

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<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>Kosuke Tanaka</td><td>01/07/2010</td></tr> <tr><td>Daisuke Miyauchi</td><td>01/07/2010</td></tr> <tr><td>Susumu Aoki</td><td>01/07/2010</td></tr> <tr><td>Tetsuya Roppongi</td><td>01/07/2010</td></tr> <tr><td>Tsutomu Chou</td><td>01/07/2010</td></tr> <tr><td>Takahiko Izawa</td><td>01/07/2010</td></tr> <tr><td>Katsuki Kurihara</td><td>01/07/2010</td></tr> </tbody> </table>		Name	Execution Date	Kosuke Tanaka	01/07/2010	Daisuke Miyauchi	01/07/2010	Susumu Aoki	01/07/2010	Tetsuya Roppongi	01/07/2010	Tsutomu Chou	01/07/2010	Takahiko Izawa	01/07/2010	Katsuki Kurihara	01/07/2010
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RECEIVING PARTY DATA																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Name:</td><td>TDK Corporation</td></tr> <tr><td>Street Address:</td><td>1-13-1, Nihonbashi, Chuo-ku</td></tr> <tr><td>City:</td><td>Tokyo</td></tr> <tr><td>State/Country:</td><td>JAPAN</td></tr> <tr><td>Postal Code:</td><td>103-8272</td></tr> </table>		Name:	TDK Corporation	Street Address:	1-13-1, Nihonbashi, Chuo-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	103-8272						
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CORRESPONDENCE DATA																	
<p>Fax Number: (212)588-0500</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 2125880800</p> <p>Email: MEmas@flhlaw.com</p> <p>Correspondent Name: Ellen Marcie Emas</p> <p>Address Line 1: 745 Fifth Avenue</p> <p>Address Line 4: New York, NEW YORK 10151</p>																	
ATTORNEY DOCKET NUMBER:	335001-2115																

OP \$40.00 12688367

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PATENT
REEL: 023816 FRAME: 0091

NAME OF SUBMITTER:

Jeanmarie Spradlin

Total Attachments: 3

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**RECORDATION FORM COVER SHEET
PATENTS ONLY**

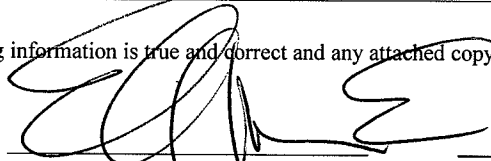
U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

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

<p>1. Name of conveying party(ies)</p> <p align="center">Kosuke TANAKA Daisuke MIYAUCHI Susumu AOKI Tetsuya ROPPONGI Tsutomu CHOU Takahiko IZAWA Katsuki KURIHARA</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: TDK Corporation Internal Address: Street Address: 1-13-1, Nihonbashi, Chuo-ku City, State, Zip: Tokyo, Japan 103-8272</p> <p>Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Security Agreement <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Other</p> <p>Execution Date(s): January 7, 2010</p>	

<p>4. Application number(s) or patent number(s): 12/688,367</p> <p>If this document is being filed together with a new application, the execution date of the application is:</p> <p align="right">Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: Ellen Marcie Emas Internal Address: FROMMER LAWRENCE & HAUG LLP Street Address: 745 FIFTH AVENUE City: NEW YORK State: N.Y. Zip: 10151</p>	<p>6. Total number of applications and patents involved 1</p> <hr/> <p>7. Total fee (37 CFR 3.41) \$ 40.00</p> <p align="center"><input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account 50-0320</p> <hr/> <p>8. Deposit account number: <u>50-0320</u> (Attach duplicate copy of this page if paying by deposit account)</p>

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<p>9. <u>Statement and signature.</u> 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.</p>		
<p>_____ Ellen Marcie Emas Name of Person Signing</p>	 _____ Signature	<p>_____ January 20, 2010 Date</p>
<p>Total number of pages including cover sheet, attachments, and document 3</p>		

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Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, D.C. 20503.

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by Kosuke TANAKA, Daisuke MIYAUCHI, Susumu AOKI, Tetsuya ROPPONGI, Tsutomu CHOU, Takahiko IZAWA and Katsuki KURIHARA, all residing at c/o TDK Corporation of 1-13-1, Nihonbashi, Chuo-ku, Tokyo 103-8272, Japan (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in THERMALLY-ASSISTED MAGNETIC RECORDING HEAD HAVING NEAR-FIELD OPTICAL DEVICE WITH PROPAGATION EDGE

set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☒ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, TDK Corporation, a corporation duly organized under and pursuant to the laws of Japan and having a principal place of business at 1-13-1, Nihonbashi, Chuo-ku, Tokyo 103-8272, Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefore and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefore and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Frommer Lawrence & Haug LLP to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE January 7, 2010

Kosuke Tanaka

DATE January 7, 2010

Daisuke Miyashiro

DATE January 7, 2010

Susumu Aoki

DATE January 7, 2010

Tetsuya Roppongi

DATE January 7, 2010

Tsutomu Chou

DATE January 7, 2010

Takahito Iizumi

DATE January 7, 2010

Katsuki Kurihara