PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2820548

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TETSURO HIROTA	04/15/2014
HIROSHI HOSOKAWA	04/15/2014
SHUNJI KATOH	04/15/2014
MASAYUKI YAMANE	04/16/2014
MASAHIRO WATANABE	04/17/2014
SHINGO NISHIZAKI	04/15/2014

RECEIVING PARTY DATA

Name:	RICOH COMPANY, LTD.
Street Address:	3-6, NAKAMAGOME 1-CHOME
City:	OHTA-KU, TOKYO
State/Country:	JAPAN
Postal Code:	143-8555

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14256141

CORRESPONDENCE DATA

Fax Number: (703)413-2220

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Phone: (703) 413-3000
Email: ehasan@oblon.com
Correspondent Name: OBLON, SPIVAK, ET AL.
Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	433650US28
NAME OF SUBMITTER:	EMEL HASAN
SIGNATURE:	/Emel Hasan/
DATE SIGNED:	04/18/2014
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 10

PATENT
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Thue of	MAGNETIC PERMEABILITY DETECTOR, DEVELOPING DEVICE,	
Invention	IMAGE FORMING APPARATUS, AND OSCILLATION SIGNAL	
FREQUENCY CALCULATION METHOD THEREFOR		
As the below named i	nventor, 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, Rico	h Company, Ltd.	
(hereinafter referred to as "ASSIGNEE") having places of business at: 3-6, Nakamagome 1-chome, Ohta-ku, Tokyo 143-8555, 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;		
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		
Inventor: TETSU	ROHIROTA Date: April 15, 2014	
Signature: Jel	Juro)firota	

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

ADDITIONAL INVENTOR(S)
Supplemental Sheet

Page _ 2 _ of _ 2

Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	AND	
HIROSHI HOSOKAWA		
Inventor's Hirashi Harokawa	April 15, 2014 Date (Optional)	
Legal Name of Joint Inventor, if any:		
(Eg., Given Name (first and middle (if any)) and Family Name or Surname) SHUNJI KATOH		
Inventor's Signature	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname) MASAYUKI YAMANE		
Inventor's Signature	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname) MASAHIRO WATANABE		
Inventor's Signature	Date (Optional)	
Legal Name of Jaint Inventor if any		
Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname) SHINGO NISHIZAKI		
Inventor's Signature	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
Inventor's Signature	Date (Optional)	
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Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
Inventor's Signature	Date (Optional)	

Title of	MAGNETIC PERMEABILITY DETECTOR, DEVELOPING DEVICE,	
Invention	IMAGE FORMING APPARATUS, AND OSCILLATION SIGNAL	
	FREQUENCY CALCULATION METHOD THEREFOR	
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.	
	h Company, Ltd.	
(hereinafter referred to as "ASSIGNEE") having places of business at: 3-6, Nakamagome 1-chome, Ohta-ku, Tokyo 143-8555, 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 sun 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		
Inventor: TETSU	RO HIROTA Date:	
Signature:		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
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ADDITIONAL INVENTOR(S)
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Page 2 of 2

Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
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Inventor's		
Signature	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	State description of parts 4 and 100 a	
SHUNJI KATOH	A	
	april 15.2014	
Inventor's Skurgi Katok	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname) MASAYUKI YAMANE		
milotrom militar		
Inventor's		
Signature	Date (Optional)	
Legal Name of Joint Inventor, If any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
MASAHIRO WATANABE		
Inventor's		
Signature	Date (Optional)	
Logal Name of Joint Inventor Wann		
Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
SHINGO NISHIZAKI		
Inventor's	Date (Optional)	
Signature	tane (Optionar)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
Inventor's		
Signature	Date (Optional)	
Legal Name of Joint Inventor, if any:		
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
Inventor's Signature	Date (Optional)	

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Invention	IMAGE FORMING APPARATUS, AND OSCILLATION SIGNAL	
	FREQUENCY CALCULATION METHOD THEREFOR	
As the below named i	nventor, 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.	
	a Company, Ltd.	
(hereinafter referred to as "ASSIGNEE") having places of business at: 3-6, Nakamagome 1-chome. Ohta-ku, Tokyo 143-8555, 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 sun 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 I	NVENTOR	
Inventor: TETSU	RO HIROTA Date:	
Signature:		

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ALEXANDRIA, VIRGINIA 22314

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page 2 of 2

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Inventor's Date (Optional)		Date (Optional)	
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Egal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname) Inventor's Signature Date (Optional) Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname) Inventor's	Inventor's		
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Signature Date (Optional) Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname) Inventor's			
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Inventor's			
	(E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
	Inventor's		
		Date (Optional)	

Title of	MAGNETIC PE	RMEABILITY	DETECTOR,	DEVELOPING	DEVICE,
Invention	IMAGE FORM	ING APPARA	TUS, AND	OSCILLATION	SIGNAL
	FREQUENCY CA	LCULATION	METHOD THE	REFOR	
As the below named i	inventor, I hereby decla	re that:			
This declaration	The attached applicati	on, or			
is directed to:	United States applicati	ion or PCT internat	ional application m	umber	
	filed on				!
The above-identified	application was made o	r authorized to be i	nade by me.		
I believe that I am the	original inventor or an	original joint inve	ntor of a claimed in	vention in the applicat	ion.
WHEREAS. Ricol	h Company, L1d.				
(hereinafter referred to as "ASSIGNEE") having places of business at: 3-6, Nakamagome 1-chome. Ohta-ku, Tokyo 143-8555, 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 sun 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					
Inventor: TETSU	RO HIROTA	newson and another the control of the state	Date		
Signature:					

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

SUPPLEMENTAL.	SHEET FOR DECLA	ARATION USING
AN APPLICATION	LDATA SHEET AND	ASSIGNMENT

ADDITIONAL INVENTOR(S)
Supplemental Sheet

Page 2 of 2

Legal Name of Joint Inventor, if any:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	The second secon		
HIROSHI HOSOKAWA			
Inventor's			
Signature	Date (Optional)		
Legal Name of Joint Inventor, if any:	N 400 - 100		
(E.g., Given Name (first and middle (if any)) and Family Name or Sumame)			
SHUNJI KATOH			
Inventor's			
Signature	Date (Optional)		
Legal Name of Joint Inventor, if any:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
MASAYUKI YAMANE			
Inventor's			
Signature	Date (Optional)		
Legal Name of Joint Inventor, if any:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
MASAHIRO WATANABE	η		
Inventor's Murahiro- Witanube.	Upril 17, 2014 Date (Optional)		
Legal Name of Joint Inventor, if any:			
(E.g., Given Name (first and middle (if my)) and Family Name or Sumante)	A STATE OF THE STA		
bounded			
Inventor's Signature	Date (Optional)		
Legal Name of Joint Inventor, if any:			
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Inventor's			
Signature	Date (Optional)		
Legal Name of Joint Inventor, if any:			
(E.g., Given Name (first and middle (if ony)) and Family Name or Surname)			
Inventor's			
Signature	Date (Optional)		

Title of	MAGNETIC PERME	EABILITY DETECTOR,	DEVELOPING DEVICE,		
Invention	IMAGE FORMING	APPARATUS, AND	OSCILLATION SIGNAL		
	FREQUENCY CALCU	JLATION METHOD THE	EREFOR		
As the below named	As the below named inventor, I hereby declare that:				
This declaration [X]	The attached application, or				
is directed to:	United States application or	PCT international application r	nimber		
	filed on	· · · · · · · · · · · · · · · · · · ·			
The above-identified	application was made or auth	orized to be made by me;			
I believe that I am the	e original inventor or an origin	ial joint inventor of a claimed in	avention in the application.		
	h Company, Ltd.		· · · · · · · · · · · · · · · · · · ·		
143-8555, Japan , is	desirous of acquiring the enti	e right, title and interest in and	amagome 1-chome. Ohta-ku, Tokyo I to said invention and in and to any rial possessions and in any and all		
acknowledged, and f said ASSIGNEE, the and in all foreign cot other relevant Interna- interest in and to an	or other good and valuable of full and exclusive right to the intries (including the right to ntional Treaties and Arranger y and all Letters Patent which any and all foreign countries	onsideration, I, by these prese e said invention in the United claim priority under the terms nents from the aforesaid applic th may be granted therefor in	.00), the receipt whereof is hereby nts do sell, assign and transfer unto States and its territorial possessions of the International Convention and ration) and the entire right, title and the United States and its territorial divisions, reissues, continuations,		
any and all foreign of assignee of my entire (his) successors and	countries to issue any and all right, title and interest in ar assigns, to the full end of th	of said Letters Patent, when d to the same, for the sole use	es and its territorial possessions and granted, to said ASSIGNEE as the and behoof of said ASSIGNEE, its Patent may be granted, as fully and t 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.					
	edge that any willful false sta ont of not more than five (5)		is punishable under 18 U.S.C. 1001		
LEGAL NAME OF I	NVENTOR	and the second s			
Inventor: TETSU	IRO HIROTA	Dat	e:		
Signature:	And the second of the second o				

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ADDITIONAL INVENTOR(S)
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Legal Name of Joint Inventor, if any:	
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Signature	Date (Optional)
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SHUNJI KATOH	
Inventor's	
Signature	Date (Optional)
Legal Name of Joint Inventor, if any:	
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	
MASAYUKI YAMANE	
Inventor's Signature	Date (Optional)
I was Now and I was a second s	
Legal Name of Joint Inventor, if any: (E.g., Given Name (first and middle (if any)) and Family Name or Surname)	
MASAHIRO WATANABE	
Inventor's Signature	Date (Optional)
ognature	(Optional)
Legal Name of Joint Inventor, if any:	
(E.g., Given Name (first and middle (if any)) and Family Name or Surmame)	
SHINGO NISHIZAKI	
Inventor's Charles Control of the Co	April 15,2014
Inventor's Shingo Mishizaki	Dafe (Optional) /
Legal Name of Joint Inventor, if any:	
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	
Inventor's	
Signature	Date (Optional)
Legal Name of Joint Inventor, if any:	
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)	
inventor's	
Signature	Date (Optional)

PATENT REEL: 032708 FRAME: 0967

RECORDED: 04/18/2014