504116038 11/30/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4162708

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOSHUA C. PARK	11/02/2015
PAUL MCFARTHING	11/02/2015
JIAN CUI	11/02/2015
CUNEYT DEMIRDAG	11/05/2015
GLEN WOLVERTON	11/30/2016
DEVANG TOPIWALA	11/30/2016

RECEIVING PARTY DATA

Name:	PHASORLAB, INC.
Street Address:	43 BRIDLE ROAD
City:	BILLERICA
State/Country:	MASSACHUSETTS
Postal Code:	01821

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15295349

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.

Phone: 603-589-9937 X268
Email: ip.inbox@phasorlab.com
Correspondent Name: PHASORLAB, INC.
Address Line 1: 43 BRIDLE ROAD

Address Line 4: BILLERICA, MASSACHUSETTS 01821

ATTORNEY DOCKET NUMBER:	JCP-71057US01
NAME OF SUBMITTER:	BIJAN RAZZAGHI
SIGNATURE:	/bijan razzaghi/
DATE SIGNED:	11/30/2016

Total Attachments: 4

PATENT REEL: 040466 FRAME: 0128

504116038

source=JCP-71057US00 Assignment#page1.tif source=JCP-71057US00 Assignment#page2.tif source=JCP-71057US01-Assignment-2#page1.tif source=JCP-71057US01-Assignment-2#page2.tif

ASSIGNMENT

(Patent Application)

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

"HIGH-PRECISION BLIND CARRIER SYNCHRONIZATION METHODS FOR LTE SC-FDMA UPLINK,"

specified in the documents filed under U.S. App. No. 62/242,063 on October 15, 2015, as well as any documents filed claiming priority thereto, including U.S. Pat. App. No. 15/295,349 on October 17, 2016.

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

- 1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to PhasorLab, Inc., a corporation, having a principal place of business at 43 Bridle Road, Billerica, MA, 01821 ("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, national phase, in any country;
 - 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, supplemental examinations and national phase, in any country) 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
 - 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/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.

Signed on the dates indicated beside our/my signature.

PhasorLab, Inc.

President

Signature:

Name:

Title:

6. Authorize Assignee to insert above the application number and filing date of any of the above-described patent applications when known.

Signature: Joshua C. Park

Signature: Joshua C. Park

Signature: Date: 11/2/15

Paul McFarthing

Signature: Jian Cui

Signature: Date: 11/5/15

Cuneyt Demirdag

ASSIGNMENT

(Patent Application)

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

"HIGH-PRECISION BLIND CARRIER SYNCHRONIZATION METHODS FOR LTE SC-FDMA UPLINK,"

specified in the documents filed under U.S. Pat. App. No. 15/295,349 on October 17, 2016.

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

- 1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to PhasorLab, Inc., a corporation, having a principal place of business at 43 Bridle Road, Billerica, MA, 01821 ("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, national phase, in any country;
 - 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, supplemental examinations and national phase, in any country) 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
 - 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/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- 6. Authorize Assignee to insert above the application number and filing date of any of the above-described patent applications when known.

Signed on the dates indicated beside our/my signature.

Signature:

Glen Wolverton

Devang Topiwala

Signature:

RECORDED: 11/30/2016

Date:

11/30/1