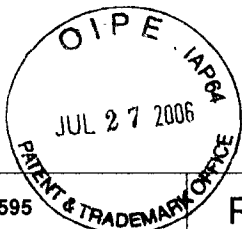


7-27-06



08-07-2006

Docket No. A-68000/MSS (464334-00112)

FORM PTO 1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)

RI



103286764

ET

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name(s) of conveying party(ies): Jung-Chih Chiao Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other Execution Date: July 7, 2006 effective June 26, 2006

2. Name and address of receiving party(ies) Name: UNIVERSITY OF HAWAII Internal Address: Street Address: 2800 Woodlawn Drive, No. 280 City: Honolulu State: HI ZIP: 96822 Country: U.S. Additional name(s) & address(es) attached Yes No

4. Application number(s) or patent number(s): 10/009,986 If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 10/009,986 B. Patent No.(s) Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed: Name: Maria S. Swiatek Internal Address: DORSEY & WHITNEY LLP Street Address: 555 California Street, Suite 1000 City: San Francisco State: CA ZIP 94104-1513

6. Total Number of applications and patents involved: 1 7. Total fee (37 CFR 3.41) . . . x \$40. 40.00 Enclosed Authorized to be charged to deposit account 8. Deposit Account number: 50-2319 (Our Order No. A-68000/MSS (464334-00112)) (Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature. 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. Maria S. Swiatek Name of Person Signing Reg. No. 37,244 Signature Date July 20, 2006

Total number of pages including cover sheet, attachments, and document: 3 Mail documents to be recorded with required cover sheet information to:

United States Patent and Trademark Office Attn: Assignment Division 2900 Crystal Drive, 9th Floor Arlington, VA 22202

08/04/2006 BYRNE 00000091 10009986 40.00 OP

ASSIGNMENT

WHEREAS, the undersigned, **Jung-Chih Chiao**, a resident of **Garland, Texas** (hereinafter termed "Inventor"), has invented certain new and useful improvements **MEMS TRANSMISSION AND CIRCUIT COMPONENTS**, for which invention he/she has executed an application for Letters Patent of the United States, having Serial No. 10/009,986, and filing date of December 11, 2001, which claims priority to Provisional Patent Applications Serial Nos. 60/138,865 filed June 11, 1999 and 60/173,659 filed December 30, 1999, and PCT Patent Application Serial No. PCT/US00/16021 filed June 9, 2000; and which invention is fully described in the specification pertaining to said application.

WHEREAS, **UNIVERSITY OF HAWAII**, (hereinafter termed "Assignee"), a body having corporate powers under the laws in the State of Hawaii, having a place of business at 2800 Woodlawn Drive, No. 280, Honolulu, Hawaii 96822, is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventor (collectively hereinafter termed "said invention"), and in and to any and all patents, inventor certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor to have been received in full from said Assignee:

1. Said Inventor does hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; and (d) in and to each and every reissue or extension of any of said patents; and (e) all claims for damages by reason of past infringement of said Patents, with the right to sue for and collect the same for its own use and enjoyment, and for use and enjoyment of its successors, assigns or other legal representatives.

2. Said Inventor hereby covenants and agrees to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering

said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms, covenants and conditions of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor, his/hers respective heirs, legal representatives and assigns.

4. Said Inventor hereby warrants and represents that he/she has not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventor has executed and delivered this instrument on the date(s) below written. The effective date of this Assignment is June 26, 2006.

Dated: July 7, 2006

Jung-Chih Chiao
Jung-Chih Chiao

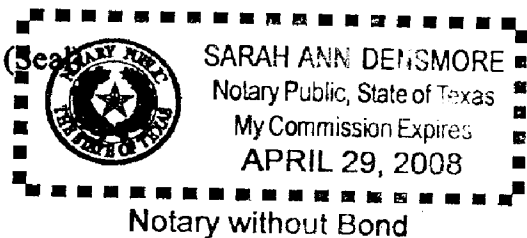
State of Texas]

County of Tarrant] SS.

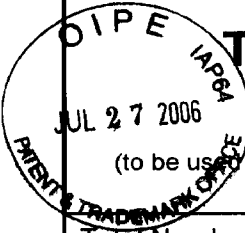
On July 7, 2006, before me, Sarah Ann Densmore, Notary Public, personally appeared Jung-Chih Chiao, personally known to me (or proved to me on the basis of evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Sarah Ann Densmore
Notary Public



DS



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | |
|----------------------|--------------------------|
| Application No. | 10/009,986 |
| Filing Date | December 11, 2001 |
| First Named Inventor | Jung-Chih CHIAO |
| Examiner Name | VANNUCCI, JAMES |
| Group Art Unit | 2828 |
| Attorney Docket No. | A-68000/MSS (464334-112) |

Total Number of Pages in This Submission **5**

ENCLOSURES (check all that apply)

| | | |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Fee Transmittal Form | <input checked="" type="checkbox"/> Assignment Papers (for an Application) | <input type="checkbox"/> After Allowance Communication to Group |
| <input checked="" type="checkbox"/> Fee Attached - \$40.00 | <input type="checkbox"/> Drawing(s) | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input type="checkbox"/> Amendment / Reply | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address | <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): |
| <input type="checkbox"/> Express Abandonment Request | <input type="checkbox"/> Terminal Disclaimer | Check No.: <u>200512</u> in the amount of \$40.00 for recording Assignment; |
| <input type="checkbox"/> Supplemental Information Disclosure Statement (3 pgs.) | <input type="checkbox"/> Request for Refund | A self-addressed stamped Postcard. |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | <input type="checkbox"/> CD, No. of CD(s) _____ | |
| <input type="checkbox"/> Response to Missing Parts/ Incomplete Application | Remarks | |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | | |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Firm or Individual name | Maria S. Swiatek, Reg. No. 37,244 DORSEY & WHITNEY LLP 555 California Street, Suite 1000 San Francisco, CA 94104-1513 Telephone: (650) 857-1717 Facsimile: (650) 857-1288 | Customer Number 32940 |
| Signature | <i>Maria S. Swiatek</i> | |
| Date | July 20, 2006 | |

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with Sufficient postage as first class mail in an envelope addressed to United States Patent and Trademark Office, Attn: Assignment Division, 2900 Crystal Drive, 9th Floor, Arlington, VA 22202 on this date: 07/20/06

| | | | |
|-----------------------|-----------------------|------|---------------|
| Typed or printed name | Kari B. Aguiar | | |
| Signature | <i>Kari B. Aguiar</i> | Date | July 20, 2006 |

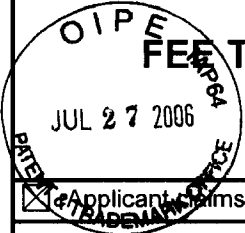
4817-3050-0097/1



07-27-2006

U.S. Patent & TMO/c/TM Mail Rcpt Dt. #04
PATENT

REEL: 018118 FRAME: 0686



FEE TRANSMITTAL SHEET (FY 2005)

Complete if Known

| | |
|----------------------|--------------------------|
| Application No. | 10/009,986 |
| Filing Date | December 11, 2001 |
| First Named Inventor | Jung-Chih CHIAO |
| Group Art Unit | VANNUCCI, JAMES |
| Examiner Name | 2828 |
| Atty. Docket Number | A-68000/MSS (464334-112) |

Applicant claims small entity status (see 37 C.F.R. 1.27)

METHOD OF PAYMENT (Check One)

- Check Credit Card Money Order
 Deposit Account No.: **50-2319**
 Deposit Account Name: **DORSEY & WHITNEY LLP**
 For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)
 Charge any additional fees or underpayments of fee(s) under 37 C.F.R. 1.16 and 1.17
 Credit any overpayments
 Other (please identify):

Extra Claim Fees

| Current Claims | Prior | Extra | Fee | Fee Paid |
|--------------------------------|-------|-------|------|-----------|
| Total | 20 | = | x \$ | = \$ |
| Ind. | 3 | = | x \$ | = \$ |
| Multiple Dependent Claims | | = | x \$ | = \$ |
| Subtotal (Extra Claims) | | | | \$ |

Petition Fee Under 37 CFR 1.17(f), (g), & (h)

Enclosed is a Petition filed under 37 CFR as indicated below:

- Petition Fee under 37 CFR 1.17(f) Fee \$400**
 § 1.53(e) to accord a filing date.
 § 1.57(a) to accord a filing date.
 § 1.182 for decision on a question not provided for.
 § 1.183 to suspend the rules.
 § 1.378(e) for reconsideration of decision on petition refusing delayed payment of maintenance fee in expired patent.
 § 1.174(b) to accord a filing date to an application under §1.740 for extension of patent term.
- Petition Fee under 37 CFR 1.17(g) Fee \$200**
 § 1.12 for access to an assignment record.
 § 1.14 for access to an application.
 § 1.47 for filing by other than all inventors or person not the inventor.
 § 1.59 for expungement of information.
 § 1.103(a) to suspend action in an application.
 § 1.136(b) for review of a request for ext. of time when §1.136(a) not avail.
 § 1.295 for review of refusal to publish a statutory invention registration.
 § 1.296 to withdraw a req. for pub. after notice of intent to publish issued.
 § 1.377 for review of decision refusing to accept a maintenance fee filed prior to expiration of a patent.
 § 1.550(c) for request for ext. of time in *ex parte* reexam. proceedings.
 § 1.956 for request for ext. of time in *ex parte* reexam. proceedings.
 § 5.12 for expedited handling of foreign filing license.
 § 5.15 for changing the scope of a license.
 § 1.5.25 for retroactive license.
- Petition Fee under 37 CFR 1.17(h) Fee \$130**
 § 1.19(g) to request documents in a form other than provided in this part.
 § 1.84 for accepting color drawings or photographs.
 § 1.91 for entry of a model or exhibit.
 § 1.102(d) to make an application special.
 § 1.138(c) to expressly abandon an application to avoid publication.
 § 1.313 to withdraw an application from issue.
 § 1.314 to defer issuance of a patent.

FEE CALCULATION (Continued)

3. ADDITIONAL FEES

| Large Entity Fee | Small Entity Fee | Fee Description | Fee paid |
|-----------------------------------|------------------|----------------------------------------------------------------------------|--------------|
| 50 | 25 | Surcharge - late provisional filing fee or cover sheet | |
| 130 | 65 | Surcharge - Late nonprovisional filing fee or oath | |
| 180 | 180 | Submission of IDS | |
| 40 | 40 | Recording each patent assignment per property (times number of properties) | 40.00 |
| 120 | 60 | Extension for reply within first month | |
| 450 | 225 | Extension for reply within second month | |
| 1,020 | 510 | Extension for reply within third month | |
| 1,590 | 795 | Extension for reply within fourth month | |
| 2,160 | 1,080 | Extension for reply within fifth month | |
| 790 | 395 | Submission After Final 1.129 | |
| 500 | 250 | Notice of Appeal | |
| 500 | 250 | Filing a brief in support of an appeal | |
| 1,000 | 500 | Request for oral hearing | |
| 110 | 55 | Terminal Disclaimer Fee | |
| 800 | 400 | Design Issue Fee | |
| 1400 | 700 | Issue Fee | |
| 790 | 395 | Request for Continued Examination (RCE) | |
| 130 | | Request for voluntary publication or republication | |
| 500 | 250 | Petition to Revive - unavoidable | |
| 1,500 | 750 | Petition to Revive - unintentional | |
| 200 | | Filing for patent term adjustment | |
| 400 | | Request for reinstatement of term reduced | |
| 1,120 | | Extension of term of patent | |
| OTHER FEE (specify) | | (3) three additional soft copies -\$9 | |
| Subtotal (Additional Fees) | | | 40.00 |

Total Amount of Payment: \$40.00

Submitted by:

| | | |
|-------------------------------------|--------------------------------|------------------------------|
| CUSTOMER NUMBER 32940 | DORSEY & WHITNEY LLP | |
| Name: Maria S. Swiatek, Esq. | Phone No.: 650-857-1717 | Fax No.: 650-857-1288 |
| Signature: | Reg. No.: 37,244 | Date: July 20, 2006 |