BOX ASSIGNIVIEN IS			DO NOT USE I	OR TRADEMAN	マハン	
TO THE DIRECTOR OF THE U		200200	- C	<i>N</i> ^		
TO THE DIRECTOR OF THE US PATEN 102449154 SIR: PLEASE RECORD THE ATTACHED CINIGHNAL DUCUMENTS OR COPY THEREOF. 5.9.03						
1. NAME OF CONVEYING PARTY (IES) (ASSIGNORS(S)):						
1. Shintaro TAKEHARA 2. Yutaka KASHIHARA						
3. / MA	Y 0 9 2003 (2)	4.				
5. /2	<u></u>	6.				
7.		8.				
ADDITIONAL NAME(S) OF SCHUEYING PARTY(IES) ATTACHED? YES NO						
2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST:						
NAME: KABUSHIKI KAISHA TOSHIBA						
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
ADDRESS: 1-1 Shibaura 1-chor	ne, Minato-Ku, Tokyo, Japan					
ADDITIONAL NAME(S) & ADDE	RESS(ES) ATTACHED? YES	√INO				
3. NATURE OF CONVEYANCE (DOCUMENT):						
(Submit herewith only one document for recordation—multiple copies of same Assignment signed by different inventors is one						
document)	_					
⊠ASSIGNMENT OF	WHOLE PART INTE	REST EXEC. I	DATE: March 4, 2003			
⊠ORIGINAL	FACSIMILE/PHOTOCOPY					
CHANGE OF NAME	☐VERIFIED TRANSLATION ☐OTHER:					
SECURITY MERGER	DECLARATION IF FILED HERE	NATE IE DATE	S ON DECLADATION	I AND		
		WITH (NOTE. IF DATE	3 ON DECLARATION	NAIND		
ASSIGNMENT DIFFER <u>SEE ATTY!</u>) March 4, 2003 4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL SHEET(S) attached? ☐YES ☒NO						
4.5 APPL NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL	SHEET(S) attached?	YES NO			
A. PAT, APP. NO.(S) M#	1# INVENTOR		YES ⊠NO V#	1st INVENTOR		
A. PAT, APP, NO.(S) M# series code/serial no	1# INVENTOR if not in item 1			1st INVENTOR if not in Item 1		
A. PAT, APP, NO.(S) M# series code/serial no 10/382,985 03024	1# INVENTOR If not in item 1	B, PATENT NO(S)				
A. PAT. APP. NO.(S) M# series code/serial no 10/382,985 03024 5. Name & Address of Party to	1* INVENTOR if not in item 1 32	B. PATENT NO(S) 6. NUMBER INVOLV	V# /ED:	if not in item 1		
A. PAT, APP, NO.(S) M# series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should	1* INVENTOR if not in item 1 32	6. NUMBER INVOLV APPLNS 1 + PATS	YED: S <u>0</u> = TOTAL =			
A. PAT. APP. NO.(S) M# series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP	1* INVENTOR if not in item 1 32	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE	/ED: S <u>0</u> = TOTAL = DUE: (Code 581)	if not in item 1		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLV APPLNS 1 + PATS	/ED: S <u>0</u> = TOTAL = DUE: (Code 581)	if not in item 1		
A. PAT. APP. NO.(S) M# series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE	/ED: S <u>0</u> = TOTAL = DUE: (Code 581)	if not in item 1		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE	/ED: S <u>0</u> = TOTAL = DUE: (Code 581)	if not in item 1		
A. PAT, APP, NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$	/ED: S <u>0</u> = TOTAL = DUE: (Code 581) 40 = \$40	if not in item 1		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE	/ED: S <u>0</u> = TOTAL = DUE: (Code 581) 40 = \$40	if not in item 1		
A. PAT, APP, NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22	# INVENTOR if not in item 1 32 Whom Correspondence Id be Mailed:	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$	/ED: S <u>0</u> = TOTAL = DUE: (Code 581) 40 = \$40	if not in item 1		
A. PAT, APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO.	## INVENTOR if not in item 1 Whom Correspondence do be Mailed: 2102 T4YKA-02S0660 CLIENT REF.	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup, sheet not required	VED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO.	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge	## INVENTOR if not in item 1	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup, sheet not required	VED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO.	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
A. PAT, APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO.	## INVENTOR if not in item 1 Whom Correspondence do be Mailed: 2102 T4YKA-02S0660 CLIENT REF.	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup, sheet not required	VED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO.	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge	## INVENTOR if not in item 1 Whom Correspondence do be Mailed: 2102 T4YKA-02S0660 CLIENT REF.	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at the sheet not required ation is true and correct at the sheet not required at the	VI# VED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge	## INVENTOR if not in item 1 Whom Correspondence do be Mailed: 2102 T4YKA-02S0660 CLIENT REF.	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of page 10. Total number of page 11.	VIII VIII VIII VIII VIII VIII VIII VII	OUNT 0302432 MATTER NO vis a true copy of		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge	## INVENTOR if not in item 1 Whom Correspondence do be Mailed: 2102 T4YKA-02S0660 CLIENT REF.	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of particles are cover sheet, attachments	VIED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy ges including this nts and document	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge the original document.	# INVENTOR if not in item 1 32	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of page 10. Total number of page 11.	VIED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy ges including this nts and document	OUNT 0302432 MATTER NO vis a true copy of		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge the original document. Signature	# INVENTOR if not in item 1 32	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of particles are cover sheet, attachments	VIED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy ges including this nts and document	OUNT 0302432 MATTER NO vis a true copy of		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge the original document. Signature Attorney: Glenn J. Perry	# INVENTOR if not in item 1 32	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true and correct at 10. Total number of participation is true at 10. Total number of participation is 10. Total number of participation is 10. Total number of participation i	VIED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy ges including this nts and document	OUNT 0302432 MATTER NO vis a true copy of		
A. PAT. APP. NO.(S) series code/serial no 10/382,985 03024 5. Name & Address of Party to Concerning Document Should Pillsbury Winthrop LLP Intellectual Property Group P.O. Box 10500 McLean, VA 22 5.5ATTY DKT: P 0302432 MATTER NO. 9. To the best of my knowledge the original document. Signature	# INVENTOR if not in item 1 32	6. NUMBER INVOLVAPPLNS 1 + PATS 7. AMOUNT OF FEE ABOVE TOTAL x \$ 8. PLEASE CHARGE TO NUMBER: 03-3975 UNDER ORDER NO dup. sheet not required ation is true and correct at 10. Total number of particles are cover sheet, attachments	VI# VED: S 0 = TOTAL = DUE: (Code 581) 40 = \$40 O OUR DEPOSIT ACC 008312 CLIENT NO. nd any attached copy ges including this and document sheet)	OUNT 0302432 MATTER NO vis a true copy of		

05/14/2003 GTDH11 00000145 033975 10382985

01 FC:8021

40.00 CH

PATENT REEL: 014060 FRAME: 0336

PAT-114X 5/03

ASSIGNMENT

In consideration of value received. I. having a mailing 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:

INFORMATION REPRODUCING DEVICE AND INFORMATION REPRODUCING METHOD

said application having been filed on and assigned Application No. ;
sell and assign to
KABUSHIKI KAISHA TOSHIBA
a corporation of Japan, having a business address at 1-1 Shibaura 1-chome, Minato-Ku, Tokyo, 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)

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 Assignce, 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 invension 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.

Pitlsbury Winthrop LLP, 1600 Tysons Boulevard, McLean, Virginia 22102

PATENT REEL: 014060 FRAME: 0337

ASSIGNMENT

nventor: (Signature)	Date	Residence
Shirtano Takehara	mark, 4, 2003	Yokohama-shi, Japan
Gutaka Kashihara Yutaka Kashihara	March 4, 2003	Chigasaki-shi, Japan

FECORDING OFFICER:
After recording please return to:
Pillsbury Winthrop LLP

150€ Tysons Boulevard McLean. Virginia 22102



RECORDED: 05/09/2003

PATENT REEL: 014060 FRAME: 0338