PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4995851

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Yutaka TAKATA	05/18/2018
Takehiro HOSOKAWA	06/01/2018
Tatsuya HASE	05/28/2018
Naoyuki OSHIUMI	05/29/2018
Takuya YAMASHITA	05/28/2018
Makoto MIZOGUCHI	05/18/2018
Koichi YOSHIDA	05/17/2018
Kenichi KOMIYA	05/17/2018
Takashi ARAI	05/17/2018
Yuji SHITARA	05/17/2018
Kazuhiro YAGISHITA	05/17/2018

RECEIVING PARTY DATA

Name:	Autonetworks Technologies, Ltd.	
Street Address:	1-14, Nishisuehiro-cho	
City:	Yokkaichi-shi, Mie	
State/Country:	Japan	
Postal Code:	510-8503	
Name:	Sumitomo Wiring Systems, Ltd.	
Street Address:	1-14, Nishisuehiro-cho	
City:	Yokkaichi-shi, Mie	
State/Country:	Japan	
Postal Code:	510-8503	
Name:	Sumitomo Electric Industries, Ltd.	
Street Address:	5-33, Kitahama 4-chome, Chuo-ku	
City:	Osaka-shi, Osaka	
State/Country:	Japan	
Postal Code:	541-0041	
Name:	Kyushu University	
Street Address:	6-10-1 Hakozaki, Higashi-ku	
City:	Fukuoka-shi, Fukuoka	

PATENT REEL: 046013 FRAME: 0906

504949104

State/Country:	Japan
Postal Code:	812-8581
Name:	JXTG NIPPON OIL & ENERGY CORPORATION
Street Address:	1-2, OTEMACHI 1-CHOME, CHIYODA-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	100-8162

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16060136

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.

Phone: 703-836-6400 Email: email@oliff.com **Correspondent Name:** JAMES A. OLIFF

Address Line 1: **OLIFF PLC**

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER:	181363
NAME OF SUBMITTER:	PAMELA BALLARD
SIGNATURE:	/Pamela Ballard/
DATE SIGNED:	06/07/2018

Total Attachments: 9

source=5808721_1#page1.tif

source=5808721_1#page2.tif

source=5808721_1#page3.tif

source=5808721 1#page4.tif

source=5808721_1#page5.tif

source=5808721_1#page6.tif

source=5808721_1#page7.tif

source=5808721_1#page8.tif

source=5808721 1#page9.tif

PATENT REEL: 046013 FRAME: 0907

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

ASSIGNMENT (Five Assignees)

	Insert	(1)	Yutaka TAKATA	(2)	Takehiro HOSOKAWA
(1-8)	Legal Name(s)	(3)	Tatsuya HASE	(4)	Naoyuki OSHIUMI
	of Inventor(s)	(5)	Takuya YAMASHITA	(6)	Makete MIZOGUCHI
		(7)	Koichi YOSHIDA	(8)	Kenichi KOMIYA
		(9)	Takashi ARAI	(10)	Yuji SHITARA
		(11)	Kazuhire YAGISHITA	(12)	
		the unders		f which are her	ood and valuable consideration paid to each of eby acknowledged, each undersigned agrees to
(13A)	lusert Name of First Assignee	(I3A)	AUTONETWORKS TECHNOL	OGIES, LTD.	
(14A)	Insert Address of First Assignee	(14A)	1-14, Nishisuchiro-cho, Yokkaic	hi-shi, Mie 51(O-8503, JAPAN
(138)	Insert Name of Second Assignee	(138)	SUMITOMO WIRING SYSTEM	MS, LTD.	
(148)	Insert Address of Second Assignee	(143)	1-14, Nishisuehiro-cho, Yokkaic	shi-shi, Mie 510)-8503, JAPAN
(13C)	Insert Name of Third Assignee	(13C)	SUMITOMO ELECTRIC INDL	istries, ltd	<u> </u>
(14C)	Insert Address of Third Assignee	(14C)	5-33, Kitahama 4-chome, Chuo-	ku, Osaka-shi,	Oseka 541-0041, JAPAN
(13 D)	Insert Name of Fourth Assignce	(13D)	KYUSHU UMIVERSITY		
(14 D)	Insert Address of Fourth Assignce	(14D)	6-10-1 Hakozaki, Higashi-ku, Fu	ikuoks-shi, Ful	suoka 812-8581, JAPAN
(1 3E)	Insert Name of Fourth Assignee	(13E)	JXTG NIPPON OIL & ENERGY	Y CORPORAT	ION
(14E)	insert Address of Fourth Assignee	(14E)	1-2, Otemachi 1-chame, Chiyoda	ı-ku, Tokyo 10	08162, JAPAN
(15)	Insert Identification such as Title, Case Number, or Foreign Application Number	the entire r invention, continuation and reexar	ight, title and interest for the United and in all applications for patent inc	i States of Ameduding any and suc applications at the invited on t	
		(Automo	y Locates ING. 101303), isten	th Garn More acressing at ar
(16)	Alternative	(16)	U.S. Application Number	***************************************	······································
	Identification for	eu. a			
	filed applications	filed			
execute	e separate assignments in con 2) Each undersigned agrees t	nection wit lo execute s	h such applications and patents as t Il papers necessary in connection t	the Assignees t with any interfe	ration and/or patent for the invention and also may deem necessary. erence or post-grant proceeding which may be s in every way possible in obtaining evidence

- to
- 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 Assignees.

 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 Assignees, as Assignees 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 OLFF FLC 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.

PATENT REEL: 046013 FRAME: 0908

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.

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

Date	May. 18, 2018	Inventor Signature	YUTAKA TAKATA	_ (SEAL
Date	June 1, 2018	Inventor Signature	Takehiro Hosokawa	ω (SEAL
Date	May 28. 2018	luventor Signature	Totsuya Hase Tatsuya HASE	(SEAL
Date		Inventor Signature	Naoyuki OSHIUMI	(SEAL
Date	Max 28, 2018	Inventor Signature	Takuya YAMASHITA Takuya YAMASHITA	(SEAL
Date		Inventor Signature	Makoto MIZOGUCHI	_ (SEAL)
Date	·	Inventor Signature	Kolchi YOSHIDA	_ (SEAL)
Date		Inventor Signature	Kenichi KOMIYA	(SEAL)
Date:		Inventor Signature	Takashi ARAI	*
Date		Inventor Signature	Yuji SHITARA	o [.]
Date	·	Inventor Signature	Kazuhira YAGISHITA	ň:

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:

As an above named inventor, I beach, declare that:

Under a lamiter original inventor or an original joint inventor of a claimed inventor (or claimed design) in the absolutely application for which this declaration is being submitted.

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

i have reviewed and understand the conterns of the above identified application, including the claims, and am aware of the duty to decline, to the Office all information known to me to be material to patentability as defined in 17 (J.P. §) 50

Thereby acknowledge that any x illful false statement made in this declaration is punishable under (x, t, s, t). LOSI by f_{MS} or improvement of nor more than f_{MS} (5) years, (x, t) both.

is witness wherest, executed by the undersigned on the date(s) opposite the undersigned name(s),

Date:		Inventor Signature	Youka JAKAFA	St M.)
Date		Inventor Signature	Takoh5v HOSOKAWA	(SEAL)
Date	***************************************	Inventor Signature	Tatanya HASF	
Dute	Muy 29 2018	Inventor Signature	Nac suff CSALUMI	isl Ala
Date		Inventor Signature	Takaya YAMASHITA	(SEAL)
Date		Inventor Signature	Maketa MIZORE CHI	(SEAL)
Date		laventor Signature	Xotels YOSHIDA	(SLAL)
Date		Inventor Signature	Kesichi KOMYA	«SFAL»
Date		Inventor Signature	Takashi ARAI	
Date		imentor Signature	Yuji SHII ARA	
Date		Inventor Signature	Kaabir: YAGISHII A	

This assignment should professibly be signed before: (a) a Notary Public of within the U.S.A. (b) a U.S. Consul identifies the U.S.A. (if noither, then it should be signed before at least two mineraes who also sign here.

Date	;	Witness	
Date		Witness.	

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

ASSIGNMENT (Five Assignees)

	insert	(1)	Yutaka TAKATA	(2)	Takehiro HOSOKAWA
(1-8)	Legal Name(s)	(3)	Tatsuya HASE	(4)	Naoyuki OSHIUM!
	of Inventor(s)	(5)	Takuya YAMASHITA	(6)	Mekoto MIZOGUCHI
		(7)	Koichi YOSHIDA	(8)	Kenichi KOMIYA
		(9)	Takashi ARAI	(10)	Yuji SHITARA
		(11)	Kazuhiro YAGISHITA	(12)	
		the uno	ideration of the sum of one dollar (\$1 ersigned, the receipt and sufficiency o and hereby does assign, transfer and s	of which are he	good and valuable consideration paid to each of creby acknowledged, each undersigned agrees to
(13A)	Insert Name of First Assignce	(13A)	AUTONETWORKS TECHNOL	OGIES, LTD.	
(14A)	Insert Address of First Assignce	(14A)	1-14, Nishisuchiro-cho, Yokkaich	ui-shi, Mie 510	1-8503, JAPAN
(13B)	Insert Name of Second Assignee	(13B)	SUMITOMO WIRING SYSTEM	18, LTD.	
(148)	Insert Address of Second Assignce	(14B)	1-14, Nishisuchiro-cho, Yokkaich	oi-shi, Mie 510	-8503, JAPAN
(13C)	Insert Name of Third Assignee	(13Č)	SUMITOMO ELECTRIC INDUS	STRIES, LTD.	
(14C)	Insert Address of Third Assignce	(14C)	5-33, Kitahama 4-chome, Chuc-k	u, Osaka-shi, (Osaka 541-0041, JAPAN
(13D)	Insert Name of Fourth Assignee	(13D)	KYUSHU UNIVERSITY		
(14D)	Insert Address of Fourth Assignee	(14D)	6-10-1 Hakozaki, Higashi-ku, Ful	kuoka-shi, Fuk	uoka 812-8581, JAPAN
(13E)	Insert Name of Fourth Assignee	(13E)	JXTG NIPPON OIL & ENERGY	CORPORAT	ion .
(14E)	Insert Address of Fourth Assignee	(14E)	1-2, Otemachi 1-chome, Chiyoda-	ku, Tokyo 10	08162, JAPAN
		the enti- invention continu	e right, title and interest for the Unite m, and in all applications for patent in	d States of An cluding any as sue application	irs, successors, assigns and legal representatives, acrica as defined in 35 U.S.C. § 100, in the id all provisional, non-provisional, divisional, no(s), and all Letters Patent, extensions, reissues vention known as
(15)	Insert Identification such as Title, Case Number, or Foreign	(15)	ANTICORROSIVE AGENT AND T	TERMINAL F	ITTED ELECTRIC WIRE
	Application Number	(Attorn	ey Docket No 181363), filed	on even date herewith or as
(16)	Alternative	(16)	U.S. Application Number		
	Identification for		, 	***************************************	
	filed applications	filed			3.33

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 Assignees 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 Assignees 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 Assignees.

5) Back 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 Assignees, as Assignees 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 Tradomark Office for recordation of this document.

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 daty 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.

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

Date		Inventor Signature	Yutaka TAKATA	(SEAL)
Date		Inventor Signature	Takehiro HOSOKAWA	(SEAL)
Date		Inventor Signature	Taisuya HASE	(SEAL)
Date		Inventor Signature	Naoyuki OSHIUMI	(SEAL)
Date		Inventor Signature	Takuya YAMASHITA	(SEAL)
Date	May 18, 2018	Inventor Signature	ALMONTOSCO SE LOS MAKINO MIJOSCO SE SE LOS MIGORIANOS MIJOSCO SE LOS MAKINO MIJOSCO SE LOS MINOSCO SE LOS MAKINO MIJOSCO SE LOS MAKINO MINOS MAKINO MINO	(SEAL)
Date		inventor Signature	Koichi YOSHIDA	(SEAL)
Date:	***.	Inventor Signature	Kenichi KOMIYA	(SEAL)
Oate :		Inventor Signature	Takashi ARAI	
)ste		Inventor Signature	Yuji SHITARA	
)ste		Inventor Signature	Kazuhiro YACISHITA	

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:

REEL: 046013 FRAME: 0913

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

ASSIGNMENT (Five Assignees)

	Insert	(1)	Yutaks TAKATA	(2)	Takehiro HOSOKAWA		
(1-8)	Legal Name(s)	(3)	Tatsuya HASE	(4)	Naoyuki OSHIUMI		
	of Inventor(s)	(5)	Takuya YAMASHITA	(6)	Makoto MIZOGUCHI		
		(7)	Koichi YOSHIDA	(8)	Kenichi KOMIYA		
		(9)	Takashi ARAI	(10)	Yuji SHITARA		
		(11)	Kazuhiro YAGISHITA	(12)	3.		
		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					
(13A)	Insert Name of First Assigned	(13A)	(13A) AUTONETWORKS TECHNOLOGIES, LTD.				
(14A)	Insert Address of First Assignee	(14A)	I-I4, Nishisushiro-cho, Yokkaichi-shi, Mis 510-8503, JAPAN				
(133)	Insert Name of Second Assignee	(13B) SUMITOMO WIRING SYSTEMS, LTD.					
(148)	Insert Address of Second Assignee	(14B) 1-14, Nishisushiro-cho, Yokkaichi-shi, Mie 510-8503, JAPAN					
(13C)	Insert Name of Third Assignee	(13C)	(I3C) SUMITOMO BLECTRIC INDUSTRIES, LTD.				
(14C)	Insert Address of Third Assignee	(14C)	5-33, Kitaliama 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0041, JAPAN				
(13D)	Insert Name of Fourth Assigner	(13D)	K YUSHU UNIVERSITY				
(14D)	Insert Address of Fourth Assigner	(14D)	6-10-1 Hakozaki, Higashi-ku, Fukuoka-shi, Fukuoka 812-8581, JAPAN				
(13E)	Insert Name of Fourth Assignee	(13E)	JXTG NIPPON OIL & ENERGY CORPORATION				
(14E)	Insert Address of Fourth Assignce	(14E)	1-2, Otemachi 1-chome, Chiyoda-ku, Tokyo 1008162, JAPAN				
		(hereinafter designated as the Assignees) and Assignees' 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					
(15)	Insert Identification such as Title, Case Number, or Foreign Application Number	(15)	ANTICORKOSIVE AGENT AND TER	MINAL F	TITED ELECTRIC WIRE		
		(Attorney Docket No. 181363), filed on even date herewith or as					
(16)	Alternative	(16)	S. Application Number				
	Identification for						
	filed applications	filed .					
			10044	g	gannagan.unnaannijgann inniudannnngga jijaansynnnaad jiilii 18885-98		

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 Assignces 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 Assignees 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 great of a valid United States patent to the Assignees.

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 Assignees, as Assignees 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.

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.

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

Date		Inventor Signature	Yutaka TAKATA	(SEAL)
Date		Inventor Signature	Takebiro HOSOKAWA	; (SEAL)
Date		Inventor Signature	Tatsuya HASE	(SEAL)
Date		Inventor Signature	Nsoyuki OSHIUMI	(SEAL)
Date		Inventor Signature	Takuya YAMASHITA	(SEAL)
Date		Inventor Signature	Makoto MIZOGUCHI	(SEAL)
Date	MAY 17 2018	Inventor Signature	Kolchi Yoshida Kolchi YOSHIDA	(SEAL)
Date	MAY, 17, 2018	Inventor Signature	Kenichi Kusiye Kenichi KOMIYA	(SEAL)
Date	MAY. 17, 2018	Inventor Signature	Takashi Arai Takashi ARAI	
Date	MAY.17.2018	Inventor Signature	Cygi SHR	
Date	MAY 17, 2018	Inventor Signature	Kozahiro Yagishi ta Kazuhiro YAGISHITX	

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 MAY 17, 2018 Witness Junich: SHIBATA

Date MAYIM. 2018 Witness Teppei TSUJIMOTO