April 08, 2019

Stephen Downie
Verifone   Inc.
88 Plumeria Drive

San Jose 95134
UNITED STATES OF AMERICA

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

EMV Application Kernel: **EMV L2 Version 7.0.3r**

Approval Number(s):   **2-04237-1-1C-ULVS-0818-4.3g**
                              2-04237-1-2C-ULVS-0818-4.3g
                              2-04237-1-3C-ULVS-0818-4.3g
                              2-04237-1-4C-ULVS-0818-4.3g
                              2-04237-1-5C-ULVS-0818-4.3g
                              2-04237-1-6C-ULVS-0818-4.3g
                              2-04237-2-7C-ULVS-0918-4.3g
                              2-04237-2-8C-ULVS-0918-4.3g
                              2-04237-2-9C-ULVS-0918-4.3g
                              2-04237-2-10C-ULVS-0918-4.3g
                              2-04237-2-11C-ULVS-0918-4.3g
                              2-04237-2-12C-ULVS-0918-4.3g
                              2-04237-2-13C-ULVS-0918-4.3g
                              2-04237-2-14C-ULVS-0918-4.3g
                              2-04237-2-15C-ULVS-0918-4.3g
                              2-04237-2-16C-ULVS-0918-4.3g
                              2-04237-3-17C-ULVS-0918-4.3g
                              2-04237-3-18C-ULVS-0918-4.3g
                              2-04237-4-19C-ULVS-0419-4.3g
                              2-04237-4-20C-ULVS-0419-4.3g
                              2-04237-4-21C-ULVS-0419-4.3g
                              2-04237-1-1OS-ULVS-0818-4.3g

The EMV Application Kernel has been tested on the following terminal

Terminal: **V200c Plus**
PinPad: **n/a**
Operating System: **1OS = Linux Version 3.14**

Renewal Date: **29-Aug-2022**

Report ID Session 1: **2 HYPE-RP12187558JD02A-ULVS Version 2.0 - UL VS Ltd**
Session 2: **2 HYPE-RP12187558JD03A-ULVS_1 Version 1.0 - UL VS Ltd**
Session 3: **2 HYPE-RP12187558JD03A-ULVS_2 Version 1.0 - UL VS Ltd**
Session 4: **2 HYPE-RP12187558JD04A-ULVS Version 1.0 - UL VS Ltd**

Kernel Checksum:

00C067C0

Configurations Checksums:

Config	Vendor Config ID	Terminal	Checksum
1C	44D1B7DF	22	96369E1F
2C	B0293275	22	0F602A4C
3C	91385E4A	22	92CC8774
4C	8F78BA6D	22	C76E6769
5C	31E41749	22	B415F3D9
6C	780C0204	11	59881906
7C	7BD3BB35	22	BEFA519B
8C	4C38D56D	22	1298B08F
9C	D6ECE58D	22	6A695602
10C	3049BE0B	22	4684B9DF
11C	C73A0F70	22	02594AB4
12C	F7AE9BF7	21	D856CB80
13C	AF19EEE6	22	1EC74C36
14C	6DC521BF	11	CDA9CD3A
15C	6740265B	22	8798CC22
16C	E858892A	22	D8158247
17C	3B674338	22	A5CC1BE8
18C	E1D505CC	25	CD05C972
19C	B39951F8	21	DD7B92E1
20C	83A483F5	21	6F933470
21C	55796038	21	0FA436BF

Dear Stephen Downie:

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 4.3 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 specific Hardware device in the tested terminal to generate random numbers. To be EMV compliant, this Contact Level 2 Kernel shall be used in conjunction with Terminal Type having this specific Hardware.

Terminal Capabilities	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Card Data Input Capability										
Terminal Type	22	22	22	22	22	11	22	22	22	22
Manual Key Entry	Yes	Yes	Yes	Yes	Yes	No	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	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Online Enciphered PIN	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No
Signature (Paper)	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Offline Enciphered PIN	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes
No CVM	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes
Security Capability										
SDA & DDA	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Card Capture	No	No	No	No	No	No	No	No	No	No
CDA	Mode 1	Mode 1	Mode 1	Mode 1	Mode 1	No	Mode 1	Mode 1	Mode 3	Mode 1
Transaction Type Capability										
Tran Type - Cash	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tran Type - Goods	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tran Type - Services	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tran Type - Cash Back	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tran Type - Inquiry	No	No	No	No	No	No	No	No	No	No
Tran Type - Transfer	No	No	No	No	No	No	No	No	No	No
Tran Type - Payment	No	No	No	No	No	No	No	No	No	No
Tran Type - Admin	No	No	No	No	No	No	No	No	No	No
Tran Type - Cash Deposit	No	No	No	No	No	No	No	No	No	No
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Command Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Function Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Terminal Data Output Capability										
Print, Attendant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Print, Cardholder	No	No	No	No	No	No	No	No	No	No
Display, Attendant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Display, Cardholder	No	No	No	No	No	No	No	No	No	No
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

(continued)	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Application Selection										
PSE	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Common Character Set	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Authentication										
MAX CA Public key	248	248	248	248	248	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 $2^{16}+1$	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	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Certificate Revocation List Format	RID, Index and Certificate Serial Number	RID, Index and Certificate Serial Number	RID, Index and Certificate Serial Number	RID, Index and Certificate Serial Number	RID, Index and Certificate Serial Number	N/A	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number
Default DDOL	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
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	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Cardholder Verification Method										
Bypass PIN Entry	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Subsequent Bypass PIN Entry	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Get Data for PIN Try Counter	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Velocity Checking	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transaction Log	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exception File	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TRM irrespective of AIP setting (expected behavior)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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?	N/A	N/A	N/A	N/A	N/A	Normal	N/A	N/A	N/A	N/A

(continued)	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C
Completion Processing										
Forced Online	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Forced Acceptance	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Advices	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Voice Referrals Initiated by Issuer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Batch Data Capture	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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
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?	No	No	No	No	No	No	No	No	No	No
Supports account type selection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supports 'on fly' script processing	No	No	No	No	No	No	No	No	No	No
Issuer Script device limit > 128 bytes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
If limit > 128, value supported?	0	0	0	0	0	0	0	0	0	0
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

Terminal Capabilities	11C	12C	13C	14C	15C	16C	17C	18C	19C	20C
Card Data Input Capability										
Terminal Type	22	21	22	11	22	22	22	25	21	21
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	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Online Enciphered PIN	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes
Signature (Paper)	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes
Offline Enciphered PIN	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes
No CVM	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Security Capability										
SDA & DDA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Card Capture	No	No	No	No	No	No	No	No	No	No
CDA	Mode 3	Mode 1	Mode 1	Mode 1	Mode 1	Mode 1	Mode 1	Mode 1	Mode 1	No
Transaction Type Capability										
Transaction Type - Cash	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Transaction Type - Goods	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transaction Type - Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transaction Type - Cash Back	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transaction Type - Inquiry	No	No	No	No	No	No	No	No	No	No
Transaction Type - Transfer	No	No	No	No	No	No	No	No	No	No
Transaction Type - Payment	No	No	No	No	No	No	No	No	No	No
Transaction Type - Admin	No	No	No	No	No	No	No	No	No	No
Transaction Type - Cash Deposit	No	No	No	No	No	No	No	No	No	No
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Command Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Function Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Terminal Data Output Capability										
Print, Attendant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Print, Cardholder	No	No	No	No	No	No	No	Yes	No	No
Display, Attendant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Display, Cardholder	No	No	No	No	No	No	No	Yes	No	No
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

(continued)	11C	12C	13C	14C	15C	16C	17C	18C	19C	20C
Application Selection										
PSE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Common Character Set	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Authentication										
MAX CA Public key	248	248	248	248	248	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 $2^{16}+1$	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Certificate Revocation List Format	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	RID, CAPK index and Certificate Serial Number	N/A	N/A
Default DDOL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Cardholder Verification Method										
Bypass PIN Entry	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Subsequent Bypass PIN Entry	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Get Data for PIN Try Counter	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Velocity Checking	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transaction Log	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exception File	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TRM irrespective of AIP setting (expected behavior)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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?	N/A	Normal	N/A	Normal	N/A	N/A	N/A	N/A	Normal	Normal

(continued)	11C	12C	13C	14C	15C	16C	17C	18C	19C	20C
Completion Processing										
Forced Online	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Forced Acceptance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Advices	Yes	Yes	Yes	No	No	No	No	No	No	No
Voice Referrals Initiated by Issuer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Batch Data Capture	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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
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?	No	No	No	No	No	No	No	No	No	No
Supports account type selection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Supports 'on fly' script processing	No	No	No	No	No	No	No	No	No	No
Issuer Script device limit > 128 bytes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
If limit > 128, value supported?	0	0	0	0	0	0	0	0	0	0
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

Terminal Capabilities	21C									
Card Data Input Capability										
Terminal Type	21									
Manual Key Entry	Yes									
Magnetic Stripe	Yes									
IC with Contacts	Yes									
CVM Capability										
Plaintext PIN	Yes									
Online Enciphered PIN	No									
Signature (Paper)	Yes									
Offline Enciphered PIN	Yes									
No CVM	Yes									
Security Capability										
SDA	Yes									
Card Capture	No									
CDA	Mode 1									
Transaction Type Capability										
Transaction Type - Cash	No									
Transaction Type - Goods	Yes									
Transaction Type - Services	Yes									
Transaction Type - Cash Back	Yes									
Transaction Type - Inquiry	No									
Transaction Type - Transfer	No									
Transaction Type - Payment	No									
Transaction Type - Admin	No									
Transaction Type - Cash Deposit	No									
Terminal Data Input Capability										
Keypad	Yes									
Numeric Keys	Yes									
Alpha and Special Character Keys	Yes									
Command Keys	Yes									
Function Keys	Yes									
Terminal Data Output Capability										
Print, Attendant	Yes									
Print, Cardholder	No									
Display, Attendant	Yes									
Display, Cardholder	No									
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									

(continued)	21C									
Application Selection										
PSE	Yes									
Cardholder Confirmation	Yes									
Preferred display order	No									
Partial AID Selection	Yes									
Multi language	Yes									
EMV Language Selection method	Yes									
Common Character Set	Yes									
Data Authentication										
MAX CA Public key	248									
Exponents	3 and 2^16+1									
Revocation of Issuer PK Certificate	No									
Certificate Revocation List Format	N/A									
Default DDOL	Yes									
Manual act. when CA PK loading fails	No									
CA PK verified with check sum	No									
Cardholder Verification Method										
Bypass PIN Entry	Yes									
Subsequent Bypass PIN Entry	Yes									
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									
Terminal Action Analysis										
Terminal Action Codes supported	Yes									
TAC can be deleted or disabled	No									
How does Offline Only Terminal process Default Action Codes?	N/A									
How does online only terminal process TAC/IAC-Default when unable to go online?	Normal									

(continued)	21C									
Completion Processing										
Forced Online	No									
Forced Acceptance	No									
Advices	No									
Voice Referrals Initiated by Issuer	Yes									
Batch Data Capture	No									
Online Data Capture	Yes									
Default TDOL	Yes									
Exception Handling										
POS Entry Mode	0x80									
Miscellaneous										
Amount and PIN on same keypad	No									
ICC/Magstripe Reader Combined	No									
If Combined, is Magstripe read first?	No									
Supports account type selection	Yes									
Supports 'on fly' script processing	No									
Issuer Script device limit > 128 bytes	Yes									
If limit > 128, value supported?	0									
Internal Date Management	Yes									
Does the terminal support Receipt?	Yes									

Attachment 1
Specific Terms and Conditions to the Letter of Approval

Restriction:

None