

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>Kevin Peter Johnson</td><td>02/22/2005</td></tr><tr><td>Ross L. Lintelman</td><td>05/26/2005</td></tr><tr><td>Michael James Lynch</td><td>02/25/2005</td></tr><tr><td>Gregg Arthur Charlton</td><td>02/22/2005</td></tr><tr><td>Carl Wang</td><td>03/02/2005</td></tr><tr><td>Kambiz Casey Zangi</td><td>04/14/2005</td></tr></tbody></table> |                                     | Name          | Execution Date                      | Kevin Peter Johnson | 02/22/2005          | Ross L. Lintelman | 05/26/2005 | Michael James Lynch | 02/25/2005 | Gregg Arthur Charlton | 02/22/2005 | Carl Wang    | 03/02/2005 | Kambiz Casey Zangi | 04/14/2005 |
| Name   | Execution Date                      |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Kevin Peter Johnson  | 02/22/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Ross L. Lintelman  | 05/26/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Michael James Lynch  | 02/25/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Gregg Arthur Charlton  | 02/22/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Carl Wang  | 03/02/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Kambiz Casey Zangi   | 04/14/2005                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| RECEIVING PARTY DATA   |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| <table border="1"><tr><td>Name:</td><td>INTERDIGITAL TECHNOLOGY CORPORATION</td></tr><tr><td>Street Address:</td><td>300 DELAWARE AVENUE</td></tr><tr><td>Internal Address:</td><td>SUITE 527</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>19801</td></tr></table>   |                                     | Name:         | INTERDIGITAL TECHNOLOGY CORPORATION | Street Address:     | 300 DELAWARE AVENUE | Internal Address: | SUITE 527  | City:               | WILMINGTON | State/Country:        | DELAWARE   | Postal Code: | 19801      |                    |            |
| Name:  | INTERDIGITAL TECHNOLOGY CORPORATION |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Street Address:  | 300 DELAWARE AVENUE                 |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Internal Address:  | SUITE 527                           |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| City:  | WILMINGTON                          |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| State/Country:   | DELAWARE                            |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Postal Code:   | 19801                               |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| 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>10997618</td></tr></tbody></table>   |                                     | Property Type | Number                              | Application Number: | 10997618            |                   |            |                     |            |                       |            |              |            |                    |            |
| Property Type  | Number                              |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Application Number:  | 10997618                            |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| CORRESPONDENCE DATA  |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Fax Number: (215)568-6499<br><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>  |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Phone: 2155686400  |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Email: jhalt@volpe-koenig.com  |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Correspondent Name: VOLPE AND KOENIG, P.C.   |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Address Line 1: 30 SOUTH 17th STREET, SUITE 1600   |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Address Line 2: Gerald B. Halt, Jr.  |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103   |                                     |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |
| NAME OF SUBMITTER:   | Gerald B. Halt, Jr.                 |               |                                     |                     |                     |                   |            |                     |            |                       |            |              |            |                    |            |

PATENT

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REEL: 016373 FRAME: 0198

CH \$40.00 10997618

**Total Attachments: 7**

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## ASSIGNMENT

Kevin Peter Johnson, residing at 605 Pinehurst Circle NE, Palm Bay, Florida, 32905, a citizen of the United States of America; Ross L. Lintelman, residing at 141 Coral Way E., Indialantic, Florida, 32903, a citizen of the United States of America; Michael James Lynch, residing at 4195 Richwood Court, Merritt Island, Florida, 32952, a citizen of the United States of America; Gregg Arthur Charlton, residing at 14 Wynnewood Drive, Collegeville, Pennsylvania, 19426, a citizen of the United States of America; Carl Wang, residing at 130-18 58th Road, Flushing, New York, 11355, a citizen of the United States of America; and Kambiz Casey Zangi, residing at 611 Rock Creek Road, Chapel Hill, North Carolina, 27514, a citizen of the United States of America (hereafter jointly and severally referred to as the undersigned), are the inventors of

**METHOD AND APPARATUS FOR UTILIZING A DIRECTIONAL  
BEAM ANTENNA IN A WIRELESS TRANSMIT/RECEIVE UNIT**  
for which the undersigned have executed an application for United States Letters Patent, U.S. Patent Application No. 10/997,618, filed November 24, 2004.

The undersigned hereby authorize assignee or assignee's representative to insert the Application Number and the filing date of this application if they are unknown at the time of execution of this assignment.

InterDigital Technology Corporation, a Delaware corporation, having a principal place of business at 300 Delaware Avenue, Suite 527, Wilmington, Delaware 19801, USA; (hereafter referred to as the assignee), is desirous of acquiring the entire right, title and interest in said invention, all applications for and all letters patent issued on said invention.

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, the undersigned, intending to be legally bound, do hereby sell, assign and transfer to the assignee and assignee's successors, assigns and legal representatives the entire right, title and interest in said invention and all patent applications thereon, including, but not limited to, the application for United States

Letters Patent entitled as above, and all divisions and continuations thereof, and in all letters patent, including all reissues and reexaminations thereof, throughout the world, including the right to claim priority under the Paris Convention or other treaty.

It is agreed that the undersigned shall be legally bound, upon request of the assignee, to supply all information and evidence relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention throughout the world for the benefit of the assignee, and to execute all instruments proper to carry out the intent of this instrument.

The undersigned warrant that the rights and property herein conveyed are free and clear of any encumbrance.

EXECUTED under seal on this 22<sup>nd</sup> day of February,

2005 at Melbourne, Florida.  
(Place)

Witness:

James C Otto

Kevin Peter Johnson (L.S.)  
Kevin Peter Johnson

State of Florida  
County of Brevard ss.

On this 22 day of Feb, 2005 before me personally appeared Kevin Peter Johnson, to me known to be the person described herein and who executed the foregoing instrument, and acknowledged that he executed the same knowingly and willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above written.

Kathleen K Renyo  
Notary Public

My Commission Expires: 05-03-05



EXECUTED under seal on this 26 day of May,  
2005 at Melbourne, FL 32901  
(Place)

Witness:

[Signature]

[Signature] (L.S.)  
Ross L. Lintelman

State of Florida

ss.

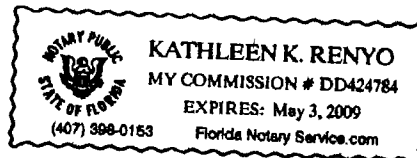
County of Brevard

On this 26 day of May, 2005 before me personally appeared  
Ross L. Lintelman, to me known to be the person described herein and who  
executed the foregoing instrument, and acknowledged that he executed the same  
knowingly and willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above  
written.

[Signature]  
Notary Public

My Commission Expires:



EXECUTED under seal on this 25<sup>th</sup> day of FEB,  
2005 at MELBOURNE, FL.  
(Place)

Witness:

Rich K. L. Kyles

Michael James Lynch (L.S.)  
Michael James Lynch

State of

ss.

County of

On this 25<sup>th</sup> day of Feb, 2005 before me personally appeared Michael James Lynch to me known to be the person described herein and who executed the foregoing instrument, and acknowledged that he executed the same knowingly and willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above written.

Kathleen K. Renyo  
Notary Public

My Commission Expires: 05-03-05



EXECUTED under seal on this 22<sup>nd</sup> day of February,  
2005 at King of Prussia, PA.  
(Place)

Witness:

[Signature]

Gregg A. Charlton (L.S.)  
Gregg Arthur Charlton

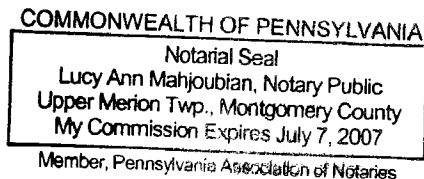
State of Pennsylvania  
County of Montgomery ss.

On this 22<sup>nd</sup> day of February, 2005 before me personally appeared Gregg Arthur Charlton, to me known to be the person described herein and who executed the foregoing instrument, and acknowledged that he executed the same knowingly and willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above written.

Lucy Ann Mahjoubian  
Notary Public

My Commission Expires:



EXECUTED under seal on this 2 day of March,  
2005 at Melville, Ny.  
(Place)

Witness:

M Catania

Carl Wang (L.S.)  
Carl Wang

State of New York

ss.

County of Suffolk

On this 2nd day of March, 2005 before me personally appeared  
Carl Wang, to me known to be the person described herein and who executed the  
foregoing instrument, and acknowledged that he executed the same knowingly and  
willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above  
written.

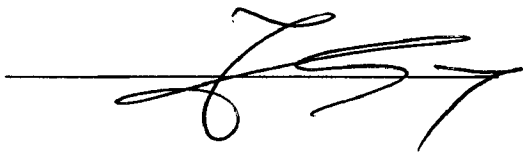
Laura J. Commisso  
Notary Public

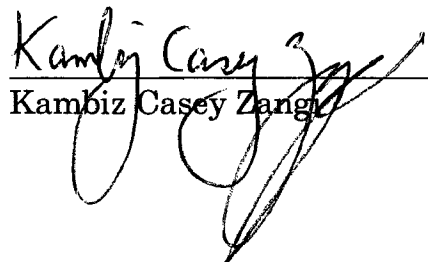
My Commission Expires:

Laura J. Commisso  
Notary Public, State of New York  
No. 01CO6004541  
Qualified in Nassau County  
Commission expires May 13, 2006

EXECUTED under seal on this 14<sup>th</sup> day of April,  
2005 at 4 Park Driv RTP NC 27709  
(Place)

Witness:



 (L.S.)  
Kambiz Casey Zangi

State of


ss.

County of

On this 14<sup>th</sup> day of April, 2005 before me personally appeared Kambiz Casey Zangi, to me known to be the person described herein and who executed the foregoing instrument, and acknowledged that he executed the same knowingly and willingly and for the purposes therein contained.

Witness my hand and Notarial seal the day and year immediately above written.

My Commission Expires: April 6, 2008

  
Notary Public

