

September 04, 2020



Mr. Alberto Belvisi
MADIC ITALIA S.P.A.
Via A.Volta 39
Cardano Al Campo 21010
ITALY

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

EMV Application Kernel: MDC_27 Version 2.7

Approval Number(s):
2-04715-1-1C-CETI-0920-4.3i
2-04715-1-2C-CETI-0920-4.3i
2-04715-1-3C-CETI-0920-4.3i
2-04715-1-4C-CETI-0920-4.3i
2-04715-1-1P-CETI-0920-4.3i
2-04715-1-1OS-CETI-0920-4.3i

The EMV Application Kernel has been tested on the following terminal

Terminal: BV1000R
PinPad: 1P = BV1000K, GBK41000 - PIN pad is valid for configuration(s): 1C, 3C
Operating System: 1OS = free rtos Version 7.6.1

Renewal Date: 26-Aug-2024

Report ID Session 1: 2GLCE_1-0775-1-2-20_CETI Version Initial - CTC advanced GmbH

Kernel Checksum:

62 2F B5 78 0F 11 21 56 53 3B D7 47 F2 75 85 40 2E CC 40 8B B2 E5 EA BA 85 60 6C 3C 61 B4 89 8F

Configurations Checksums:

Config	Vendor Config ID	Terminal	Checksum
1C	Prof_1	25	E4 0C 4A E5 04 06 99 B0 7D BC 2E 5F F7 E7 D9 80 A2 83 2D 84 52 03 96 AF 35 18 37 88 00 11 D7 C0
2C	Prof_2	25	B0 BE 77 C0 AE 08 25 7F 4C 73 6E 08 79 7B 1A 51 4C 36 F2 5A 67 3A 18 90 A6 C9 75 F7 39 64 67 12
3C	Prof_3	25	6C 5D 25 63 26 94 C1 B8 6E B2 07 67 F6 E0 14 72 1C 98 B9 16 AE 91 35 96 DF F6 7F 75 36 12 65 68
4C	Prof_4	25	35 12 AD 0E 93 2F 93 F2 82 97 92 92 33 08 9D 86 B8 2B 40 A1 D0 C0 55 1D 41 4C DB C9 9A D9 1A 01

PIN Pads Checksums:

PinPad	Checksum
1P	15 72 62 BE 49 00 54 F1 B9 1B 1B 8D 6B 10 AB 7C BC 1F C2 95 5B CC FD 91 79 80 6F 18 6F A9 5B CE

Dear Mr. Belvisi:

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 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	2C	3C	4C						
Card Data Input Capability										
Terminal Type	25	25	25	25						
Manual Key Entry	No	No	No	No						
Magnetic Stripe	Yes	Yes	Yes	Yes						
IC with Contacts	Yes	Yes	Yes	Yes						
CVM Capability										
Plaintext PIN	Yes	No	Yes	No						
Online Enciphered PIN	Yes	No	No	No						
Signature (Paper)	No	No	No	No						
Offline Enciphered PIN	Yes	No	Yes	No						
No CVM	Yes	Yes	Yes	Yes						
SB185	No	No	No	No						
Offline Finger	No	No	No	No						
Online Finger	No	No	No	No						
Offline Facial	No	No	No	No						
Online Facial	No	No	No	No						
Offline Palm	No	No	No	No						
Online Palm	No	No	No	No						
Offline Iris	No	No	No	No						
Online Iris	No	No	No	No						
Offline Voice	No	No	No	No						
Online Voice	No	No	No	No						
Security Capability										
SDA & DDA	Yes	Yes	Yes	Yes						
Card Capture	No	No	No	No						
CDA	Mode 1	Mode 1	Mode 1	Mode 1						
Transaction Type Capability										
Tran Type - Cash	No	No	No	No						
Tran Type - Goods	Yes	Yes	Yes	Yes						
Tran Type - Services	Yes	Yes	Yes	Yes						
Tran Type - Cash Back	No	No	No	No						
Tran Type - Inquiry	No	No	No	No						
Tran Type - Transfer	No	No	No	No						
Tran Type - Payment	No	No	No	No						
Tran Type - Admin	No	No	No	No						
Tran Type - Cash Deposit	No	No	No	No						
Terminal Data Input Capability										
Keypad	Yes	No	Yes	Yes						
Numeric Keys	Yes	No	Yes	Yes						
Alpha and Special Character Keys	No	No	No	No						
Command Keys	Yes	No	Yes	Yes						
Function Keys	Yes	No	Yes	Yes						

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

(continued)	1C	2C	3C	4C						
Terminal Action Analysis										
Terminal Action Codes supported	Yes	Yes	Yes	Yes						
TAC can be deleted or disabled	No	No	No	No						
How does offline only Terminal process Default Action Codes?	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						
Completion Processing										
Forced Online	No	No	No	No						
Forced Acceptance	No	No	No	No						
Advices	No	No	No	No						
Voice Referrals Initiated by Issuer	No	No	No	No						
Batch Data Capture	Yes	Yes	Yes	Yes						
Online Data Capture	Yes	Yes	Yes	Yes						
Default TDOL	Yes	Yes	Yes	Yes						
Exception Handling										
POS Entry Mode	80	80	80	80						
Miscellaneous										
Amount and PIN on same keypad	Yes	No	Yes	No						
ICC/Magstripe Reader Combined	Yes	Yes	Yes	Yes						
If Combined, is Magstripe read first?	No	No	No	No						
Supports account type selection	No	No	No	No						
Supports 'on fly' script processing	No	No	No	No						
Issuer Script device limit > 128 bytes	No	No	No	No						
If limit > 128, value supported?										
Internal Date Management	Yes	Yes	Yes	Yes						
Does the terminal support Receipt?	No	No	No	No						

Attachment 1

Specific Terms and Conditions to the Letter of Approval

Restriction:

None