

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Amendment No. 1 to Security Agreement filed 08/29/2008 at REEL 21462 FRAME 0012
CONVEYING PARTY DATA	
Name	Execution Date
CALIX NETWORKS, INC.	08/21/2009
RECEIVING PARTY DATA	
Name:	SILICON VALLEY BANK
Street Address:	185 BERRY STREET, SUITE 3000
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94107
PROPERTY NUMBERS Total: 8	
Property Type	Number
Patent Number:	RE37125
Application Number:	10292387
Application Number:	12121283
Application Number:	61234517
Application Number:	12512245
Application Number:	12512223
Application Number:	12407492
Application Number:	12327504
CORRESPONDENCE DATA	
Fax Number:	(866)826-5420
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	301-638-0511
Email:	ipresearchplus@comcast.net
Correspondent Name:	IP Research Plus, Inc.
Address Line 1:	21 Tadcaster Circle

OP \$320.00 RE37125

500949146

PATENT
REEL: 023163 FRAME: 0253

Address Line 2: attn: Penelope J.A. Agodoa
Address Line 4: Waldorf, MARYLAND 20602

ATTORNEY DOCKET NUMBER:	34794
-------------------------	-------

NAME OF SUBMITTER:	Penelope J.A. Agodoa
--------------------	----------------------

Total Attachments: 22
source=34794#page1.tif
source=34794#page2.tif
source=34794#page3.tif
source=34794#page4.tif
source=34794#page5.tif
source=34794#page6.tif
source=34794#page7.tif
source=34794#page8.tif
source=34794#page9.tif
source=34794#page10.tif
source=34794#page11.tif
source=34794#page12.tif
source=34794#page13.tif
source=34794#page14.tif
source=34794#page15.tif
source=34794#page16.tif
source=34794#page17.tif
source=34794#page18.tif
source=34794#page19.tif
source=34794#page20.tif
source=34794#page21.tif
source=34794#page22.tif

TO:KIMBERLEY LATHROP C/O BINGHAM MCCUTCHEN COMPANY:355 SOUTH GRAND AVENUE

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.108/29/2008
500634532

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
CALIX NETWORKS, INC.	08/29/2008

RECEIVING PARTY DATA

Name:	SILICON VALLEY BANK
Street Address:	185 BERRY STREET
Internal Address:	SUITE 3000
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94107

PROPERTY NUMBERS Total: 50

Property Type	Number
Application Number:	11957992
Patent Number:	RE03712
Patent Number:	7318096
Patent Number:	7187672
Patent Number:	7068672
Patent Number:	7058011
Patent Number:	7035294
Patent Number:	7020157
Patent Number:	7006497
Patent Number:	6980725
Patent Number:	6954811
Patent Number:	6952395
Patent Number:	6798784
Patent Number:	6793521

CH \$2000.00 11957992

TO:KIMBERLEY LATHROP C/O BINGHAM MCCUTCHEN COMPANY:355 SOUTH GRAND AVENUE

Application Number:	12121243
---------------------	----------

CORRESPONDENCE DATA

Fax Number: (213)830-8743

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

Phone: 213-680-6400

Email: kimberley.lathrop@bingham.com

Correspondent Name: Kimberley Lathrop c/o Bingham McCutchen

Address Line 1: 355 South Grand Avenue

Address Line 2: Suite 4400

Address Line 4: LOS ANGELES, CALIFORNIA 90071

ATTORNEY DOCKET NUMBER:	2073414.334283
-------------------------	----------------

NAME OF SUBMITTER:	Kimberley A. Lathrop
--------------------	----------------------

Total Attachments: 9

source=Patent Security Agreement#page1.tif

source=Patent Security Agreement#page2.tif

source=Patent Security Agreement#page3.tif

source=Patent Security Agreement#page4.tif

source=Patent Security Agreement#page5.tif

source=Patent Security Agreement#page6.tif

source=Patent Security Agreement#page7.tif

source=Patent Security Agreement#page8.tif

source=Patent Security Agreement#page9.tif

**AMENDMENT NO. 1
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

This Amendment No. 1 to Intellectual Property Security Agreement (this "**Amendment**") is entered into as of August 21, 2009, by and between SILICON VALLEY BANK ("**Bank**") and CALIX NETWORKS, INC., a Delaware corporation ("**Grantor**"). Capitalized terms used but not otherwise defined herein having the respective meanings ascribed to them in the Intellectual Property Security Agreement or the Loan Agreement (each, as defined below), as applicable.

RECITALS

WHEREAS, Grantor and Bank are parties to that certain Intellectual Property Security Agreement, dated as of August 29, 2008 (the "**Intellectual Property Security Agreement**"), entered into in connection with that certain Loan and Security Agreement, dated as of August 29, 2008 (as the same may be amended, modified or supplemented from time to time, the "**Loan Agreement**"), by and between Grantor and Bank, and pursuant to which, Grantor granted in favor of Bank a security interest in the Intellectual Property Collateral;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, the parties hereto hereby agree as follows:

1 **Amendment to Intellectual Property Security Agreement.** Exhibit B to the Intellectual Property Security Agreement is hereby supplemented by adding the patents listed on Exhibit B hereto.

2 **Effect of Amendment.** The Intellectual Property Security Agreement, as amended hereby, is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed.

3 **Representations.** Grantor represents and warrants to Bank that the Intellectual Property Security Agreement, as amended hereby, constitutes a valid, binding and enforceable obligation of Grantor, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and by general equitable principles (whether enforcement is sought by proceedings in equity or at law).

4 **Entire Agreement.** This Amendment and the Intellectual Property Security Agreement, as amended by this Amendment, constitute the entire agreement and understanding between the parties to this Amendment and supersede any and all prior agreements and understandings relating to the subject matter of this Amendment.

5 **Applicable Law.** THIS AMENDMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA.

6 **Counterparts.** This Amendment may be executed by one or more of the parties to this Amendment on any number of separate counterparts (including by telecopy), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have cause this Amendment to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

1035 N. McDowell Blvd.
Petaluma, CA 94954
Attn: Kelyn Brannon-Ahn

CALIX NETWORKS, INC.



By: _____
Name: Kelyn Brannon-Ahn
Title: Executive Vice President
and Chief Financial Officer

BANK:

Address of Bank:

185 Berry Street, Suite 3000
San Francisco, CA 94107
Attn: Rick Freeman

SILICON VALLEY BANK

By: _____
Name: _____
Title: _____

IN WITNESS WHEREOF, the parties have cause this Amendment to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

CALIX NETWORKS, INC.

1035 N. McDowell Blvd.
Petaluma, CA 94954
Attn: Kelyn Brannon-Ahn

By: _____
Name: _____
Title: _____

BANK:

Address of Bank:

SILICON VALLEY BANK

185 Berry Street, Suite 3000
San Francisco, CA 94107
Attn: Rick Freeman


By: 
Name: ROBERT HANDBERG
Title: MANAGING DIRECTOR

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
UNIVERSAL DEMARCATION POINT	RE037125	04/03/01
DISTRIBUTION OF DATA FLOWS TO LOCAL LOOP SUBSCRIBERS BY AN ACCESS MULTIPLEXER	10/292387	11/11/02
OPTICAL NETWORK INTERFACE DEVICES & METHODS	12/121283	05/15/08
JOINING MULTIPLE SPANNING TREE NETWORKS ACROSS RING NETWORK	61234517	08/17/2009
SECURE DHCP PROCESSING FOR LAYER TWO ACCESS NETWORKS	12/512245	07/30/2009
AUTOMATIC CONTROL NODE SELECTION IN RING NETWORKS	12/512223	07/30/2009
ONT BASED MICRONODE MANAGEMENT	12/407492	3/19/2009
AUTOMATICALLY SELECTING A CLOCK RECOVERY MODE WITHIN OPTICAL NETWORK TERMINALS	12/327504	12/03/2008

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is entered into as of August 29, 2008 by and between SILICON VALLEY BANK ("Bank") and CALIX NETWORKS, INC., a Delaware corporation ("Grantor").

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodation to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor dated the date hereof (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in certain copyrights, trademarks, patents, and mask works to secure the obligations of Grantor under the Loan Agreement. Capitalized terms used herein but not defined herein shall have the definitions given thereto in the Loan Agreement.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Loan Agreement, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its copyrights, patents, trademarks and mask works, including without limitation those copyrights, patents, trademarks and mask works listed on Schedules A, B, C, and D hereto, respectively (the "Intellectual Property Collateral"), and including without limitation all proceeds of the Intellectual Property Collateral (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding to the Intellectual Property Collateral throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part with respect to the Intellectual Property Collateral.

This security interest is granted to Bank pursuant to the Loan Agreement. This Agreement is an IP Agreement as defined in the Loan Agreement and as required to be delivered pursuant to the Loan Agreement. The rights and remedies of Bank with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Bank as a matter of law or equity. Each right, power and remedy of Bank provided for herein or in the Loan Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Bank of any one or more of the rights, powers or remedies provided for in this Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Bank, of any or all other rights, powers or remedies.

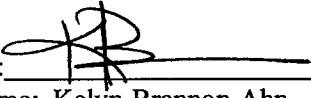
IN WITNESS WHEREOF, the parties have cause this Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

CALIX NETWORKS, INC.

1035 N. McDowell Blvd.
Petaluma, CA 94954
Attn: Kelyn Brannon-Ahn

By: 
Name: Kelyn-Brannon-Ahn
Title: Executive Vice President, Chief
Financial Officer, and Secretary

Address of Bank:

185 Berry Street, Suite 3000
San Francisco, CA 94107
Attn: Rick Freeman

BANK:

SILICON VALLEY BANK

By: Rick Freeman

Title: Relationship Manager

EXHIBIT A

Copyrights

None.

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
NETWORK ADDRESS ASSOCIATION RECOVERY	20080101793 11/957992	05/01/2008
UNIVERSAL DEMARCATION POINT	RE037125	04/03/01
METHODS, DEVICES AND COMPUTER-READABLE STORAGE MEDIA FOR PASSIVE OPTICAL NETWORK ADDRESS ASSOCIATION RECOVERY	7318096	01/08/08
CONNECTION REARRANGEMENT IN COMMUNICATION SWITCHES	7187672	03/06/07
ASYNCHRONOUS RECEIVE AND TRANSMIT PACKET CROSSPOINT	7068672	06/27/06
N TO ONE AND ONE TO ONE EQUIPMENT PROTECTION SWITCHING	7058011	06/06/06
BACKPLANE BUS	7035294	04/25/06
NETWORK ADDRESS AND ASSIGNMENT IN A PASSIVE OPTICAL NETWORK	7020157	03/28/06
TRAFFIC MERGING SYSTEM	7006497	02/28/06
SPACE REUSE DURING TECHNOLOGY UPGRADE IN A PROTECTION AREA OF AN OUTDOOR ENCLOSURE	6980725	12/27/05
ARBITER FOR AN INPUT BUFFERED COMMUNICATION SWITCH	6954811	10/11/05
OPTICAL NETWORK RESTORATION	6952395	10/04/05
CONCURRENT SWITCHING OF SYNCHRONOUS AND ASYNCHRONOUS TRAFFIC	6798784	09/28/07
ANGLED CONNECTOR	6793521	09/21/04
HEAT SINK WITH CUTOUT	6728103	04/27/04
FACEPLATE WITH INTEGRATED LIGHT-PIPE	6692132	02/17/04
FIBER GUIDE CONNECTED TO HEATSINK FASTENER	6661663	12/09/03

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
DIGITAL-TO-ANALOG CONVERTER WITH TEMPERATURE COMPENSATION	6593864	07/15/03
BEVERAGE HOLDER TRAY ON OUTDOOR ENCLOSURE	6568133	05/27/03
ELECTRICAL POWER DISTRIBUTION SYSTEM	6522828	02/18/03
UNIVERSAL DEMARCATION POINT	5572348	11/05/96
COMMUNICATION BETWEEN NETWORK INTERFACE DEVICE AND SUBSCRIBER DEVICES VIA POWER SUPPLY LINES	20070195823 11/706842	08/23/07
NETWORK INTERFACE DEVICE COMMUNICATION VIA POWER LINE	20060192434 11/313222	08/31/06
OPTICAL NETWORK TERMINAL WITH WIDE INPUT RANGE POWER CONVERTER	20060188266 11/313234	08/24/06
POWER SUPPLY HOUSING FOR NETWORK INTERFACE DEVICE	20060188090 11/313240	08/24/06
BACKPLANE BUS	20060182144 11/404236	08/17/06
ELECTRICALLY SHARED PASSIVE OPTICAL NETWORK	20060171714 11/050375	08/03/06
PLUGGABLE OPTICAL DIPLEXER/TRIPLEXER MODULE	20060067705 11/122653	03/30/06
NETWORK INTERFACE DEVICE ENCLOSURE	20060067522 10/2937809	03/30/06
OPTICAL NETWORK TERMINAL WITH LOW POWER HIBERNATION	20060029389 11/155009	02/09/06
MULTICAST TO UNICAST TRAFFIC CONVERSION IN A NETWORK	20060018335 11/046198	01/26/06
TRAFFIC MANAGEMENT FOR A PASSIVE OPTICAL NETWORK TERMINAL	20060013247 11/157438	01/19/06
TRAFFIC MANAGEMENT FOR A PASSIVE OPTICAL NETWORK	20060013139 11/157226	01/19/06

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
SYSTEM FOR CORRELATING A SUBSCRIBER UNIT WITH A PARTICULAR SUBSCRIBER IN A PASSIVE OPTICAL NETWORK	20050152506 11/065323	07/14/05
MERGING MULTIPLE DATA FLOWS IN A PASSIVE OPTICAL NETWORK	20050018685 10/857349	01/27/05
NETWORK ADDRESS ASSIGNMENT IN A PASSIVE OPTICAL NETWORK	20050018681 10/910523	01/27/05
MAINTAINING ROUTING INFORMATION IN A PASSIVE OPTICAL NETWORK	20040042446 10/449854	03/04/04
DELIVERING MULTICAST STREAMS IN A PASSIVE OPTICAL NETWORK	20040033075 10/449865	02/19/04
SYSTEM FOR CORRELATING A SUBSCRIBER UNIT WITH A PARTICULAR SUBSCRIBER IN A PASSIVE OPTICAL NETWORK	20020184644 09/873933	12/05/02
PASSIVE OPTICAL NETWORK ADDRESS ASSOCIATION RECOVERY	PCT/US03/334 03	10/22/03
PASSIVE OPTICAL NETWORK ADDRESS ASSOCIATION RECOVERY	60/421206	10/22/03
NETWORK INTERFACE DEVICE ENCLOSURE	PCT/US2005/0 32230	09/07/05
OPTICAL NETWORK TERMINAL WITH LOW POWER HIBERNATION	PCT/US2005/0 21256	06/16/05
TRAFFIC MANAGEMENT FOR A PASSIVE OPTICAL NETWORK TERMINAL	PCT/US2005/0 52155	06/21/05
MULTICAST TO UNICAST TRAFFIC CONVERSION IN A NETWORK	PCT/US2005/0 25498	07/19/05
PLUGGABLE OPTICAL DIPLEXER/TRIPLEXER MODULE	PCT/US2005/0 34556	09/27/05
NETWORK INTERFACE DEVICE COMMUNICATION VIA POWER LINE	PCT/US2005/0 46158	12/20/05
EFFICIENT MANAGEMENT OF RING NETWORKS	12/109519	04/25/08
UPGRADE RESILIENT MULTI-TRANSPORT OPTICAL NETWORK TERMINAL	12/115220	05/05/08
OPTICAL NETWORK INTERFACE DEVICES & METHODS	12/121243	05/15/08

EXHIBIT C

Trademarks


<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
 (Design Only)	76-158863 2707608	11/02/00 04/15/03
CALIX	76-132271 2789178	09/19/00 12/02/03
C7	76-052542 3303025	05/19/00 10/02/07
FIBERPATH DIRECTOR	76-249548 2586624	05/01/01 06/25/02
FIBERQUEST	75-649976 2378177	03/01/99 08/15/00
FIBERPATH	75-126542 2081328	06/27/96 07/22/97

EXHIBIT D

Mask Works

Description

Registration/
Application
Number

Registration/
Application
Date

A/72614735.4