503845957 05/27/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY DA	ATA				
		Name	Execution Date		
JAMES E. WALTERS			01/22/2013		
RONALD J. KREFTA			01/22/2013		
RECEIVING PARTY DA	ТА				
Name:	ALLISON	I TRANSMISSION, INC.			
Street Address:	ONE ALL	-ISON WAY			
City:	INDIANA	POLIS			
State/Country:	INDIANA				
Postal Code:	46222				
		Number			
PROPERTY NUMBERS Property Type Application Number:		Number 5042250			
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ASSIGNMENT

1. DEFINITIONS

1.1 ASSIGNOR means the one or more parties identified in the assignor signature section at the bottom of this assignment.

1.2 ASSIGNEE means <u>Allison Transmission. Inc.</u>, a corporation of <u>the state of Delaware</u> having a principal place of business at <u>4700 West 10th Street. Indianapolis. IN 46222</u> as well as its successors and/or assigns.

1.3 PATENT APPLICATION means International Patent Cooperation Treaty (PCT) or United States Patent Application Number 61/691,482 which was filed on August 21, 2012, with the title of <u>SYSTEM AND METHOD FOR ERROR</u> <u>CORRECTION IN ANGULAR POSITION SENSORS</u>.

1.4 INVENTION means concepts, ideas, discoveries, solutions to problems, improvements, processes, machines, articles of manufacture, and/or anything else which is disclosed, claimed, illustrated, and/or otherwise described in the PATENT APPLICATION and/or any invention disclosure material associated with the PATENT APPLICATION.

1.5 RELATED PATENT CASES includes, and is not limited to, any and all patent applications, patents, and/or patent proceedings:

a. disclosing, illustrating, claiming, and/or otherwise describing the INVENTION, such as (but not limited to) statutory invention registrations, petty, provisional, non-provisional, utility, plant, design, and/or international applications;

b. claiming directly or indirectly priority to and/or from the PATENT APPLICATION, under domestic laws, the Paris Convention, PCT, and/or otherwise, such as (but not limited to) divisional, continuation, continuation-in-part, substitute, international, national phase, and/or regional phase applications; and/or

c. subject to, part of, resulting from, and/or otherwise associated with any and all pre-grant, post grant, and/or other patent related proceedings either directly or indirectly related to the INVENTION and/or the PATENT APPLICATION, such as (but not limited to) opposition, protest, relssue, extensions, reexamination, interference, and/or cancellation proceedings.

1.6 RELATED INTELLECTUAL PROPERTY includes, but is not limited to, copyrights, trademarks, service marks, trade dress, good will, trade secrets, mask works, and know-how developed and/or related to the INVENTION, PATENT APPLICATION, and/or RELATED PATENT CASES.

1.7 TRANSFERRED RIGHTS includes, but is not limited to, any and all rights, title, and/or interests assigned or otherwise transferred in this assignment.

1.8 GEOGRAPHIC SCOPE means worldwide including, but not limited to, member nations of the PCT and non-member nations of the PCT as well as their territories.

1.9 EFFECTIVE DATE means the earlier of the conception date of the INVENTION, the filing date of the PATENT APPLICATION, the filing date of the RELATED PATENT CASES, and/or the date of this assignment is first signed by at least one of the parties.

2. ASSIGNMENT OF RIGHTS

2.1 <u>Consideration</u>. The ASSIGNOR hereby acknowledges receipt of good, valuable, and sufficient consideration from the ASSIGNEE for this assignment.

2.2 <u>Intellectual Property.</u> The ASSIGNOR hereby assigns to the ASSIGNEE all rights, title, and interest in and/or to the INVENTION, PATENT APPLICATION, RELATED PATENT CASES, and RELATED INTELLECTUAL PROPERTY.

2.3 <u>Future Improvements</u>, The ASSIGNOR hereby assigns, and agrees this assignment hereby automatically assigns in the future, to the ASSIGNEE all right, title, and interest in future improvements in and/or to the INVENTION, PATENT APPLICATION, RELATED PATENT CASES, and RELATED INTELLECTUAL PROPERTY.

2.4 <u>Right to Claim Priority</u>. The ASSIGNOR hereby assigns to the ASSIGNEE all right, title, and interest to claim priority to and/or from the PATENT APPLICATION and the RELATED PATENT CASES.

2.5 Infringement and Misappropriation. The ASSIGNOR hereby assigns to the ASSIGNEE all past, present and future causes of action for infringement and/or misappropriation of the INVENTION, PATENT APPLICATION, RELATED PATENT CASES and/or RELATED INTELLECTUAL PROPERTY, whether the infringement and/or misappropriation is committed and/or the cause of action comes into existence before, during, or after the EFFECTIVE DATE.

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2.6 <u>Remedies.</u> The ASSIGNOR hereby assigns to the ASSIGNEE all past, present and future remedies for infringement and/or misappropriation, including damages, royalties, and profits.

2.7 <u>Scope.</u> All assignments and/or other transfers of rights and/or title, both legal and equitable, made herein are to the full extent of the GEOGRAPHIC SCOPE such that no right, title, and interest remain with the ASSIGNOR.

3. FUTURE PERFORMANCE

3.1 <u>Communicate Information</u>. The ASSIGNOR hereby agrees to and will communicate all facts and/or information known to the ASSIGNOR with respect to the TRANSFERRED RIGHTS to the ASSIGNEE and/or its legal representatives.

3.2 <u>Sign Documents.</u> The ASSIGNOR hereby agrees to and will sign and return any and all documents that ASSIGNEE desired to be signed that are directly or indirectly related to the TRANSFERRED RIGHTS. These documents can include, but are not limited to, assignments, oaths, declarations, affidavits, and powers of attorney.

3.3 Legal Proceedings. The ASSIGNOR hereby agrees to and will truthfully testify and/or participate in any legal and/or quasi-legal proceedings regarding any facts and/or information known to the ASSIGNOR related to the TRANSFERRED RIGHTS at the request of the ASSIGNEE and/or its legal representatives

3.4 <u>Generally Protect Assignce's Rights.</u> The ASSIGNOR hereby agrees to and will do everything reasonable to help in securing, maintaining, and/or enforcing rights to the TRANSFERRED RIGHTS for the ASSIGNEE.

3.5 <u>No Additional Consideration Required</u>. The ASSIGNOR agrees to and will perform the acts mentioned herein without the requirement of any additional consideration.

4. ATTORNEY CLIENT PRIVILEGE

4.1 <u>Assignment of Attorney-Client Privilege</u>. The ASSIGNOR hereby assigns to the ASSIGNEE all past, present and future rights and privileges related to any attorney-client privilege and/or work product of the ASSIGNOR in relation to the TRANSFERRED RIGHTS.

4.2 <u>Prevent Waiver of Attorney Client Privilege.</u> The ASSIGNOR hereby agrees to not engage in any acts resulting in the intentional or unintentional waiver of the attorney client privilege, work product, and/or common interest without the express written authorization from the ASSIGNEE and/or its legal representatives.

4.3 <u>Partial Waiver of Attorney-Client Privilege.</u> The ASSIGNOR hereby agrees that any partial waiver of the attorneyclient privilege and/or work product of the ASSIGNOR does not constitute total waiver.

5. COVENANTS AND WARRANTIES

5.1 <u>Authority to Convey</u>. The ASSIGNOR hereby covenants and warrants that the ASSIGNOR has the full right and authority to convey the TRANSFERRED RIGHTS assigned by this assignment.

5.2 <u>No Conflicts</u>. The ASSIGNOR hereby covenants and warrants that the ASSIGNOR has not executed and will not execute any documents and/or perform any acts conflicting with this assignment.

6. MISCELLANEOUS

6.1 <u>Insert Application Number and Filing Date.</u> If blank in part 1.3 of this assignment, the ASSIGNOR and ASSIGNEE hereby authorize and request the firm of Woodard, Emhardt, Moriarty, McNett & Henry LLP, its successor in interest, or designee to insert the application number and/or filing date in part 1.3 of this assignment once known.

6.2 <u>Issue Patent to Assignce</u>. The ASSIGNOR hereby authorizes and requests that any and all patents based on the PATENT APPLICATION and/or RELATED PATENT CASES issue to the ASSIGNEE, its successors in interest, its assigns, and/or its legal representatives.

6.3 <u>Severability.</u> If any provision of this assignment is ruled invalid and/or unenforceable by a court, such decision shall not affect the validity and/or enforceability of the remaining provisions this assignment.

6.4 <u>Choice of Law.</u> This assignment shall be interpreted and controlled by the laws of the United States, and in particular in accordance with the laws of the State of Indiana, without reference to the conflict of law principles thereof. It is further understood that Assigner consents to the courts of Indiana in connection with any dispute arising under the assignment.

6.5 Effective Date. This assignment is hereby made effective as of the EFFECTIVE DATE.

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Attorney Docket No. 009199-000071

PATENT REEL: 038734 FRAME: 0357

Notary Public (Signature) (Printed Name) Ronald J. Krefta Hesident of HORK 1162 Mill Ran Drive Notarial Signature Noblesville, Indiana 46062 Assignor Signature Assignor Signature Assignor Date Notarial Stamp/Seal SUBSCRIBED and SWORN to before me by Ronald J. Krofta this 2.2 day of Jawary		ASSIGNOR(S) SIGNATURE(S)	
Notarial Stamp/Seal SUBSCRIBED and SWORN to before me by James E. Walters this 22 day of James	159 Red Oak Lane Carmel, Indiana 46033	Aurorate State	1/22/2013
this 22 day of Janvary 201° in the county of Hower How	Assignor S	ägnature	Assignor Date
in the State of INDANA Notary Public (Signature) Resident of IDDACH County My Commission Expires (4:8718 Resident of IDDACH County OF My Cou	Notarial Stamp/Seal	SUBSCRIBED and SWORN to before me by Jame	s E. Walters
Notary Public (Signature) Notary Public (Signature) Notary Public (Signature) Notarial Stamp/Seal Notarial Sta		this 22 day of Janvary 2013	, in the county of How ARD
Notary Public (Signature) (Printed Name) Ronald J. Krefta 10244 1162 Mill Run Drive My Cammission Expires (9: E) 1 E Notarial Stamp/Seal 22 J qn 20/3 SUBSCRIBED and SWORN to before me by Ronald J. Krefta this 2.2 day of Jamary 2013 in the county of Hautral in the State of Jack Notary Public (Signature)		in the State of INDANA	
Ronald J. Krefta 1162 Mill Run Drive Nobiesville, Indiana 46062 Assignor Signature Notarial Stamp/Seal Notarial Stamp/Seal Notari			PEASS DOLL
1162 Mill Run Drive Noblesville, Indiana 46062 Assignor Signature 22 J qn 2013 Assignor Signature Assignor Date Provide Stamp/Seal SUBSCRIBED and SWORN to before me by Ronald J. Krofta this 2.2 day of January 2013 in the county of Howard in the State of Tardiana Depice Date Notary Public (Signature) Printed Hame)		Besident of PACACon	aty My Commission Expires <u> / ETTE</u>
r Notarial Stamp/Seal SUBSCRIBED and SWORN to before me by <u>Ronald J. Krefta</u> this <u>2.7</u> day of <u>January</u> , 2013, in the county of <u>Howard</u> in the State of <u>January</u> , 2013, in the county of <u>Howard</u> in the State of <u>January</u> , 2013, in the county of <u>Howard</u> Notary Public (Signature)	1162 Mill Run Drive Noblesville, Indiana 46962	Il laba	22 Jan 2013
this 2'2 day of January, 2013, in the country of Howard in the State of Jackar Depice Define Defield (Printed Hame)	Assignor S	ignature	Assignor Bate
in the State of <u>Tadiana</u> <u>Depute</u> Date <u>Depise</u> Defined Name) Natary Public (Signature) (Printed Name)	Notarial Stamp/Seal-	SUBSCRIBED and SWORN to before me by Rong	ld J. Krefta
Notary Public (Signature)		this 22 day of January , 2013	, in the county of Haward
Natary Public (Signature) (Printed Plane)		in the State of Indiana	<u></u> :
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	1. · · · ·	Resident of TIDAC	nty My Commission Expires <u>6-8-18</u>



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Assignee:

Assignee hereby accepts the sale, transfer, and assignment of the TRANSFERRED RIGHTS.

La Casa	~
Assignee Signature	
Printed Name: ERic C. Scroggias	
Title: VP and General Coun	
Company: Allison Transmission, Inc.	······
Date: // Hay of January	
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)	
(): SS	

STATE OF INDIANA

COUNTY OF Mas Lon

Before me, a Notary Public, in and for the County and State, personally appeared the above-named Assignee, who executed the foregoing Assignment in my presence and acknowledged the execution thereof as their free and voluntary act and deed for the uses and purposes therein set forth and expressed.

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HER CONTRACT OF THE CONTRACT O

Signature (Notary Public): A herry Lyna Lug	quette
Printed Name: Sherey Lynn Lupine HI	:
Date: 1/ The day of January , 20/213	
Resident of Ochash Cou	nty
My Commission Expires: $09-21-2017$	

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Attorney Docket No. 009199-000071

PATENT REEL: 038734 FRAME: 0359

RECORDED: 05/27/2016