07-19-1999

DO NOT	HSF	FOR	TRA	DEY	MARKS

TO THE ASSISTANT COMMISSIONER C 101093217					
SIR: PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COPY THEREOF. 1. NAME OF CONVEYING PARTY(IES) (ASSIGNORS(S)):					
1. KUBO, Akira	2. KAMIMURA, Takaal	ki			
3. DOJO, Masayuki	4. MIZOUCHI, Kiyotsu				
5. MACHIDA, Masahiko	6. MOTOKAWA, Shige				
7. MIYAJI, Tomoki	8		\(\tau_{\text{35}}\)		
ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACH	,	JUL 1 3 1999			
2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST: NAME: KABUSHIKI KAISHA TOSHIBA					
NAME: KABUSHIKI KAISHA TOSHIBA		TRADEMAN			
ADDRESS: 72 Horikawa-cho, Saiwai-ku, Kawasaki-shi,Kanagaw	a-ken, Japan				
ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED? YES	⊠NO				
3. NATURE OF CONVEYANCE (DOCUMENT):					
(Submit herewith only one document for recordation—multiple	e copies of same Assignr	nent signed by different	ent inventors is one		
document) ☑ASSIGNMENT OF ☑WHOLE ☑PART INTE	DECT EVEC I	DATE: JULY 1, 1999			
MASSIGNMENT OF MANDLE MARTINE	nesi Exec. L	DATE: JULY 1, 1999			
☐CHANGE OF NAME ☐VERIFIED TRANSLATION					
SECURITY MERGER OTHER:					
EXECUTION DATE(S) ON THE DECLARATION IF FILED HERE	WITH: (NOTE: IF DATES	S ON DECLARATION	N AND		
ASSIGNMENT DIFFER SEE ATTY!) JULY 1, 1999	OUEST/ON II I IO	lveo Muo			
4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL		YES ⊠NO	der INIVENTOR		
A. PAT. APP. NO.(S) M# 1* INVENTOR	B. PATENT NO(S)	VI#	1st INVENTOR		
series code/serial if not in item 1			if not in item 1		
no 260406			If not in item 1		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence	6. NUMBER INVOLVE		if not in Item 1		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed:	APPLNS 1 + PATS:	0 = TOTAL 1			
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP	APPLNS 1 + PATS: 7. AMOUNT OF FEE B	0 = TOTAL 1 ENCLOSED: (Code 5			
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group	APPLNS 1 + PATS:	0 = TOTAL 1 ENCLOSED: (Code 5			
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W.	APPLNS 1 + PATS: 7. AMOUNT OF FEE B	0 = TOTAL 1 ENCLOSED: (Code 5			
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group	APPLNS 1 + PATS: 7. AMOUNT OF FEE B	0 = TOTAL 1 ENCLOSED: (Code 5			
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA	.TE CHARGE		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT:	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N	TE CHARGE JUMBER: 03-3975		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535	TE CHARGE IUMBER: 03-3975 260406		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT:	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N	TE CHARGE JUMBER: 03-3975		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535	TE CHARGE IUMBER: 03-3975 260406		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535	TE CHARGE IUMBER: 03-3975 260406		
09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF.	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE RUMBER: 03-3975 260406 MATTER NO.		
09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF.	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI- INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required ation is true and correct a	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE RUMBER: 03-3975 260406 MATTER NO.		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing information of the state of	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required ation is true and correct a	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE JUMBER: 03-3975 260406 MATTER NO.		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing information of the state of	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required 10. Total number of page cover sheet, attachmen	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE RUMBER: 03-3975 260406 MATTER NO.		
no 09/293,936 260406 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing informathe original document. Claud Carrette States of Management States o	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required 10. Total number of pactover sheet, attachmer (do not file dup. Cover	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE JUMBER: 03-3975 260406 MATTER NO.		
99/293,936 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing informathe original document.	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required 10. Total number of pactover sheet, attachmer (do not file dup. Cover	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO.	TE CHARGE JUMBER: 03-3975 260406 MATTER NO.		
9/293,936 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing informathe original document. Signature 3 Signature 3 Attorney: Glenn J. Perry	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required ation is true and correct a 10. Total number of page cover sheet, attachmen (do not file dup. Cover	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO. and any attached copy ges including this ats and document sheet)	TE CHARGE JUMBER: 03-3975 260406 MATTER NO.		
09/293,936 5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed: Pillsbury Madison & Sutro LLP Intellectual Property Group 1100 NEW YORK AVENUE, N.W. NINTH FLOOR, EAST TOWER WASHINGTON, D.C. 20005-3918 5.5ATTY DKT: PMS 260406 120012US MATTER NO. CLIENT REF. 9. STATEMENT AND SIGNATURE. To the best of my knowledge and belief, the foregoing informathe original document.	APPLNS 1 + PATS: 7. AMOUNT OF FEE E ABOVE TOTAL x \$4 8. IF ABOVE FEE IS MI INSUFFICIENCY TO I UNDER ORDER NO dup. sheet not required 10. Total number of pactover sheet, attachmer (do not file dup. Cover	0 = TOTAL 1 ENCLOSED: (Code 5 40 = \$40 SSING OR INADEQUA DEPOSIT ACCOUNT N 41535 CLIENT NO. and any attached copy ges including this hts and document sheet)	TE CHARGE JUMBER: 03-3975 260406 MATTER NO.		

07/15/1999 VVAN11 00000082 09293936

01 FC:581

40.00 OP

PAT-114X 11/1997

Fillsbury Madison & Sutro LLP Intellectual Property Group Ninth Floor, East Tower 1100 New York Avenue, N.W. Washington, D.C. 20005-3918

NONPROVISIONAL

For Inventions made outside USA executed with or after application

Atty. Dkt. PMS 260406_

120012US Client Ref.

ASSIGNMENT OF NONPROVISIONAL APPLICATION

USA Patent Appln.

Sole or Joint

NONPROVISIONAL

	<u> </u>	TAL ALL LIGATION	L			
	In consideration of the sum of Ten Dollars (\$10.	00) and other good and v	aluable consideration paid to each of			
tne undersi	igned, to wit:					
INSERT	(1) Akira KUBO	(2) Takaaki KAMIMURA			
NAME(S) O	F (3) Masayuki DOJO) Kiyotsugu MIZOUCHI			
INVENTOR((S) (5) Masahiko MACHIDA		x box if continued on page 2			
the receipt and transfe	and sufficiency of which are hereby acknowledged by ter(s) unto:	he undersigned who at tl	he request of, hereby sell(s), assign(s)			
INSERT	KABUSHIKI KAISHA TOSHIBA	KARUSHIKI KAISHA TOSHIBA				
NAME(S) O		72, Horikawa-cho, Saiwai-ku, Kawasaki-shi, Kanagawa-ken, Japan				
ASSIGNEE(• • • • • • • • • • • • • • • • • • • •					
& ADDRESS	S(ES)					
(hereinafter des any and all divis	signated "ASSIGNEE") the entire right, title and interest for the United State sions, continuations, substitutes, and reissues thereof; and all resulting pate	s of America as defined in 35 U.S.C nts, known as	C. 100, in the invention and all applications including			
TITLE OF INVENTION	I LIUHID ERYSTAL DISPLAY DEVICE, MATRIX ARRAY SHESTRATE AND					
<u>NOTE</u> → → (Complete	for which the undersigned executed an appli (A) X even date herewith (B) on	cation for Letters Patents	of the United States of America:			
line A, B and		936 filed	April 19, 1999			
hereinafter act of essential by ASS NOTE → →	AND the undersigned hereby authorize(s) and request(s) the Unit E, for its interest as ASSIGNEE, its successors, assigns and legals represen on behalf of said ASSIGNEE; AND the undersigned hereby agree(s) to testify and execute any pSIGNEE to ASSIGNEE'S full protection and title in and to the invention here The undersigned hereby authorize(s) Pillsbury Madison & Sutro LL of this document.	ed States Commissioner of Patents tatives; the undersigned agree(s) the apers for ASSIGNEE, its successory by transferred.	s and Trademarks to issue said Letters Patent to the hat the attorney of record in said application shall rs, assigns and legal representatives, deemed			
	INVENTORS	DATE SIGNED	WITNESSES			
1):	akira Kubo	July 1, 1999	Thuyoshi Igama			
Name:	Akira KUBO		2/			
2) _	Takaaki Ramimua	<u>July 1, 1999</u>	North In			
Name:	Takaaki KAMIMURA	- 1 1 1055				
3) Namo:	Masayuki Dojo Masayuki DOJO	July 1, 1999				
Name: 4) Name:		Tuly 1 1000				
Name:	Kiyotsugu Mizouchi Kiyotsugu MIZOUCHI	July 1, 1999				

July 1, 1999

PAT-114 11/97

<u>Masahiko Machida</u> Masahiko MACHIDA

5) Name:

Name:

ASSIGNMENT (Continued from page 1)

LISTING OF ADDITIONAL INVENTORS

INSERT NAME(S) OF INVENTOR(S)

(6) Shigeyuki MOTOKAWA	(11)
(7) Tomoki MIYAJI	(12)
(8)	(13)
(9)	(14)
(10)	(15)

SIGNATURES OF ADDITIONAL INVENTORS WITNESSES DATES SIGNED

INVENTOR(S)	DATE SIGNED	WITNESSES
6) Shigeyuk Motokawa Name: Shigeyuki MOTOKAWA	July 1, 1999	
7) Tomoki Miyaji Name: Tomoki MIYAJI	July 1, 1999	
8) Name:		
9) Name:		
10) Name:		
11) Name:		
12) Name:		
13) Name:		
14) Name:		
15) Name:		

PAT-114 11/97

PATENT REEL: 010092 FRAME: 0395