

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

| <b>SUBMISSION TYPE:</b>  | NEW ASSIGNMENT                 |               |                |                     |            |                          |            |                  |            |                        |            |
|--|--------------------------------|---------------|----------------|---------------------|------------|--------------------------|------------|------------------|------------|------------------------|------------|
| <b>NATURE OF CONVEYANCE:</b>   | ASSIGNMENT                     |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>CONVEYING PARTY DATA</b>  |                                |               |                |                     |            |                          |            |                  |            |                        |            |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Khurram Waheed</td> <td>01/28/2008</td> </tr> <tr> <td>Robert Bogdan Staszewski</td> <td>01/28/2008</td> </tr> <tr> <td>John L. Wallberg</td> <td>01/28/2008</td> </tr> <tr> <td>Sudheer K. Vemulapalli</td> <td>01/28/2008</td> </tr> </tbody> </table> |                                | Name          | Execution Date | Khurram Waheed      | 01/28/2008 | Robert Bogdan Staszewski | 01/28/2008 | John L. Wallberg | 01/28/2008 | Sudheer K. Vemulapalli | 01/28/2008 |
| Name   | Execution Date                 |               |                |                     |            |                          |            |                  |            |                        |            |
| Khurram Waheed   | 01/28/2008                     |               |                |                     |            |                          |            |                  |            |                        |            |
| Robert Bogdan Staszewski   | 01/28/2008                     |               |                |                     |            |                          |            |                  |            |                        |            |
| John L. Wallberg   | 01/28/2008                     |               |                |                     |            |                          |            |                  |            |                        |            |
| Sudheer K. Vemulapalli   | 01/28/2008                     |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>RECEIVING PARTY DATA</b>  |                                |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Name:</b>   | Texas Instruments Incorporated |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Street Address:</b>   | P.O. Box 655474                |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Internal Address:</b>   | MS 3999                        |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>City:</b>   | Dallas                         |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>State/Country:</b>  | TEXAS                          |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Postal Code:</b>  | 75265                          |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>PROPERTY NUMBERS Total: 1</b>   |                                |               |                |                     |            |                          |            |                  |            |                        |            |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12022931</td> </tr> </tbody> </table>  |                                | Property Type | Number         | Application Number: | 12022931   |                          |            |                  |            |                        |            |
| Property Type  | Number                         |               |                |                     |            |                          |            |                  |            |                        |            |
| Application Number:  | 12022931                       |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>CORRESPONDENCE DATA</b>   |                                |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Fax Number:</b>   | (713)937-8823                  |               |                |                     |            |                          |            |                  |            |                        |            |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>   |                                |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Phone:</b>  | 7139378823                     |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Email:</b>  | geraldlaws@sbcglobal.net       |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Correspondent Name:</b>   | Texas Instruments, Inc.        |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Address Line 1:</b>   | P.O. Box 655474                |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Address Line 2:</b>   | MS 3999                        |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>Address Line 4:</b>   | Dallas, TEXAS 75265            |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>ATTORNEY DOCKET NUMBER:</b>   | TI-63478                       |               |                |                     |            |                          |            |                  |            |                        |            |
| <b>NAME OF SUBMITTER:</b>  | GERALD E. LAWS                 |               |                |                     |            |                          |            |                  |            |                        |            |

OP \$40.00 12022931

Total Attachments: 2

source=TI\_63478-asgn-signed-pta#page1.tif

source=TI\_63478-asgn-signed-pta#page2.tif

**ASSIGNMENT**

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

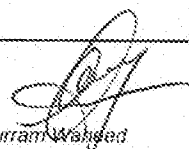
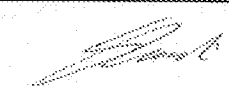
WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 7839 Churchill Way, M/S 3999, Dallas, Texas 75251, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

| TITLE OF INVENTION             | Interpolative All-Digital Phase Locked Loop  |     |  |
|--------------------------------|--|-----|--|
| SIGNATURE OF INVENTOR AND NAME | <br>Khurram Wahid | (1) | <br>Robert Bogdan Staszewski |
| DATE                           | 01/28/08   |     | 1/28/08  |
| RESIDENCE (City, State)        | 3625 Mistyglen Dr<br>Plano, TX 75025 US  |     | 413 West Muirfield Rd<br>Garland, TX 75044 US  |
| DATE Declaration signed        | 01/28/08   |     | 1/28/08  |

After recordation, please return Assignment to:

Ronald Neerings  
Texas Instruments Incorporated  
P.O. Box 655474, MS 3999  
Dallas, TX 75265

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

|                                |  |            |            |
|--------------------------------|--|------------|------------|
| TITLE OF INVENTION             | Interpolative All-Digital Phase Locked Loop                    |            |            |
| SIGNATURE OF INVENTOR AND NAME | (4)<br><i>Sudheer K. Vemulapalli</i><br>Sudheer K. Vemulapalli | (5)<br>N/A | (6)<br>N/A |
| DATE                           | 1/28/08  |            |            |
| RESIDENCE<br>(City, State)     | 1115 Bridgeway Ln<br>Allen, TX 75013 US                        |            |            |
| DATE Declaration signed        | 1/28/08  |            |            |

After recordation, please return Assignment to:

Ronald Neerings  
Texas Instruments Incorporated  
P.O. Box 655474, MS 3999  
Dallas, TX 75265