503897894 06/30/2016

EPAS ID: PAT3944545

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
D. AMNON SILVERSTEIN	06/15/2016
DAVID R. POPE	06/15/2016
MAXIM W. SMIRNOV	06/15/2016

RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	ONE INFINITE LOOP
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15198414

CORRESPONDENCE DATA

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Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

ATTORNEY DOCKET NUMBER: 32685-33068/US **NAME OF SUBMITTER:** DOHYUN AHN, REG. NO. 63,237 SIGNATURE: /Dohyun Ahn/ **DATE SIGNED:** 06/30/2016

Total Attachments: 2

source=33068_US_Executed_Assignment(minus_Butler-deceased)#page1.tif source=33068 US Executed Assignment(minus Butler-deceased)#page2.tif

PATENT REEL: 039059 FRAME: 0650 503897894

ASSIGNMENT

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 **Apple Inc.**, a California Corporation, having a place of business at One Infinite Loop, Cupertino, California, 95014 ("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 or non-provisional application filed under 35 U.S.C. § 111, design application filed under 35 U.S.C. § 171, 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. 15/198,414 , entitled "Separating Sub-Band Image Data for Processing and Merging with Unprocessed Image Data," filed on June 30, 2016
 - 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 that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) that 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.

1 of 2

32685/33068/DOCS/4033716.1

Title:	Separating Sub-Band Image Data for Processing and Merging with Unprocessed		
	Image Data		
Filed:	June 30, 2016	Attorney Docket #:	32685-33068
Application #:	15/198,414	Client Ref#:	P30340US1

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 or other authority for recordation of this document.

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.

Name and Signature	Date of Signature	
DGS-8-	6/15/2016	
D. Amhon Silverstein		
Name and Signature	Date of Signature	
David R. Page	06/15/2016	
David R. Pope		
Name and Signature	Date of Signature	
Day Jan St.	June 15,2016	
Maxim Smirnov		
Name and Signature	Date of Signature	

Simon W. Butler