Director of the U.S. Patent and Trademark Office **Box Assignments** Washington, D.C. 20231

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U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

		62	19	10	2	Attorney Docket No. 111984	_ "				
	То	the Director of the U.S. Patent and Trademark Offic	e: Ple	l ase r	ecord	I the attached original document or copy thereof.					
	Α.	Name of conveying party: Ikuhito ONODERA		2.	A.	Name and address of receiving party: TDK CORPORATION 1-13-1, NIHONBASHI, CHUO-KU, TOKYO 103-8272, JAPAN					
	B.	Additional name(s) of conveying party(ies) attached ☐ Yes ☒ No	d?								
3.	A.	Nature of conveyance:			B.	Additional name(s) & address(es) attached?  ☐Yes ☒ No					
	$\boxtimes$	Assignment	- {								
		Security Agreement									
		Other									
	B.	Execution Date: February 12, 2002									
4.	A. If this document is being filed together with a new application, the execution date of the application is: February 12, 20										
	B.	Patent Application No.(s)			C.	Patent No.(s) 16/076652	<b>)</b>				
		Additional number	s attac	hed?		Yes 🛮 No					
5.		ne and address of party to whom correspondence cerning document should be mailed:		6.	Tota	al number of applications and patents involved: 1	<u>t</u>				
	Na	ame: James A. Oliff		7.	Α.	Total fee (37 CFR 3.41)\$ 40.00					
					В.	Enclosed (Check No. 127926)					
	Ad	ldress: OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, VA 22320		8.		dit any overpayment or charge any underpayment osit account number 15-0461.	to				
9.	Statement and signature.										
•	To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original aportment.										
	Jan	ne A. Oliff Registration No. 27,075				Date: February 19, 2002					
	Joe	1 S. Armstrong Registration No. 36,430									
		Total number of pa	iges in	cludi	пд со	over sheet, attachments, and document: 2	_				

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## ASSIGNMENT

Table   Continue   C			(1)	<u> Ikuhito ONODERA</u>	(5)	
Comment   Comm	(1-8)		(2)			
(1) Insert Date of Signing of Application Surface on even date herewith or surface place and paper accessory in connection with any papilications for patent in the United States of Americations and applications for patent in the United States of Americations and applications for patent in the United States of Americanian Significant for any patent or any patent or any patent as the Assignee and adaptication and any particular to any patent surface and any particular to any patent surface and any particular and any patentials in a displacement of the Assignee and Assignee			(3)			
In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration over to each of the undersigned, each undersigned agrees to assign, and hereby does assign, transfer and sover to the undersigned green to assign, and hereby does assign, transfer and sover to the undersigned green to assign, and hereby does assign, transfer and sover the undersigned green to the undersigned agrees to execute all and inderest for the United States of America as defined in \$5 U.S.C. \$100, in the invention, and in all applications for pattern tending any and all provisional, or retained and in all applications for pattern tending any and all provisional, or retained applications, substitute, and reliase application(s), and all Letters Pattent, extensions, retained application and the undersigned has a tritle, Case Number, or Foreign application Number of Application Number of Signing of Application Number of Application Number of Application Number of Number of Application Number of N			(4)			
Assignce (9) INCURVACION ASSIGNMENT (9) 1-13-1, Nihonbashi, Chuo-ku, Tokyo, 103-8272, Japan (hereinatted designated as the Assignec) and Assignee's heirs, successors, assigns and legal representative 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 patient including any and all provisional, divisional, continuation, substitute, and relissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known for the invention such as Title, Case Number, or Foreign Application Number (Attorney Docket No. for which the undesigned has (lave) executed an application for patent in the United States of America and English on even date herewith or for Which the undesigned has (lave) executed an application for patent in the United States of America and English and Case (12) on February 12, 2002 Application for filed supplication for filed application for filed application for filed supplications and patent as the Assignee may develope the executed and so to execute separate assignments in connection with such applications and patent as the Assignee may develope the executed and so to execute separate assignments in connection with such applications and patents as the Assignee may develope and going forward with such interference which may be calcared connection with such applications and patents as the Assignee in obtaining evidence and going forward with such interference which may be recessary in connection with any interference which may be increased and patents as the Assignee and patents are such as the Assignee of the data of the United States and Table and Assignee and Assignee of the data of the Un			to each	In consideration of the sum of o	ne dollar (\$1.00) and other good and valu	able consideration paid
Insert Address of Assignce	(9)		(0)	TDK CORPOR	RATION	
(hereinafter designated as the Assignee's heirs, successors, assigns and logal representative the entire right, title and interest for the United States of America as defined in 35 U.S. 6; 1001, in the invention, and in all applications for patient including any and all provisional, non-provisional, consequence of the seapification of the invention and all Letters Patent, extensions, reliesues and reexamination certificates that may be granted on the invention known as reliesues and reexamination certificates that may be granted on the invention known as Number, or Foreiga Application Number (Attorney Doeket No. For which the undersigned has (have) executed an application for patent in the United States of American Application Number (12) Insert Date of Signing of (12) on February 12, 2002  [13] Alternative (13) U.S. application Serial Number Identification for filled applications filed February 19, 2002  [14] Beach undersigned agrees to execute all papers necessary in connection with any application and patents at the Assignment and patents are the Assignment and patents are the Assignment of or division thereof, or any patent or reissue application and patents are the Assignment and patents are the Assignment and patents are the assignment in connection with such interference which may be declared concerning any application or orintimation or division thereof, or any patent or reissue application has difference which may be declared concerning any application or orintimation or division thereof, or any patent or reissue application has difference which may be declared concerning any application or orintimation or division thereof, or any patent or reissue application has difference which may be declared concerning any application or orintimation or division thereof, or any patent or reissue application has difference which may be declared concerning any application or adjusted to the Assignment and patents are the Assignment and patents are the assignment and application of the situation of this documents and	(10)	Insert Address of	1 1	1-13-1. Nihonbash	ui Chuo-ku Tokuo 103	0272
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 patient including any and all provisional, non-provisional, only only only only only only only only		Assignee				
Identification   Such as Title, Case   Number, or Forcign   Application Number   (Attorney Docket No.			the ent inventi divisio	ire right, title and interest for the on, and in all applications for panal, continuation, substitute, and	e United States of America as defined in a atent including any and all provisional, no d reissue application(s), and all Letters Pa	35 U.S.C. §100, in the on-provisional, atent, extensions,
Submetry of Foreign Application Number  (Attorney Docket No.  for which the undersigned has (have) executed an application for patent in the United States of Ameron on even date herewith or  (12) Insert Date of Signing of Application  (13) Alternative Identification for filed Pebruary 12, 2002  (14) Alternative Identification for filed Pebruary 19, 2002  (15) Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications of the invention, and any patent(s) issuing thereon, and also to execute separate assignments in connection with applications and patents as the Assignee may deem necessary.  (2) 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 has the Assignee in every way possible in obtaining evidence and going forward with such interference.  (3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with a claims or provisions of the international Convention for Protection of Industrial Property or similar agreements.  (4) Each undersigned agrees 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) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or rexamination a grant of a valid United States patent to the Assignee.  (5) Each undersigned authorizes and requests the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from and application(s) to the said Assignee, as Assignee of the entire interest, and covenants the has full right to convey the entire interest, and covenants the has full right to convey the entire interest herein	(11)		(11)	METHOD FOR FABRI	CATING A THIN FILM MAGN	ETIC HEAD
Number, or Foreign   Application Number   (Attorney Docket No.				AND WAFER STRUCT	URE	
Insert Date of Signing of (12) on February 12, 2002  Application  (13) Alternative Identification for filled applications of filed February 19, 2002  1) Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications for the invention, and any patent(s) issuing thereon, and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.  2) 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 Assignee in every way possible in obtaining evidence and going forward with such interference.  3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convernion for Protection of Industrial Property or similar agreements.  4) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convernion for Protection of Industrial Property or similar agreements in extension of the International Convernion for Protection of Industrial Property or similar agreements in connection with claims or provisions of the International Convernion for Protection of Industrial Property or similar agreements in the number of the international Convernion for Protection of Industrial Property or similar agreements in connection with any provision or the International Convernion for Protection of Industrial Property or similar agreements in connection with any provision or the International Convernion for Protection of Industrial Property or similar agreements in conflict herewith, and agree that this assignment is binding on him and his heirs, successors, assigns and legal represent		Number, or Foreign		ney Docket No.		
Signing of Application  (13) Alternative Identification for filled Applications filled Pebruary 19, 2002  1) Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications for the invention, and any patents(s) issuing thereon, and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.  2) 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 exassignee in every way possible in obtaining evidence and going forward with such interference.  3) 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 exassignment and part of a valid United States patent to findustrial Property or similar agreements.  3) Each undersigned agrees 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) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination agrant of a valid United States patent to the Assignee.  5) Each undersigned authorizes and requests the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application(s) to the said Assignee, as Assignee of the entire interest, 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 assign					xecuted an application for patent in the U	Inited States of America
Identification for filed applications   filed   February 19, 2002	(12)	Signing of	(12)	on <u>February 12,</u>	2002	
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Date Inventor Signature Ikuhito ONODERA (SEAL)  Date Inventor Signature Inventor Signature (SEAL)  Date Inventor Signature (SEAL)  This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. (If neither, then it should be signed before at least two witnesses who also sign here:	reexamiresultinentire in assignmidentific	dication or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees in ation a grant of a valid Unit 5) Each undersigned author g from said application(s) to interest herein assigned, and the tis binding on him and him 6) Each undersigned hereboation that may be necessary	ivision the in obtaining to execute on all Convisto performed States rizes and the said A hat he has sheirs, suy grants t	ereof, or any patent or reissue aping evidence and going forward wite all papers and documents and rention for Protection of Industrian all affirmative acts which man patent to the Assignee. The assignee of the entition of executed, and will not executed, and legal reprinted firm of OLIFF & BERRIDGE, the firm of OLIFF & BERRIDGE,	plication based thereon, for the invention with such interference. It perform any act which may be necessary all Property or similar agreements. By be necessary to obtain, maintain or constants to issue any and all Letters Patents are interest, and covenants that he has full oute, any agreements in conflict herewith, esentatives.  PLC the power to insert on this assignment with such as interest of the power to insert on this assignment.	of the United States right to convey the and agrees that this
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$ \mathcal{G} $				Witness	zponko Kenda	

**RECORDED: 02/19/2002** 

PATENT REEL: 012610 FRAME: 0012