501784695 01/12/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------------------|----------------|
| Hajee Mohammed Shuaeb Fazeel | 08/24/2011 |
| Amir Amirkhany | 07/14/2011 |
| Gundlapalli Shanmukha Srinivas | 07/19/2011 |
| Chaofeng Huang | 07/14/2011 |

RECEIVING PARTY DATA

| Name: | Rambus Inc. | |
|-----------------|--------------------------------|--|
| Street Address: | 1050 Enterprise Way, Suite 700 | |
| City: | Sunnyvale | |
| State/Country: | CALIFORNIA | |
| Postal Code: | 94089 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13349226 |

CORRESPONDENCE DATA

Fax Number: (925)621-2119 **Phone**: 925-621-2113

Email: art@siliconedgelaw.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: SILICON EDGE LAW GROUP, LLP
Address Line 1: 6601 KOLL CENTER PARKWAY

Address Line 2: SUITE 245

Address Line 4: PLEASANTON, CALIFORNIA 94566

| ATTORNEY DOCKET NUMBER: | RA966.P.US |
|-------------------------|------------------|
| NAME OF SUBMITTER: | Arthur J. Behiel |

PATENT

REEL: 027524 FRAME: 0953

D \$40,00 1334922(

Total Attachments: 9

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Docket Number: RA966.PROVI.US

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, we, Hajee Mohammed Shuaeb Fazeel, Amir Amirkhany, Gundlapalli Shanmukha Srinivas and Chaofeng Huang, having a post office address of 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089; (herein referred to as ASSIGNORS), are the sole inventors of the invention described and claimed in the specification forming part of the United States provisional patent application entitled "Methods and Circuits for Calibrating Multi-Modal Termination Schemes," filed January 25, 2011, and assigned serial number 61/436,124;

WHEREAS, Rambus Inc. (hereafter referred to as ASSIGNEE), a Delaware corporation with an office located at: 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089, is desirous of acquiring the entire right, title, and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors an assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protection title to said invention or letters patent thereof.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

| H.Md.Smuaeb Fazeel | Hajce Mohammed Shuaeb Fazeel | 08/24/2011 |
|---|------------------------------------|------------------------------|
| Inventor's Signature | Inventor's Printed Name | Date |
| STATE OF |) | |
| COUNTY OF |) SS) | |
| On this day of | , 2011, before me personally ca | ame the above named Hajee |
| Mohammed Shuaeb Fazeel, who is personally kno | wn by me or proved to me on the ba | sis of satisfactory evidence |
| to be the same individual who executed the forego the same of his own free will for the use and purpos | | ged to me that he executed |

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| | Amir Amirkhany | |
|---|--|---|
| Inventor's Signature | Inventor's Printed Name | Date |
| STATE OF CALIFORNIA |)) SS | |
| COUNTY OF | ; | |
| On this day of Amirkhany, who is personally known individual who executed the foregoing own free will for the use and purposes | , 2011, before me persona by me or proved to me on the basis of satis assignment, and who acknowledged to me therein set forth. | Illy came the above named Ami factory evidence to be the same that he executed the same of hi |
| | NOTARY PUBLI | C |
| | My Commission F | expires: |
| Inventor's Signature | Gundlapalli Shanmukha Sriniv Inventor's Printed Name | Date: |
| STATE OF CALIFORNIA |)) SS | |
| COUNTY OF | , | \$\$. Y \$ |
| evidence to be the same individual wh | , 2011, before me per or is personally known by me or proved to so executed the foregoing assignment, and we for the use and purposes therein set forth. | me on the basis of satisfactory |
| | NOTARY PUBLIC | C |

PATENT REEL: 027524 FRAME: 0956

| | Chaofeng Huang | . |
|---|---|-------------------------------|
| Inventor's Signature | Inventor's Printed Name | Date |
| STATE OF CALIFORNIA |)) SS | |
| COUNTY OF |) | |
| On this day of Huang, who is personally known by me of individual who executed the foregoing assist own free will for the use and purposes there | or proved to me on the basis of satisfa gnment, and who acknowledged to me the | ctory evidence to be the same |
| | NOTARY PUBLIC | |

My Commission Expires:

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, we, Hajee Mohammed Shuaeb Fazeel, Amir Amirkhany, Gundlapalli Shanmukha Srinivas and Chaofeng Huang, having a post office address of 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089; (herein referred to as ASSIGNORS), are the sole inventors of the invention described and claimed in the specification forming part of the United States provisional patent application entitled "Methods and Circuits for Calibrating Multi-Modal Termination Schemes," filed January 25, 2011, and assigned serial number 61/436,124;

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NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors an assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protection title to said invention or letters patent thereof.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

| | Hajee Mohammed Shuaeb Faz | eel |
|--|--|--------------------------------|
| Inventor's Signature | Inventor's Printed Name | Date |
| STATE OF |) | |
| |) SS | |
| COUNTY OF |) | |
| On this day of | , 2011, before me personal | ly came the above named Hajee |
| Mohammed Shuaeb Fazeel, who is persona | | |
| to be the same individual who executed the | e foregoing assignment, and who acknow | wledged to me that he executed |
| the same of his own free will for the use an | d purposes therein set forth. | |

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| 1 hamman marine | Amir Amirkhany 67/19/11 |
|-----------------------|--|
| Inventor's Signature | Inventor's Printed Name Date |
| | HA B60235 California Q NOTARY PUBLIC |
| | |
| Inventor's Signature | Gundlapalli Shanmukha Srinivas Inventor's Printed Name Date |
| interior o organicaro | The state of the s |
| STATE OF COUNTY OF |)) SS) |
| | , 2011, before me personally came the above named ally known by me or proved to me on the basis of satisfactory the foregoing assignment, and who acknowledged to me that he and purposes therein set forth. |
| | NOTARY PUBLIC |

My Commission Expires:

| Charfey Humg Inventor's Signature | Chaofeng Inventor's | Huang Printed Name | 7/14/2011 Date |
|--|-----------------------------|------------------------------------|-------------------|
| STATE OF CALIFORNIA COUNTY OF Santa Clara On this WHA day of July Chaofeng Huang, who is personally known by me of same individual who executed the foregoing assignment of his own free will for the use and purposes therein | or proved to nent, and w | me on the basis of sati | |
| V. VERCHA C. ONMA: 186 Notes Outlier Co Sch Mateu Co Parts of English Au | unty | NOPARY PUBLIC My Commission Expire | es: Aug 6,2013 |

Docket Number: RA966.PROV1.US

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, we, Hajee Mohammed Shuaeb Fazeel, Amir Amirkhany, Gundlapalli Shanmukha Srinivas and Chaofeng Huang, having a post office address of 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089; (herein referred to as ASSIGNORS), are the sole inventors of the invention described and claimed in the specification forming part of the United States provisional patent application entitled "Methods and Circuits for Calibrating Multi-Modal Termination Schemes," filed January 25, 2011, and assigned serial number 61/436,124;

WHEREAS, Rambus Inc. (hereafter referred to as ASSIGNEE), a Delaware corporation with an office located at: 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089, is desirous of acquiring the entire right, title, and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors an assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protection title to said invention or letters patent thereof.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

| | | Hajee Mohammed Shuaeb Faze | <u> </u> |
|------------------|--------------------------|--|----------------------------------|
| Inventor's Signa | nture | Inventor's Printed Name | Date |
| STATE OF | |) | |
| | |) SS | |
| COUNTY OF | |) | |
| On this | day of | , 2011, before me personall | y came the above named Hajes |
| Mohammed Sh | uaeb Fazeel, who is per | sonally known by me or proved to me on th | e basis of satisfactory evidence |
| to be the same | individual who execute | d the foregoing assignment, and who acknow | vledged to me that he executed |
| the same of his | own free will for the us | e and purposes therein set forth. | |

NOTARY PUBLIC

| | Amir Amirkhany | | |
|--|--|--------------------------------|--|
| Inventor's Signature | Inventor's Printed Name | Date | |
| STATE OF CALIFORNIA |) | | |
| COUNTY OF |) SS) | | |
| On this day of Amirkhany, who is personally known by me of individual who executed the foregoing assigns own free will for the use and purposes therein | nent, and who acknowledged to me t | factory evidence to be the sam | |
| | NOTARY PUBLIC | | |
| | My Commission E | xpires: | |
| Shanniku Em Inventor's Signature | Gundlapalli Shanmukha Sriniv | as 19/07/2011 | |
| Inventor's Signature | Inventor's Printed Name | Date' | |
| STATE OF |)) | | |
| COUNTY OF | Ď | | |
| On this day of Gundlappali Shanmukha Srinivas, who is per evidence to be the same individual who execu executed the same of his own free will for the | sonally known by me or proved to ted the foregoing assignment, and w | me on the basis of satisfactor | |

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| Township Classific | Chaofeng Huang Inventor's Printed Name | Date |
|--|---|-----------------------------------|
| Inventor's Signature | misemor s rimiten isame | ngiệ |
| STATE OF CALIFORNIA |)) SS | |
| COUNTY OF |) | |
| On this day of Chaofeng Huang, who is personally known same individual who executed the foregoin of his own free will for the use and purpose | by me or proved to me on the basis of g assignment, and who acknowledged to | f satisfactory evidence to be the |

RECORDED: 01/12/2012

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My Commission Expires: