April 16, 2026

fenghua Liang
Shenzhen Yihua Computer Co.,Ltd.
26F, Yihua Financial Technology Building
No.3939, Baishi Road
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Shenzhen 518000
China

Re: ***EMVCo Letter of Approval - Contact Terminal Level 2***

EMV Application Kernel: **COLS Version 12.0**

Approval Number(s): **2-05752-1-1S-0426-4.4c**
2-05752-1-1P-0426-4.4c
2-05752-1-1OS-0426-4.4c

The EMV Application Kernel has been tested on the following terminal

Terminal: **STS-320**
PinPad: **1P = SE8098D, WOSAPIN,F35-10**
Operating System: **1OS = UOS 20 64 bits Version 1043**

Renewal Date: **06-Mar-2030**

Report ID Session 1: **TEMV260R91T Version V1.0 - Beijing Unionpay Card Technology Co., Ltd.**

Kernel Checksum:

B42EA8F2D7FB312165F5622B71D9F476

Configuration Checksum:

Config	Vendor Config ID	Terminal	Checksum
1S		14	FDD9BCECE5538EF2E640D55D24E65718

PIN Pads Checksums:

PinPad	Checksum
1P	

Dear fenghua Liang:

EMVCo, LLC ("EMVCo"), a Delaware limited liability company, has received your request for Level 2 terminal type approval for the EMV Application Kernel identified above (hereafter refered to as the "Application"). In connection with your request, we have reviewed all test file number(s) listed above.

After assessing such file(s), EMVCo has found reasonable evidence that the submitted samples of the above referenced Application sufficiently conform to EMV Integrated Circuit Card Specifications for Payment Systems, Version 4.4 of October 2022.

EMVCo hereby grants your Application EMVCo Type Approval for Terminal Level 2, based on the requirements stated in the EMV 4.4 Specifications. Please note that EMVCo may publish this letter and publicly identify your Application as an approved Application, including in EMVCo's published list of approved Applications.

EMVCo's grant to your Application 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 1. 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 list of approved Applications published on the EMVCo website (www.emvco.com).

Please note that EMVCo makes certain logos available for use in connection with an Application that has received EMVCo approval. To obtain permission to use the "EMV Approved" certification mark, please contact EMVCo to request a license agreement.

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

Authorised by Frédéric Fortin
Terminal Testing Group Chair
EMVCo, LLC

Note:

The Random Number Generator is part of the EMV specifications. This Contact Level 2 Kernel utilizes a specific Hardware component in the tested terminal to generate random numbers. To be EMV compliant, this Contact Level 2 Kernel shall be used in conjunction with terminals having this specific hardware component.

Terminal Capabilities	Value Supported
Card Data Input Capability	
Manual Key Entry	No
Magnetic Stripe	Yes
IC with Contacts	Yes
CVM Capability	
Plaintext PIN for ICC Verification	No
Enciphered PIN for online Verification	Yes
Signature (Paper)	No
Enciphered PIN for offline Verification (RSA ODE)	No
No CVM Required	Yes
Enciphered PIN for offline Verification (ECC ODE)	No
Biometric	No
Offline Finger	No
Online Finger	No
Offline Facial	No
Online Facial	No
Offline Palm	No
Online Palm	No
Offline Iris	No
Online Iris	No
Offline Voice	No
Online Voice	No
Security Capability	
Static Data Authentication and Dynamic Data Authentication	Yes
Card Capture	Yes
Combined Dynamic Data Authentication / Application Cryptogram Generation	No
Extended Data Authentication (XDA)	No
Transaction Type Capability	
Cash	Yes
Goods	No
Services	No
Cash Back	No
Inquiry	Yes
Transfer	Yes
Payment	No
Administrative	No
Cash Deposit	Yes
Terminal Data Input Capability	
Does terminal have keypad	Yes
Numeric Keys	Yes
Alphabetic and Special Character Keys	No
Command Keys	Yes
Function Keys	No
Terminal Data Output Capability	
Print, Attendant and/or Cardholder	No
Display, Attendant and/or Cardholder	Yes

Terminal Capabilities	Value Supported
Terminal Data Output Capability	
Code Table 10	No
Code Table 9	No
Code Table 8	No
Code Table 7	No
Code Table 6	No
Code Table 5	No
Code Table 4	No
Code Table 3	No
Code Table 2	No
Code Table 1	Yes
Application Selection	
Support PSE selection Method	Yes
Support Cardholder Selection & Confirmation	Yes
Does Terminal have a preferred order of displaying applications	No
Does terminal perfom partial AID selection	Yes
Does the terminal have multi language support	No
Does the terminal support the EMV Language Selection method	No
Does the terminal support the Common Character Set as defined in Annex B table 20 Book 4	Yes
Selectable Kernel Configurations	
Is your Multi-Configuration Kernel capable of dynamically selecting a configuration at the time of transaction	No
Data Authentication	
During data authentication does the terminal check validity for revocation of Issuer Public Key Certificate	No
When supporting certificate revocation, what is the Certificate Revocation List format?	
Does the terminal contain a default DDOL (Mandatory for terminals supporting DDA)	Yes
Cardholder Verification Method	
Terminal supports bypass PIN Entry	No
Terminal supports Subsequent bypass PIN Entry	No
Terminal supports Get Data for PIN Try Counter	No
Terminal supports Fail CVM	Yes
Are amounts known before CVM processing	No
Terminal Risk Management	
Floor Limit Checking (Mandatory for offline only terminals and offline terminals with online capability)	No
Random Transaction Selection (Mandatory for offline terminals with online capability, except when cardholder controlled)	No
Velocity Checking (Mandatory for offline only terminals and offline terminals with online capability)	No
Transaction Log	No
Exception File	No
Terminal Risk Management performed irrespective of AIP setting (expected behavior)	Yes

Terminal Capabilities	Value Supported
Terminal Action Analysis	
Does the terminal support Terminal Action Codes	Yes
Can the Terminal Action Codes be deleted or disabled? If yes, the default TAC values of the TAC-Online, TAC-default and TAC-denial shall be set to zeroes	No
If Offline Only is supported, which option of the Offline Only Terminal processing is implemented? (according to Book3, section 10.7)	N/A
How does online only terminal process TAC/IAC-Default when unable to go online?	Skipped
Completion Processing	
Transaction Forced Online Capability	No
Transaction Forced Acceptance Capability	No
Does the terminal support Issuer initiated Voice Referrals	No
Does the terminal support a Default TDOL	No
If a Default TDOL is supported, can this default TDOL be not configured (or not loaded) in the terminal	n/a
Default TDOL TVR bit set before or after the 1st Generate AC Terminal Action Analysis	
Exception Handling	
What is the POS Entry Mode value when IC cannot be read and the transaction falls back using Magstripe (Mandatory for attended terminals)	80
Miscellaneous	
Is the terminal equipped with a PIN Pad	Yes
Is the amount and PIN entered at the same keypad	Yes
Is the ICC/Magstripe Reader combined	Yes
Does the terminal support account type selection	Yes
Does the terminal support 'on fly' script processing (not recommended behavior)	No
Is the Issuer Script device limit greater than 128 bytes	No
If the Issuer Script device limit is greater than 128 bytes, what is the value supported	
Does the terminal support Internal Date Management	Yes
Is the Level 2 Contact Kernel Random Generator using the algorithm described in Book2, section 11.3	No
If the Level 2 Contact Kernel Random Generator is not using the algorithm described in Book2, section 11.3, is this function PCI approved	No
If the Level 2 Contact Kernel Random Generator is not using the algorithm described in Book2, section 11.3, describe the function (such as algorithm used, etc)	hardware generated random number, The microcontroller contains a hardware-based, true random-number generator designed to meet FIPS standards.
Is the Random Generator function of the Level 2 Contact Kernel Software dependent on the Terminal Hardware?	Yes
If answer to previous question is Yes, describe the function and the Hardware	MAXQ1103 chip is a secure MCU which using the algorithm described in FIPS1862,provide the function for generating random number.
Are the Cryptographic functions (RSA, Hash, etc) of the Level 2 Contact Kernel Software dependent on the Terminal Hardware	No
If answer to previous question is Yes, describe the Hardware	
Is any other functions of the Level 2 Contact Kernel Software dependent on the Terminal Hardware	No
If answer to previous question is Yes, describe the functions and the Hardware	

Terminal Capabilities	Value Supported
Miscellaneous	
Does the terminal support Receipt (by printing or any electronic means)?	No
List the Currency Codes supported as for ISO 4217 (one currency shall be declared at a minimum, and up to 10 if multiple currencies are supported with at least one per currency exponent supported)	156 840
Does the terminal support the Application Selection Registered Proprietary Data (ASRPD)?	Yes
List the Language(s) supported as for ISO 639 (minimum one shall be declared, and up to 10 if Multiple Languages are supported)	zh
Can the Kernel be configured so the data object 'Terminal Risk Management Data' '9F1D' is absent or configured with no value (00 is a value)?	No
Can the Transaction Sequence Counter (TSC) be personalized to any value?	Yes
If answer to previous question is Yes, what is the Maximum Value of the Transaction Sequence Counter?	999999
Checksum	
Does the product comply with the Checksum rules as defined in Contact Terminal Level 2 administrative process	Yes
This is an Initial submission or Subsequent submission or renewal of the original approved product prior to the effective date of checksum rules (cf Terminal Type Approval Bulletin No. 134)	n/a
Configuration Checksum (Static Kernel only)	FDD9BCECE5538EF2E640D55D24E65718

Attachment 1
Specific Terms and Conditions to the Letter of Approval

Restriction:

None