01/14/2015 503135906

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3182516

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YOSHIMICHI OHKI	10/28/2014
YUICHI HIROSE	10/27/2014
GENTA WADA	10/21/2014
TOSHIKATSU TANAKA	10/21/2014
KENJI OKAMOTO	10/20/2014

RECEIVING PARTY DATA

Name:	WASEDA UNIVERSITY	
Street Address:	104, TOTSUKAMACHI 1-CHOME	
Internal Address:	SHINJUKU-KU	
City:	TOKYO	
State/Country:	JAPAN	
Postal Code:	1698050	
Name:	FUJI ELECTRIC CO., LTD.	
Street Address:	1-1, TANABESHINDEN, KAWASAKI-KU	
Internal Address:	KAWASAKI-SHI	
City:	KANAGAWA	
State/Country:	JAPAN	
Postal Code:	2109530	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14398616

CORRESPONDENCE DATA

Fax Number: (908)654-0415

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.

Phone: (908) 518-6356

Assignment@ldlkm.com Email:

Correspondent Name: LDLK&M

Address Line 1: 600 SOUTH AVENUE WEST Address Line 4: WESTFIELD, NEW JERSEY 07090

REEL: 034708 FRAME: 0062 503135906

PATENT

ATTORNEY DOCKET NUMBER:	OKUYAM 3.3-094 (E)	
NAME OF SUBMITTER:	JOSEPH H. KARLIN	
SIGNATURE:	/Joseph H. Karlin/	
DATE SIGNED:	01/14/2015	
Total Attachments: 5		
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PATENT REEL: 034708 FRAME: 0063

former PTO/SB/15 (8-00) Modified LDLK&M

E CASISAS TO CHARLES HOW AND IN HERE I HOUSE A DROPE TO A SHELD A SHELD AS	Docket Number (Optional)			
ASSIGNMENT OF UTILITY APPLICATION	ОКUYAM 3.3-094 (Е)			
Whereas, I,Yoshimichi OHKI				
known to the undersigned respecting said improvements, when	ever requested, to testify in any interferences or other			
legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignees, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignees.				
And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.				
October 28, 2014 Date	Joshimich Ohky			
Date	Yoshimichi OHKI			
Hitoshi Naito Witness				
Hitoshi Naito Typed Name of Witness				
x *Total of 5 forms are submitted.				

3563424

former PTO/SB/15 (8-00) Modified LDLK&M Docket Number (Optional) ASSIGNMENT OF UTILITY APPLICATION OKUYAM 3.3-094 (E) Whereas, I, Yuichi HIROSE c/o WASEDA UNIVERSITY, 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan hereafter referred to as assignor, have with others invented certain new and useful improvements in METAL-BASE PRINTED CIRCUIT BOARD X for which an application for a United States Letters Patent was filed on Application Number for which an application for a United States Letters Patent was executed by me on x for which an International Application was filed on <u>August 1, 2013</u> PCT/JP2013/070897 _____, designating the United States. WASEDA UNIVERSITY and FUJI ELECTRIC CO., LTD. university and corporation of <u>Japan</u> herein referred to as "assignees" whose mailing addresses are 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan and 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 2109530 Japan is desirous of acquiring the entire right, title and interest in the same; NOW, THEREFORE, in consideration of the sum of one dollar (\$), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignees my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesald utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignees herein, as assignees of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignees or its assigns, to communicate to said assignees or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignees, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignees. And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

x *Total of 5 forms are submitted.

Typed Name of Witness

Docket Number (Optional) ASSIGNMENT OF UTILITY APPLICATION OKUYAM 3.3-094 (E) Whereas, I, Genta WADA c/o WASEDA UNIVERSITY, 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan hereafter referred to as assignor, have with others invented certain new and useful improvements in METAL-BASE PRINTED CIRCUIT BOARD X for which an application for a United States Letters Patent was filed on Application Number for which an application for a United States Letters Patent was executed by me on x for which an International Application was filed on August 1, 2013 PCT/JP2013/070897 _____, designating the United States. And WASEDA UNIVERSITY and FUJI ELECTRIC CO., LTD. university and corporation of <u>Japan</u> herein referred to as "assignees" whose mailing addresses are 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan and 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 2109530 Japan is desirous of acquiring the entire right, title and interest in the same; NOW, THEREFORE, in consideration of the sum of one dollar (\$), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignees my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignees herein, as assignees of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignees or its assigns, to communicate to said assignees or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignees, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignees. And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known. Genta WADA

Genta WADA

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PATENT REEL: 034708 FRAME: 0066

former PTO/SB/15 (8-00) Modified LDLK&M

former PTO/SB/15 (8-00) Modified LDLK&M Docket Number (Optional) ASSIGNMENT OF UTILITY APPLICATION OKUYAM 3.3-094 (E) Whereas, I, Toshikatsu TANAKA c/o WASEDA UNIVERSITY, 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan hereafter referred to as assignor, have with others invented certain new and useful improvements in METAL-BASE PRINTED CIRCUIT BOARD X for which an application for a United States Letters Patent was filed on Application Number for which an application for a United States Letters Patent was executed by me on for which an International Application was filed on August 1, 2013 PCT/JP2013/070897 , designating the United States. And Whereas, WASEDA UNIVERSITY and FUJI ELECTRIC CO., LTD. university and corporation of Japan herein referred to as "assignees" whose mailing addresses are 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan and 1-1, Tanabeshinden, Kawasaki-ku. Kawasaki-shi, Kanagawa 2109530 Japan is desirous of acquiring the entire right, title and interest in the same; NOW, THEREFORE, in consideration of the sum of one dollar (\$), the receipt whereof 1.00 is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignees my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignees herein, as assignees of the entire interest therein, and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignees or its assigns, to communicate to said assignees or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignees, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignees. And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known. Toshikatsu TANAKA Hitoshi Naito Typed Name of Witness

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*Total of

forms are submitted.

former PTO/SB/15 (8-00) Modified LDLK&M

ASSIGNMENT OF UTILITY APPLICATION	OKUYAM 3.3-094 (E)			
Whereas, I, Kenji OKAMOTO c/o FUJI ELECTRIC CO., LTD., 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 2109530 Japan hereafter referred to as assignor, have with others invented certain new and useful improvements in METAL-BASE PRINTED CIRCUIT BOARD x for which an application for a United States Letters Patent was filed on Application Number for which an application for a United States Letters Patent was executed by me on x for which an International Application was filed on August 1, 2013 pCT/JP2013/070897 designating the United States. And Whereas, WASEDA UNIVERSITY and FUJI ELECTRIC CO., LTD. university and corporation of Japan herein referred to as "assignees" whose mailing addresses are 104, Totsukamachi 1-chome, Shinjuku-ku, Tokyo 1698050 Japan and 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 2109530 Japan is desirous of acquiring the entire right, title and interest in the same;				
NOW, THEREFORE, in consideration of the sum of one dollar (\$ 1.00), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignees my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignees herein, as assignees of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignees or its assigns, to communicate to said assignees or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignees, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expens				
And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.				
Date Chicks Kimura Witness Chicks KIMURA Typed Name of Witness	Kenji O kamoto Kenji OKAMOTO			
x *Total of 5 forms are submitted.				

PATENT REEL: 034708 FRAME: 0068