Date: March 25, 2022



Frank Gong

Blackshark Technologies (Nanchang) Co Ltd Room 815-1, 8th Floor, Block A, Huajiang Building No 1 Tsinghua Science Park, No 299 Yupingdong Street Nanchang Economic and Technological Development Zone Nanchang, Jiangxi Province 330013 CHINA

Re: EMVCo Letter of Approval – EMV Contactless Level 1 Mobile Product

Approval Number: MTA_LOA_BTCL_03900

Approval Date: March 25, 2022
EMVCo Website Publication Date: July 30, 2022
Approval Expiration Date: March 8, 2025

Product Provider Name: Blackshark Technologies (Nanchang) Co Ltd

Registration Number: BTCL.V 21 0411

Commercial Name: Black Shark 5

Product Name: SHARK PAR-H0

Product Version: JOYUI 13

Type Allocation Code (TAC) or product identifier

for testing sample:

86764806

Type Allocation Code (TAC) or product identifier

for production¹:

86764806

Implementation Conformance Statement: MTA_ICS_BTCL_03900_73

EMV Specification: Version 3.0

EMV Specification Bulletins: N/A

Contactless Level 1 Analog Test Cases: Version 3.0b

Contactless Level 1 Digital Test Cases: Version 3.0b

Contactless Level 1 Performance Test Cases: Version 2.3

Contactless Level 1 Interoperability Test Requirements: Version 1.4

Contactless Level 1 Test Cases Bulletins: N/A

EMVCo LLC, 900 Metro Center Blvd. Foster City, CA 94404 USA

¹ The value of the TAC or the product identifier for production is for information purposes only. Only the TAC value or the product identifier of the testing sample is checked by EMVCo.

| Contactless Communication Protocol: | Type A | ⊠ Type B |
|---|--|-------------------------|
| Execution Environment: | ☑ UICC² slot 1☐ eSE☐ eUICC | ☐ UICC² slot 2 ☑ HCE |
| Mobile Product Operating System Name and Version: | Android Version 12 | |
| NFC Controller Name and Version: | SN110T Version N/A | |
| NFC Controller Firmware Name and Version: | libsn100u fw.so Version 1.10.60 | |

 $^{^2}$ The product was tested with a UICC provided by EMVCo. EMVCo does not guarantee that the product will function with other UICCs or in combination with other products.

Dear Frank Gong,

EMVCo, LLC ("EMVCo"), a Delaware limited liability company, has received your request for EMV contactless Level 1 mobile product approval for the above referenced product. In connection with your Request for Approval dated January 24, 2022, we have reviewed all reports submitted.

As a result, EMVCo has found reasonable evidence that the submitted samples sufficiently conform to the EMV Contactless Interface Specification version 3.0 and other EMVCo requirements. This finding is subject to the restrictions and comments in Attachment A.

For a more detailed listing of the features supported by the product please review the Implementation Conformance Statement.

EMVCo hereby (a) grants your EMVCo mobile type approval, based on the requirements stated in EMV Contactless Interface Specification version 3.0 and other EMVCo requirements, and (b) agrees to include your EMV mobile product in EMVCo's list of approved products. EMVCo mobile type approval does not extend to portions or components of a card or application that are not defined by EMV Contactless Interface Specification version 3.0. EMVCo's grant to your EMV mobile product 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 A. 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 EMVCo list of approved products.

This Letter of Approval generally applies to the product only as tested. It can continue to apply to the product if it undergoes a minor change, as described in the Administrative Process document. If the product undergoes more than one minor change or undergoes a change that is not categorized as a minor change, you must provide notice to EMVCo briefly describing such change(s) at least thirty (30) days prior to implementation of the applicable change. EMVCo may revoke this Letter of Approval if it no longer applies to the product, in which case additional testing would be required to reissue a Letter of Approval for the product

In addition, this Letter of Approval may be revoked at any time by EMVCo upon notice.

This product will appear in the public list of approved products on or after the EMVCo Website Publication Date indicated above, as required by you in your "Request for Approval (and Request for Publication)". If the date changes, it is the product provider's responsibility to promptly notify EMVCo CAWG Secretariat as early as possible before the EMVCo Website Publication Date.

This Letter of Approval is valid while the approval number is posted on the EMVCo website.

EMVCo, LLC

By:

Name: Keith Foitik

Title: EMVCo Card & Mobile Type Approval Chair

Attachment A Specific Terms and Conditions to Letter of Approval

During testing, the following issues were identified. Restrictions identified must be disclosed to customers (issuers or other product providers to whom the Product Provider intends to sell the product).

Restrictions, if any:

Comments, if any:

This product may perform transactions in Type A and Type B regardless of the technology (Type A or Type B) requested by the UICC.

HCE Execution environment has been tested with kernels C2, C3, C4, C5.