U.S. DEPARTMENT OF COMMERCE FORM PTO-1595 (Rev. 6-93) Patent and Trademark Office 100992913 Atty. Docket No. 04173.0376 To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof. ATTN. BOX ASSIGNMENTS 1. Name of conveying party(ies):0 | PE Name and address of receiving party(ies): 1. Yusuke KITAZAWA 2. Yasuhisa TAKAMURA Name: KABUSHIKI KAISHA TOSHIBA Additional names(s) of convey Internal Address: attached? ___Yes XX_No Street Address: 72, Horikawa-cho, 3. Nature of conveyance: Saiwai-ku, Kawasaki-shi, Kanagawa-ken 210 _ Merger X Assignment Japan City: _ ___ Security Agreement ___ Change of Name ___ Other _____ State: _____ ZIP: Execution Date: 1. on August 6, 1998 Additional name(s) & address(es) attached? 2. on July 22, 1998 ___Yes XX_No 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: ____ B. Patent No.(s) A. Patent Application Nos. 09/117,827 Additional numbers attached? YES X NO 6. Total number of applications and patents 5. Name and address of party to whom correspondence concerning document involved 1should be mailed: Name: Mr. Ernest F. Chapman Internal Address: Finnegan, Henderson, Farabow, Garrett 7. Total fee (37 CFR 3.41): \$ 40.00 X Enclosed & Dunner, L.L.P. ___ Authorized to be charged to deposit account Street Address: 1300 I Street, N.W. City: Washington, D.C. State: _____ ZIP: _20005 8. Deposit account number: 06-0916 03/23/1999 DNGUYEN 00000041 09112627 01 FC:581 40.00 DP 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. Richard V. Burqujian March 16, 1999 Name of Person Signing Date Total number of pages including cover sheet, attachments and document: _

> PATENT REEL: 9823 FRAME: 0387

SOLE/JOINT INVENTION (U.S. Rights Only)

ASSIGNMENT

WHEREAS I/We, the below named inventor(s), [hereinafter referred to as Assignor(s)], have made an invention entitled: THERMAL PRINTING HEAD, PROCESS FOR PRODUCING THERMAL PRINTING HEAD, RECORDER, SINTER, AND TARGET

for which I/WE executed an application for United States Letters Patent concurrently herewith or on ______ or filed an application for United States Letters

Patent on ______, 19______(Serial No. ______); and

whereas, <u>Kabushiki Kaisha Toshiba</u>, a corporation of <u>Japan</u>, whose post office address is <u>72, Horikawa-cho, Saiwai-ku, Kawasaki-shi, Kanagawa-ken, Japan</u> (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention, the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from assignee is hereby acknowledged, I/WE, as assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof; and I/WE hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue all Letters Patent for this invention to assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with assignee, its successors and assigns, any facts known to me/us respecting this invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to this invention in said assignee, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States, it being understood that any expense incident to the execution of such papers shall be borne by the assignee, its successors and assigns.

AND, I/WE HEREBY authorize and request the attorneys I/we have empowered in the Declaration and Power of Attorney in this application, to insert here in parentheses (Application No. 09/117,827, filed August 7, 1998) the filing date and application number of said application when known.

IN TESTIMONY WHEREOF, I/We have hereunto set our hand(s). 1. Full Name of Sole or First Assignor : Assignor's Signature : Date Yusuke KITAZAWA : Yusuke Kitazawa : 06 August. 1998 Address 2407-204, 2-4-3, Shiomidai, Isogo-ku, : Citizenship Yokohama-shi, Kanagawa-ken, Japan : Japan 2. Full Name of Second Assignor : Assignor's Signature
Yasuhisa TAKAMURA : Jasuhisa Takamura : Date : 22, July, 1998 Address 4-1-4-102, Mirokuji, Fujisawa-shi, : Citizenship : Japan Kanagawa-ken, Japan : Assignor's Signature 3. Full Name of Third Assignor : Date : Citizenship Address

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P. . WASHINGTON, D.C.

RECORDED: 03/16/1999

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