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1. A. Name of conveying party(ies):

Kazuhiko MAEJIMA
Yasuhiro AIDA
Yoshitomo TANAKA
Katsuyuki KURACHI
Hitoshi SAKUMA

B. Additional name(s) of conveying party(ies) attached?
 Yes No

2. A. Name and address of receiving party(ies):

TDK CORPORATION
3-9-1, SHIBAURA
MINATO-KU, TOKYO
108-0023, JAPAN

B. Additional name(s) & address(es) attached?
 Yes No

3. A. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

B. Execution Date: May 28, 2013, June 3, 2013, June 3, 2013, May 28, 2013 and May 28, 2013

4. This document is being filed together with a new application.

A. Patent Application No.(s) 13/898,110

B. Patent No.(s) _____

Additional numbers attached? Yes No

C. Title of Application: THIN-FILM PIEZOELECTRIC ELEMENT, THIN-FILM PIEZOELECTRIC ACTUATOR, THIN-FILM PIEZOELECTRIC SENSOR, HARD DRIVE DISK, AND INKJET PRINTER

D. This Assignment is submitted for a dual purpose: (1) recording in the assignment database; and (2) for use in the above-identified application as the oath or declaration pursuant to 37 CFR 1.63(c).

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: James A. Oliff

Address: OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, VA 22320-4850
email@oliff.com

6. Total number of applications and patents involved: 1

7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.

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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.

James A. Oliff, Registration No. 27,075
J. Adam Neff, Registration No. 41,218

Date: October 2, 2013

Total number of pages including cover sheet, attachments, and document: 4

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| | |
|---|--|
| <p>1. A. Name of conveying party(ies):</p> <p style="margin-left: 20px;">Kazuhiko MAEJIMA Yasuhiro AIDA Yoshitomo TANAKA Katsuyuki KURACHI Hitoshi SAKUMA</p> <p>B. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | <p>2. A. Name and address of receiving party(ies):</p> <p style="margin-left: 20px;">TDK CORPORATION 3-9-1, SHIBAURA MINATO-KU, TOKYO 108-0023, JAPAN</p> <p>B. Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> |
| <p>3. A. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____</p> <p>B. Execution Date: <u>May 28, 2013, June 3, 2013, June 3, 2013, May 28, 2013 and May 28, 2013</u></p> | <p>4. <input type="checkbox"/> This document is being filed together with a new application.</p> <p>A. Patent Application No.(s) <u>13/898,110</u> B. Patent No.(s) _____</p> <p style="text-align: center;">Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>C. Title of Application: <u>THIN-FILM PIEZOELECTRIC ELEMENT, THIN-FILM PIEZOELECTRIC ACTUATOR, THIN-FILM PIEZOELECTRIC SENSOR, HARD DRIVE DISK, AND INKJET PRINTER</u></p> <p>D. <input checked="" type="checkbox"/> This Assignment is submitted for a dual purpose: (1) recording in the assignment database; and (2) for use in the above-identified application as the oath or declaration pursuant to 37 CFR 1.63(c).</p> |
| <p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p style="margin-left: 20px;">Name: <u>James A. Oliff</u></p> <p style="margin-left: 20px;">Address: <u>OLIFF & BERRIDGE, PLC</u> <u>P.O. Box 320850</u> <u>Alexandria, VA 22320-4850</u> <u>email@oliff.com</u></p> | <p>6. Total number of applications and patents involved: <u>1</u></p> <p>7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of <u>\$40.00</u>.</p> <p style="font-size: 0.8em; margin-left: 20px;">BA/DK/2013 KMGUYCH1 00000001 15046 13898110</p> <p>8. Credit any overpayment or charge any underpayment to deposit account number <u>15-0461</u>.</p> |
| <p>9. 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> <p style="text-align: center;"><u>J. Adam Neff</u></p> <p style="text-align: center;">Date: <u>July 26, 2013</u></p> <p>James A. Oliff, Registration No. 27,075 J. Adam Neff, Registration No. 41,218</p> <p style="text-align: center;">Total number of pages including cover sheet, attachments, and document: <u>4</u></p> | |

**ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e))
For Application with Filing Date on or after September 16, 2012**

2012年9月16日以降の日付で提出する出願における
(37 CFR 1.63(e)に基づき兼用で提出する)譲渡証

Japanese Language Assignment

(1-8) **Insert Legal Name(s) of Inventor(s)**

発明者の氏名を記入すること

(1) Kazuhiko MAEJIMA

(2) Yasuhiro AIDA

(3) Yoshitomo TANAKA

(4) Katsuyuki KURACHI

(5) Hitoshi SAKUMA

(6)

(7)

(8)

各々の署名人に対して支払われた総額 1 ドル (\$1.00) および他の適切な有価約因を考慮して、各々の署名人は、その金額および他の約因を受領したこと、またその金額および他の約因が充分であることを確認し、

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9) **Insert Name of Assignee**

譲受人氏名を記入すること

(9) TDK CORPORATION

(10) **Insert Address of Assignee**

譲受人住所を記入すること

(10) 3-9-1, Shibaura, Minato-ku, Tokyo 108-0023, Japan

(以下「譲受人」と称する)、譲受人の継承人、後継者、被譲渡者、および法定代理人に対して、下記の名称の発明および仮出願、非仮出願、分割出願、継続出願、国際出願、差替え出願、および再発行出願を含む全ての特許出願に関して、また前記発明に関する全ての特許証、期間延長、再発行、再審査証に関して、(米国は米国法第 35 章第 100 条に定義されるごとく)米国に対して全ての権利、所有権、および利益を譲渡することに同意し、またここに譲渡し、移転し、また移譲し、

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as

(11) **Insert Identification such as Title, Case Number, or Foreign Application Number**

名称、事件番号、もしくは外国出願番号のような確認事項を記入のこと

(11) THIN-FILM PIEZOELECTRIC ELEMENT, THIN-FILM PIEZOELECTRIC ACTUATOR, THIN-FILM PIEZOELECTRIC SENSOR, HARD DRIVE DISK, AND INKJET PRINTER

(Attorney Docket No. 157681

), filed on even date herewith or as

**PATENT
REEL: 031360 FRAME: 0404**

(弁護士整理番号 _____) この譲渡書の提出と同日にもしくは

(12) **Alternative Identification for filed applications**

提出された出願のための代案確認事項

(12) **U.S. Application Serial Number**

右記の米国出願整理番号で 13/898,110

filed

May 20, 2013

上記日付において提出されたものである。

1) 各々の署名人は、前記発明に関する全ての出願および/もしくは特許に関して必要な全ての書類に署名し日付を記入することに同意し、譲受人が必要と思われる、このような出願および特許に関しての別途譲渡証に署名し日付を記入することに同意する。

2) 各々の署名人は、前記発明に関する全ての出願もしくは特許に関して表明されるインターフェレンスもしくは特許発行後の検討の手続きに関して必要な全ての書類に署名し日付を記入することに同意し、証拠取得およびそのようなインターフェレンスもしくは特許発行後の検討の手続きを進行するにあたり、いかなる方法においても前記譲受人と協力することに同意する。

3) 各々の署名人は、国際工業所有権保護協定の請求もしくは規定もしくは類似協定に関して必要な全ての用紙および書類に署名し日付を記入し、必要ないかなる行為も施行することに同意する。

4) 各々の署名人は、前記譲受人に対して有効な米国特許の承認を取得し、維持し、もしくは再発行もしくは再審査により確認するために必要ないかなる行為も施行することに同意する。

5) 各々の署名人は、米国特許商標庁長官に前記出願から発生した全ての特許を、全ての利益の譲受人としての前記譲受人に対して発行することを許可および請求し、署名人はここに譲渡する全ての利益を譲るための全ての権利を有し、対立関係にある協定に過去に署名し日付を記入することなくもしくは将来署名し日付を記入しないことを誓約し、この協定が前記譲渡人、譲渡人の继承人、譲渡人の後継者、譲渡人の被譲渡者、および譲渡人の法定代理人に法的義務を負わせるものであることに同意する。

6) 各々の署名人は、この書類の記録上、米国特許商標庁の規定に従うために、必要もしくは所望であればこの譲渡証にさらに確認事項を記入するための権利をオリフ・ベッジ法律弁護士事務所(OLIFF & BERRIDGE, PLC)に付与する。

(13) **宣言書**

私は、上記に氏名を記載した発明者として、以下のとおり宣言する:

この宣言書に関わる上記出願で請求した発明の(もしくは請求した意匠の)、本来の発明者である、もしくは本来の共同の発明者であると信じる。

1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention, and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.

2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.

3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of OLIFF & BERRIDGE, PLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

(13) **Declaration**

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

上記出願は、自己によりなされたか、もしくは自己によりなされるように許可を受けたものであった。

The application was made or authorized to be made by me.

私は、請求項を含む上記出願の内容を検討および理解し、連邦施行規則第 37 章第 1 条第 56 項に定義されるごとく、特許性に関して重要であると認識している全ての情報を米国特許商標庁に開示すべき義務を有することを認める。

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

私は、この宣言書において故意に虚偽の陳述等を行った場合、米国法第18章第1001条により、罰金もしくは最高5年の禁錮に処せられるか、またはこれらの刑が併科されることを理解する。

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

署名人覧の隣の日付をもってこの署名が履行される。

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

| | | | |
|------------|-------------------|-----------------------------|--|
| Date 日付 | <u>28.5.2013</u> | Inventor Signature 発明者署名 | <u>Kazuhiko Maejima</u> (SEAL) 印 |
| Date 日付 | <u>03.06.2013</u> | Inventor Signature 発明者署名 | <u>Yasuhito Aida</u> (SEAL) 印 |
| Date 日付 | <u>03.06.2013</u> | Inventor Signature 発明者署名 | <u>Yoshitomo Tanaka</u> (SEAL) 印 |
| Date 日付 | <u>28.5.2013</u> | Inventor Signature 発明者署名 | <u>Katsuyoshi Kurachi</u> (SEAL) 印 |
| Date 日付 | <u>28.5.2013</u> | Inventor Signature 発明者署名 | <u>Hitoshi Sakuma</u> (SEAL) 印 |
| Date 日付 | _____ | Inventor Signature 発明者署名 | _____ (SEAL) 印 |
| Date 日付 | _____ | Inventor Signature 発明者署名 | _____ (SEAL) 印 |
| Date 日付 | _____ | Inventor Signature 発明者署名 | _____ (SEAL) 印 |

この譲渡証は(a)米国内で署名される際には公証人の目前で、(b)米国外で署名される際には米国領事の目前で署名されることが望ましい。(a)もしくは(b)が不可能な際には、下記に署名する少なくとも二人の証人の目前で署名されることが望ましい:

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

| | | | |
|------------|-------|---------------|-------|
| Date 日付 | _____ | Witness 証人 | _____ |
| Date 日付 | _____ | Witness 証人 | _____ |