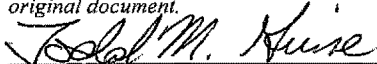


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1. A. Name of conveying parties:  <p style="text-align: center;">Yasuyuki OKADA Yasunori ABE</p> B. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2. A. Name and address of receiving party:  <p style="text-align: center;">HITACHI METALS, LTD. 2-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8614 JAPAN</p> B. Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
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4. A. Patent Application No. <u>14/117,555</u> B. Patent No.(s)  Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  C. Title of Application: <u>ENCODER</u>					
5. Name and address of party to whom correspondence concerning document should be mailed:  Name: <u>James A. Oliff</u>  Address: <b>OLIFF &amp; BERRIDGE, PLC</b> <b>P.O. Box 320850</b> <b>Alexandria, VA 22320-4850</b> <b>Phone Number: 703-836-6400</b> <b>Fax Number: 703-836-2787</b> <b>Email: <u>email@oliff.com</u></b>			6. Total number of applications and patents involved: <u>1</u>  7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of <u>\$40.00</u> .  8. Credit any overpayment or charge any underpayment to deposit account number 15-0461.		
9. <b>Statement and signature.</b> <i>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 document.</i>  <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">             _____            James A. Oliff, Registration No. 27,075            Todd M. Guise, Registration No. 46,748         </div> <div style="width: 35%; text-align: right;">           Date: <u>November 13, 2013</u> </div> </div>					

CH \$40.00 150461 14117555

ASSIGNMENT

Insert	(1) <u>Yasuyuki OKADA</u>	(2) <u>Yasunori ABE</u>
(1-8) Legal Name(s) of Inventor(s)	(3) _____	(4) _____
	(5) _____	(6) _____
	(7) _____	(8) _____

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9) Insert Name of Assignee	(9) <u>HITACHI METALS, LTD.</u>
(10) Insert Address of Assignee	(10) <u>2-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8614 Japan</u>

(hereinafter designated as the Assignee) and Assignee's heirs, 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, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as

(11) Insert Identification such as Title, Case Number, or Foreign Application Number	(11) <u>ENCODER</u>
--------------------------------------------------------------------------------------	---------------------

(Attorney Docket No. 157951), filed on even date herewith or as

(12) Alternative Identification for filed applications	(12) U.S. Application Number <u>14/117,555</u>
--------------------------------------------------------	------------------------------------------------

filed November 13, 2013

- 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 & BERRIDGE, 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.

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

Date <u>11/1/2013</u>	Inventor Signature <u>Yasuyuki Okada</u> (SEAL)
Date <u>11/1/2013</u>	Inventor Signature <u>Yasunori Abe</u> (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	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:

Date _____	Witness _____
Date _____	Witness _____

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