PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Xinkuan Zhou	05/19/2009
Clifton Powers	05/19/2009
Laxman Anne	05/18/2009
Manish Sharma	05/18/2009
Joe Polland	05/18/2009

RECEIVING PARTY DATA

Name:	ADC DSL Systems, Inc.
Street Address:	13625 Technology Drive
City:	Eden Prairie
State/Country:	MINNESOTA
Postal Code:	55344

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12468562

CORRESPONDENCE DATA

Fax Number: (952)465-0771

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

Phone: 9524650770

Email: docketing@fogglaw.com

Correspondent Name: Fogg & Powers LLC

Address Line 1: 5810 W. 78th Street

Address Line 2: Ste 100

Address Line 4: Minneapolis, MINNESOTA 55439

ATTORNEY DOCKET NUMBER: 100.1063US01

NAME OF SUBMITTER: Julia M. Sisterman

REEL: 022705 FRAME: 0155

OP \$40.00 12468562

PATENT



555 11:07:38 05-18-2009 10/13

ASSIGNMENT

WHEREAS, we, Xinkuan Zhou residing at Mingxigu, 1-603, Shekou, Shenzen, P.R. China; Clifton Powers residing at 8829 Stage Ford Road, Raleigh, NC 27615, US; Laxman Anne residing at 13050 Dahlia Circle, Eden Prairie, MN 55344, US; Manish Sharma residing at 13000 Dahlia Circle, Eden Prairie, MN 55344-6693, US; and Joe Polland residing at 13800 Chestnut Drive, Eden Prairie, MN 55344, US made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States filed herewith, entitled SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES (the "Application").

AND WHEREAS, ADC DSL Systems, Inc., a corporation organized and existing under and by virtue of the laws of the State of Minnesota, and having an office and place of business at 13625 Technology Drive, Eden Prairie, MN 55344-2252, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to the inventions, improvements and the Application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the Application, and in and to the Application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration identified above, we do agree that me and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to the Assignee, its successors and representatives all facts known to me relating to the improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in the Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with the Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

11:07:54 05-18-2009

555

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his hand on the date indicated below.

Xinkuan Zhou

Date

Witness

Date

IN TESTIMONY WHEREOF, I have hereunto set my hand this ____day of _________,

2009.

Clifton Powers

STATE of ________)

SS.

COUNTY of _______)

On this _____ day of ________, 2009, before me personally appeared Clifton Powers to me known to be the person described herein and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

11 / 13

Assignment	
Title: SYSTE	M AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES
ATTORNEY DO	OCKET: 100.1063US01
AGE 2 OF 4	
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2009.	A Carrier of
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	LaxmanAnne
STATE of _	
	Chall iss.
COUNTY o	
_	his \\ day of Max \\ , 2009, before me personally appeared LaxmanAnne to me
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known to be	executed the same for the uses and purposes therein set forth.
to me that n	executed the same for the uses and purposes dictent set forth.
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IN	MY COMMISSION EXPIRED CHARLIFE
IN	MY COMMISSION EXPIRED CHARLIFE
IN 2009.	TESTIMONY WHEREOF, I have hereunto set my hand this 18 day of May, Manish Sharma
IN	TESTIMONY WHEREOF, I have hereunto set my hand this 18 day of May, Manish Sharma
IN 2009.	TESTIMONY WHEREOF, I have hereunto set my hand this 18 day of May, Manish Sharma
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IN 2009. STATE of On known to b to me that h	TESTIMONY WHEREOF, I have hereunto set my hand this 18 day of Manish Sharma Manish Sharma this 18 day of Manish Sharma to be the person described herein) and who executed the foregoing instrument, and he duly acknowled

Assignment
Title: SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES

ATTORNEY DOCKET: 100.1063US01
PAGE 3 OF 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this day of May
Joe Polland

STATE of Joe Polland

STATE of Joe Polland

COUNTY of John Joe Polland

COUNTY of Joe Polland

COUNTY of Joe Polland

COUNTY of Joe Polland

CASSIE SHAUGHNESSY GEP
NOTATIONAL TDM FRAMES

AND METHOD TO MULTIPLEXING FRACTIONAL TDM FRAMES

ATTORNEY DOCKET: 100.1063US01

Joe Polland

CASSIE SHAUGHNESSY GEP
NOTATIONAL TDM FRAMES

AND METHOD TO MULTIPLEXING FRACTIONAL TDM FRAMES

AND MULTIPLEXING FRAMES

AND MULTIPL

MY COMMISSION EXPIRES 01/31/17

ASSIGNMENT

WHEREAS, we, Xinkuan Zhou residing at Mingxigu, 1-603, Shekou, Shenzen, P.R. China; Clifton Powers residing at 8829 Stage Ford Road, Raleigh, NC 27615, US; Laxman Anne residing at 13050 Dahlia Circle, Eden Prairie, MN 55344, US; Manish Sharma residing at 13000 Dahlia Circle, Eden Prairie, MN 55344-6693, US; and Joe Polland residing at 13800 Chestnut Drive, Eden Prairie, MN 55344, US made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States filed herewith, entitled SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES (the "Application").

AND WHEREAS, ADC DSL Systems, Inc., a corporation organized and existing under and by virtue of the laws of the State of Minnesota, and having an office and place of business at 13625 Technology Drive, Eden Prairie, MN 55344-2252, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to the inventions, improvements and the Application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the Application, and in and to the Application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration identified above, we do agree that me and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to the Assignee, its successors and representatives all facts known to me relating to the improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in the Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with the Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

	RSIGNED has hereunto set his hand on the date indicated below.	
dition	05/19/2009	
Xinkuan Zhou	Date	
一行对对	05/19/2009	
Witness	Date	
38年	05/19/2009 Date 05/19/2009 Date 05/19/2009	
Witness	Date	
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IN TESTIMONY WHEREOF, III	nave hereunto set my hand this day of .	
	nave hereunto set my hand thisday of,	
IN TESTIMONY WHEREOF, 11: 2009.	nave hereunto set my hand thisday of,	
	Clifton Powers	
2009. STATE of)		
2009. STATE of		
2009. STATE of	Clifton Powers	
2009. STATE of	Clifton Powers , 2009, before me personally appeared Clifton Powers to me	
2009. STATE of	Clifton Powers , 2009, before me personally appeared Clifton Powers to me nd who executed the foregoing instrument, and he duly acknowledge	
STATE of) STATE of) SS. COUNTY of) On this day of known to be the person described herein a	Clifton Powers , 2009, before me personally appeared Clifton Powers to me nd who executed the foregoing instrument, and he duly acknowledge	

Assignment Title: SYSTEM AND METHOD FOR MULTIPLEX	ING FRACTIONAL TDM FRAMES
ATTORNEY DOCKET: 100.1063US01 Page 2 of 4	
	reunto set my hand thisday of,
2009.	
	LaxmanAnne
STATE of)	
STATE of)	
On this day of known to be the person described herein and who to me that he executed the same for the uses and	, 2009, before me personally appeared LaxmanAnne to me executed the foregoing instrument, and he duly acknowledged purposes therein set forth.
[SEAL]	
	Notary Public
IN TESTIMONY WHEREOF, I have he 2009.	reunto set my hand thisday of,
	Manish Sharma
STATE of)	
)ss. COUNTY of)	
On this day of known to be the person described herein and who to me that he executed the same for the uses and	, 2009, before me personally appeared Manish Sharma to me be executed the foregoing instrument, and he duly acknowledged purposes therein set forth.
[SEAL]	

Notary Public

signment le: SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES
TORNEY DOCKET: 100.1063US01 GE 3 OF 4
IN TESTIMONY WHEREOF, I have hereunto set my hand thisday of,
09.
Joe Polland
ATE of)
)ss. DUNTY of)
On this day of, 2009, before me personally appeared Manish Sharma to moown to be the person described herein and who executed the foregoing instrument, and he duly acknowledge me that he executed the same for the uses and purposes therein set forth.
EAL]

Notary Public

May 19 09 12:32p Cliff Powers 919-783-9094 p.2

ASSIGNMENT

WHEREAS, we, Xinkuan Zhou residing at Mingxigu, 1-603, Shekou, Shenzen, P.R. China; Clifton Powers residing at 8829 Stage Ford Road, Raleigh, NC 27615, US; Laxman Anne residing at 13050 Dahlia Circle, Eden Prairie, MN 55344, US; Manish Sharma residing at 13000 Dahlia Circle, Eden Prairie, MN 55344-6693, US; and Joe Polland residing at 13800 Chestnut Drive, Eden Prairie, MN 55344, US made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States filed herewith, entitled SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES (the "Application").

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NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the Application, and in and to the Application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

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AND, furthermore we covenant and agree with the Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

May 19 09 12:32p Cliff Powers

919-783-9094

Assignment Title: SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES ATTORNEY DOCKET: 100.1063US01 PAGE 2 OF 4		
IN TESTIMONY WHEREOF, I have hereunto set my hand thisday of,		
2009.		
LaxmanAnne		
STATE of		
)ss. COUNTY of)		
On this day of, 2009, before me personally appeared LaxmanAnne to me known to be the person described herein and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.		
[SEAL]		
Notary Public		
IN TESTIMONY WHEREOF, I have hereunto set my hand thisday of, 2009.		
Manish Sharma		
STATE of))		
COUNTY of)		
On this day of, 2009, before me personally appeared Manish Sharma to me known to be the person described herein and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.		
[SEAL]		
Notary Public		

May 19 09 12:33p Cliff Powers

919-783-9094

p.4

Assignment Title: SYSTEM AND METHOD FOR MULTIPLEXING FRACTIONAL TDM FRAMES ATTORNEY DOCKET: 100.1063US01 Page 3 of 4		
IN TESTIMONY WHEREOF, I have he	ereunto set my hand thisday of	
2009.		
	Joe Polland	
STATE of)		
)ss. COUNTY of)		
On this day of known to be the person described herein and wh to me that he executed the same for the uses and	, 2009, before me personally appeared Manish Sharma to me so executed the foregoing instrument, and he duly acknowledged purposes therein set forth.	
[SEAL]		
	Notary Public	

IN TESTIMONY WHEREOF, I have hereunto	set my hand thisday of,
2009.	
STATE AS	Xinkuan Zhou
STATE of))ss.	
)ss. COUNTY of)	
On this day of, 2009 known to be the person described herein and who execute to me that he executed the same for the uses and purpose	9, before me personally appeared Xinkuan Zhou to me ted the foregoing instrument, and he duly acknowledged es therein set forth.
[SEAL]	
	Notary Public
STATE of NC)ss. COUNTY of Wake)	set my hand this 19 day of Mary, Clifton Powers
On this Q day of May, 2009 known to be the person described herein and who execute to me that he executed the same for the uses and purpose [SEAL] ARA R. AR	9, before me personally appeared Clifton Powers to me ted the foregoing instrument, and he duly acknowledged es therein set forth. Notary Public Sawdra P Ahv 3.16.2014

PATENT REEL: 022705 FRAME: 0168

RECORDED: 05/19/2009