505110163 09/25/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Tou CHIN	08/07/2018
Arinobu NAKAMURA	08/03/2018

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		
Internal Address:	CHUO-KU		
City:	OSAKA-SHI, OSAKA		
State/Country:	JAPAN		
Postal Code:	541-0041		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16088207	

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
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Correspondent Name: JAMES A. OLIFF
Address Line 1: OLIFF PLC

PATENT

505110163 REEL: 046961 FRAME: 0502

Address Line 2: P.O. BOX 320850
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ATTORNEY DOCKET NUMBER: 181585

NAME OF SUBMITTER: KIMBERLY SCOTT

SIGNATURE: /Kimberly C. Scott/ for James A. Oliff

DATE SIGNED: 09/25/2018

Total Attachments: 3
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PATENT REEL: 046961 FRAME: 0503

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 ou CHIN	(2)	Arinobu NAKAMUKA			
(1-8)	Legal Name(s)	(3)		(4)				
	of Inventor(s)	(5)		(6)				
		(7)		(8)				
		the unde	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 TE	ECHNOLOGIES, LTI	D.			
(10A)	Insert Address of First Assignee	(10A)	1-14, Nishisuehiro-cho,	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 Assignee	(10B)	1-14, Nishisuehiro-cho, Yokkaichi-shi, Mie 510-8503 Japan					
(9C)	Insert Name of Third Assignee		SUMITOMO ELECTR	IC INDUSTRIES, LT	D.			
(10C)	Insert Address of Third Assignee		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 representative 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, reissue and reexamination certificates that may be granted on the invention known as						
(11)	Insert Identification such as Title, Case Number, or Foreign	(11)	CIRCUIT BOARD, CIRC	UIT ASSEMBLY, A	ND CIRCUIT BOARD MANUFACTURING			
	Application Number	(Attorn	ey Docket No. 181585), filed on even date herewith or as			
		` .						
(12)	Alternative	(12) T	J.S. Application Number	16/088,207				
	Identification for filed applications	filed	September 25, 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).

Date	August 7, 2018	Inventor Signature	Tou Chin	(SEAL)
			Tou CHIN	,
Date		Inventor Signature	Arinobu NAKAMURA	(SEAL)
			Arinobu NAKAMURA	
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Data		Variation Simulation		(CCAL)
Date		inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
neither,	This assignment should preferably be s then it should be signed before at least to	signed before: (a) a Notary Pub wo witnesses who also sign he	olic if within the U.S.A. (b) a U.S. Consure:	l if outside the U.S.A. If
		•		
Date		Witness _		
.				
Date		Witness		

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

Date		Inventor Signature	Tou CHIN	_ (SEAL)
Date	August 3,2018	Inventor Signature	AMM by Na Kamura Arinobu NAKAMURA	_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
neither,	This assignment should preferably be signed then it should be signed before at least two		olic if within the U.S.A. (b) a U.S. Consul if outside re:	the U.S.A. It
Date		Witness _		
Date		Witness		