

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2703685

SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>MOTOFUMI TANAKA</td> <td>01/21/2014</td> </tr> <tr> <td>TOSHIKI OSAKO</td> <td>01/16/2014</td> </tr> <tr> <td>KAZUNORI SHIODA</td> <td>01/17/2014</td> </tr> <tr> <td>HISASHI MATSUDA</td> <td>01/17/2014</td> </tr> <tr> <td>TATSURO UCHIDA</td> <td>01/23/2014</td> </tr> <tr> <td>NAOHIKO SHIMURA</td> <td>01/21/2014</td> </tr> </tbody> </table>		Name	Execution Date	MOTOFUMI TANAKA	01/21/2014	TOSHIKI OSAKO	01/16/2014	KAZUNORI SHIODA	01/17/2014	HISASHI MATSUDA	01/17/2014	TATSURO UCHIDA	01/23/2014	NAOHIKO SHIMURA	01/21/2014
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RECEIVING PARTY DATA															
Name:	KABUSHIKI KAISHA TOSHIBA														
Street Address:	1-1, Shibaura 1-chome, Minato-Ku														
City:	Tokyo														
State/Country:	Japan														
Postal Code:	105-8001														
PROPERTY NUMBERS Total: 1															
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14167254</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14167254										
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Application Number:	14167254														
CORRESPONDENCE DATA															
Fax Number:	(703)413-2220														
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<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>															
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Address Line 4:	ALEXANDRIA, VIRGINIA 22314														
ATTORNEY DOCKET NUMBER:	429094US20														
NAME OF SUBMITTER:	EMEL HASAN														

PATENT

Signature:	/Emel Hasan/
Date:	01/29/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 6 source=429094USasn#page1.tif source=429094USasn#page2.tif source=429094USasn#page3.tif source=429094USasn#page4.tif source=429094USasn#page5.tif source=429094USasn#page6.tif	

826-067353-USA-A
(FTA 1315)

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention: **VORTEX GENERATING APPARATUS AND VORTEX GENERATING METHOD**

As the below named inventor, I hereby declare that:

This declaration The attached application, or is directed to: United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

WHEREAS, KABUSHIKI KAISHA TOSHIBA (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001 Japan, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

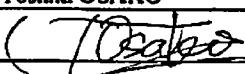
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

LEGAL NAME OF INVENTOR: 田中 祥
Inventor: Motofumi TANAKA Date: Jan. 21, 2014
Signature: (Motofumi Tanaka)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

PLS 06725705AA (F7A13C)

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	VORTEX GENERATING APPARATUS AND VORTEX GENERATING METHOD
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration <input type="checkbox"/> The attached application, or</p> <p>is directed to: <input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>WHEREAS, <u>KABUSHIKI KAISHA TOSHIBA</u> (hereinafter referred to as "ASSIGNEE") having places of business at: <u>1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001 Japan</u>, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;</p> <p>NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.</p> <p>I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.</p> <p>Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.</p> <p>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.</p>	
<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Toshiki OSAKO</u> Date: <u>Jan. 16, 2014.</u></p> <p>Signature: <u></u></p>	

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D/G 067302-USA-A
(FTA 1315)

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LEGAL NAME OF INVENTOR	
Inventor: <u>Kazunori SHIODA</u>	Date: <u>(17th Jan, 2014)</u>
Signature: <u>(Kazunori Shioda)</u>	

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PL5067553-USA.A

(77A1215)

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<p>LEGAL NAME OF INVENTOR</p> <p>Inventor: <u>Hisashi MATSUDA</u> <u>松田 研</u> Date: <u>(Jan. 17, 2014)</u></p> <p>Signature: <u>(Hisashi Matsuda)</u></p>	

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PJG067357-USA
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LEGAL NAME OF INVENTOR	
Inventor: <u>Tatsuro UCHIDA</u>	Date: <u>(2014 . Jan . 23)</u>
Signature: <u>(Tatsuro Uchida)</u>	

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1825 037223
(FTA1313)

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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LEGAL NAME OF INVENTOR
Inventor: Naohiko SHIMURA 志村 直彦 Date: Jan. 21, 2014
Signature: (Naohiko Shimura)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
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PATENT