## 504946804 06/06/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4993551

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Hideyuki KUBOKI	05/22/2018
Hiroki HIRAI	05/22/2018
Makoto HIGASHIKOZONO	05/22/2018
Akihisa HOSOE	05/17/2018
Yoshiyuki HIROSE	05/16/2018
Tomoharu TAKEYAMA	05/16/2018
Eiichi KOBAYASHI	05/18/2018

### **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			

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15781831

### **CORRESPONDENCE DATA**

**Fax Number:** (703)836-2787

PATENT REEL: 046001 FRAME: 0661

504946804

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: 181781

NAME OF SUBMITTER: JAMIE WOLFE

SIGNATURE: /Jamie L. Wolfe/ for James A. Oliff

**DATE SIGNED:** 06/06/2018

**Total Attachments: 4** 

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PATENT REEL: 046001 FRAME: 0662

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

# ASSIGNMENT (Three Assignees)

	Insert	(1) I	Iideyuki KUBOKI	(2)	Hiroki HIRAI	
(1-8)	Legal Name(s)	(3) N	Makoto HIGASHIKOZONO	(4)	Akihisa HOSOE	
	of Inventor(s)	(5)	Yoshiyuki HIROSE	(6)	Tomoharu TAKEYAMA	
		(7) E	Eiichi KOBAYASHI	(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				
(9A)	Insert Name of First Assignee	(9A)	Autonetworks Technologies, Ltd.			
(10A)	Insert Address of First Assignee	(10A)	1-14, Nishisuehiro-cho, Yokkaichi-s	1-14, Nishisuehiro-cho, Yokkaichi-shi, Mie 510-8503, Japan		
(9B)	Insert Name of Second Assignee	(9B)	Sumitomo Wiring Systems, Ltd.			
(10B)	Insert Address of Second Assignce	(10B)	1-14, Nishisuehiro-cho, Yokkaichi-shi, Mie 510-8503, Japan			
(9C)	Insert Name of Third Assignee	(9C)	Sumitomo Electric Industries, Ltd.			
(10C)	Insert Address of Third Assignee	(10C)	5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0041, 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				
(11)	Insert Identification such as Title, Case Number, or Foreign	(11)	CONDUCTIVE MEMBER			
	Application Number	(Attorne	y Docket No. 181781		), filed on even date herewith or as	
(12)	Alternative	(12) U.	S. Application Number 15/781	1,831		
	Identification for filed applications	filed	June 6, 2018			

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) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents

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.

#### (13) Declaration

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).

	Hideyuki KUBOKI		, f	
Date	May 22, 20/8	Inventor Signature	Hideraki KUBOKI	(SEAL)
	Hiroki HIRAI		111 / 111	
Date	May 22, 2018	Inventor Signature	Hirski Hirai	(SEAL)
	Makoto HIGASHIKOZONO		. 1 () ()	
Date	May 22, 2018	Inventor Signature	Maketo. Higashikozu	(SEAL)
	Akihisa HOSOE		V	
Date		Inventor Signature		(SEAL)
	Yoshiyuki HIROSE			
Date		Inventor Signature		(SEAL)
	Tomoharu TAKEYAMA			
Date		Inventor Signature		(SEAL)
	Elichi KOBAYASHI			
Date		Inventor Signature		(SEAL)
			in is mishing the TVS A (h) a IIS Company is contained at	alis A
neither	This assignment should preferably be signed, then it should be signed before at least two	ed before: (a) a Notary Publi witnesses who also sign here	ic if within the U.S.A. (b) a U.S. Consul if outside the:	ie O.S.A. I
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 (Three Assignees)

	Insert	(1)	Hideyuki KUBUKI	(2)	HIPOKI HIKAI		
(1-8)	Legal Name(s)	(3)	Makoto HIGASHIKOZONO	(4)	Akihisa HOSOE		
	of Inventor(s)	(5)	Yoshiyuki HIROSE	(6)	Tomoharu TAKEYAMA		
		(7)	Eiichi KOBAYASHI	(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					
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(10A)	Insert Address of First Assignee	(10A)	1-14, Nishisuchiro-cho, Yokkaichi-si	1-14, Nishisuehiro-cho, Yokkaichi-shi, Mie 510-8503, Japan			
(9B)	Insert Name of Second Assignee	(9B)	Sumitomo Wiring Systems, Ltd.	Sumitomo Wiring Systems, Ltd.			
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(9C)	Insert Name of Third Assignee	(9C)	Sumitomo Electric Industries, Ltd.				
(10C)	Insert Address of Third Assignee	(10C)	OC) 5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0041, Japan				
		the entir inventio continua	e right, title and interest for the United S n, and in all applications for patent inclu	tates of A ding any a pplicati	eirs, successors, assigns and legal representatives, merica as defined in 35 U.S.C. §100, in the and all provisional, non-provisional, divisional, on(s), and all Letters Patent, extensions, reissues invention known as		
(11) Insert Identification such as Title, Case		(11)	CONDUCTIVE MEMBER				
	Number, or Foreign Application Number	(Attorne	ey Docket No. 181781		), filed on even date herewith or as		
(12)	Alternative	(12) U	J.S. Application Number 15/781	,831			
	Identification for filed applications	filed	June 6, 2018				

- 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) 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.

#### (13) Declaration

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).

Hideyuki KUBOKI

Date		Inventor Signature	The state of the s	(SEAL)
<b>7</b> 0.4.	Hiroki HIRAI	Turney Acres Charles		(CE 4 I )
Date	Makoto HIGASHIKOZONO	Inventor Signature		(SEAL)
Date		Inventor Signature		_ (SEAL)
Date	Akihisa HOSOE  May . 17. 2018	Inventor Signature	Akihisa Hosoe	_ (SEAL)
Date	May. #7, 2018	Inventor Signature	Yoshiyaki Hinose	_ (SEAL)
Date	Tomoharu TAKEYAMA  May. 16, 2018	Inventor Signature	Tomohari Takeyama	_ (SEAL)
Date	May 18, 2018	Inventor Signature	Eilchi Kobayashi	_ (SEAL)
neither,	This assignment should preferably be signed then it should be signed before at least two v	ed before: (a) a Notary Publ vitnesses who also sign here	ic if within the U.S.A. (b) a U.S. Consul if outside e:	the U.S.A. If
Date		Witness		
Data		Witness		