

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT2981888

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RAGHUNATH KALAVAI	08/14/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	IKANOS COMMUNICATIONS, INC.
<b>Street Address:</b>	47669 FREMONT BOULEVARD
<b>City:</b>	FREMONT
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94538
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14341538
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)233-4545
<i>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.</i>	
<b>Phone:</b>	650.233.4777
<b>Email:</b>	ariana.sanchez@pillsburylaw.com
<b>Correspondent Name:</b>	MARK J. DANIELSON
<b>Address Line 1:</b>	PILLSBURY WINTHROP SHAW PITTMAN LLP
<b>Address Line 2:</b>	2550 HANOVER STREET
<b>Address Line 4:</b>	PALO ALTO, CALIFORNIA 94304
<b>ATTORNEY DOCKET NUMBER:</b>	079142-0433182
<b>NAME OF SUBMITTER:</b>	MARK J. DANIELSON
<b>SIGNATURE:</b>	/Mark J. Danielson/
<b>DATE SIGNED:</b>	08/14/2014
<b>Total Attachments: 2</b>	
source=079142-0433182 Assignment#page1.tif	
source=079142-0433182 Assignment#page2.tif	

**ASSIGNMENT OF INVENTION**

For good and valuable consideration, the receipt of which is hereby acknowledged,

**ASSIGNOR:**

**Raghunath KALAVAI**

hereby sells, assigns and transfers to

**ASSIGNEE:**

**IKANOS COMMUNICATIONS, INC.**  
47669 Fremont Boulevard  
Fremont, California 94538

State of Incorporation: Delaware

and the successors, assigns and legal representatives of the ASSIGNEE, the full and exclusive right, title and interest, in the United States and all foreign countries, to each invention as described in the application entitled:

**METHOD AND APPARATUS FOR DETECTING AND LOCATING LOOP  
IMPAIRMENTS**

which application was filed in the U.S. Patent Office on **July 25, 2014** as U.S. Application No. **14/341,538**, and in and to said application and all U.S. and foreign Letters Patent to be obtained for said invention by the above application and to all U.S., international and foreign applications based thereon or counterparts thereof including any and all continuations, divisions, reissues and substitutes thereof, together with the right of priority under the Patent Cooperation Treaty, the Paris Convention and any other international agreements to which the United States of America adheres.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNOR further covenants and agrees that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said

Attorney Docket No. 079142-0433182  
Client Reference No. 13IK03-US

**PATENT**

application, said invention and said Letters Patent and said U.S. and foreign equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date:

8/14/14

Raghu Kalavai

Signature of Raghunath KALAVAI