PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TATSUO HIRABAYASHI	02/16/2018
TAKASHI MISAKI	02/16/2018
SEIJI SHITAMA	02/20/2018
SHINICHIRO YAMAMOTO	02/16/2018

RECEIVING PARTY DATA

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Name:	SUMITOMO WIRING SYSTEMS, LTD.	
Street Address:	1-14 NISHISUEHIRO-CHO	
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Internal Address:	rnal Address: CHUO-KU, OSAKA-SHI	
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15910153

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REEL: 045088 FRAME: 0158

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ATTORNEY DOCKET NUMBER: 50SWSJ28802PA

NAME OF SUBMITTER: JOHN CHAU

SIGNATURE: /John Chau/

DATE SIGNED: 03/02/2018

Total Attachments: 2

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> PATENT REEL: 045088 FRAME: 0159

ASSIGNMENT

WHEREAS, we, Tatsuo Hirabayashi, Takashi Misaki, Seiji Shitama and Shinichiro Yamamoto (hereinafter referred to as Assignors), residing at 1-14 Nishisuehiro-cho, Yokkaichi, Mie, 510-8503, JAPAN; invented certain new and useful REACTOR for which we executed an application for a United States Patent and for which said application for United States Patent was filed on March 2, 2018 under

☑ Patent Application Serial No. 15/910,153

☑ Attorney Docket No.: <u>50SWSJ28802PA;</u>

WHEREAS, the ASSIGNORS hereby authorize(s) and request(s) the attorney(s) and/or agent(s) empowered to act on behalf of AutoNetworks Technologies, Ltd., Sumitomo Wiring Systems, Ltd., and Sumitomo Electric Industries, Ltd., in the aforementioned application, to insert above the filing date and application number of said application, when known;

WHEREAS, AutoNetworks Technologies, Ltd., a Limited Liability Company organized under and pursuant to the laws of Japan having its principal place of business at 1-14 Nishisuehiro-cho, Yokkaichi, Mie, 510-8503, JAPAN; Sumitomo Wiring Systems, Ltd, a Limited Liability Company organized under and pursuant to the laws of Japan having its principal place of business at 1-14 Nishisuehiro-cho, Yokkaichi, Mie, 510-8503, JAPAN and Sumitomo Electric Industries, Ltd., a Limited Liability Company organized under and pursuant to the laws of Japan having its principal place of business at 5-33 Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka, 541-0041 JAPAN, collectively hereinafter called the ASSIGNEES, is desirous of acquiring the entire right, title and interest in and to said application and the inventions therein disclosed and any Letters Patent that may issue thereon;

AND, WHEREAS, it is the intent of the ASSIGNORS to assign all rights to the above referenced application to the ASSIGNEES, including, but not limited to, all substantive rights in the above-referenced application as well as the right to claim priority, the right to be granted a patent in any and all countries and Regional Patent Offices, including, without limitation, the PCT Contracting States;

NOW, THEREFORE, for good and valuable consideration, receipt whereof is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEES, its successors and assigns, the entire right, title and interest, including the right to claim priority in and to said application, the inventions therein disclosed, and any improvements thereon, and in any and all Letters Patent that may be granted therefor in the United States and its territorial possessions and in any and all countries and Regional Patent Offices, including, without limitation, the PCT Contracting States, and in and to any and all divisions, continuations, substitutions, renewals, re-examinations, extensions and reissues thereof;

ASSIGNORS hereby authorize and request the Patent Office Officials in the United States and its territorial possessions, and in any and all countries and Regional Patent Offices, including, without limitation, the PCT Contracting States, to issue, when granted, any Letters Patent thereon, and any and all divisions, continuations, substitutions, renewals, re-examinations, extensions and reissues thereof, to said ASSIGNEES, its successors and assigns, as the assignees of the entire right title and interest in and to the same, for the sole use and behalf of the ASSIGNEES and the ASSIGNEES' successors and assigns, to the full end of the term for which the Letters Patent may be

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granted, including the term of any and all divisions, continuations, substitutions, renewals, reexaminations, extensions and reissues thereof, as fully and entirely as the same would have been held by the ASSIGNORS had this assignment not been made;

ASSIGNORS hereby authorize said ASSIGNEES, its successors and assigns, to file in its own name applications for patent in foreign countries in connection with the inventions hereby transferred, under the International Convention claiming the priority of said United States application or otherwise, and to secure in its own name the Letters Patent issued thereon, including any and all divisions, continuations, substitutions, renewals, re-examinations, extensions and reissues thereof; and

ASSIGNORS hereby agree that, upon request, ASSIGNORS will sign all papers, and make all rightful oaths, and do all acts which said ASSIGNEES, its successors or assigns, may consider necessary in connection with said United States application, and in connection with any other United States application or foreign applications that may be filed in connection with said inventions, and with any improvements thereon, and in connection with any Letters Patent issued thereon, including any and all divisions, continuations, substitutions, renewals, re-examinations, extensions and reissues thereof.

ASSIGNORS:

Date:	February 16.2018	Signature:	Tatsuo Hirobayashi Tatsuo Hirabayashi
Date:	Februay 16, 2018	Signature:	Jakashi Misaki Takashi Misaki
Date:	Fe pruary 20, 2018.	Signature:	Sejji Shitama
Date:	February 16, 2018	Signature:	Shinichiro Yamamoto

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