501860828 03/21/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Kyung Suk Oh	02/22/2012
Woopoung Kim	02/29/2012
Huy M. Nguyen	02/22/2012
Eugene C. Ho	02/23/2012

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:	12064041

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.

Arthur J. Behiel Correspondent Name:

Address Line 1: 6601 Koll Center Parkway, Suite 245 Address Line 4: Pleasanton, CALIFORNIA 94566

ATTORNEY DOCKET NUMBER:	K-RA0044.C1C1.05

NAME OF SUBMITTER: Arthur J. Behiel

Total Attachments: 8

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REEL: 027901 FRAME: 0200

PATENT

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PATENT REEL: 027901 FRAME: 0201

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to an obligation to Rambus Inc. and/or its affiliates to assign intellectual property, and pursuant to any other applicable agreements among Rambus Inc. and its affiliates, the person(s)

Kyung Suk Oh, of Cupertino, California Woopoung Kim, of San Diego, California Huy M. Nguyen, of San Jose, California Eugene C. Ho, of Saratoga, California

(hereinafter referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and/or does hereby sell, assign, and transfer to Rambus Inc., a Delaware corporation, having a place of business at 1050 Enterprise Way, Suite 700, Sunnyvale CA 94089 ("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 non-provisional

	iled under 35 U.S.C. § 111(a) ("A External Termination", having:	.PPLICATION") entitled "Sigr	nal Lines with
X	United States Patent Applicati	on No. 13/316,046, filed on	December 9, 2011;
	which claims priority to U.S. Pron September 24, 2008; which 12/555,886 filed on September Application No. 13/022,539 files	h claims priority to U.S. Pate er <mark>9, 2009</mark> which claims prio	ent Application No.
	Application number (
	inserted by (and requests ASSIGNEE or it	s agents to insert here

with the signature and date of the person completing this section].

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, utility model, design, divisional, continuation, continued prosecution, continuation-in-part, substitute, renewal, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world related to the SUBJECT MATTER; (d) all patents (including reissues, re-examinations, and extensions) 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.

As part of this Assignment, INVENTOR further agrees to do the following, when requested, and without further consideration: (1) execute all oaths, declarations, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and

Docket No.: R-RA0644.C1C1.US Page 1 of 4 App. No.: 13/316,046

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.

The terms and covenants of this Assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding upon INVENTOR, and INVENTOR's respective heirs, legal representatives and assigns.

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.

Each Inventor: Please Sign and Date Below:

Inventor Name: Kyung Suk Oh Date
State of California) County of Santa Clara) On 22 Feb 2012 before me, UTescha, Notary Public,
personally appeared Kyung Suk Oh, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that (ne) she executed the same in (his) her authorized capacity, and that by his) her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
Signature: V. JERCHA COMM. #1860235 z Notary Public · California o San Mateo County My Comm. Expires Aug. 6, 2013

Docket No.: R-RA0644.C1C1.US Page 2 of 4 App. No.: 13/316,046

Inventor Name: Woopoung Kim	Date		
State of			
On before me,	, Notary Public,		
personally appeared Woopoung Kim , who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.			
I certify under PENALTY OF PERJURY under the laws of the State of that the foregoing paragraph is true and correct.			
WITNESS my hand and official seal.			
Signature:	(Seal)		

Docket No.: R-RA0644.C1C1.US Page 3 of 4 App. No.: 13/316,046

Accessive 2/22/2012		
Inventor Name: Huy M/Nguyen Date		
State of California) County of Santa Clara)		
on 22 Feb 2012 before me, Varcha, Notary Public,		
personally appeared Huy M. Nguyen , who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.		
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.		
WITNESS my hand and official seal.		
Signature: (Seal) V. JERCHA COMM. #1860235 Notary Public · California San Mateo County My Comm. Expires Aug. 6, 2013		
Eng-Ho 2/23/2012		
Inventor Name: Eugene C. Ho Date		
State of California) County of Santa Clara)		
On <u>23 Feb 2012</u> before me, VJercha, Notary Public,		
personally appeared Eugene C. Ho, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.		
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Docket No.: R-RA0644.C1C1.US Page 4 of 4 App. No.: 13/316,046

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ernal and I	External Termination", having:		
<u> </u>	United States Patent Application No. 13/316,046, filed on December 9, 2011;		
<u></u>	which claims priority to U.S. Provisional Patent Application No. 61/099,646 filed on September 24, 2008; which claims priority to U.S. Patent Application No. 12/555,886 filed on September 9, 2009 which claims priority to U.S. Patent Application No. 13/022,539 filed on February 7, 2011		
	Application number (), filed (),
	inserted by () on () [Where
	INVENTOR hereby authorizes	and requests ASSIGNEE or it	s agents to insert here
	in each parentheses the application	cation number and filing date	e when known, along
	with the signature and date of		

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, utility model, design, divisional, continuation, continued prosecution, continuation-in-part, substitute, renewal, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world related to the SUBJECT MATTER; (d) all patents (including reissues, re-examinations, and extensions) 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.

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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.

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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.

Each Inventor: Please Sign and Date Below:

Inventor Name: Kyung Su	ık Oh	Date	
State of California County of Santa Clara)		
On	before me,	, Notary Public,	
personally appeared Kyung Suk Oh, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.			
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.			
WITNESS my hand and official seal.			
Signature:		(Seal)	

Docket No.: R-RA0644.C1C1.US Page 2 of 4 App. No.: 13/316,046

Inventor Name: Woopoung Kim	02/29/20/2 Date
,	
State of) County of)	
On before me,	, Notary Public,
	e on the basis of satisfactory evidence to be the person acknowledged to me that he/she executed the same in re on the instrument the person, or the entity upon behalf
I certify under PENALTY OF PERJURY under the laws of t is true and correct.	he State of that the foregoing paragraph
WITNESS my hand and official seal.	·
Signature:	(Seal)

Docket No.: R-RA0644.C1C1.US Page 3 of 4 App. No.: 13/316,046

Inventor Name: Huy M. Nguyen	Date
State of California) County of Santa Clara)	
On before me,	, Notary Public,
whose name is subscribed to the within instrum	ed to me on the basis of satisfactory evidence to be the person nent and acknowledged to me that he/she executed the same in signature on the instrument the person, or the entity upon behalf ment.
I certify under PENALTY OF PERJURY under the land correct.	aws of the State of California that the foregoing paragraph is true
WITNESS my hand and official seal.	
Signature:	(Seal)
Inventor Name: Eugene C. Ho	Date
State of California) County of Santa Clara)	
On before me,	, Notary Public,
whose name is subscribed to the within instrume	to me on the basis of satisfactory evidence to be the person ent and acknowledged to me that he/she executed the same in signature on the instrument the person, or the entity upon behalf ent.
I certify under PENALTY OF PERJURY under the la and correct.	nws of the State of California that the foregoing paragraph is true
WITNESS my hand and official seal.	
Signature:	(Seal)

Docket No.: R-RA0644.C1C1.US Page 4 of 4 App. No.: 13/316,046

PATENT REEL: 027901 FRAME: 0209