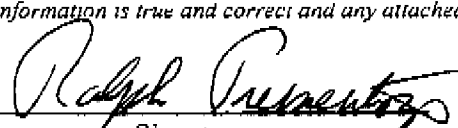
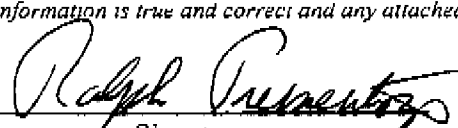
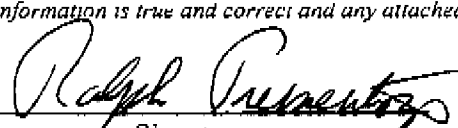


# **RECORDATION FORM COVER SHEET PATENTS ONLY**

Docket No.: 3226.1021-001

To the Director of the U S Patent and Trademark Office: Please record the attached original documents or copy thereof

<p>1. Name of conveying party(ies)</p> <p>(1) Kanu Chadha (2) Manish Bhardwaj</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies)</p> <p>Name: <u>Engim, Inc.</u></p> <p>Internal Address: _____</p> <p>_____</p> <p>_____</p> <p>Street Address: <u>40 Nagog Park</u></p> <p>_____</p> <p>City: <u>Acton</u> State: <u>MA</u> ZIP: <u>01720</u></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Other _____</p> <p>Execution Date: <u>(1) 3/4/04; (2) 2/19/04</u></p>	<p>4. Application number(s) or patent number(s):</p> <p>If this document is being filed together with a new application, the execution date of the application is: _____</p> <table style="width:100%;"> <tr> <td style="width:50%;"> <p>A. Patent Application No.(s)</p> <p><u>10/713,562</u></p> </td> <td style="width:50%;"> <p>B. Patent No (s)</p> <p>_____</p> </td> </tr> </table> <p align="center">Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>A. Patent Application No.(s)</p> <p><u>10/713,562</u></p>	<p>B. Patent No (s)</p> <p>_____</p>	
<p>A. Patent Application No.(s)</p> <p><u>10/713,562</u></p>	<p>B. Patent No (s)</p> <p>_____</p>			
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: <u>James M. Smith, Esq.</u></p> <p>Internal Address: _____</p> <p><u>Hamilton, Brook, Smith &amp; Reynolds, P.C.</u></p> <p>Street Address: <u>530 Virginia Road, P.O. Box 9133</u></p> <p>_____</p> <p>City: <u>Concord</u> State: <u>MA</u> ZIP: <u>01742-9133</u></p>	<p>6. Total number of applications and patents involved: <u>[ 1 ]</u></p> <p>7. Total Fee (37 C F R 3.41) ..... \$ <u>40.00</u></p> <p><input type="checkbox"/> Enclosed</p> <p><input checked="" type="checkbox"/> Authorized to charge any deficiencies or credit any overpayment to deposit account number 08-0380</p> <p><input checked="" type="checkbox"/> Authorization to charge deposit account number 08-0380</p> <p>Attach a copy of this page if paying by deposit account and filing via mail.</p> <p>Do not attach a copy of this page if paying by deposit account and filing via facsimile.</p>			
<p><b>DO NOT USE THIS SPACE</b></p>				
<p>8. Statement and signature.</p> <p><i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document</i></p> <table style="width:100%;"> <tr> <td style="width:30%;"> <p><u>Ralph Tremontozzi</u></p> <p>Name of Person Signing</p> </td> <td style="width:30%; text-align: center;"> <p></p> <p>Signature</p> </td> <td style="width:40%; text-align: right;"> <p><u>Apr. 22, 2004</u></p> <p>Date</p> </td> </tr> </table> <p align="right">Total number of pages including cover sheet, attachments, and document: <u>[ 4 ]</u></p>		<p><u>Ralph Tremontozzi</u></p> <p>Name of Person Signing</p>	<p></p> <p>Signature</p>	<p><u>Apr. 22, 2004</u></p> <p>Date</p>
<p><u>Ralph Tremontozzi</u></p> <p>Name of Person Signing</p>	<p></p> <p>Signature</p>	<p><u>Apr. 22, 2004</u></p> <p>Date</p>		

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Docket No. 3226 1021-001

JointASSIGNMENT

WHEREAS, we, **Kanu Chadha and Manish Bhardwaj**, have invented a certain improvement in **NOVEL RECEIVER ARCHITECTURE FOR PILOT BASED OFDM SYSTEMS** described in an application for Letters Patent of the United States,

- ☐ the specification of which is being executed on even date herewith and is about to be filed in the United States Patent Office;
- ☒ the specification of which was filed on **November 14, 2003** as United States Application No. **10/713,562**;
- ☐ the specification of which is the United States National Stage of International Application No. [PCT Appl'n No.], filed on [PCT Filing Date] [OPTION and assigned United States Application No. [ ]];
- ☐ which was patented under United States Patent No. [ ] on [ ].

WHEREAS, **Engim, Inc.** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **State of Delaware**, and having a usual place of business at **40 Nagog Park, Acton, Massachusetts 01720** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, 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 us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution,

**PATENT**  
**REEL: 014549 FRAME: 0081**

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reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: \_\_\_\_\_

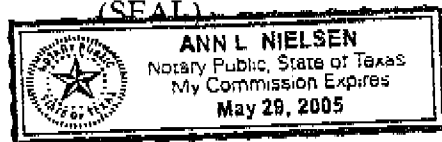
Chadha**Kanu Chadha**

State/Commonwealth

of TexasCounty of Fort Bend

Then personally appeared before me the above-named **Kanu Chadha** and acknowledged that he executed the foregoing instrument as his free act and deed this 4<sup>th</sup> day of March, 2004.

(SEAL)

Ann L. Nielsen

Notary Public

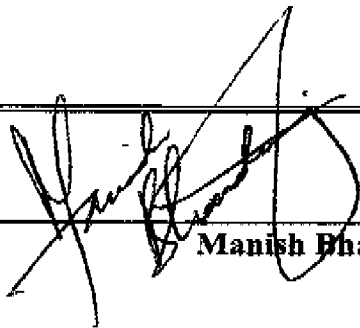
Ann L. Nielsen

(print name)

My Commission expires 05/29/2005

Docket No. 3226.1021-001

Inventor's Signature: \_\_\_\_\_



Manish Bhardwaj

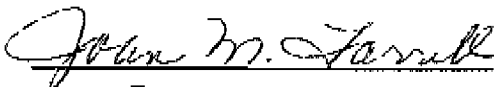
State/Commonwealth \_\_\_\_\_

of MA

County of Middlesex

Then personally appeared before me the above-named **Manish Bhardwaj** and acknowledged that he executed the foregoing instrument as his free act and deed this 19<sup>th</sup> day of February, 2004.

(SEAL)



Notary Public

Joan M. Farrell

(print name)

My Commission expires 7/24/2007