

2 December 2021

To whom it may concern,

iBeta Quality Assurance conducted Presentation Attack Detection (PAD) testing in accordance with ISO/IEC 30107-3. iBeta is accredited by NIST/NVLAP (NVLAP Lab Code: 200962) to test and provide results to this PAD standard (certificate and scope may be downloaded from the NVLAP website).

This testing was conducted with Oz Liveness that consists of SDK iOS version 2.2.2 and Android version 6.2.5.4 associated with the server ML models 0053. Testing was conducted from 4 November through 30 November 2021 on two smarphones (iPhone 6S with iOS 14.4 and a Samsung Galaxy S7 with Android 8.0.0).

Testing was conducted in accordance with the contract for a level of spoofing technique that utilized materials available for under \$300 (USD) and which artefacts for the genuine biometic could be created in less than 24 hours, for use in the presentation attack. The subjects for the test effort were cooperative – meaning that they were willing and able to provide any and all biometric samples, including high quality photos and videos of their likeness. The test time for each PAD test per PAI was limited to eight hours. This is considered a Level 2 PAD test effort (second of three levels).

The test method was to apply 1 bona fide subject presentation that alternated with 3 artefact presentations such that each species consisted of 150 Presentation Attacks (PAs) and 50 bona fide presentations per device. The application would then state that "Liveness Failed" for the artefact presentations and "Liveness check: confirmed" for bona fide presentations.

On both the iPhone 6S and the Galaxy S7, iBeta was not able to gain a liveness classification with a presentation attack of 150 times per species per device. With 150 PAs for each of 5 species per device, the total number of attacks for both devices were 1500 and the Attack Presentation Classification Error Rate (APCER) was 0%. The Bona Fide Presentation Classification Error Rate (BPCER) was also calculated and may be found in the final report.

The Oz Liveness passive liveness detection provided by Oz Forensics was testing by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standards and was found to be in compliance with Level 2 on both the iPhone 6S and Galaxy S7.

Best regards,

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