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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY	ΟΑΤΑ				
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KIYOKAZU NAKANE		10/20/2019			
HIROMICHI KOMAI		10/20/2019			
XIAOJIN ZHU		10/23/2019			
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HITACHI AUTOMOTIVE SYSTEMS, LTD. 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to

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(X) Serial No.PCT/JP2018/019227 Filed <u>May 18, 2018</u> in and to said United States Patent Application including any and all divisions or continuations and Convention applications based in whole or in part on said invention or upon said application, including the right to make applications for Letters Patents throughout the world in respect to the invention and to claim priority under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent of any country which may issue on any such application or for said invention, including any and all reissues, reexaminations, or extensions, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith; Each of the undersigned warrants and covenants that he/she has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he/she has not executed and will not execute any document or instrument in conflict herewith; Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he/she will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him/her relating to said invention or patent application and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect tile to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which

of this Assignment.

Lebutemo mobe date 10/29/2019

names and signatures of inventors

Yasutomo MABE Name:

Name: Kiyokazu NAKANE

date

Name: Hiromichi KOMAI

Name: Xiaojin ZHU

PATENT REEL: 050970 FRAME: 0066

date

date_

______date____ Name: Toshiyuki MASUDA ______date___

Name: Kenichiro ISHIKURA

PATENT REEL: 050970 FRAME: 0067

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Each of the undersigned hard bus Assignment not be made;
Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;
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of this Assignment.

names and signatures of inventors

date Name: Yasutomo MABE

<u>diyokayu</u> Nakane date 10/20/2019 Name: Kiyokazu NAKANE

date

Name: Xiaojin ZHU

Name: Hiromichi KOMAI

PATENT REEL: 050970 FRAME: 0068

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names and	d	ate	date	
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inventors	Hiromischi Kongú d	ate 10/20/2019	date	
	Name: Hiromichi KOMAI	Name:	Xiaojin ZHU	

PATENT REEL: 050970 FRAME: 0070 _____date____ Name: Toshiyuki MASUDA ____date___

Name: Kenichiro ISHIKURA

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names and		date		date
signatures of	Name:	Yasutomo MABE	Name:	Kiyokazu NAKANE
inventors		date		Marchin 2hu date 10/23/2019
	Name:	Hiromichi KOMAI	Name:	Xiaojin ZHU

PATENT REEL: 050970 FRAME: 0072

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Toshiyuki masula date 10/23/2019 Unichicor Ashihuku date 10/23/2019. Name: Toshiyuki MASUDA Name: Kenichiro ISHIKURA