10-28-1998 Form PTO-1595 U.S. DEPARTMENT OF COMMERCE RE 1-3-92 Patent and Trademark Office Attorney Docket No.: 4110/PD-6111 100862115 To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): MANABU KOIZUMI KYOCERA CORPORATION SHIGERU KIMURA 5-22, Kitainoue-cho, Higashino, Yamashina-ku Kyoto-shi, Kyoto, Japan' Additional name(s) of conveying party(ies) attached? □ Yes ☒ No 3. Nature of conveyance: Assignment Merger Security Agreement □ Change of Name Additional name(s) & address(es) attached? □ Yes 図 No Other Execution Date\_ April 10, 1998 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) 08/991,843 B. Patent No.(s) Additional numbers attached? ☐ Yes ☑ No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: [ 1 ] concerning document should be mailed: William H. Wright, Esq. 7. Total fee (37 CFR 3.41).....\$\,\\_\$40.00 LOEB & LOEB LLP

October 13, 1998

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PATENT REEL: 9529 FRAME: 0135

	(1) Manabu KOIZUMI	(4)
(1-8) Insert Name(s) of Inventor(s)	(2) Shigeru KIMURA	(5)
	(3)	(6)

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

(9) Insert name of Assignee	(9) KYOCERA CORPORATION (10) Japan	
(10) Insert state of incorporation of Assignee		
(11) Insert address of Assignee	(11) of 5-22, Kitainoue-cho, Higashino, Yamashina-ku, Kyoto-shi, Kyoto, Japan (hereinafter designated as the Assignee), its successors and assigns, the entire and exclusive worldwide right, title and interest in, any Letters Patent which may be granted and issued for, any continuations, divisions, reissues and extensions of said Letters Patent and all international priority rights associated with the invention known as	
(12) Insert identification of invention, such as Title, Case Number or Foreign App. Number	(12) METHOD OF ASSIGNING IDLE CHANNELS  for which the undersigned has (have) executed an application for patent in the United States of America, application Serial No., filed.	
(13) Insert Date of Signing of Declaration	(13) on April 10, 1998	

- (1) The undersigned agree(s) to execute all papers necessary in connection with any original, reissue, divisional and continuing United States and foreign applications for the above-identified invention and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.
- (2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- (3) The undersigned agree(s) to execute all papers and documents and 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.
- (4) 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.
- (5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents 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.
- (6) The undersigned hereby grants STUART LUBITZ, Reg. No. 20,680; RICHARD H. ZAITLEN, Reg. No. 27,248; ALEX CHARTOVE, Reg. No. 31,942; DAVID M. SIMON, Reg. No. 32,756; JAY M. FINKELSTEIN, Reg. No. 21,082; ROGER R. WISE, Reg. No. 31,204; GARY D. MANN, Reg. No. 34,867; WILLIAM K. KONRAD, Reg. No. 28,868; DON F. LIVORNESE, Reg. No. 32,040; LOUIS A. MOK, Reg. No. 22,585; JOHN P. SCHERLACHER, Reg. No. 23,009; TED RITTMASTER, Reg. No. 32,933; CHRIS P. PERQUE, Reg. No. 37,696; JOSEPH F. VONSAUERS, Reg. No. 27,253; PAUL H. KOVELMAN, Reg. No. 35,228; DAVID L. LUBITZ, Reg. No. 38,229; PHILIPPE O. ERWIN, Reg. No. 38,132; DAVID W. VICTOR, Reg. No. 39,867; JONATHAN Y. KANG, Reg. No. 38,199; PAUL G. NAGY, Reg. No. 37,896; WEINING YANG, Reg. No. 38,690; AND RANDALL C. FURLONG, Reg. No. 35,144; STEPHEN BONGINI, Reg. No. 40,917 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 & Tredemark Office for recordation of this document.

Date: April 10, 1998	(1) Signature of Inventor: Manabu Koizumi	(SEAL)
Date: April 10, 1998	(2) Signature of Inventor: Myeru Limura	(SEAL)
Date:	(3) Signature of Inventor:	(SEAL)
Date:	(4) Signature of Inventor:	(SEAL)
Date:	(5) Signature of Inventor:	(SEAL)
Date:	(6) Signature of Inventor:	(SEAL)

PATENT REEL: 9529 FRAME: 0136

**RECORDED: 10/19/1998**