#### 502539413 10/21/2013

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2584832

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
SIGURD SCHELSTRAETE	10/09/2013
QASEM ALDRUBI	10/08/2013
HOSSEIN DEHGHAN-FARD	10/17/2013

### **RECEIVING PARTY DATA**

Name:	IKANOS COMMUNICATIONS, INC.
Street Address:	47669 FREMONT BOULEVARD
City:	FREMONT
State/Country:	CALIFORNIA
Postal Code:	94538

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13705131

### **CORRESPONDENCE DATA**

Fax Number: (650)233-4545 650.233.4777 Phone:

Email: ariana.sanchez@pillsburylaw.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

MARK J. DANIELSON Correspondent Name:

Address Line 1: PILLSBURY WINTHROP SHAW PITTMAN LLP

Address Line 2: 2550 HANOVER STREET

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	079142-0419553
NAME OF SUBMITTER:	MARK J. DANIELSON
Signature:	/Mark J. Danielson/
	PATENT

REEL: 031443 FRAME: 0912

Date:	10/21/2013
Total Attachments: 6 source=079142-0419553 Assignment#page source=079142-0419553 Assignment#page source=079142-0419553 Assignment#page source=079142-0419553 Assignment#page source=079142-0419553 Assignment#page source=079142-0419553 Assignment#page	2.tif 3.tif 4.tif 5.tif

PATENT REEL: 031443 FRAME: 0913

#### ASSIGNMENT OF INVENTION

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

**ASSIGNOR:** 

Sigurd SCHELSTRAETE

Qasem ALDRUBI

Hossein DEHGHAN-FARD

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 OPTIMIZING DYNAMIC RANGE IN DMT MODEMS

which application was filed in the U.S. Patent Office on **December 4, 2012** as U.S. Application No. **13/705,131**, 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 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.

Page 1 of 2

Assignment of Invention for Serial No. 13/705,131

#704147863v1

Attorney Docket No. 079142-0419553
Client Reference No. VELCP092-C

Date: 10/9/2013

Signature of Sigurd SCHELSTRAETE

Signature of Qasem ALDRUBI

**PATENT** 

Date: Signature of Hossein DEHGHAN-FARD

Date:

#### ASSIGNMENT OF INVENTION

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

ASSIGNOR:

Sigurd SCHELSTRAETE

**Qasem ALDRUBI** 

**Hossein DEHGHAN-FARD** 

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 OPTIMIZING DYNAMIC RANGE IN DMT MODEMS

which application was filed in the U.S. Patent Office on **December 4, 2012** as U.S. Application No. **13/705,131**, 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 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:		Signature of Sigurd SCHELSTRAETE
Date:	10/8/13	Signature of Qasem ALDRUBI
Date:		Signature of Hossein DEHGHAN-FARD

#### ASSIGNMENT OF INVENTION

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

**ASSIGNOR:** 

Sigurd SCHELSTRAETE

**Qasem ALDRUBI** 

Hossein DEHGHAN-FARD

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 OPTIMIZING DYNAMIC RANGE IN DMT MODEMS

which application was filed in the U.S. Patent Office on **December 4, 2012** as U.S. Application No. **13/705,131**, 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 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:	·	
•		Signature of Sigurd SCHELSTRAETE
~		
Date:	,	Signature of Qasem ALDRUBI
		Signature of Qasem ALDRODI
	10111/2012	
Date:	10/17/2013	2702
		Signature of Hossein DEHGHAN-FARD

**RECORDED: 10/21/2013**