505168381 10/31/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRIAN MULLINS	10/30/2018

RECEIVING PARTY DATA

Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16176079

CORRESPONDENCE DATA

Fax Number: (203)255-6570

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.

Phone: 2032556560 Email: bab@rml-law.com **Correspondent Name:** KEVIN M. MASON

Address Line 1: 2425 POST ROAD, SUITE 204 Address Line 2: RYAN, MASON & LEWIS, LLP

Address Line 4: SOUTHPORT, CONNECTICUT 06890

ATTORNEY DOCKET NUMBER:	112533.01
NAME OF SUBMITTER:	KEVIN M. MASON
SIGNATURE:	/Kevin M. Mason/
DATE SIGNED:	10/31/2018

Total Attachments: 2

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> **PATENT** REEL: 047368 FRAME: 0620 505168381

PATENT/Joint Assignment Attorney Docket No.: 112533.01

ASSIGNMENT

WHEREAS, I, Brian Mullins, have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled BIOMETRIC AUTHENTICATION USING SELECTED MANIPULATION OF BIOMETRIC SAMPLES, the specification of which:

[X]	States Patent Office;
	was filed on as U.S. Application No;
	was patented under U.S. Patent Noon
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WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein:

AND, I hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the

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PATENT/Joint Assignment Attorney Docket No.: 112533.01

giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, I have hereunto set our hands and affixed our seals as set forth below:

Date:

10/30/18

Inventor's Signature

Print full name of first inventor:

Residence:

Citizenship:

Mailing Address:

Brian Mullins

Burlington, Massachusetts

United States of America

9 Porter Avenue

Burlington, Massachusetts 01803

Witness

Witness

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