505726283 10/16/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5773095

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYA	ICE:	ASSIGNMENT	
CONVEYING PARTY D	ATA		
		Name	Execution Date
MASUM HOSSAIN			06/01/2012
FARSHID ARYANFAR			05/25/2012
RECEIVING PARTY DA	ТА		
Name:	RAMBL	IS INC	
Street Address:	1050 E I	NTERPRISE WAY #700	
City:	SUNNY	SUNNYVALE	
State/Country:	CALIFC	CALIFORNIA	
Postal Code:	94089		
	-		
PROPERTY NUMBERS Property Type		Number	7
Application Number:		16382580	_
CORRESPONDENCE D Fax Number:			
Correspondence will be		the e-mail address first; if that is un ; if that is unsuccessful, it will be se	
Phone:		408-462-8000	
Email:	1	friedman@rambus.com	
• · · · · ·	-		
Correspondent Name: Address Line 1:		TAMMY FRIEDMAN 1050 ENTERPRISE WAY #700	

Audiess Line I.	1000 ENTERFRIGE WAT #700
Address Line 4:	SUNNYVALE, CALIFORNIA 94089

ATTORNEY DOCKET NUMBER:	RA1145.C1C1C1.US	
NAME OF SUBMITTER:	TAMMY FRIEDMAN	
SIGNATURE:	/TAMMY FRIEDMAN/	
DATE SIGNED:	10/16/2019	

Total Attachments: 6

source=RA1145.Prov1.US Assignment#page1.tif source=RA1145.Prov1.US Assignment#page2.tif source=RA1145.Prov1.US Assignment#page3.tif source=RA1145.Prov1.US Assignment#page4.tif source=RA1145.Prov1.US Assignment#page5.tif

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)

Masum Hossain of Sunnyvale, California Farshid Aryanfar of Allen, Texas

(hereinafter referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and/or does hereby sell, assign, and transfer to 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 provisional application ("APPLICATION") entitled "Wide Range Frequency Synthesizer with Quadrature Generation and Spur Cancellation", having:

X	US Patent Application No. 61/622,977, filed on April 11, 2012;
---	--

- which claims priority to U.S. Patent Application No. [Enter APPLICATION NUMBER] filed on [Enter DATE] ; or
- Application number (______), filed (______), inserted by (______) on (______) [Where INVENTOR hereby authorizes and requests ASSIGNEE or its agents to insert here in each parentheses the application number and filing date when known, along 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 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

App. No.: 61/622,977

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:

6/01/12
Date
, Notary Public,
me on the basis of satisfactory evidence to be the person nd acknowledged to me that he/she executed the same in ture on the instrument the person, or the entity upon behalf
f the State of California that the foregoing paragraph is true
(Seal)

Docket No.: 25728-19914 (RA1145.Prov1.US) Page 2 of 3

App. No.: 61/622,977

Each Inventor: Please Sign and Date Below:

Inventor Name: Farshid Aryanfar	Date
State of California) County of Santa Clara)	
On before me,	, Notary Public,
whose name is subscribed to the within instrumen	d to me on the basis of satisfactory evidence to be the person at and acknowledged to me that he/she executed the same in gnature on the instrument the person, or the entity upon behalf nt.
I certify under PENALTY OF PERJURY under the law and correct.	rs of the State of California that the foregoing paragraph is true
WITNESS my hand and official seal.	
Signature:	(Seal)

.

App. No.: 61/622,977

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Masum Hossain of Sunnyvale, California Farshid Aryanfar of Allen, Texas

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1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional application ("APPLICATION") entitled "Wide Range Frequency Synthesizer with Quadrature Generation and Spur Cancellation", having:

<u> </u>	US Patent Application No. 61/6	522,977 , filed on April 11, 20	12;	
	which claims priority to U.S. Patent Application No. [Enter APPLICATION NUMBER] filed on [Enter DATE] ; or			
	Application number (inserted by (),)[Where	
	INVENTOR hereby authorizes and requests ASSIGNEE or its agents to insert here in each parentheses the application number and filing date when known, along 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.

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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: Masum Hossain	Date
State of California) County of Santa Clara)	
On before me,	, Notary Public,
personally appeared Masum Hossain , who proved to m whose name is subscribed to the within instrument and his/her authorized capacity, and that by his/her signatur of which the person acted, executed the instrument.	
I certify under PENALTY OF PERJURY under the laws of t and correct.	he State of California that the foregoing paragraph is true
WITNESS my hand and official seal.	
Signature:	(Seal)

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App. No.: 61/622,977

Each Inventor: Please Sign and Date Below:

Inventor Name: Farshid A	Aryanfar UN Julian		
State of California County of Santa Clara))		
On	before me,	, Notary Public,	
whose name is subscribe his/her authorized capac	d to the within instrument a	o me on the basis of satisfactory evidence to be the persor and acknowledged to me that he/she executed the same in ature on the instrument the person, or the entity upon beh	۱
I certify under PENALTY C and correct.	DF PERJURY under the laws o	of the State of California that the foregoing paragraph is tru	ue
WITNESS my hand and of	ficial seal.		
Signature:		_ (Seal)	

Page 3 of 3 Docket No.: 25728-19914 (RA1145.Prov1.US)

App. No.: 61/622,977

RECORDED: 10/16/2019