for all mandatory and supported optional requirements.	
Product Provider's Authorized Representative's Name:	Dongmin Yoo
Title:	Senior Engineer
Signature:	Dongmin Yoo
Date:	2016-09-08

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Appendix A Information on Specific RF configurations

In case the Mobile Product supports only specific protocol configurations, provide the list of the identifiers of the specific protocol configuration in the following table.

Specific protocol configurations identifiers	
For UICC for payment application	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
For eSE for payment application	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No

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	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
For HCE for payment application	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No
	Identifier Type A support ☐ Yes ☐ No Type B support ☐ Yes ☐ No

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