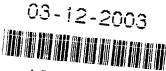
7-25-03



OF COMMERCE Form **PTO-1595** RECORDATION FORM 102389458 (Rev. 03/01) Trademark Office **PATENTS ONLY** OMB No. 0651-0027 (exp. 5/31/2002) To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) 1. Name of conveying party(ies): Jade M. Kizer; Benedict C. Lau; Name: Rambus Inc. Roxanne T. Vu; Huy M. Nguyen; Leung Yu; and Adam Chuen-Huei Chou Internal Address: Additional name(s) of conveying party(ies) attached? The Yes The No. 3. Nature of conveyance: Merger Merger Assignment Street Address: 4440 El Camino Real Security Agreement Change of Name City: Los Altos State: CA Zip: 94022 Execution Date: _2/21/2003 and 2/24/2003 4. Application number(s) or patent number(s): 2/21/2003 & If this document is being filed together with a new application, the execution date of the application is: 2/24/2003 A. Patent Application No.(s) B. Patent No.(s) 1037425/ Additional numbers attached? 📮 Yes 🔯 No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41).....\$ \$40.00 Name: Shemwell Gregory & Courtney LLP Enclosed Internal Address: Authorized to be charged to deposit account 8. Deposit account number: Street Address: 4880 Stevens Creek Blvd. 501914 Suite 201 (Attach duplicate copy of this page if paying by deposit account) City: San Jose State: CA Zip:95129-1034 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Total number of pages including cover sheet, attachments, and documents:

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

3/03/2003 BNGUYEN1 00000026 10374251

Charles E. Shemwell

Name of Person Signing

PATENT REEL: 013823 FRAME: 0194



Attorney Docket No.: RMBS.P111 PATENT

ASSIGNMENT

In consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, <u>Jade M. Kizer</u>, <u>Benedict C. Lau</u>, <u>Roxanne T. Vu</u>, <u>Huy M</u>, <u>Nguyen</u>, <u>Leung Yu and Adam Chuen-Huei Chou</u>, the undersigned Assignor(s), believing to be the original, first and sole or joint inventor(s) of any and all new and useful improvements disclosed in the application for the United States patent entitled

PHASE JUMPING LOCKED LOOP CIRCUIT

hereby sell, assign, and transfer to Rambus Inc., a Delaware Corporation having a principal place of business at 4440 El Camino Real, Los Altos, California 94022, ("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 improvements that are disclosed in the same patent application

	which was filed with the United States Patent and Trademark Office on	
and which was	assigned Application Number	
_X	which has been executed by the undersigned prior hereto or concurrently herewith on the dates indicated below.	

The undersigned further sell, assign, and transfer to Assignee said application and all divisional applications, continuation applications, continuation applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications, utility models and the like that have been or shall be filed in the United States and all foreign countries on any of said 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 improvements; and in and to all rights of priority resulting from the filing of said United States application; and the right to file foreign applications directly in the name of the Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

The undersigned further agree that said Assignee may apply for and receive a patent or patents for said 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 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 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 improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements

PATENT REEL: 013823 FRAME: 0195 and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives.

The undersigned 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.

The undersigned hereby authorize and request the Officials of the United States Patent and Trademark Office and any and all foreign Patent Offices to issue any and all Letters Patents, when granted, to said Assignee as the assignee of the entire right, title and interest in and to the same, for the sole use of said Assignee, its successors and assigns, to the full end of the term for which said Letters Patents may be granted.

The undersigned hereby grant to <u>Charles E. Shemwell (Reg. No. 40,171)</u>, located at <u>4880 Stevens Creek Blvd.</u>, <u>Suite 201</u>, <u>San Jose</u>, <u>California 95129-1034</u>, the power to insert on this document any further identification necessary or desirable to comply with the rules of the United States Patent and Trademark Office for recordation of this Assignment.

Each Inventor/Assignor: Please Sign and Date Below:

State of California State of California I certify that I know/have satisfactory evidence that Jade M. Kizer is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. MITNESS my hand and official seal. ADRIENNE C. MULLANY Commission # 1383084 Natural Public of California			
DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: State of California State of California I certify that I know/have satisfactory evidence that Jade M. Kizer is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. ADRIENNE C. MULLAY Commission # 1383084 heads a purpose of the properties of the person with the purpose of the person with the p			1 1
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Assignment executed with new filling: Feb 71 2003 Name: Jade M. Kizer Date			I I
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Alexander Bublic - California	WITNESS my hand and official	seal.	Commission # 1363084
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Date: a / a / (c) Santa Clara County	Volume Crruban	7 Date: 2/2/03	Santa Clara County
Notary Public Signature 0 My Comm. Expires Jun 29, 2000	Notary Public Signature	()	My Comm. Expires Jun 29, 2006

	Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing:
Date Name: Benedict C. Lau	<u>Fab 21</u> , 2003 Date
State of California)) ss County of Santa Clara)	
I certify that I know/have satisfactory evidence that <u>Benedict C. Lau</u> is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument.	
WITNESS my hand and official seal. Odvienne C. Mullony Notary Public Signature Date: 2/21/0.3	ADRIENNE C. MULLANY Commission # 1363084 Notary Public - California Santa Clara County My Comm. Expires Jun 29, 2006
	Discourse live late

State of California) ss County of Santa Clara I certify that I know/have satisfactory evidence that Roxanne T. Vu is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument.

Please also list date you signed the accompanying **DECLARATION AND** POWER OF ATTORNEY if Assignment executed with new filing:

ADRIENNE C. MULLANY Commission # 1383084 Notary Public - California

My Comm. Expi-

Santa Clara Course,

Notary Public Signature

WITNESS my hand and official seal.

Date: 2/21/03

State of California State of California County of Santa Clara I certify that I know/have satisfactory evidence that Huy M. Nguven is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seat. Commenc C. Yullany Date: 2/2/103 D				Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing:
State of California County of Santa Clara	<u>2/2/</u> , 2003	Menn		<u>2/2/</u> , 2003
I certify that I know/have satisfactory evidence that Huy M. Nguyen is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. WITNESS my hand and official seal. Date: 2/2/103 Date: 2/2/103 Date: 2/2/103 Date Date	Date	Name: Fixity M. Nguyer	1	Date
County of Santa Clara I certify that I know/have satisfactory evidence that Huy M. Nguyen is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seat. Otherne C. Mullany Date: 2/2/103 Date: 2/2/103 Date: 2/2/103 Date: 2/2/2/2 Date: 2/2/2/2 Date: 2/2/2/2 Date: 2/2/2/2 Date: 2/2/2/2 ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia # 2 Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filling: 2/2/2 Date: 2/2/2 Date: 2/2/2 ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia Date: 2/2/4/03 ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia ADRIENNE C. MULLANY Commission # 1383084 Notary Public - Califfornia Santa Clara County	State of California)) ss		
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Date: 2/2/103 Date: 2/2/103 Date: 2/2/103 Date: 2/2/103 Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: 2/2/4, 2003 Date Name: Leung VI Date State of California) ss County of Santa Clara I certify that I know/have satisfactory evidence that Leung Yu is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. Adrience C. Mullary Commission # 1383084 Notary Public - California Santa Clara Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: 2/2/4, 2003 Date ADRIENNE C. MULLARY Commission # 1383084 Notary Public - California Santa Clara County ADRIENNE C. MULLARY Commission # 1383084 Notary Public - California Santa Clara County ADRIENNE C. MULLARY Commission # 1383084 Notary Public - California Santa Clara County	person who appeared before many signed this instrument and ack	e, and said person acknowledge nowledged it to be his or her fre	ed that he or she	
Notary Public Signature Date: 2/2/103 Notary Public - California Santa Clara County My Corm. Expired Jun 29, 2006 Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: 2/24, 2003 Date Name: Leung Yu Name: Leung Yu State of California) ss County of Santa Clara I certify that I know/have satisfactory evidence that Leung Yu is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. ADRIENNE C. MULLANY Commission # 1363044 Notary Public - California Santa Clara Outry ADRIENNE C. MULLANY Commission # 1363044 Notary Public - California Santa Clara County ADRIENNE C. MULLANY Commission # 1363044 Notary Public - California Santa Clara County	WITNESS my hand and offici	al seal.		
the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: 2/24, 2003 Date Name: Leung Yu Name: Leung Yu State of California) ss County of Santa Clara I certify that I know/have satisfactory evidence that Leung Yu is the person who appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. Adrienne C. Mullary Commission # 1883084 Notary Public - California Santa Clara County Date: 2/24/03	Notary Public Signature	2any Date: 2/2/103		Notary Public - California
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appeared before me, and said person acknowledged that he or she signed this instrument and acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned in the instrument. WITNESS my hand and official seal. Odnieme C. Mullany Date: 2/24/03 Date: 2/24/03 Santa Clara County)) ss)		
advience C. Mullany Date: 2/24/03 Date: 2/24/03 Commission # 1363084 Notary Public - California Santa Clara County	appeared before me, and said p instrument and acknowledged i	erson acknowledged that he or s t to be his or her free and volun	she signed this	
Clarifornia Date: 2/24/03 2 Santa Clara County	WITNESS my hand and officia	I seal.		Commission # 1363084
	Advienne C. Mullon Notary Public Signature	Date: 2/24/0	3	Santa Clara County [

Feb. 2 , 2003 Date	Adam Chuen Huei Chou Name: Adam Chuen-Huei Chou	Please also list date you signed the accompanying DECLARATION AND POWER OF ATTORNEY if Assignment executed with new filing: Feb. 2 , 2003 Date
State of California)) ss	
County of Santa Clara)	
the person who appeared before she signed this instrument and a	ctory evidence that <u>Adam Chuen-Huei Chou</u> is me, and said person acknowledged that he or cknowledged it to be his or her free and proses mentioned in the instrument.	
WITNESS my hand and official Odvienne C. Mulle Notary Public Signature	I	ADRIENNE C. MULLANY Commission # 1363084 Notary Public - California Santa Clara County My Comm. Expires Jun 29, 2008

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PATENT

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RECORDED: 02/25/2003