Director of the U.S. Patent and Trademark Office Box Assignments	05-01-20	Patent and Trademark Offic
Washington, D.C. 20231	101340010	O Attorney Docket No. <u>105182</u>
To the Director of the U.S. Patent a	nd Trademark Office: Please	ecord the attached original document or copy thereof.
<ol> <li>A. Name of conveying parties: Shiro NAKAGAWA Kazuyuki ITOH Katsuaki TANAKA Katsuaki TANAKA Katsumi YABUSAKI</li> </ol>	APR 2 4 2000	<ul> <li>Name and address of receiving party: TDK CORPORATION</li> <li>13-1, NIHONBASHI 1-CHOME, CHUO-KU, TOKYO, 103-8272, JAPAN</li> </ul>
B. Additional name(s) of conveyin	g party(ies) 40 and? Yes Si No	
3. A. Nature of conveyance:		B. Additional name(s) & address(es) attached?
Assignment	Merger	
Security Agreement	Change of Name	
Other		
B. Execution Date: February 16, 2	2000	
4. A. If this document is being filed	together with a new application	n, the execution date of the application is:
B. Patent Application No.(s) 09/48	7,802	C. Patent No.(2)
2. 1. 1	Additional numbers attached	? — Yas 550 No
<ol> <li>Name and address of party to whom concerning document should be mail</li> </ol>	correspondence 6.	
Name: James A. Oliff		A. Total fee (37 CFR 3.41)\$ 40.00
Name: Janes A. Ont		B. Enclosed (Check No. 107959)
Address: OLIFF & BERRIDGE, F P.O. Box 19928 Alexandria, VA 22		Credit any overpayment or charge any underpayment to deposit account number 15-0461.
<ol> <li>Statement and signature.</li> <li>To the best of my knowledge and be interest description.</li> </ol>	lief, the foregoing information	is true and correct and any attached copy is a true copy o
the original document.	tra	Date: April 24, 2000
James A. Oliff, Registration No. 2. Thomas J. Pardini, Registration No.	. 30, 411	ding cover sheet, attachments, and document: 2
WORACHA 00000018 09487802		

		ASSIGNMENT
		(1) <u>Shiro NAKAGAWA</u> (5)
()	Insert	(2) <u>Kazuyuki ITOH</u> (6)
	Name(s) of Inventor(s)	(3) <u>Katsuaki TANAKA</u> (7)
		(4) <u>Katsumi YABUSAKI</u> (8)
		In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, each undersigned agrees to assign, and hereby does assign, transfer and set over to
(9)	Insert Name of Assignee	(9) TDK CORPORATION
(10)	Insert Address of Assignce	(10) 13-1, Nihonbashi 1-chome, Chuo-ku, Tokyo, 103-8272, Japan
(11)	Insert	(hereinafter designated as the Assignce) and Assignce's heim, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, substitute, and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as           (11)         CURRENT SENSOR APPARATUS
	Identification such as Title, Case Number, or Foreign Application Number	(Attorney Docket No. 105182 ) for which the undersigned has (have) executed an application for patent in the United States of America
		on even date herewith or
(12)	Insert Date of Signing of Application	(12) on February 16, 2000
(13)	Alternative	(13) U.S. application Serial Number 09/487,802
Identification for filed applications filed January 20, 2000		filed January 20, 2000

Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications and patents as the Assignee may deem necessary.
 Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications and patents as the Assignee may deem necessary.
 Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
 Each undersigned agrees to execute all papers and documents and part which may be necessary in connection with claims or provisions of the laternational Convention of Protoctions of Industrial Property or similar agreements.
 Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by relasue or reexamination a grant of a valid United States patient to the Assignee.
 S each undersigned and the hear not executed, and will not execute, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreements in conflict herewith, and agrees that this assignment is binding on him and his heirs, successors, assigns and legal representatives.
 Each undersigned hereby grants the firm of OLIFF & BERNIDGE, FLC the power to insert on this assignment any further identification of this document.

recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	February 16, 2000	Inventor Signature Suive Naka yawa	(SEAL)
Date	February 16. 2000	Inventor Signature Kazuguki Att	(SEAL)
Date	February 16, 2000	Inventor Signature Katsuali Lanaka	(SEAL)
Date	February 16, 2000	Investor Signature Katsumi Yabusaki	(SEAL)
	reducing requirements	Inventor Signature	(SEAL)
Date		Inventor Signature	(SEAL)
Date		Inventor Signature	(SEAL)
Date		Inventor Signature	(SEAL)
Date		ed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consu	I if outside the U.S.A.
	This assignment should preferably be sign	en beiore: (1) a rioury rubile it within and other it (c) -	

If neither, then it should be signed before at least two witnesses who also sign here:

Date	February 16, 2000	Witness <u>Satushi Kosakai</u>
-	February 16, 2000	Witness <u>Tomoko Suzuki</u>

## **RECORDED: 04/24/2000**

## PATENT REEL: 010734 FRAME: 0730