

July 25, 2022

Dave Xu

MagTek, Inc.

1710 Apollo Court

Seal Beach CA 90740

UNITED STATES OF AMERICA

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

EMV Application Kernel: DynaFlex PED L2 Kernel Version A

Approval Number(s):

- 2-05063-1-1C-CETI-0722-4.3k**
- 2-05063-1-2C-CETI-0722-4.3k**
- 2-05063-1-3C-CETI-0722-4.3k**
- 2-05063-1-4C-CETI-0722-4.3k**
- 2-05063-1-5C-CETI-0722-4.3k**
- 2-05063-1-6C-CETI-0722-4.3k**
- 2-05063-1-7C-CETI-0722-4.3k**
- 2-05063-1-8C-CETI-0722-4.3k**
- 2-05063-1-9C-CETI-0722-4.3k**
- 2-05063-1-10C-CETI-0722-4.3k**
- 2-05063-1-10S-CETI-0722-4.3k**

The EMV Application Kernel has been tested on the following terminal

Terminal: DynaFlex
PinPad: n/a
Operating System: 10S = freeRTOS Version Ver 9.0.0

Renewal Date: 29-Jun-2026

Report ID Session 1: 2MAGT_1-4404-1-2-22_CETI Version Initial - CTC advanced GmbH

Kernel Checksum:

b54f31bcb61a26fc823bce9ab8989b31ab90f9a4

Configurations Checksums:

Config	Vendor Config ID	Terminal	Checksum
1C	DynaFlex C01P	21	3642C9FB
2C	DynaFlex C01	21	D40BB6B0
3C	DynaFlex C02	21	7CB01B46
4C	DynaFlex C03P	24	73932F18
5C	DynaFlex C03PON	24	705F9266
6C	DynaFlex C03POF	24	67A1E462
7C	DynaFlex C03	24	CCFF58EC
8C	DynaFlex C04	24	FED5C106
9C	DynaFlex C05PON	11	CCB27CB7
10C	DynaFlex C06PON	14	7C451A8F

Dear Dave Xu:

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 4.3 of November 2011.

EMVCo hereby grants your Application EMVCo Type Approval for Terminal Level 2, based on the requirements stated in the EMV 4.3 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.

EMVCo, LLC, a Delaware limited liability company

By:

Name: Frédéric Fortin

Title: EMVCo Terminal Type Approval Chair

Note:

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

Terminal Capabilities	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Card Data Input Capability										
Terminal Type	21	21	21	24	24	24	24	24	11	14
Manual Key Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Magnetic Stripe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IC with Contacts	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CVM Capability										
Plaintext PIN	Yes	No	No	Yes	No	Yes	No	No	No	No
Online Enciphered PIN	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes
Signature (Paper)	Yes	Yes	Yes	No	No	No	No	No	Yes	No
Offline Enciphered PIN	Yes	No	No	Yes	No	Yes	No	No	No	No
No CVM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SB185	No	No	No	No	No	No	No	No	No	No
Offline Finger	No	No	No	No	No	No	No	No	No	No
Online Finger	No	No	No	No	No	No	No	No	No	No
Offline Facial	No	No	No	No	No	No	No	No	No	No
Online Facial	No	No	No	No	No	No	No	No	No	No
Offline Palm	No	No	No	No	No	No	No	No	No	No
Online Palm	No	No	No	No	No	No	No	No	No	No
Offline Iris	No	No	No	No	No	No	No	No	No	No
Online Iris	No	No	No	No	No	No	No	No	No	No
Offline Voice	No	No	No	No	No	No	No	No	No	No
Online Voice	No	No	No	No	No	No	No	No	No	No
Security Capability										
SDA & DDA	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No
Card Capture	No	No	No	No	No	No	No	No	No	No
CDA	Mode 1	Mode 1	No	Mode 1	No	Mode 1	Mode 1	No	No	No
Transaction Type Capability										
Tran Type - Cash	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Goods	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Tran Type - Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Tran Type - Cash Back	No	No	No	No	No	No	No	No	No	No
Tran Type - Inquiry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Transfer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Payment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Admin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Cash Deposit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Terminal Data Input Capability										
Keypad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Numeric Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alpha and Special Character Keys	No	No	No	No	No	No	No	No	No	No
Command Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Function Keys	No	No	No	No	No	No	No	No	No	No

(continued)	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Terminal Data Output Capability										
Print, Attendant	Yes	Yes	Yes	No	No	No	No	No	Yes	No
Print, Cardholder	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Display, Attendant	Yes	Yes	Yes	No	No	No	No	No	Yes	No
Display, Cardholder	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Code Table 10	No	No	No	No	No	No	No	No	No	No
Code Table 9	No	No	No	No	No	No	No	No	No	No
Code Table 8	No	No	No	No	No	No	No	No	No	No
Code Table 7	No	No	No	No	No	No	No	No	No	No
Code Table 6	No	No	No	No	No	No	No	No	No	No
Code Table 5	No	No	No	No	No	No	No	No	No	No
Code Table 4	No	No	No	No	No	No	No	No	No	No
Code Table 3	No	No	No	No	No	No	No	No	No	No
Code Table 2	No	No	No	No	No	No	No	No	No	No
Code Table 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Application Selection										
PSE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cardholder Confirmation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Preferred display order	No	No	No	No	No	No	No	No	No	No
Partial AID Selection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multi language	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EMV Language Selection method	No	No	No	No	No	No	No	No	No	No
Common Character Set	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Authentication										
MAX CA Public key	248	248		248		248	248			
Exponents	3 and 2 ¹⁶ +1	3 and 2 ¹⁶ +1		3 and 2 ¹⁶ +1		3 and 2 ¹⁶ +1	3 and 2 ¹⁶ +1			
Revocation of Issuer PK Certificate	No	No	No	No	No	No	No	No	No	No
Certificate Revocation List Format										
Default DDOL	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No
Manual act. when CA PK loading fails	No	No	No	No	No	No	No	No	No	No
CA PK verified with check sum	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No
Cardholder Verification Method										
Bypass PIN Entry	Yes	No	No	No	No	No	No	No	Yes	No
Subsequent Bypass PIN Entry	Yes	No	No	No	No	No	No	No	Yes	No
Get Data for PIN Try Counter	Yes	No	No	Yes	No	Yes	No	No	No	No
Fail CVM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Amount known before CVM proces.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Terminal Risk Management										
Floor Limit Checking	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Random Transaction Selection	No	No	No	No	No	No	No	No	No	No
Velocity Checking	No	No	No	No	No	No	No	No	No	No
Transaction Log	No	No	No	No	No	No	No	No	No	No
Exception File	No	No	No	No	No	No	No	No	No	No
TRM irrespective of AIP setting (expected behavior)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(continued)	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Terminal Action Analysis										
Terminal Action Codes supported	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TAC can be deleted or disabled	No	No	No	No	No	No	No	No	No	No
How does offline only Terminal process Default Action Codes?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
How does online only terminal process TAC/IAC-Default when unable to go online?	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Completion Processing										
Forced Online	No	No	No	No	No	No	No	No	No	No
Forced Acceptance	No	No	No	No	No	No	No	No	No	No
Advices	No	No	No	No	No	No	No	No	No	No
Voice Referrals Initiated by Issuer	Yes	Yes	Yes	No	No	No	No	No	Yes	No
Batch Data Capture	No	No	No	No	No	No	No	No	No	No
Online Data Capture	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Default TDOL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Default TDOL not configured	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exception Handling										
POS Entry Mode	0x80	0x80	0x80	0x80	0x80	0x80	0x80	0x80	0x80	0x80
Miscellaneous										
Amount and PIN on same keypad	No	No	No	No	No	No	No	No	No	No
ICC/Magstripe Reader Combined	No	No	No	No	No	No	No	No	No	No
If Combined, is Magstripe read first?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supports account type selection	No	No	No	No	No	No	No	No	No	No
Supports 'on fly' script processing	No	No	No	No	No	No	No	No	No	No
Issuer Script device limit > 128 bytes	No	No	No	No	No	No	No	No	No	No
If limit > 128, value supported?										
Internal Date Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the terminal support Receipt?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Attachment 1

Specific Terms and Conditions to the Letter of Approval

Restriction:

None