PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| Benoit Chevallier-Mames | 08/28/2013 |
| Mathieu Ciet | 08/28/2013 |
| Thomas Icart | 08/28/2013 |
| Bruno Kindarji | 08/29/2013 |
| Augustin J. Farrugia | 08/30/2013 |

RECEIVING PARTY DATA

| Name: | Apple Inc. |
|-----------------|-----------------|
| Street Address: | 1 Infinite Loop |
| City: | Cupertino |
| State/Country: | CALIFORNIA |
| Postal Code: | 95014 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14015523 |

CORRESPONDENCE DATA

Fax Number: 4087208383

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 408-720-8300

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Correspondent Name: James C. Scheller
Address Line 1: 1279 Oakmead Parkway

Address Line 2: Blakely, Sokoloff, Taylor & Zafman LLP

Address Line 4: Sunnyvale, CALIFORNIA 94085

| ATTORNEY DOCKET NUMBER: | 04860.P18266 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | James C. Scheller |
| | PATENT |

502482707 REEL: 031136 FRAME: 0492

14015523

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| Signature: | /James C. Scheller/ |
|--|---------------------|
| Date: | 09/04/2013 |
| Total Attachments: 4 source=P18266_Assignment#page1.tif source=P18266_Assignment#page2.tif source=P18266_Assignment#page3.tif source=P18266_Assignment#page4.tif | |

PATENT REEL: 031136 FRAME: 0493

| Attorney Docket No.: 04860.P18266 | |
|--|--|
| For good and valuable consideration, the receipt and sufficiency of which is hereby | |
| acknowledged, I/we, the undersigned, Benoit Chevallier-Mames, Mathieu Ciet, Thomas Icart, E | 3runo |
| Kindarji, Augustin J. Farrugia | |
| | |
| hereby sell, assign, and transfer to Apple Inc. | |
| a <u>corporation</u> of <u>California</u> , (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 the United States and all foreign countries, in and to any and all inventions or improvements that a disclosed in the application (provisional or non-provisional) for the United States patent which for 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 | re |
| PRECOMPUTING INTERNAL AES STATES IN COUNTER MODE TO PROTECT KE USED IN AES COMPUTATIONS | YS |
| 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.] | n |
| United States Patent Application Number 14/015,523 filed August 30, 2013, | |
| and in and to said application (provisional or non-provisional) and all provisional applications, nor provisional applications, utility applications, design applications, divisional applications, continuat applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other p applications that have been or shall be filed in the United States and all foreign countries on any of 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; | atent said |
| agree that said Assignee may apply for and receive a patent or patents for said inventions of improvements in its own name; and that, when requested, without charge to, but at the expense of, 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-provision applications, utility applications, design applications, divisional applications, continuation applications, renew applications, reissue applications, continuation-in-part applications, substitute applications on a 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 facknown to the undersigned relating to said inventions or improvements and the history thereof; and | said l onal ions, wal any |

Rev. 1/08/2010

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:

| 01/11 , 20 15 | MUS. |
|---------------|-------------------------------|
| Date | Name: Benoit Chevallier-Mames |
| 08/28 ,2013 | <u></u> |
| Date | Name: Mathieu Ciet |
| 08/28,2013 | T. Jang |
| Date | Name: Thomas Icart |
| 08/29,2013 | - King |
| Date | Name: Bruno Kindarji |
| , 20 | |
| Date | Name: Augustin J. Farrugia |

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.P18266 |
|---|---|
| For good and valuable consideration, the receipt and | l sufficiency of which is hereby |
| acknowledged, I/we, the undersigned, Benoit Chevallier- | Mames, Mathieu Ciet, Thomas Icart, Bruno |
| Kindarji, Augustin J. Farrugia | |
| | · · · · · · · · · · · · · · · · · · · |
| a <u>corporation</u> of <u>Cal</u> (Type of Assignee: e.g., corporation, company, partnership, university, | ifornia , |
| (Type of Assignee: e.g., corporation, company, partnership, university, | etc.) |
| having a principal place of business at 1 Infinite Loop, 6 | Cupertino, CA, 95014 , |
| ("Assignee"), and its successors, assigns, and legal represent the United States and all foreign countries, in and to any and disclosed in the application (provisional or non-provisional application may have a declaration execute concurrently herewith and which application (provisional or | d all inventions or improvements that are) for the United States patent which for the d by the undersigned prior hereto or |
| PRECOMPUTING INTERNAL AES STATES IN CO USED IN AES COMPUT | |
| said patent application also identified as follows (when kno | wn): |
| [I/we hereby authorize an attorney or agent for said number and filing date of said patent application wh | |
| United States Patent Application Number 14/015,523 | filed_ August 30, 2013, |
| and in and to said application (provisional or non-provisional provisional applications, utility applications, design applications, continued prosecution applications, continuation applications, renewal applications, reissue applications, reest applications that have been or shall be filed in the United St inventions or improvements; and in and to all original patent certificates, and extensions, that have been or shall be issued countries on said inventions or improvements; and in and to filing of said United States application; | tions, divisional applications, continuation on-in-part applications, substitute xaminations, extensions, and all other patent rates and all foreign countries on any of said its, reissued patents, reexamination d in the United States and all foreign |
| agree that said Assignee may apply for and receive a improvements in its own name; and that, when requested, w Assignee, its successors, assigns, and legal representatives, | vithout charge to, but at the expense of, said |

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

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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 | Name: Benoit Chevallier-Mames |
|------------------------|-------------------------------|
| , 20 | Name: Mathieu Ciet |
| , 20 | Name: Thomas Icart |
| , 20 | Name: Bruno Kindarji |
| 08.50.9 , 20/3 Date | Name: Augustin J. Farrugia |

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

(408) 720-8300

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