



19 August 2022

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 Testing 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 Neurotechnology Face Verification and MegaMatcher v12.1.0.0 passive liveness application on two devices. Both systems utilized the faceverification-trial-licensing-server. Testing was conducted from 9 August to 19 August 2022 on a Samsung Galaxy S22 running Android 12, and a Logitech C992 Pro HD Stream Webcam on a laptop Windows 10 system.

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 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 each species consisted of 150 Presentation Attacks (PAs) and 50 bona fide presentations. The mobile application would then state “Operation Status: liveness_check_failed” for the artefact presentations and “Operation Status: success” for bona fide presentations; the Windows-based application would state “Liveness Result LivenessCheckFailed” for the artefact presentations and “Liveness result Success” for bona fide presentations.

On both the Galaxy S22 and Logitech C992 Pro, iBeta was unable to gain a liveness classification with a presentation attack of 150 times per species. With 150 PAs for each of the 6 species on both devices, the total number of attacks was 1800 and the Attack Presentation Classification Error Rate (APCER) was 0% on both devices. The Bona Fide Presentation Classification Error Rate (BPCER) for each device was also calculated and may be found in the final report.

The Neurotechnology Face Verification and MegaMatcher v12.1.0.0 passive liveness solution was tested by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standards and found to be in compliance with Level 1 on the Galaxy S22 and Logitech C992 Pro on a Windows 10 system.

Best regards,

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

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