

July 09, 2026

Mr. Zhou Xiaohang

Vanstone Electronic (Beijing) Co., Ltd.

3F, Building 2, Aisino Corporation Park, No.18A, Xingshikou Road,
Haidian District, Beijing, China

Beijing 100195

China

Re: EMVCo Letter of Approval - Contact Terminal Level 2

EMV Application Kernel: EMV2 LIB Version 2.32

**Approval Number(s): 2-05828-1-1C-0726-4.4c
2-05828-1-1P-0726-4.4c
2-05828-1-1OS-0726-4.4c**

The EMV Application Kernel has been tested on the following terminal

Terminal: A80
PinPad: 1P = A80, EMV2PP LIB V1.0.0 - PIN pad is valid for configuration(s): 1C
Operating System: IOS = VanDroid-32bits Version V1.0.0

Renewal Date: 01-Jun-2030

Report ID Session 1: TEMV262BC1T Version V1.0 - Beijing Unionpay Card Technology Co., Ltd.

Kernel Checksum:

a35f6d87

Configurations Checksums:

Config	Vendor Config ID	Terminal	Checksum
1C	EMV-BASE	22	9c2cede4

PIN Pads Checksums:

PinPad	Checksum
1P	560ebab6

Dear Mr. Xiaohang:

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 referred 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		1C									
Card Data Input Capability											
Terminal Type	22										
Manual Key Entry	Yes										
Magnetic Stripe	No										
IC with Contacts	Yes										
CVM Capability											
Plaintext PIN	Yes										
Online Enciphered PIN	Yes										
Signature (Paper)	Yes										
Offline Enciphered PIN (RSA)	Yes										
No CVM	Yes										
Offline Enciphered PIN (ECC)	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											
SDA & DDA	Yes										
Card Capture	No										
CDA	Mode 1										
XDA	No										
Transaction Type Capability											
Tran Type - Cash	Yes										
Tran Type - Goods	Yes										
Tran Type - Services	Yes										
Tran Type - Cash Back	Yes										
Tran Type - Inquiry	Yes										
Tran Type - Transfer	Yes										
Tran Type - Payment	Yes										
Tran Type - Admin	Yes										
Tran Type - Cash Deposit	Yes										
Terminal Data Input Capability											
Keypad	Yes										
Numeric Keys	Yes										
Alpha and Special Character Keys	Yes										
Command Keys	Yes										
Function Keys	Yes										

(continued)		1C									
Terminal Data Output Capability											
Print	Yes										
Display	Yes										
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											
PSE	Yes										
Cardholder Confirmation	Yes										
Preferred display order	No										
Partial AID Selection	Yes										
Multi language	No										
EMV Language Selection method	No										
Common Character Set	Yes										
Data Authentication											
Revocation of Issuer PK Certificate	Yes										
Certificate Revocation List Format	RID + CAPK Index + SN										
Default DDOL	Yes										
Cardholder Verification Method											
Bypass PIN Entry	Yes										
Subsequent Bypass PIN Entry	No										
Get Data for PIN Try Counter	Yes										
Fail CVM	Yes										
Amount known before CVM proces.	Yes										
Terminal Risk Management											
Floor Limit Checking	Yes										
Random Transaction Selection	Yes										
Velocity Checking	Yes										
Transaction Log	Yes										
Exception File	Yes										
TRM irrespective of AIP setting (expected behavior)	Yes										

(continued)	1C									
Terminal Action Analysis										
Terminal Action Codes supported	Yes									
TAC can be deleted or disabled	No									
How does offline only Terminal process Default Action Codes?	Option 1									
How does online only terminal process TAC/IAC-Default when unable to go online?	Normal									
Completion Processing										
Forced Online	Yes									
Forced Acceptance	No									
Voice Referrals Initiated by Issuer	Yes									
Default TDOL	Yes									
Default TDOL not configured	Yes									
Exception Handling										
POS Entry Mode	92									
Miscellaneous										
Amount and PIN on same keypad	Yes									
ICC/Magstripe Reader Combined	No									
Supports account type selection	No									
Supports 'on fly' script processing	No									
Issuer Script device limit > 128 bytes	No									
If limit > 128, value supported?										
Internal Date Management	Yes									
Does the terminal support Receipt?	Yes									

Attachment 1

Specific Terms and Conditions to the Letter of Approval

Restriction:

This product is not able to handle transaction date beyond the 31st of December 2037

Conditions:

None