
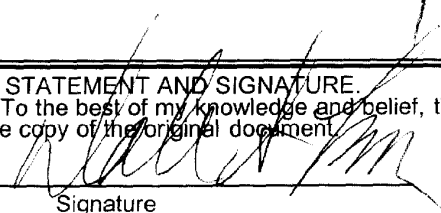


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BOX ASSIGNMENTS

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 <b>100723714</b>		<b>HEET S ONLY</b>
<b>MRD 5-21-98 PAT</b>		
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1. NAME OF CONVEYING PARTY(IES) (ASSIGNOR(S)): 1. MURAYAMA, Tomohiro 2. KISHIMOTO, Isao 3. KAWAKAMI, Hiroshi 4.		
ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACHED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST: NAME: KABUSHIKI KAISHA TOSHIBA ADDRESS: 72, Horikawa-cho, Saiwai-ku, Kawasaki-shi, Japan ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
3. NATURE OF CONVEYANCE (DOCUMENT): (Submit herewith <u>only one document</u> for recordation -- multiple copies of same Assignment signed by different inventors is <u>one</u> document) <input checked="" type="checkbox"/> ASSIGNMENT OF <input checked="" type="checkbox"/> WHOLE <input type="checkbox"/> PART INTEREST <b>EXEC. DATE: May 18, 1998</b> <input type="checkbox"/> CHANGE OF NAME <input type="checkbox"/> VERIFIED TRANSLATION <input type="checkbox"/> SECURITY <input type="checkbox"/> MERGER <input type="checkbox"/> OTHER:		
4. EXECUTION DATE(S) ON THE DECLARATION IF FILED HEREWITH: ( <b>NOTE</b> : IF DATES ON DECLARATION AND ASSIGNMENT DIFFER <u>SEE ATTY</u> !) May 18, 1998		
4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL SHEET(S) attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
<b>A. PAT. APP. NO.(S)</b> series code/serial no	<b>M#</b>	<b>1ST INVENTOR</b> if not in item 1
<b>B. PATENT NO(S)</b>	<b>M#</b>	<b>1ST INVENTOR</b> if not in item 1
5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed:  <b>Pillsbury Madison &amp; Sutro LLP</b> <b>Intellectual Property Group</b> 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918		
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8. IF ABOVE FEE IS MISSING OR INADEQUATE CHARGE INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 03-3975 UNDER ORDER NO. 8312 254378 dup. sheet not required CLIENT NO. MATTER NO.		
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.  Signature		
10. Total number of pages including this cover sheet, attachments and document (do not file dup. Cover sheet)		<b>3</b>
Attorney: <b>Dale S. Lazar</b> Reg. No. <b>28,872</b> Atty/Sec: <b>DSL:mhn</b> TEL: (202) 861- 3527		
Date: <b>May 21, 1998</b> Fax: (202) 822-0944		

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 PATENT PAT-114X 12/1997  
 REEL: 9191 FRAME: 0708

## A S S I G N M E N T

In consideration of value received, I, having a post office address at c/o Intellectual Property Division, KABUSHIKI KAISHA TOSHIBA, 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan and a residence as stated below next to my name, the sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of an invention described in an application for United States patent entitled:

OPTICAL CHARACTERISTICS SWITCHING MECHANISM, OPTICAL HEAD AND  
OPTICAL DISK APPARATUS

said application having been filed on \_\_\_\_\_  
and assigned Serial No. \_\_\_\_\_ ;  
sell and assign to  
KABUSHIKI KAISHA TOSHIBA  
a corporation of Japan, having a business address at  
72 Horikawa-cho, Saiwai-ku, Kawasaki-shi, Japan

its successors, assigns or nominees, hereinafter referred to as "Assignee", my entire right, title and interest in and to said invention as disclosed, shown and described in said application for United States patent: (check one)

  X   executed concurrently herewith;

       executed separately herefrom;

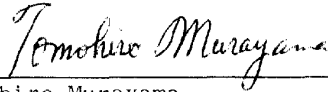
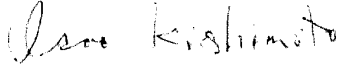
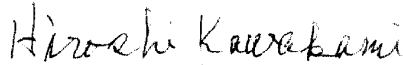
and in and to all applications for patent and patents for said invention, in all countries of the world, including all divisions, reissues, continuations, substitutions and extensions thereof and all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property, including rights of priority, resulting from the filing of any of said applications; and I authorize and request any official whose duty is to issue patents, to issue any patent on said invention or resulting therefrom to said Assignee, and I agree that on request and without further consideration, but at the expense of said Assignee, I will communicate to said Assignee or its representatives all facts known to me respecting said invention and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue, or other applications, make all rightful oaths and declarations, and generally do everything possible to aid said Assignee to obtain and enforce proper patent protection for said invention in all countries.

I hereby grant the following law firm the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the Rules of the U. S. Patent and Trademark Office for recordation of this document.

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# A S S I G N M E N T

98S0267

<u>Inventor: (Signature)</u>	<u>Date</u>	<u>Residence</u>
<div style="text-align: center; margin-bottom: 5px;">  </div> <div> <u>Tomohiro Murayama</u> </div>	<div style="text-align: center; margin-bottom: 5px;"> MAY 18. 1998 </div>	<div style="text-align: center; margin-bottom: 5px;"> </div> <div> <u>Yokohama-shi, Japan</u> </div>
<div style="text-align: center; margin-bottom: 5px;">  </div> <div> <u>Isao Kishimoto</u> </div>	<div style="text-align: center; margin-bottom: 5px;"> MAY 18. 1998 </div>	<div style="text-align: center; margin-bottom: 5px;"> </div> <div> <u>Yokohama-shi, Japan</u> </div>
<div style="text-align: center; margin-bottom: 5px;">  </div> <div> <u>Hiroshi Kawakami</u> </div>	<div style="text-align: center; margin-bottom: 5px;"> MAY 18. 1998 </div>	<div style="text-align: center; margin-bottom: 5px;"> </div> <div> <u>Chigasaki-shi, Kanagawa-ken, Japan</u> </div>

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