

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																								
NATURE OF CONVEYANCE:	ASSIGNMENT																								
CONVEYING PARTY DATA																									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>PAUL MARINIER</td> <td>06/05/2012</td> </tr> <tr> <td>AFSHIN HAGHIGHAT</td> <td>06/05/2012</td> </tr> <tr> <td>GUODONG ZHANG</td> <td>06/11/2012</td> </tr> <tr> <td>DIANA PANI</td> <td>06/05/2012</td> </tr> <tr> <td>J. PATRICK TOOHER</td> <td>06/05/2012</td> </tr> <tr> <td>MARIAN RUDOLF</td> <td>06/05/2012</td> </tr> <tr> <td>GHYSLAIN PELLETIER</td> <td>06/05/2012</td> </tr> <tr> <td>CHRISTOPHER CAVE</td> <td>06/05/2012</td> </tr> <tr> <td>YAN LI</td> <td>05/30/2012</td> </tr> <tr> <td>ALLAN Y TSAI</td> <td>05/22/2012</td> </tr> <tr> <td>PASCAL M ADJAKPLE</td> <td>06/11/2012</td> </tr> </tbody> </table>		Name	Execution Date	PAUL MARINIER	06/05/2012	AFSHIN HAGHIGHAT	06/05/2012	GUODONG ZHANG	06/11/2012	DIANA PANI	06/05/2012	J. PATRICK TOOHER	06/05/2012	MARIAN RUDOLF	06/05/2012	GHYSLAIN PELLETIER	06/05/2012	CHRISTOPHER CAVE	06/05/2012	YAN LI	05/30/2012	ALLAN Y TSAI	05/22/2012	PASCAL M ADJAKPLE	06/11/2012
Name	Execution Date																								
PAUL MARINIER	06/05/2012																								
AFSHIN HAGHIGHAT	06/05/2012																								
GUODONG ZHANG	06/11/2012																								
DIANA PANI	06/05/2012																								
J. PATRICK TOOHER	06/05/2012																								
MARIAN RUDOLF	06/05/2012																								
GHYSLAIN PELLETIER	06/05/2012																								
CHRISTOPHER CAVE	06/05/2012																								
YAN LI	05/30/2012																								
ALLAN Y TSAI	05/22/2012																								
PASCAL M ADJAKPLE	06/11/2012																								
RECEIVING PARTY DATA																									
<table border="1"> <tr> <td>Name:</td> <td>INTERDIGITAL PATENT HOLDINGS, INC</td> </tr> <tr> <td>Street Address:</td> <td>3411 SILVERSIDE ROAD, SUITE 105</td> </tr> <tr> <td>Internal Address:</td> <td>CONCORD PLAZA, HAGLEY BUILDING</td> </tr> <tr> <td>City:</td> <td>WILMINGTON</td> </tr> <tr> <td>State/Country:</td> <td>DELAWARE</td> </tr> <tr> <td>Postal Code:</td> <td>19810</td> </tr> </table>		Name:	INTERDIGITAL PATENT HOLDINGS, INC	Street Address:	3411 SILVERSIDE ROAD, SUITE 105	Internal Address:	CONCORD PLAZA, HAGLEY BUILDING	City:	WILMINGTON	State/Country:	DELAWARE	Postal Code:	19810												
Name:	INTERDIGITAL PATENT HOLDINGS, INC																								
Street Address:	3411 SILVERSIDE ROAD, SUITE 105																								
Internal Address:	CONCORD PLAZA, HAGLEY BUILDING																								
City:	WILMINGTON																								
State/Country:	DELAWARE																								
Postal Code:	19810																								
PROPERTY NUMBERS Total: 1																									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13345047</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13345047																				
Property Type	Number																								
Application Number:	13345047																								
CORRESPONDENCE DATA																									
Fax Number:	(215)558-5676																								
Phone:	215-558-5740																								
Email:	docketing@condoroccia.com																								
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent																									

CH \$40.00 13345047

*via US Mail.*

Correspondent Name: Condo Roccia LLP  
Address Line 1: One Liberty Place 1650 Market Street  
Address Line 2: Suite 2200  
Address Line 4: Philadelphia, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:

ILTE\_10884US02

NAME OF SUBMITTER:

Diana Kang

Total Attachments: 13

source=10884US02ASSIGN#page1.tif  
source=10884US02ASSIGN#page2.tif  
source=10884US02ASSIGN#page3.tif  
source=10884US02ASSIGN#page4.tif  
source=10884US02ASSIGN#page5.tif  
source=10884US02ASSIGN#page6.tif  
source=10884US02ASSIGN#page7.tif  
source=10884US02ASSIGN#page8.tif  
source=10884US02ASSIGN#page9.tif  
source=10884US02ASSIGN#page10.tif  
source=10884US02ASSIGN#page11.tif  
source=10884US02ASSIGN#page12.tif  
source=10884US02ASSIGN#page13.tif

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

### ASSIGNMENT

WHEREAS, we Paul Marinier, residing at 1805 Stravinski, Brossard, Quebec J4X 2J7 Canada; Afshin Haghighat, residing at 407 Heron-Vert, Ile-Bizard, Quebec H9C 3A7 Canada; Guodong Zhang, residing at 14 Walnut Dr., Syosset, NY 11791 US; Diana Pani, residing at 730 Lusignan, Apt. 4, Montreal, Quebec H3C 1Y9 Canada; J. Patrick Tooher, residing at 1200 Pauline-Julien, unit 35, Montreal, Quebec H2J 0A2 Canada; Marian Rudolf, residing at 525 Lucien L'Allier, Apt #204, Montreal, Quebec H3C 4L3 Canada; Ghyslain Pelletier, residing at 2055 rue De Valmont, Chomedey, Laval, Quebec H7M 3J3 Canada; Christopher Cave, residing at 258 Baffin, Dollard-des-Ormeaux, Quebec H9A 3J2 Canada; Yan Li, residing at 1053 Tarragon Court, Morganville, NJ 07751 US; Allan Y. Tsai, residing at 10 Jolie Court, Boonton, NJ 07005 US; and Pascal M. Adjakple, residing at 67 Red Brook Road, Great Neck, NY 11024 US, hereinafter referred to as the ASSIGNORS, are joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Application No. 13/345,047, filed January 6, 2012, entitled **COMMUNICATING CHANNEL STATE INFORMATION (CSI) OF MULTIPLE TRANSMISSION POINTS**; and

WHEREAS, InterDigital Patent Holdings, Inc., hereinafter referred to as the ASSIGNEE, of 3411 Silverside Road, Concord Plaza, Suite 105, Hagley Building, Wilmington, DE 19810, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said ASSIGNEE, our entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, including our full right to sue for and collect damages for past violations of provisional rights having arisen from any publication of said application or any continuations, divisions, or renewals of or substitutes for said application. We further assign to and authorize said ASSIGNEE, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said ASSIGNEE, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said ASSIGNEE, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said ASSIGNEE or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said ASSIGNEE, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said ASSIGNEE, as ASSIGNEE of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, we hereby authorize our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

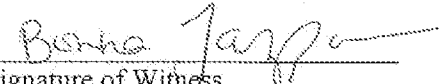
June 5, 2012  
Date

 (L.S.)  
Paul Marinier

Signed at Montreal, QC Canada  
(City and Country)

STATEMENT OF WITNESS: I, Bonino LAZZARA  
Name of Witness  
1000 Sherbrooke St. West, 10th Floor  
MTL, QC Canada H3A 3G4  
whose full address is: \_\_\_\_\_  
Address of Witness

was personally present and did see Paul Marinier execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

Date June 5, 2012 Afshin Haghighat (L.S.)  
Afshin Haghighat

Signed at Montreal, QC Canada  
(City and Country)

STATEMENT OF WITNESS: I, Bonnie Lazzarini  
Name of Witness  
1000 Sherbrooke St. West, 10th Floor  
MTL, QC Canada H3A 3G4  
whose full address is: Address of Witness

was personally present and did see Afshin Haghighat execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

Bonnie Lazzarini  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

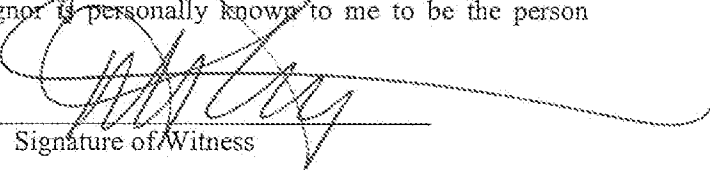
Date 6-11-12  (L.S.)  
Guodong Zhang

Signed at Mcville, NY USA  
(City and Country)

STATEMENT OF WITNESS: I, Migaly Lopez  
2 Huntington Quadrangle, 4th Floor South Wing  
Mcville, NY 11747 USA  
whose full address is:

Address of Witness

was personally present and did see Guodong Zhang execute this Assignment on the 11  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

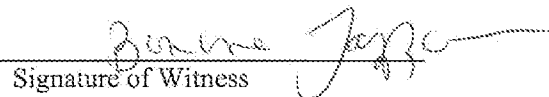
June 5, 2012  
Date

 (L.S.)  
Diana Pani

Signed at Montreal, QC Canada  
(City and Country)

STATEMENT OF WITNESS: I, Bonina GAZZARAT  
Name of Witness  
1000 Sherbrooke St. West, 10th Floor  
MTL, QC Canada H3A 3G4  
whose full address is: \_\_\_\_\_  
Address of Witness

was personally present and did see Diana Pani execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

  
Signature of Witness



DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

June 5, 2012  
Date

[Signature] (L.S.)  
J. Patrick Tooher

Signed at Montreal, QC Canada  
(City and Country)

STATEMENT OF WITNESS: I, Bonnie La22ARRA  
Name of Witness  
1000 Sherbrooke St. West, 10th Floor  
whose full address is: MTL, QC Canada H3A 3G4  
Address of Witness

was personally present and did see J. Patrick Tooher execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

[Signature]  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

June 5, 2012  
Date

Marian Rudolf (L.S.)  
Marian Rudolf

Signed at Montreal, QC Canada  
(City and Country)

STATEMENT OF WITNESS: I, Bonina LAZZARAT  
Name of Witness  
1000 Sherbrooke St. West, 10th floor  
whose full address is: MTL, QC Canada H3A 3G4  
Address of Witness

was personally present and did see Marian Rudolf execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

Bonina Lazzarati  
Signature of Witness


DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

Date June 5, 2012  (L.S.)  
Ghyslain Pelletier

Signed at Montreal, QC Canada  
(City and Country)


STATEMENT OF WITNESS: I, Bonina Lazzarini  
Name of Witness  
1000 Sherbrooke St. West, 10th Floor  
whose full address is: MTL, QC Canada H3A 3G4  
Address of Witness

was personally present and did see Ghyslain Pelletier execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

June 5, 2012  
Date

  
\_\_\_\_\_  
Christopher Cave

(L.S.)

Signed at Montreal, QC  
(City and Country)

STATEMENT OF WITNESS: I, \_\_\_\_\_

Bonnie Lazzana

Name of Witness

1000 Sherbrooke St. West, 10th Floor  
MTL, QC Canada H3A 3G4

whose full address is: \_\_\_\_\_

Address of Witness

was personally present and did see Christopher Cave execute this Assignment on the 5  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

Bonnie Lazzana  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

5/31/2012  
Date

Bi' Yan. (L.S.)  
Yan Li

Signed at Morganville, NJ, USA  
(City and Country)

STATEMENT OF WITNESS: I, FANG YU  
Name of Witness

whose full address is: 1053 Tarragon Ct  
Address of Witness

was personally present and did see YAN LI execute this Assignment on the 3/5<sup>th</sup>  
day of May, 2012 and such Assignor is personally known to me to be the person  
described herein.

[Signature]  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

5-22-12 SD (L.S.)  
Date Allan Y. Tsai

Signed at Melville, NY USA  
(City and Country)

STATEMENT OF WITNESS: I, Migily Lopez  
Name of Witness

whose full address is: \_\_\_\_\_  
Address of Witness

was personally present and did see Allan Y Tsai execute this Assignment on the 22  
day of May, 2012 and such Assignor is personally known to me to be the person  
described herein.

[Signature]  
Signature of Witness

DOCKET NO.: ILTE\_10884US02  
APPLICATION NO.: 13/345,047

6-11-12 [Signature] (L.S.)  
Date Pascal M. Adjakple

Signed at Melville, NY USA  
(City and Country)

STATEMENT OF WITNESS: I, Migaly Lopez  
Name of Witness  
2 Huntington Quadrangle, 4th Fl/South Wing  
whose full address is: Melville, NY 11747 USA  
Address of Witness

was personally present and did see Pascal M Adjakple execute this Assignment on the 11  
day of June, 2012 and such Assignor is personally known to me to be the person  
described herein.

[Signature]  
Signature of Witness