

## 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>Adam Wathen</td> <td>10/08/2012</td> </tr> <tr> <td>William Hunt</td> <td>10/08/2012</td> </tr> <tr> <td>Farasat Munir</td> <td>10/08/2012</td> </tr> <tr> <td>Kyle Spencer Davis</td> <td>08/21/2012</td> </tr> <tr> <td>James Geoffrey Maloney</td> <td>08/15/2012</td> </tr> <tr> <td>Ryan Sloan Westafer</td> <td>08/15/2012</td> </tr> </tbody> </table>		Name	Execution Date	Adam Wathen	10/08/2012	William Hunt	10/08/2012	Farasat Munir	10/08/2012	Kyle Spencer Davis	08/21/2012	James Geoffrey Maloney	08/15/2012	Ryan Sloan Westafer	08/15/2012
Name	Execution Date														
Adam Wathen	10/08/2012														
William Hunt	10/08/2012														
Farasat Munir	10/08/2012														
Kyle Spencer Davis	08/21/2012														
James Geoffrey Maloney	08/15/2012														
Ryan Sloan Westafer	08/15/2012														
RECEIVING PARTY DATA															
<table border="1"> <tr> <td>Name:</td> <td>Georgia Tech Research Corporation</td> </tr> <tr> <td>Street Address:</td> <td>505 Tenth Street, NW</td> </tr> <tr> <td>City:</td> <td>Atlanta</td> </tr> <tr> <td>State/Country:</td> <td>GEORGIA</td> </tr> <tr> <td>Postal Code:</td> <td>30332-0415</td> </tr> </table>		Name:	Georgia Tech Research Corporation	Street Address:	505 Tenth Street, NW	City:	Atlanta	State/Country:	GEORGIA	Postal Code:	30332-0415				
Name:	Georgia Tech Research Corporation														
Street Address:	505 Tenth Street, NW														
City:	Atlanta														
State/Country:	GEORGIA														
Postal Code:	30332-0415														
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>13530029</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13530029										
Property Type	Number														
Application Number:	13530029														
CORRESPONDENCE DATA															
<p>Fax Number: 4049626849  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: (404) 885-2773        Email: candice.dysart@troutmansanders.com        Correspondent Name: Ryan A. Schneider        Address Line 1: 600 Peachtree Street, NE, Suite 5200        Address Line 2: Bank of America Plaza        Address Line 4: Atlanta, GEORGIA 30308-2216</p>															
ATTORNEY DOCKET NUMBER:	GTRC5687														

CH \$40.00 13530029

NAME OF SUBMITTER:

Candice P. Dysart

**Total Attachments: 8**

source=GTRC5687 ASSIGNMENT#page1.tif

source=GTRC5687 ASSIGNMENT#page2.tif

source=GTRC5687 ASSIGNMENT#page3.tif

source=GTRC5687 ASSIGNMENT#page4.tif

source=GTRC5687 ASSIGNMENT#page5.tif

source=GTRC5687 ASSIGNMENT#page6.tif

source=GTRC5687 ASSIGNMENT#page7.tif

source=GTRC5687 ASSIGNMENT#page8.tif

## **ASSIGNMENT**

WHEREAS, We, Adam Wathen, William Hunt, Farasat Munir, Kyle Spencer Davis, James Geoffrey Maloney, and Ryan Sloan Westafer (collectively referred to as "ASSIGNOR"), have invented certain improvements in **THIN-FILM BULK ACOUSTIC WAVE DELAY LINE**, for which a U.S. Non-Provisional Patent Application was filed 21 June 2012 and provided Serial No. 13/530,029, and for which a U.S. Provisional Patent Application was filed 21 June 2011 and provided Serial No. 61/499,289, and for which future applications may be filed, (collectively referred to as the "Application"), and whereas

**GEORGIA TECH RESEARCH CORPORATION**  
**505 Tenth Street, N.W.**  
**Atlanta, Georgia 30332-0415**  
**United States**

("ASSIGNEE") desires to purchase all of ASSIGNOR's rights in same;

**NOW THEREFORE**, in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations paid by the said ASSIGNEE, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has and by these presents does hereby sell, assign, transfer and convey unto said ASSIGNEE all of ASSIGNOR's rights, title, and interest in and to said Application, including in and to any conventional, division, continuation, continuation-in-part, substitution, reissue, renewal, reexam, continued prosecution application ("CPA"), or request for continued examination ("RCE") thereof, and in and to all inventions and improvements thereon (herein collectively referred to as "Related US Applications"), preparatory to obtaining Letters Patent of the United States therefore; and ASSIGNOR hereby requests the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States resulting from said Application and Related US Applications, to ASSIGNEE, for its interest and for the sole use and benefit of ASSIGNEE and its assigns and legal representatives.

**For the same consideration**, ASSIGNOR, by these presents does sell, assign, and transfer to ASSIGNEE all of ASSIGNOR's rights, title and interest in and to any foreign and international applications related to and/or seeking benefit of said Application and Related US Applications, and in and to all inventions and improvements thereon (herein collectively referred to as "Related Foreign Applications"), in and to any Letters Patent and similar protective rights granted on said Related Foreign Applications, and in and to the right to claim any applicable priority rights arising from or required for said Related Foreign Applications under the terms of any applicable conventions, treaties, statutes, or regulations, said Related Foreign Applications to be filed and issued in the name of ASSIGNEE or its designee, insofar as permitted by applicable law.

**For the same consideration**, ASSIGNOR agrees, without charge to ASSIGNEE, but at ASSIGNEE'S expense, to sign all lawful papers, execute said Application, Related US Applications and Related Foreign Applications, make all assignments and rightful oaths, assist in prosecution of said Application, Related US Applications and Related Foreign Applications, assist in prosecution of legal proceedings, and generally do everything reasonably possible to aid ASSIGNEE its successors, assigns, and nominees, to obtain and enforce proper protection for all said inventions and improvements in all countries throughout the world.

AND, for the same consideration, ASSIGNOR also hereby sells, assigns and transfers unto ASSIGNEE all of ASSIGNOR's rights and claims to sue for damages and other remedies with respect to any and all past infringement of all said Application, Related US Applications, and Related Foreign Applications, including said inventions and improvements which may have occurred before the date of this Assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 8<sup>th</sup> day of October, 2012.

Adam Wathen (SEAL)  
Adam Wathen

Witnessed by: [Signature]  
Signature

Date: 10/8/12

Ryan Nilson  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: 10/8/12

Russell Nadler  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
(SEAL)  
Adam Wathen

State of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

\_\_\_\_\_  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
William Hunt (SEAL)

Witnessed by: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name of Witness

Witnessed by: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

William D. Hunt  
William Hunt (SEAL)

State of Georgia

County of Fulton

On this 8 day of October, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

Tammy D. Scott  
NOTARY PUBLIC

(SEAL)

My Commission Expires: December 20, 2014

TAMMY D. SCOTT  
NOTARY PUBLIC, FULTON COUNTY, GEORGIA  
MY COMMISSION EXPIRES 12/20/2014

3 of 8

20071998v1

GTRC5687 Assignment

TROUTMAN  
SANDERS

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 8th day of OCTOBER, 2012.

Farasat Munir (SEAL)  
Farasat Munir

Witnessed by: [Signature]  
Signature

Date: 10-8-12

Carson A. Wick  
Printed Name of Witness

Witnessed by: [Signature]  
Signature

Date: Oct 8th 2012

LAKSHMINARAYAN RAVICHANDRAN  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
Farasat Munir (SEAL)

State of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

\_\_\_\_\_  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 21<sup>st</sup> day of August, 2012.

  
\_\_\_\_\_  
Kyle Spencer Davis

(SEAL)

Witnessed by: 

\_\_\_\_\_  
Signature

Date: 21 Aug 2012

Gordon Gray  
\_\_\_\_\_  
Printed Name of Witness

Witnessed by: 

\_\_\_\_\_  
Signature

Date: 21 Aug 2012

JEFF H. HALLMAN  
\_\_\_\_\_  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
(SEAL)

Kyle Spencer Davis

State of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

\_\_\_\_\_  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_(SEAL)  
**James Geoffrey Maloney**

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

---

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

---

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 15 day of August, 2012.

James B Maloney (SEAL)  
**James Geoffrey Maloney**

State of Georgia

County of Fulton

On this 15<sup>th</sup> day of August, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

Carolyn A. Whitehurst  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

My Commission Expires May 7, 2013



IN WITNESS WHEREOF, I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
Ryan Sloan Westafer (SEAL)

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 15<sup>th</sup> day of AUGUST, 2012.

\_\_\_\_\_  
Ryan Sloan Westafer (SEAL)

State of Georgia

County of Fulton

On this 15 day of August, 2012, before me, a notary public, came to me known and known to be the individual described in and who executed the foregoing assignment, and he duly acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Carolyn A. Whitehurst  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

My Commission Expires May 7, 2013

In Witness Whereof, Assignee hereby accepts from Assignor the sale, assignment, transfer and conveyance unto said Assignee of the full, exclusive and entire right, title, and interest in and to said Application, Related US Applications and Related Foreign Applications, by its duly authorized officer this 9th day of October, 2012.

Georgia Tech Research Corporation  
(Assignee)

By:

Kimberly Dunn

Name:

Kimberly Dunn

Title:

Authorized Signatory

Witnessed by: Cynthia D. Jackson  
Signature

Cynthia D. Jackson

Printed Name of Witness

Date: October 9, 2012

Witnessed by: Deborah Reid  
Signature

Deborah Reid

Printed Name of Witness

Date: October 9, 2012