

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5172194

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	JERROLD V. HAUCK	04/14/2017
	ALEJANDRO J. MARQUEZ	04/10/2017
	TIMOTHY R. PAASKE	04/14/2017
	INDRANIL S. SEN	04/10/2017
	HERVE SIBERT	04/11/2017
	YANNICK L. SIERRA	04/10/2017
	RAMAN S. THIARA	04/10/2017
RECEIVING PARTY DATA		
Name:	APPLE INC.	
Street Address:	ONE APPLE PARK WAY	
City:	CUPERTINO	
State/Country:	CALIFORNIA	
Postal Code:	95014	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
Application Number:	16090007	
CORRESPONDENCE DATA		
Fax Number:	(408)341-3098	
<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>		
Phone:	408-341-3000	
Email:	Juanita.Briscoe@wbd-us.com	
Correspondent Name:	JAMES C. SCHELLER	
Address Line 1:	P.O. BOX 7037	
Address Line 2:	WOMBLE BOND DICKINSON (US) LLP	
Address Line 4:	ATLANTA, GEORGIA 30357-0037	
ATTORNEY DOCKET NUMBER:	04860.P31383US1	
NAME OF SUBMITTER:	JAMES C. SCHELLER, REG. NO. 31,195	
SIGNATURE:	/James C. Scheller/	
DATE SIGNED:	10/03/2018	

PATENT

Total Attachments: 12

source=P31383PCT_Assignment#page1.tif
source=P31383PCT_Assignment#page2.tif
source=P31383PCT_Assignment#page3.tif
source=P31383PCT_Assignment#page4.tif
source=P31383PCT_Assignment#page5.tif
source=P31383PCT_Assignment#page6.tif
source=P31383PCT_Assignment#page7.tif
source=P31383PCT_Assignment#page8.tif
source=P31383PCT_Assignment#page9.tif
source=P31383PCT_Assignment#page10.tif
source=P31383PCT_Assignment#page11.tif
source=P31383PCT_Assignment#page12.tif

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383PCT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara,
hereby sell, assign, and transfer to Apple Inc.,
a corporation of California,
(Type of Assignee: e.g., corporation, company, partnership, university, etc.)
having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014,

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

4/14, 2017 
Date Name: Jerrold V. Hauck

_____, 20____
Date Name: Alejandro J. Marquez

_____, 20____
Date Name: Timothy R. Paaske

_____, 20____
Date Name: Indranil S. Sen

_____, 20____
Date Name: Herve Sibert

_____, 20____
Date Name: Yannick L. Sierra

_____, 20____
Date Name: Raman S. Thiara

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383PCT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara, hereby sell, assign, and transfer to Apple Inc., a corporation of California (Type of Assignee: e.g., corporation, company, partnership, university, etc.) having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014 ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

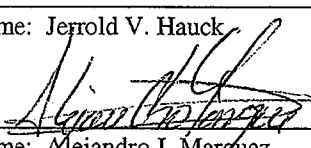
and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

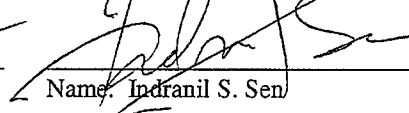
covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Name: Jerrold V. Hauck

4-10, 2017
Date Name: 
Alejandro J. Marquez

_____, 20____
Date Name: Timothy R. Paaske

04/10, 2017
Date Name: 
Indranil S. Sen

_____, 20____
Date Name: Herve Sibert

_____, 20____
Date Name: Yannick L. Sierra

_____, 20____
Date Name: Raman S. Thiara

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383Z2

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara, hereby sell, assign, and transfer to Apple Inc., a corporation of California, (Type of Assignee: e.g., corporation, company, partnership, university, etc.) having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014,

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Name: Jerrold V. Hauck

_____, 20____
Date Name: Alejandro J. Marquez

4/14, 2017
Date Name: Timothy R. Paaske

_____, 20____
Date Name: Indranil S. Sen

_____, 20____
Date Name: Herve Sibert

_____, 20____
Date Name: Yannick L. Sierra

_____, 20____
Date Name: Raman S. Thiara

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383PCT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara, hereby sell, assign, and transfer to Apple Inc., a corporation of California,
(Type of Assignee: e.g., corporation, company, partnership, university, etc.)
having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014,

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Name: Jerrold V. Hauck

_____, 20____
Date Name: Alejandro J. Marquez

_____, 20____
Date Name: Timothy R. Paaske

_____, 20____
Date Name: Indranil S. Sen

April 11, 2017
Date Name: Herve Sibert

_____, 20____
Date Name: Yannick L. Sierra

_____, 20____
Date Name: Raman S. Thiara

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383PCT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara, hereby sell, assign, and transfer to Apple Inc., a corporation of California, (Type of Assignee: e.g., corporation, company, partnership, university, etc.) having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Name: Jerrold V. Hauck

_____, 20____
Date Name: Alejandro J. Marquez

_____, 20____
Date Name: Timothy R. Paaske

_____, 20____
Date Name: Indranil S. Sen

_____, 20____
Date Name: Herve Sibert

04/10, 2017
Date Name: Yannick L. Sierra

_____, 20____
Date Name: Raman S. Thiara

Assignment Document Return Address:

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 04860.P31383PCT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Jerrold V. Hauck, Alejandro J. Marquez, Timothy R. Paaske, Indranil S. Sen, Herve Sibert, Yannick L. Sierra, Raman S. Thiara, hereby sell, assign, and transfer to Apple Inc., a corporation of California, (Type of Assignee: e.g., corporation, company, partnership, university, etc.) having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHODS AND ARCHITECTURES FOR SECURE RANGING

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number PCT/US2017/027792 filed April 14, 2017,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Name: Jerrold V. Hauck

_____, 20____
Date Name: Alejandro J. Marquez

_____, 20____
Date Name: Timothy R. Paaske

_____, 20____
Date Name: Indranil S. Sen

_____, 20____
Date Name: Herve Sibert

_____, 20____
Date Name: Yannick L. Sierra

4/10, 2017
Date Name: Raman S. Thiara

Assignment Document Return Address:

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300