

January 19, 2026

Remco Willemse

Payter BV

Rozenlaan 115

Rotterdam 3051 LP

NETHERLANDS

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

**EMV Application Kernel: Contact Version 1.0.1-67**

**Approval Number(s):**  
2-05739-1-1C-CETI-0126-4.4c  
2-05739-1-2C-CETI-0126-4.4c  
2-05739-1-3C-CETI-0126-4.4c  
2-05739-1-1P-CETI-0126-4.4c  
2-05739-1-1OS-CETI-0126-4.4c

The EMV Application Kernel has been tested on the following terminal

**Terminal: Apollo v1**  
**PinPad: 1P = Apollo v1, PCI compliant pin application v1.0.1 - PIN pad is valid for configuration(s): 1C, 2C**  
**Operating System: 1OS = Apollo OS 32-bit Version 3.0.3**

**Renewal Date: 05-Jan-2030**

**Report ID Session 1: 2PYBV\_1-0220-25-01-02-TR1-R01\_CETI Version R01 - Cetecom advanced GmbH**

**Kernel Checksum:**

F49F8FBFA01D35053DD0048099A7D2CF3099ADC6

**Configurations Checksums:**

Config	Vendor Config ID	Terminal	Checksum
1C	Offline with Online	25	A30671A563963A25BA45592975C803FF6DBC9AD0
2C	Offline with Online - No Online PIN	25	F9CB8CC78D0577C02F3D39F944E013B8E33852E8
3C	Offline with Online - No PIN	25	5E12D5B553FC80643ADC720AFE7EB65E80B5E4E

**PIN Pads Checksums:**

PinPad	Checksum
1P	34B805D9293D3C0DC5A974DD9BC32C3DF91DF5AC

Dear Remco Willemse:

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](http://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.**

<b>Terminal Capabilities</b>	<b>1C</b>	<b>2C</b>	<b>3C</b>							
<b>Card Data Input Capability</b>										
Terminal Type	25	25	25							
Manual Key Entry	No	No	No							
Magnetic Stripe	Yes	Yes	Yes							
IC with Contacts	Yes	Yes	Yes							
<b>CVM Capability</b>										
Plaintext PIN	No	No	No							
Online Enciphered PIN	Yes	No	No							
Signature (Paper)	No	No	No							
Offline Enciphered PIN (RSA)	Yes	Yes	No							
No CVM	Yes	Yes	Yes							
Offline Enciphered PIN (ECC)	No	No	No							
Biometric	Yes	Yes	Yes							
Offline Finger	No	No	No							
Online Finger	No	No	No							
Offline Facial	No	No	No							
Online Facial	No	No	No							
Offline Palm	No	No	No							
Online Palm	No	No	No							
Offline Iris	No	No	No							
Online Iris	No	No	No							
Offline Voice	No	No	No							
Online Voice	No	No	No							
<b>Security Capability</b>										
SDA & DDA	Yes	Yes	Yes							
Card Capture	No	No	No							
CDA	Mode 1	Mode 1	Mode 1							
XDA	No	No	No							
<b>Transaction Type Capability</b>										
Tran Type - Cash	No	No	No							
Tran Type - Goods	Yes	Yes	Yes							
Tran Type - Services	Yes	Yes	Yes							
Tran Type - Cash Back	No	No	No							
Tran Type - Inquiry	No	No	No							
Tran Type - Transfer	No	No	No							
Tran Type - Payment	No	No	No							
Tran Type - Admin	No	No	No							
Tran Type - Cash Deposit	No	No	No							
<b>Terminal Data Input Capability</b>										
Keypad	No	No	No							
Numeric Keys	No	No	No							
Alpha and Special Character Keys	No	No	No							
Command Keys	No	No	No							
Function Keys	No	No	No							

(continued)	1C	2C	3C							
<b>Terminal Data Output Capability</b>										
Print	No	No	No							
Display	Yes	Yes	Yes							
Code Table 10	No	No	No							
Code Table 9	No	No	No							
Code Table 8	No	No	No							
Code Table 7	No	No	No							
Code Table 6	No	No	No							
Code Table 5	No	No	No							
Code Table 4	No	No	No							
Code Table 3	No	No	No							
Code Table 2	No	No	No							
Code Table 1	Yes	Yes	Yes							
<b>Application Selection</b>										
PSE	Yes	Yes	Yes							
Cardholder Confirmation	Yes	Yes	Yes							
Preferred display order	Yes	Yes	Yes							
Partial AID Selection	Yes	Yes	Yes							
Multi language	Yes	Yes	Yes							
EMV Language Selection method	Yes	Yes	Yes							
Common Character Set	Yes	Yes	Yes							
<b>Data Authentication</b>										
Revocation of Issuer PK Certificate	Yes	Yes	Yes							
Certificate Revocation List Format	RID+CAPK Index+Cert S/N	RID+CAPK Index+Cert S/N	RID+CAPK Index+Cert S/N							
Default DDOL	Yes	Yes	Yes							
<b>Cardholder Verification Method</b>										
Bypass PIN Entry	No	No	No							
Subsequent Bypass PIN Entry	No	No	No							
Get Data for PIN Try Counter	Yes	Yes	No							
Fail CVM	Yes	Yes	Yes							
Amount known before CVM proces.	Yes	Yes	Yes							
<b>Terminal Risk Management</b>										
Floor Limit Checking	Yes	Yes	Yes							
Random Transaction Selection	Yes	Yes	Yes							
Velocity Checking	Yes	Yes	Yes							
Transaction Log	No	No	No							
Exception File	Yes	Yes	Yes							
TRM irrespective of AIP setting (expected behavior)	Yes	Yes	Yes							

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

# **Attachment 1**

## **Specific Terms and Conditions to the Letter of Approval**

Restriction:

**None**