PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Qian Yu	02/23/2009
Ping Luo	02/27/2009
Masayuki Hoshino	02/23/2009

RECEIVING PARTY DATA

Name:	Panasonic Corporation	
Street Address:	1006 Oaza Kadoma, Kadoma-shi	
City:	Osaka	
State/Country:	JAPAN	
Postal Code:	571-8501	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12445277

CORRESPONDENCE DATA

Fax Number: (612)349-9266

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

Phone: 612-349-3001
Email: erickson@ptslaw.com
Correspondent Name: Douglas J. Christensen
Address Line 1: 4800 IDS Center
Address Line 2: 80 South Eighth Street

Address Line 4: Minneapolis, MINNESOTA 55402

ATTORNEY DOCKET NUMBER: 4071.10WOUS

NAME OF SUBMITTER: Douglas J. Christensen

Total Attachments: 4

source=4071_10WOUS_Assign#page1.tif

PATENT REEL: 024106 FRAME: 0084 OF \$40.00 1244527

501123853

source=4071_10WOUS_Assign#page2.tif source=4071_10WOUS_Assign#page3.tif source=4071_10WOUS_Assign#page4.tif

> PATENT REEL: 024106 FRAME: 0085

ASSIGNMENT

WHEREAS, we, Qian Yu, of Singapore, SG, Ping Luo, of Singapore, SG, and Masayuki Hoshino, of Kanagawa, Japan, respectively, have invented certain new and useful improvements in A METHOD AND SYSTEM FOR DATA TRANSMISSION IN A MULTIPLE INPUT MULTIPLE OUTPUT (MIMO) SYSTEM, for which an application for Letters Patent of the United States is being made, said application having been executed on even date herewith, and which may be identified in the United States Patent Office by Application No. 12/445,277, filed April 10, 2009

WHEREAS, Panasonic Corporation ("Assignee"), a business entity organized and existing under the laws of the Japan, and having its principal offices at 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan, is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by said Assignee, the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Assignee, its successors and assigns, our entire right, title and interest in and to said invention, said provisional/utility application, all applications claiming priority to said provisional/utility application including all divisions, continuations or renewals thereof, and the Letters Patent, that may or shall issue, therefrom including all reissues or extensions of such patents, and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above mentioned Assignee in accordance herewith.

We hereby authorize the above mentioned Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the date of execution and/or filing date and application number of said application when ascertained. We further authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired.

Upon said consideration we do hereby covenant and agree with the said Assignee, its successors and assigns, that we will not execute in writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will at any time upon request, without further or additional consideration, but at the expense of the said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, on said invention, and in enforcing any rights occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

1

PATENT REEL: 024106 FRAME: 0086

Attorney Docket No. 4071.10WOUS

IN WITNESS WHEREOF, we have hereunto set our hands and affixed our seal as dated below.

Date:	Feb. 23. 2009	Juliun Qian Yu	-
Date:	21 /2/wg	Ping Luo	
Date:		Masayuki Hoshino	

ASSIGNMENT

WHEREAS, we, Qian Yu, of Singapore, SG, Ping Luo, of Singapore, SG, and Masayuki Hoshino, of Kanagawa, Japan, respectively, have invented certain new and useful improvements in A METHOD AND SYSTEM FOR DATA TRANSMISSION IN A MULTIPLE INPUT MULTIPLE OUTPUT (MIMO) SYSTEM, for which an application for Letters Patent of the United States is being made, said application having been executed on even date herewith, and which may be identified in the United States Patent Office by Application No. 12/445,277, filed April 10, 2009

WHEREAS, Panasonic Corporation ("Assignee"), a business entity organized and existing under the laws of the Japan, and having its principal offices at 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan, is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by said Assignee, the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Assignee, its successors and assigns, our entire right, title and interest in and to said invention, said provisional/utility application, all applications claiming priority to said provisional/utility application including all divisions, continuations or renewals thereof, and the Letters Patent, that may or shall issue, therefrom including all reissues or extensions of such patents, and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above mentioned Assignee in accordance herewith.

We hereby authorize the above mentioned Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the date of execution and/or filing date and application number of said application when ascertained. We further authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired.

Upon said consideration we do hereby covenant and agree with the said Assignee, its successors and assigns, that we will not execute in writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will at any time upon request, without further or additional consideration, but at the expense of the said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, on said invention, and in enforcing any rights occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

1

PATENT REEL: 024106 FRAME: 0088

Attorney Docket No. 4071.10WOUS

IN WITNESS WHEREOF, we have below.	e hereunto set our hands and affixed our seal as dated
Date:	Qîan Yu
Date:	Ping Luo
Date: 23th Feb., 2009	Masayuki Hoshino