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10-19-2001

Docket No.: L9289.01172

U.S. DEPARTMENT OF COMMERCE

(Rev 33-01) OMB No. 0651-0027 (exp.5/31/2002) P08/REV03	Patent and Trademark Office
Tab settings → → ▼	101879235 ▼ ▼
To the Honorable Commissioner of Patents and Tra	demarks: Please record the attached original documents or copy thereof.
1. Name of conveying party(ies): Sadaki FUTAGI Mitsuru UESUGI Tadashi MATSUMOTO Additional names(s) of conveying party(ies) Yes	2. Name and address of receiving party(ies): Name: Matsushita Communication Industrial Co., Ltd. Internal Address:
3. Nature of conveyance:	
☑ Assignment ☐ Merger	Street Address: 3-1, Tsunashima-higashi 4-chome,
☐ Security Agreement ☐ Change of N	Name Kohoku-ku, Yokohama, Kanagawa 223-8639 JAPAN
☐ Other	City: State: ZIP:
Execution Date: September 20, 2001	Additional name(s) & address(es) attached? 🗵 Yes 🗌 No
 4. Application number(s) or patent numbers(s): If this document is being filed together with a new at A. Patent Application No.(s) 09/933,038 	pplication, the execution date of the application is: B. Patent No.(s)
1 0000 100000 00000000 000000000000000	nbers attached? Yes No
5. Name and address of party to whom correspondent concerning document should be mailed:	6. Total number of applications and patents involved:
Name: James E. Ledbetter, Esq.	7. Total fee (37 CFR 3.41):\$ 40.00
Internal Address: Registration No. 28,732	Enclosed - Any excess or insufficiency should be credited or debited to deposit account
STEVENS, DAVIS, MILLER & MOSHER, LLP	
L9289.01172	8. Deposit account number:
Street Address: 1615 L Street, N.W., Suite 850	
	19-4375 (Attach duplicate copy of this page if paying by deposit account)
City: Washington State: DC ZIP:	DO NOT USE THIS SPACE
of the original document. James E. Ledbetter	October 15, 2001 Signature October 3 Date

NTT DoCoMo, Inc.

11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 JAPAN

> PATENT REEL: 012251 FRAME: 0923

USA ASSIGNMENT OF PATENT APPLICATION

(1)	Sadaki FUTAGI	
(2)	Mitsuru UESUGI	
(3)	Tadashi MATSUMOTO	
(4)		
(5)		
the unde	In consideration of the sum of one dollar (\$1.00) and other good and valuable consistsigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over	
(6)	MATSUSHITA COMMUNICATION INDUSTRIAL CO., LTD	•
(6a)	of 3-1, Tsunashima-higashi 4-chome, Kohoku-ku, Yokohama, Kanagawa 223-	8639 JAPAN
(7)	NTT DoCoMo, Inc.	
(7a)	of 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150 JAPAN	
	nafter designated as the Assignee) the entire rights, title and interest for the United State dencies and possessions, and for the country of	es, its territories,
(8) which	in the invention, and all applications for patent and a may be granted therefor, known as	any Letters Patent
(9)	RADIC COMMUNICATION APPARATUS AND CHANNEL	
	ESTIMATING METHOD (Case No.	
	ich the undersigned has (have) executed on even date herewith an application for patenca or, if not on even date, then has executed	= /
(10)	on or has already filed	
(11)	U.S. appln. Serial No. 09/933, 038 , filed on August 21, 2001	
	The undersigned acknowledges an obligation of assignment of this invention to see invention was made.	
applications thereof and als	gned agree(s) to execute all papers necessary in connection with the application and any cor to execute separate assignments in connection with such applications as the Assignee may	deem needsally as
this application or continua	gned agree(s) to execute all papers necessary in connection with any interference which may tition or division thereof and to cooperate with the Assignee in every way possible in obtaining	
going forward with such in	terference. gned agree(s) to execute all papers and documents and perform any act which may be necess	sary in connection with
4) The undersu	gned agree(s) to perform an ammative dots which	tters Patent of the Unite
States resulting from said a	gned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Le application or any division or divisions or continuing applications thereof to the said Assign covenants that he has (they have) full right to convey the entire interest herein assigned, and	that he has (they have)
6) The undersi	gned hereby grant(s) the firm of STEVENS, DAVIS, MILLER & MOSHER, L.L.P. the pos- ntification which may be necessary or desirable to comply with the rules of the United State	ver to insert on this
recordation of this docume	III.	
Date Septem	ber 30, 200 Signature of Inventor (1) Dadaki tu la	ge (Seal)
Date_Septem	ber 20, 200 Signature of Inventor (1) Dadaki Fu to ber 20, 200 Signature of Inventor (2) Mitsury West of Signature of Inventor (3) Signature of Inventor (3)	(Seal)
Date Septem	ber 20, 300 Signature of Inventor (3)	Txun TV (Seal)
Date	Signature of Inventor (4)	(Seat)
Date	Signature of Inventor (5) It should preferably be signed before: (a) a Notary Public if within the U.S.A., or (b) a should preferably be signed before at least two witnesses who also sign here:	(Seal)
the U.S.A. If neither, the	hen it should be signed before at least two without the	
Date	Signature of Witness	(Seal)
Date	Signature of Witness	(Seal)

RECORDED: 10/15/2001

PATENT REEL: 012251 FRAME: 0924