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2 Takanori MAEDA 6	1) Name: PIONEER CORPORATION		
3 Kenjiro FUJIMOTO 7	Street Address: 4-1, Meguro 1-chome, Meguro-ku		
4 8	City: Tokyo		
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4. Application number(s) or patent number(s):	is assignment is being filed together with a new application.		
A. Patent Application No(s).	B. Patent No(s).		
(1) 12/444,268	(1)		
(2)	(2)		
(3)	(3)		
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Name: Arthur R. Crawford	⊠ Enclosed		
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PATENT REEL: 022779 FRAME: 0671

ASSIGNMENT OF PATENT APPLICATION

(Inventors)

Shuntaro MORI, Takanori MAEDA and Kenjiro FUJIMOTO of Saitama, Japan

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to

(Assignee) (Address) PIONEER CORPORATION

of 4-1, Meguro 1-chome, Meguro-ku, Tokyo153-8654 Japan

(hereinafter designated as the Assignee) the undersigned's entire right, title and interest for the United States, its territories, dependencies and possessions, and for the country of (Other) in the invention, and all application for patent and any Letters Patent which may be granted therefore, known as (Case No.)

RECORDING / REPRODUCING APPARATUS

for which the undersigned has (have) executed on even date herewith an application for patent in the United States of America or, if not on even date, then has executed (on or has already filed in

(U.S. appln. Serial No.12/444,268, filed on April 3, 2009).

The undersigned acknowledges an obligation of assignment of this invention to said assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to 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.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of NIXON & VANDERHYE P.C. 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 United States Patent Office for recordation of this document. It is understood and agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention.

PATENT REEL: 022779 FRAME: 0672

signature(s).		
Date <u>27/04/2009</u>	Signature of inventor	Shuntaro Mori Shuntaro MORI
Date 27/04/2009	Signature of inventor	Takanori MAEDA
Date 27/04/2009	Signature of inventor	Kenjiro Fujimoto Kenjiro FUJIMOTO
Date	Signature of inventor	
Date	Signature of inventor	
Date	Signature of inventor	
Witnessed by:		Date
Witnessed by:		Date
Witnessed by:		Date

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

RECORDED: 05/28/2009