

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT6082819

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	EYEVERIFY INC.	01/09/2020
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	ALIBABA GROUP HOLDING LIMITED	
<b>Street Address:</b>	FOURTH FLOOR, ONE CAPITAL PLACE	
<b>Internal Address:</b>	P.O. BOX 847	
<b>City:</b>	GEORGE TOWN, GRAND CAYMAN	
<b>State/Country:</b>	CAYMAN ISLANDS	
<b>Postal Code:</b>	KY1-1103	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	16355374
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(877)769-7945	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
<b>Email:</b>	apsi@fr.com	
<b>Correspondent Name:</b>	FISH & RICHARDSON P.C.	
<b>Address Line 1:</b>	P.O. BOX 1022	
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440	
<b>ATTORNEY DOCKET NUMBER:</b>	45477-0042001	
<b>NAME OF SUBMITTER:</b>	CHRISTIE LOVEN	
<b>SIGNATURE:</b>	/Christie Loven/	
<b>DATE SIGNED:</b>	04/29/2020	
<b>Total Attachments: 5</b>		
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## CONFIRMATORY ASSIGNMENT AGREEMENT

THIS ASSIGNMENT AGREEMENT (the "Agreement") is made as of January 9<sup>th</sup>, 2020 by and between:

**EyeVerify, Inc.**, a corporation organized under the Laws of Delaware, having a principal place of business at 1740 Main Street, Suite 100, Kansas City, MO 64108 ("EyeVerify"); and

**ALIBABA Group Holding Limited**, a Cayman Island registered company, having a principal place of business at Fourth Floor, One Capital Place, P.O. Box 877, George Town, Grand Cayman, Cayman Islands KY1-1103 ("Alibaba").

**WHEREAS**, pursuant to certain agreements (the "IP Agreements"), Alibaba owns all rights, title and interests in and to the patents applied for or issued as listed in the attached List of Patents and Applications together with any patent rights and other proprietary rights in and to same (the "Patent Rights");

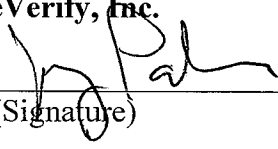
**NOW, THEREFORE**, to effect and record Alibaba's ownership in the Patent Rights and in consideration of the premises and the mutual covenants contained in the IP Agreement and herein, and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

**Confirmatory Assignment.** EyeVerify hereby: (a) confirms the pervious assignment for each of the Patent Rights was effective as of the earliest priority date of the Patent Right; and (b) agrees to, and does hereby assign, transfer, grant, convey, and otherwise relinquish to Alibaba, its successors, assigns and other legal representatives; any and all outstanding right, title and interest, worldwide, in and to the Patent Rights effective as of the earliest priority date of each of the Patent Rights, both such transfers to be together with any and all of the inventions included in the foregoing, and including the subject matter of the applications and patents of the Patent Rights, all other applications that have been made, or may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Patent Rights in every country or region and under every treaty or convention, the right to claim priority based on and the benefit of the filing date of any of the applications and patents of the Patent Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, all of the foregoing to be held and enjoyed by Alibaba for its own use and for the use of its successors, assigns or other legal representatives, together with all of the income, royalties, damages and payments now or hereafter due or payable with respect thereto, and all claims for damages by reason of past, present and future infringement of the rights assigned in the IP Agreements and any assigned under this Agreement, with the right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by EyeVerify if the foregoing transfers to Alibaba had not been made (the "Confirmatory Assignment"). Without limiting the foregoing,

EyeVerify hereby authorizes the U.S. Patent and Trademark Office, and any foreign counterpart(s) or agencies, to issue any patents resulting from the Patent Rights to Alibaba, its successors, assigns and other legal representatives. To the extent that EyeVerify had any remaining interest not previously assigned in the IP Agreements, then this Confirmatory Assignment shall be deemed effective as of the earliest priority date of any Patent Rights identified in the attached List of Patents and Applications.

**IN WITNESS WHEREOF**, EyeVerify, Inc. has executed this Agreement, by its respective and duly authorized representative, if applicable, on the day and year written.

**EyeVerify, Inc.**

  
\_\_\_\_\_  
(Signature)

Printed Name: \_\_\_\_\_

Jeremy Paben

Title: \_\_\_\_\_

GM Zoloz US

Date: \_\_\_\_\_

1-9-20

## **LIST OF PATENTS AND APPLICATIONS**

1. U.S. Application No. 16/154,244 Filed: 10/8/2018  
DYNAMIC GRIP SIGNATURE FOR PERSONAL AUTHENTICATION
2. U.S. Application No. 16/154,263 Filed: 10/8/2018  
PASSIVE AFFECTIVE AND KNOWLEDGE-BASED AUTHENTICATION THROUGH EYE MOVEMENT TRACKING
3. U.S. Application No. 16/024,106 Filed: 6/29/2018  
ONE CLICK APPLICATION ASSET DISTRIBUTION
4. U.S. Application No. 16/182,372 Filed: 11/6/2018  
CAPTURING IMAGES UNDER CODED ILLUMINATION PATTERNS TO REDUCE EFFECTS OF AMBIENT LIGHTING CONDITIONS
5. U.S. Application No. 16/183,274 Filed: 11/7/2018  
NEURAL NETWORKS FOR BIOMETRIC RECOGNITION
6. U.S. Application No. 16/370,467 Filed: 3/29/2019  
SYNCHRONIZING AN ILLUMINATION SEQUENCE OF ILLUMINATION SOURCES WITH IMAGE CAPTURE IN ROLLING SHUTTER MODE
7. U.S. Application No. 16/250,795 Filed: 1/17/2019  
IDENTITY AUTHENTICATION USING LENS FEATURES
8. U.S. Application No. 16/160,881 Filed: 10/15/2018  
EMPLOYING PRESSURE SIGNATURES FOR PERSONAL IDENTIFICATION
9. U.S. Application No. 16/212,516 Filed: 12/6/2018  
HIGH DEFINITION, LARGE CAPTURE VOLUME, CAMERA ARRAY SYSTEM
10. U.S. Application No. 16/140,746 Filed: 9/25/2018  
REDUCTION OF SEARCH SPACE IN BIOMETRIC AUTHENTICATION SYSTEMS
11. U.S. Application No. 16/241,508 Filed: 1/7/2019  
PASSIVE IDENTIFICATION OF A KIOSK USER
12. U.S. Application No. 16/216,811 Filed: 12/11/2018  
AUTHENTICATION USING SOUND BASED MONITOR DETECTION
13. U.S. Application No. 16/216,862 Filed: 12/11/2018  
AUTHENTICATION BASED ON CORRELATION OF MULTIPLE PULSE SIGNALS
14. U.S. Application No. 16/353,876 Filed: 3/14/2019  
AUTHENTICATION BY TRANSMITTING INFORMATION THROUGH A HUMAN BODY
15. U.S. Application No. 16/250,873 Filed: 1/17/2019  
CAPACITIVE THROUGH-BODY COMMUNICATION
16. U.S. Application No. 16/281,935 Filed: 2/21/2019  
AUTHENTICATION OF A USER BASED ON ANALYZING TOUCH INTERACTIONS WITH A DEVICE

17. U.S. Application No. 16/224,479 Filed: 12/18/2018  
CREATING AN IRIS IDENTIFIER TO REDUCE SEARCH SPACE OF A BIOMETRIC SYSTEM
18. U.S. Application No. 16/355,374 Filed: 3/15/2019  
SPOOF DETECTION BY COMPARING IMAGES CAPTURED USING VISIBLE-RANGE AND INFRARED (IR) ILLUMINATIONS
19. U.S. Application No. 16/172,447 Filed: 10/26/2018  
CAPTURING IMAGES USING SUB-FRAME ILLUMINATION
20. U.S. Application No. 16/172,546 Filed: 10/26/2018  
SPOOF DETECTION USING IRIS IMAGES
21. U.S. Application No. 16/171,029 Filed: 10/25/2018  
SPOOF DETECTION USING STRUCTURED LIGHT ILLUMINATION
22. U.S. Application No. 16/172,601 Filed: 10/26/2018  
SPOOF DETECTION USING MULTIPLE IMAGE ACQUISITION DEVICES
23. U.S. Application No. 16/269,059 Filed: 2/6/2019  
SPOOF DETECTION USING DUAL-BAND NEAR-INFRARED (NIR) IMAGING
24. U.S. Application No. 16/232,782 Filed: 12/26/2018  
SPOOF DETECTION USING DUAL-BAND FLUORESCENCE
25. U.S. Application No. 16/247,450 Filed: 1/14/2019  
METHODS FOR DEEP-LEARNING BASED SUPER-RESOLUTION USING HIGH-FREQUENCY LOSS
26. U.S. Application No. 16/256,371 Filed: 1/24/2019  
SYSTEMS AND METHODS FOR DEEP-LEARNING BASED SUPER-RESOLUTION USING MULTIPLE DEGRADATIONS ON-DEMAND LEARNING
27. U.S. Application No. 16/370,525 Filed: 3/29/2019  
USING AN ILLUMINATION SEQUENCE PATTERN FOR BIOMETRIC AUTHENTICATION
28. U.S. Application No. 16/361,038 Filed: 3/21/2019  
AUTHENTICATION VERIFICATION USING SOFT BIOMETRIC TRAITS
29. U.S. Application No. 16/370,575 Filed: 3/29/2019  
BIOMETRIC IDENTIFICATION USING COMPOSITE HAND IMAGES
30. U.S. Application No. 16/361,078 Filed: 3/21/2019  
SPOOF DETECTION USING OPTOKINETIC RESPONSE
31. U.S. Application No. 16/361,453 Filed: 3/22/2019  
FUSING MULTI-SPECTRAL IMAGES FOR IDENTITY AUTHENTICATION
32. U.S. Application No. 16/368,385 Filed: 3/28/2019  
SPECULAR REFLECTION REDUCTION USING POLARIZED LIGHT SOURCES
33. U.S. Application No. 16/368,508 Filed: 3/28/2019  
SPOOF DETECTION USING VIBRATION RESPONSE

34. U.S. Application No. 16/447,762 Filed: 6/20/2019  
AUTHENTICATION BY TRANSMITTING INFORMATION THROUGH MAGNETIC  
FIELDS
35. U.S. Application No. 16/447,802 Filed: 6/20/2019  
VALIDATING TRANSACTIONS USING INFORMATION TRANSMITTED THROUGH  
MAGNETIC FIELDS
36. U.S. Application No. 16/370,691 Filed: 3/29/2019  
SPOOF DETECTION VIA 3D RECONSTRUCTION
37. U.S. Application No. 16/448,995 Filed: 6/21/2019  
SPOOF DETECTION BY ESTIMATING SUBJECT MOTION FROM CAPTURED IMAGE  
FRAMES
38. U.S. Application No. 16/520,839 Filed: 7/24/2019  
SPOOF DETECTION BY GENERATING 3D POINT CLOUDS FROM CAPTURED IMAGE  
FRAMES