

PATENT ASSIGNMENT

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| Andreas SCHWAGER | 07/28/2011 |
| Weiyun LU | 08/02/2011 |
| Lothar STADELMEIER | 07/28/2011 |
| RECEIVING PARTY DATA | |
| Name: | SONY CORPORATION |
| Street Address: | 1-7-1 Konan, Minato-ku |
| City: | Tokyo |
| State/Country: | Japan |
| Postal Code: | 108-0075 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 13254126 |
| CORRESPONDENCE DATA | |
| Fax Number: (703)413-2220 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: (703) 413-3000 Email: asomaiel@oblon.com Correspondent Name: Oblon, Spivak, et al. Address Line 1: 1940 Duke Street Address Line 4: Alexandria, VIRGINIA 22314 | |
| ATTORNEY DOCKET NUMBER: | 384355US8XPCT |
| NAME OF SUBMITTER: | Adel Samuel |
| Total Attachments: 4 source=384355USAssignment#page1.tif source=384355USAssignment#page2.tif source=384355USAssignment#page3.tif source=384355USAssignment#page4.tif | |

OP \$40.00 13254126

501651568

PATENT
REEL: 026873 FRAME: 0187

Assignment of Application

respectively

have invented certain new and useful improvements in: DIVISION OF BIT STREAMS TO PRODUCE SPATIAL PATHS FOR MULTICARRIER TRANSMISSION


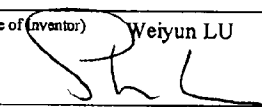
WHEREAS, SONY Corporation, 1-7-1 Konan, Minato-ku, TOKYO, 108-0075, JAPAN

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

Q

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which 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.

| | |
|---|--|
| Date: <u>28th of July 2011</u> |  _____ (Signature of Inventor) Andreas SCHWAGER |
| Date: _____ | _____ (Signature of Inventor) Weiyun LU |
| Date: <u>28.7.11</u> |  _____ (Signature of Inventor) Lothar STADELMEIER |
| Date: _____ | _____ (Signature of Inventor) |
| Date: _____ | _____ (Signature of Inventor) |
| Date: _____ | _____ (Signature of Inventor) |

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

INSERT NAMES
AND RESIDENCE
ADDRESS OF
THE INVENTORS

respectively

..., respectively,

INSERT TITLE OF INVENTION

have invented certain new and useful improvements in: DIVISION OF BIT STREAMS TO PRODUCE SPATIAL PATHS FOR MULTICARRIER TRANSMISSION

(Application No. 13/254,126, filed August 31, 2011), and

INSERT NAME
AND ADDRESS OF
COMPANY OR
OTHER ASSIGNEE

WHEREAS, SONY Corporation, 1-7-1 Konan, Minato-ku, TOKYO, 108-0075, JAPAN

(hereinafter referred to as "ASSIGNEE") having a place of business at: JAPAN is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which 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.

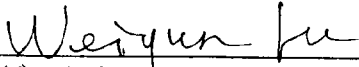
Date: _____

(Signature of Inventor) Andreas SCHWAGER

Date: _____

(Signature of Inventor) Weiyun LU

Date: 02.08.2011

(Signature of Inventor) 
(Signature of Inventor) Lothar STADELMEIER

Date: _____

(Signature of Inventor)

Date: _____

(Signature of Inventor)

Date: _____

(Signature of Inventor)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

07/09

PATENT

RECORDED: 09/08/2011

REEL: 026873 FRAME: 0191