



25 August 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 Dicio^{MR}, using the Dicio Liveness Pro v4.0 application, accessed through the Google Chrome browser installed on a Samsung Galaxy A50 running Android 10. Testing of the passive liveness detection solution was conducted from 15 August to 25 August 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 “Resultado: Persona real” for a successful attempt, or “No se detecto rostro valido” for an unsuccessful attempt.

iBeta was not able to gain a liveness classification with the presentation attacks (PAs) on the Samsung Galaxy A50. With 150 PAs performed for each of 6 species, the total number of attacks was 900, 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.

Dicio^{MR}'s Dicio Liveness Pro v4.0 application, accessed through the Google Chrome browser installed on a Samsung Galaxy A50 running Android 10, was tested by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standard and was found to be in compliance with Level 1.

Best regards,

A handwritten signature in black ink, appearing to read "Ryan Borgstrom". The signature is fluid and cursive, with a long horizontal stroke at the end.

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