# 505317944 02/07/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5364725

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	

Name	Execution Date	
GANGHUN KIM	01/04/2019	
ANDREW MAIMONE	01/05/2019	
ALEXANDER JOBE FIX	01/05/2019	
ROBERT DALE CAVIN	01/07/2019	
HEE YOON LEE	01/07/2019	
MATTHIEU CHARLES RAOUL LEIBOVICI	01/07/2019	
BRIAN WHEELWRIGHT	01/07/2019	
DOUGLAS ROBERT LANMAN	01/17/2019	

## **RECEIVING PARTY DATA**

Name:	FACEBOOK TECHNOLOGIES, LLC	
Street Address:	1601 WILLOW ROAD	
City:	MENLO PARK	
State/Country:	CALIFORNIA	
Postal Code:	94025	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16222993	

#### CORRESPONDENCE DATA

Fax Number:	(650)	50)843-4001	
		e-mail address first; if that is unsuccessful, it will be sent hat is unsuccessful, it will be sent via US Mail.	
Phone:	650-843-4000		
Email:	eveline.schmid@morganlewis.com		
Correspondent Name:	MORGAN LEWIS & BOCKIUS LLP		
Address Line 1:	1400 PAGE MILL ROAD		
Address Line 4:	PALO ALTO, CALIFORNIA 94304		
ATTORNEY DOCKET NUMBER: 010235-01-5203-US		010235-01-5203-US	
NAME OF SUBMITTER:	IAME OF SUBMITTER: TAE-WOONG KOO		
SIGNATURE:	/ Tae-Woong Koo /		

<b>DATE SIGNED:</b> 02/07/2019	
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 5	
source=010235_01_5203_US_Assignment#page1.tif	
source=010235_01_5203_US_Assignment#page2.tif	
source=010235_01_5203_US_Assignment#page3.tif	
source=010235_01_5203_US_Assignment#page4.tif	
source=010235_01_5203_US_Assignment#page5.tif	

#### COMBINED ASSIGNMENT/DECLARATION (37 CFR 1.63)

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to FACEBOOK TECHNOLOGIES, LLC, a Delaware corporation, having a place of business at 1601 Willow Road, Menlo Park, California 94025 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional application filed under 35 U.S.C. § 111(b), non-provisional application filed under 35 U.S.C. § 111(a), international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):

#### Application No. 16/222,993, entitled "Wide-Field Holographic Pattern Generation for Head-Mounted Display (HMD) Eye" filed on December 17, 2018.

2. The entire worldwide right, title, and interest in and to:

(a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

1

Title:	Wide-Field Holographic Pattern Generation for Head-Mounted Display (HMD) Eye
Date Filed:	December 17, 2018
Application No.:	16/222,993

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

#### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

By signing below, INVENTOR further attests to the following:

- The APPLICATION was made or authorized to be made by INVENTOR.
- INVENTOR believes that INVENTOR is the original inventor or an original joint inventor of a claimed invention in the APPLICATION.
- INVENTOR acknowledges the duty to disclose to the United States Patent and Trademark Office all information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56, which for a continuation-in-part includes information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56 that became available between the filing date of the prior patent application and the National or PCT filing date of the continuation-in-part application.

INVENTOR hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Name and Signature	Date of Signature
-h-h-r	Jon 4, 20/9
Ganghun Kim	· · · · · · · · · · · · · · · · · · ·
Name and Signature	Date of Signature
Andrew Maimone	
Name and Signature	Date of Signature
Alexander Jobe Fix	
Name and Signature	Date of Signature
Robert Dale Cavin	
Attorney Docket No.: 010235-01-5203-US 2 32/ 35701654.1	

Title:	Wide-Field Holographic Pattern Generation for Head-Mounted Display (HMD) Eye
Date Filed:	December 17, 2018
Application No.:	16/222,993

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

#### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

By signing below, INVENTOR further attests to the following:

- The APPLICATION was made or authorized to be made by INVENTOR.
- INVENTOR believes that INVENTOR is the original inventor or an original joint inventor of a claimed invention in the APPLICATION.
- INVENTOR acknowledges the duty to disclose to the United States Patent and Trademark Office all information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56, which for a continuation-in-part includes information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56 that became available between the filing date of the prior patent application and the National or PCT filing date of the continuation-in-part application.

INVENTOR hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Date of Signature
Jan 5, 2019
Date of Signature
Jan 5, 2019
Date of Signature
Jan 7, 2019

Title:	Wide-Field Holographic Pattern Generation for Head-Mounted Display (HMD) Eye
Date Filed:	December 17, 2018
Application No.:	16/222,993

Name and Signature

Höeyaan Lee Version Lee (See 7, 20)

Hee Yoon Lee

Name and Signature

Matthieu .

Leiberice ieu Leibovici (Jan 7, 2019) Matthieu Charles Raoul Leibovici

Name and Signature <u>Brían Wheelwright</u> orian Wheelwright Dan 1, 2025

Brian Wheelwright

Name and Signature

Date of Signature

Jan 7, 2019

Date of Signature Jan 7, 2019

Date of Signature

Jan 7, 2019

Date of Signature

Douglas Robert Lanman

Attorney Docket No.: 010235-01-5203-US 082/ 35701654.1

3

Title: Date Filed: Application No.:	December 17, 2018	eneration for Head-Mounted Display (HMD) E
Name and Signa	ure	Date of Signature
Hee Yoon Lee		
Name and Signat	ure	Date of Signature
Matthieu Charl	es Raoul Leibovici	
Name and Signat	ure	Date of Signature
Brian Wheelwri	ght	
Name and Signat	ure	Date of Signature
Richard Contraction		Jan 17, 2019
Douglas Robert		

Attorney Docket No.: 010235-01-5203-US 082/ 35701654.1 3

# PATENT REEL: 048265 FRAME: 0637

 $(2.5\zeta_{\rm c})$ 

# **RECORDED: 02/07/2019**