

PATENT ASSIGNMENT

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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>Chanyoun Won</td> <td>07/14/2012</td> </tr> <tr> <td>Hoon Seok Kim</td> <td>07/30/2012</td> </tr> <tr> <td>Paul D. Franzon</td> <td>07/24/2012</td> </tr> <tr> <td>Zhuo Yan</td> <td>07/28/2012</td> </tr> </tbody> </table>		Name	Execution Date	Chanyoun Won	07/14/2012	Hoon Seok Kim	07/30/2012	Paul D. Franzon	07/24/2012	Zhuo Yan	07/28/2012		
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<table border="1"> <tr> <td>Name:</td> <td>North Carolina State University</td> </tr> <tr> <td>Street Address:</td> <td>1021 Main Campus Drive</td> </tr> <tr> <td>Internal Address:</td> <td>Campus Box 8210</td> </tr> <tr> <td>City:</td> <td>Raleigh</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>27695</td> </tr> </table>		Name:	North Carolina State University	Street Address:	1021 Main Campus Drive	Internal Address:	Campus Box 8210	City:	Raleigh	State/Country:	NORTH CAROLINA	Postal Code:	27695
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CORRESPONDENCE DATA													
<p>Fax Number: 9194190383 Phone: 9194938000 Email: ezayatz@jwth.com <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Gregory A. Hunt Address Line 1: 3100 Tower Blvd Address Line 2: University Tower, Suite 1200 Address Line 4: Durham, NORTH CAROLINA 27707</p>													
ATTORNEY DOCKET NUMBER:	297/255												
NAME OF SUBMITTER:	Gregory A. Hunt												

OP \$40.00 13538448

Total Attachments: 5

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ASSIGNMENT

WHEREAS, we, Chanyoun Won of Westborough, Massachusetts; Hoon Seok Kim of Raleigh, North Carolina; Paul D. Franzon of New Hill, North Carolina; and Zhuo Yan of Raleigh, North Carolina (hereinafter "Assignors"), have invented certain new and useful improvements in METHODS, SYSTEMS, AND COMPUTER PROGRAM PRODUCTS FOR ASYMMETRIC MULTIMODE INTERCONNECT (hereinafter "Invention") for which application for a U.S. Patent was made on June 29, 2012 as Serial No. 13/538,448 (hereinafter "Application"). Assignors hereby authorize Jenkins, Wilson, Taylor & Hunt, P.A. to insert the filing date and Serial No. above.

AND, WHEREAS, North Carolina State University, a non-profit organization located in Raleigh, North Carolina (hereinafter "Assignee"), is desirous of acquiring an interest therein.

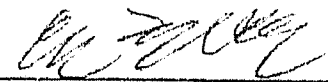
NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors have sold and by these presents do hereby sell, assign, transfer and convey unto the Assignee, its successors and assigns, their entire right, title and interest in and to the Invention and Application, and in and to any and all foreign patent applications filed on the Invention, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon (hereinafter, "Patents"), for the full end of the term for which said Letters Patent may be granted, together with their right to claim the priority of the Application in all countries in accordance with the Paris Convention, the Patent Cooperation Treaty, or other agreement or national law under which priority can be claimed, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made.

Assignors hereby request that said Letters Patent be issued in accordance with this Assignment.


Assignors further covenant and agree that, at the time of the execution and delivery of these presents, Assignors possess the unencumbered right and authority to make this Assignment.

Assignors further covenant and agree, and likewise bind their heirs, legal representatives and assigns, to promptly communicate to said Assignee or its representatives any facts known to them relating to the Invention, to testify and/or assist as requested by the Assignee in any interference or legal proceedings involving the Application, Patents, or Invention, including cooperating in any post-grant and/or enforcement proceedings involving the Application, Patents, or Invention, to execute any additional papers which may be requested to confirm the right of the Assignee, its representatives, successors and assigns to secure patent or similar protection for the Invention in all countries and to vest in the Assignee complete title to the Invention and Letters Patent, without further compensation, but at the expense of said Assignee, its successors, assigns and other legal representatives.

Executed this 14 day of July 2012.


Chanyoun Won

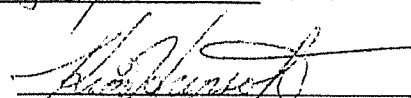
Witnessed by:

 7/14/2012
Name KARSTEN STUECK Date

 7/14/2012
Name BONGJIN JUNG Date

Atty. Docket No.: 297/255

Executed this 30th day of July 2012.


Hoon Seok Kim

Witnessed by:

Inhwa Jung July 30, 2012
Name Date

Won Ha Choi July 30, 2012
Name Date

Executed this _____ day of _____ 2012.

Paul D. Franzon

Witnessed by:

Name Date

Name Date

Atty. Docket No.: 297/255

Executed this _____ day of _____ 2012.


Hoon Seok Kim

Witnessed by:

Name Date

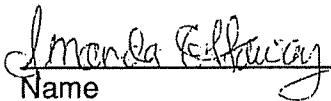
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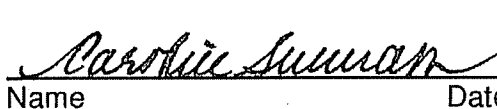
Executed this 24 day of July 2012.



Paul D. Franzon

Witnessed by:

 7/24/12
Name Date

 7/24/12
Name Date

Executed this 28th day of June 2012.



Zhuo Yan

Witnessed by:

ZHENBING ZHANG

Name

06/28/12

Date

Wenxu Zhao

Name

06/28/12

Date