505790753 11/25/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5837581

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRYAN CATTLE	11/22/2019
JASMIN A. MAHAL	11/21/2019
JEREMY JOHNSTON	11/21/2019

RECEIVING PARTY DATA

Name:	KMB TELEMATICS, INC.	
Street Address:	1001 19TH ST N, STE 1200	
City:	ARLINGTON	
State/Country:	VIRGINIA	
Postal Code:	22209	

PROPERTY NUMBERS Total: 2

Property Type	Number	
Application Number:	16688282	
PCT Number:	US2019062424	

CORRESPONDENCE DATA

Fax Number:

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.

Email: LAHO@POLSINELLI.COM

Correspondent Name: POLSINELLI

Address Line 1:1661 PAGE MILL ROAD SUITE AAddress Line 4:PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	100467-636652
NAME OF SUBMITTER:	LINDSAY AHO
SIGNATURE:	/LINDSAY AHO/
DATE SIGNED:	11/25/2019

Total Attachments: 6

source=Fully Executed Assignments#page1.tif source=Fully Executed Assignments#page2.tif source=Fully Executed Assignments#page3.tif source=Fully Executed Assignments#page4.tif

PATENT 505790753 REEL: 051105 FRAME: 0471

source=Fully Executed Assignments#page5.tif source=Fully Executed Assignments#page6.tif

(Patent Application)

We, the undersigned, have invented certain inventions and improvements disclosed in a utility (provisional or non-provisional) or design patent application entitled

"OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS,"

the specification of which is provided with this Assignment and identified by the Attorney Docket No. above. (Serial No. 16/688,282 filed on November 19, 2019)

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

- 1. Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to KMB Telematics, Inc., a corporation having a principal place of business at 1001 19th St N, Ste 1200, Arlington, VA 22209("Assignee"), the entire right, title, and interest in and to:
 - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - (b) the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
 - (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and

71271600.1

OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS Attorney Docket No. 100467-636653

Page 2 of 2

- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
- 5. Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- 6. Authorize Polsinelli to insert above the application number and filing date of the above-described patent application when known.

Signed on the dates indicated beside our signatures.

Signature	Byan Cattle	Date: <u>11/22/2019</u>
	Bryan Cattle	
Signature: _	Jasmin A. Mahal	Date:
Signature: _	Jeremy Johnston	Date:

(Patent Application)

We, the undersigned, have invented certain inventions and improvements disclosed in a utility (provisional or non-provisional) or design patent application entitled

"OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS,"

the specification of which is provided with this Assignment and identified by the Attorney Docket No. above. (Scrial No. 16/688,282 filed on November 19, 2019)

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

- Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to KMB Telematics, Inc., a corporation having a principal place of business at 1001 19th St N. Ste 1200, Arlington, VA 22209("Assignee"), the entire right, title, and interest in and to:
 - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - (b) the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
 - (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-gram reviews, interpartes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and

31271600.1

ASSIGNMENT
OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE
WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS
Attorney Docket No. 100467-636653
Page 2 of 2

- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
- Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- Authorize Polsinelli to insert above the application number and filing date of the above-described patent application when known.

Signed on the dates indicated beside our signatures.

Signature: _	Bryan Cartle		Date:
*			
Signature:	Jamin A	hidal	Date: 11/21/19
	Jasmin A. Mahal		
Signature:			Date:
	Jeremy Johnston	:	

73271600.1

(Patent Application)

We, the undersigned, have invented certain inventions and improvements disclosed in a utility (provisional or non-provisional) or design patent application entitled

"OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS,"

the specification of which is provided with this Assignment and identified by the Attorney Docket No. above. (Serial No. 16/688,282 filed on November 19, 2019)

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

- 1. Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to KMB Telematics, Inc., a corporation having a principal place of business at 1001 19th St N, Ste 1200, Arlington, VA 22209("Assignee"), the entire right, title, and interest in and to:
 - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - (b) the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
 - (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and

71271600.1

OBJECT SENSING FROM A POTENTIALLY MOVING FRAME OF REFERENCE WITH VIRTUAL APERTURES FORMED FROM SPARSE ANTENNA ARRAYS Attorney Docket No. 100467-636653

Page 2 of 2

- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
- 5. Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- 6. Authorize Polsinelli to insert above the application number and filing date of the above-described patent application when known.

Signed on the dates indicated beside our signatures.

71271600.1