0039-7313-0SRD/beg



101745348

U.S. DEPARTMENT OF COMMERCE

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Satoshi TAKAYAMA, Shigeru MACHIDA, Name: KABUSHIKI KAISHA TOSHIBA Kenji SANO, Koichi TSUNEMI, Shuitsu SATO, Naru IKEDA, and Taeko URANO Address: 72 Horikawa-cho, Saiwai-ku, Kawasaki-shi, JAPAN Additional name(s) of conveying party(ies) attached? □Yes ■No 3. Nature of Conveyance: ■ Assignment □ Merger □ Security Agreement □ Change of Name ■ Other: Corrected Recordation Form Cover Sheet Reel/Frame 011373/0808, Bar Code No: \*101568370A\* to correct the 5<sup>th</sup> Assignor's Name. Execution Date: November 9, 1999 Additional name(s) and address(es) attached? □Yes ■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: A. Patent Application No.(s) B. Patent No.(s) 09/365,840 U.S. Patent Number: 6,203,603 Additional numbers attached? □Yes ■No 5. Name and address of party to whom correspondence 6. Total applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 ■ Enclosed □ Authorized to be charged to deposit account 22850 8. Deposit account number: 15-0030 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 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. Norman F. Oblon Registration Regis Name of Person Signing Registration Number: Total number of pages including this cover sheet: 10

Do not detach this portion

Mail documents to be recorded with required cover sheet information to:

**Commissioner of Patents and Trademarks Box Assignments** Washington, D.C. 20231

> PATENT REEL: 011869 FRAME: 0963

01 FC:581

40.00 OP

VER SHEET NLY

17.76. U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Plea	se record the attached original documents or copy there	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):	
Satoshi TAKAYAMA, Shigeru MACHIDA, Kenji SANO,	Name: KABUSHIKI KAISHA TOSHIBA	
Koichi TSUNEMI, Shiutsu SATO, Naru IKEDA and Taeko URANO	Address: 72 Horikawa-cho, Saiwai-ku,  Kawasaki-shi, JAPAN	
Additional name(s) of conveying party(ies) attached? □Yes ■No	O PE CONTRACTOR OF THE PROPERTY OF THE PROPERT	
3. Nature of Conveyance:		
■ Substitute □ Merger Assignment □ Change of Name □ Security Agreement ■ Other - Recordation Form Cover Sheet Reel/Frame 010149/0180, Bar Code number *101115359A*, to add the 6th and 7th Inventors.	DEC 2 0 2000	
Execution Date: November 9, 1999	Additional name(s) and address(es) attached? □Yes	
4. Application number(s) or patent number(s):		
If this document is being filed together with a new application, the	e execution date of the application is:	
A. Patent Application No.(s) 09/365,840	B. Patent No.(s)	
Additional numbers att	ached? □Yes ■No	
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total applications and patents involved: 1	
	7. Total fee (37 CFR 3.41): \$40.00  ■ Enclosed □ Authorized to be charged to deposit accounts.	
22850	8. Deposit account number: 15-0030 (Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE T	HIS SPACE	
9. Statement and signature		
To the best of my knowledge and belief, the foregoing information of the original document.		
Norman F. Oblon	Scafettage, Dec. 20, 2000	
	Signature Date	
Registration Number: 24,618 Joseph A	. Scafetta, Jr.	
Registration Total number of pages including this	cover sheet: 5	
Do not detach t	his portion	
Mail documents to be recorded with required cover sheet informa	tion to:	
Commissioner of Paten Box Assign 2001 DNGUYEN 00000038 09365840 Washington, I	ts and Trademarks iments	

PATENT REEL: 011869 FRAME: 0964 SUBSTITUTE - This Assignment is being submitted to replace the assignment originally recorded at Reel 010149 Fram 0180, to add the 6th and 7th inventors

## Assignment Of Application

Page 1 of 2

	WHEREAS, I (WE)			
INSERT NAMES AND RESIDENCE	l. Satoshi TAKAYAMA of: Kawasaki-shi, JAPAN;			
ADDRESSES OF THE INVENTORS:	2. Shigeru MACHIDA of: Kawasaki-shi, JAPAN;			
	3. Kenji SANO of: Tokyo, JAPAN;			
	4. Koichi TSUNEMI of: Chofu-shi, JAPAN;			
	5. Shuitsu SATO of: Tokyo, JAPAN;			
	6. Naru IKEDA of: Kawasaki-shi, Japan ; and			
	7. Taeko URANO of: Kawasaki-shi, Japan, respectively,			
SERT TITLE F INVENTION:	have invented certain new and useful improvements in:			
SERT DATE IN- ENTORS SIGNED ECLARATION:	or which an application for Letters Patent was executed on			
	(Application No. 09/365,840 , filed AUGUST 3, 1999 ), and			
SERT NAME ND ADDRESS OF OMPANY OR THER ASSIGNEE:	WHEREAS, KABUSHIKI KAISHA TOSHIBA			
	(hereinafter referred to as "ASSIGNEE") having a place of business at: 72 Horikawa-cho,			
	Saiwai-ku, Kawasaki-shi, JAPAN			
	is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;			

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

1/95

PATENT REEL: 011869 FRAME: 0965

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE. its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which 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.

Date:_	November 9, 1997	Satoshi Jakayama (Signature of Inventor) Satoshi TAKAYAMA
		(Signature of Inventor) Satoshi TAKAYAMA  (Signature of Inventor) Shigeru MACHIDA
Date:_	7 lovember 9, 1999	(Signature of Inventor) Shigeru MACHIDA  (Signature of Inventor) Kanji SANO
		(Signature of Inventor) Koichi TSUNEMI
		(Signature of Inventor) Shuitsu SATO
Date:_	November 9, 1999	Naru Ikeda (Signature of Inventor) Naru IKEDA
Date:_	November 9 1999	Tacko U. Mane (Signature of Inventor) Tacko URANO
Date:_		(Signature of Inventor)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

ATTORNEYS AT LAW FOURTH FLOOR 1755 JEFFERSON DAVIS HIGHWAY **ARLINGTON, VIRGINIA 22202** 

1/95

**PATENT** REEL: 011869 FRAME: 0966

RECORDED: 06/05/2001