



8 December 2023

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 the GTF Liveness Check v2.9 application developed by GoTo Financial. The application was installed on a Samsung Galaxy A50 running Android 10, and supported on the back end by Vendor's development platform Merlin, using the models designated by hash_id 38daf6dbb9d1d5311fca9251e4506d1f, and the MLflow process designated by the id b31cce24912d4d5db0e3739c734a64d5. iBeta conducted active liveness testing from 29 November to 8 December 2023.

Testing was conducted in accordance with the contract for a level of spoofing technique that only utilized simple, readily available methods to create artefacts of the genuine biometric 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 Presentation Attack Instrument (PAI) was limited to eight hours. This is considered a Level 1 PAD test effort (first of three levels).

The test method was to apply 1 bona fide subject presentation that alternated with 3 artefact presentations such that the presentation of each species consisted of 150 Presentation Attacks (PAs) and 50 bona fide presentations, or until 8 hours had passed. The results were displayed for the tester on the device as "SUCCESS" in blue for a successful attempt or "FAILED" in red for an unsuccessful attempt.

iBeta was not able to gain a liveness classification with the presentation attacks (PAs) on the GTF Liveness Check v2.9 application over a total of 900 attacks, resulting in an Attack Presentation Classification Error Rate (APCER) of 0%. The Bona Fide Presentation Classification Error Rate (BPCER) was also calculated and may be found in the final report.

GoTo Financial's GTF Liveness Check v2.9 application, installed on a Galaxy A50 running Android 10 and supported by components provided via the backend development platform Merlin, was tested by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standard and were found to be in compliance with Level 1.

Best regards,

A handwritten signature in black ink, appearing to read "Ryan Borgstrom".

Ryan Borgstrom
iBeta Quality Assurance Director of Biometrics
(303) 627-1110 ext. 182
RBorgstrom@ibeta.com