504973947 06/22/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		

CONVEYING PARTY DATA

Name	Execution Date
Norihisa ANDO	05/15/2018
Sunao MASUDA	05/15/2018
Masahiro MORI	05/15/2018
Kayou MATSUNAGA	05/15/2018
Kosuke YAZAWA	05/15/2018

RECEIVING PARTY DATA

Name:	TDK CORPORATION	
Street Address:	3-9-1, Shibaura, Minato-ku	
City:	Tokyo	
State/Country:	JAPAN	
Postal Code:	108-0023	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15938561

CORRESPONDENCE DATA

Fax Number: (703)836-2787

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	180880	
NAME OF SUBMITTER:	KEIVONA D. GRAY	
SIGNATURE:	/KeiVona D. Gray/	
DATE SIGNED:	06/22/2018	
This document serves as an Oath/Declaration (37 CFR 1.63).		

PATENT REEL: 046181 FRAME: 0959

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Total Attachments: 2

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PATENT REEL: 046181 FRAME: 0960

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Insert	(1)	Norihisa ANDO		(2)	Sunao MASUDA
(1-8)	Legal Name(s)	(3)	Masahiro MORI		(4)	Kayou MATSUNAGA
	of Inventor(s)	(5)	Kosuke YAZAWA	A	(6)	
		the unde		iency of which a	re he	good and valuable consideration paid to each of reby acknowledged, each undersigned agrees to
(9)	Insert Name of Assignee	(9) TDK Corporation				
(10)	Insert Address of Assignee	(10) c/o TDK Corporation, 3-9-1, Shibaura, Minato-ku, Tokyo 108-0023, JAPAN				
(11)	Insert Identification	the entir inventio continua	e right, title and interest for the n, and in all applications for pa	e United States o atent including a and reissue applic y be granted on the	f Am ny an cation he in	
(/	such as Title, Case Number, or Foreign	(,		11101110	=:	
	Application Number	(Attor	ney Docket No. 18088	0), f	iled on even date herewith or as
(12)	Alternative	(12)	U.S. Application Number	15/938,561		
	Identification for					
	filed applications	filed C	on March 28, 2018			

- 1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention 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 or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.
- 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 a grant of a valid United States patent to the Assignee.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the firm of OLIFF PLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

(13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

PATENT REEL: 046181 FRAME: 0961 In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	May 15/6, 2018	Inventor Signature	Norihisa ANDO	(SEAL)
Date	May 15th, 2018	Inventor Signature	Sunao Masuda Sunao MASUDA	(SEAL)
Date	May 15th, 2018	Inventor Signature	Masahiro Mori Masahiro MORI	(SEAL)
Date	May 15th. 2018	Inventor Signature	Kayou Matsunaga Kayou MATSUNAGA	_ (SEAL)
Date	May 13th, 2018	Inventor Signature	Kosnke Yazawa	_ (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:

Date June 6th, 2018 Witness Yuya Shiraishi

Date June 11th, 2018 Witness Hiroshi Olungara

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