

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
GILBERT LEVESQUE	12/27/2016
NIRMAL S VIRDEE	12/27/2016
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Postal Code:	95134
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16389883
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ATTORNEY DOCKET NUMBER:	1153.P0001D2
NAME OF SUBMITTER:	GLORIA CAO
SIGNATURE:	/GLORIA CAO/
DATE SIGNED:	05/01/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 6	
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source=2016_12_28_1153_P0001US_Assignment#page2.tif	
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ASSIGNMENT

WHEREAS, we, Gilbert Levesque, a citizen of the United States, residing at 3145 Emerson Street Palo Alto, CA 94306, USA, and Nirmal S. Virdee, a citizen of United States, residing at 26874 N. 90th Avenue, Peoria, AZ 85383, USA, have made an invention in:

METHODS AND APPARATUS FOR IMPROVING RELIABILITY OF AN OPTICAL DEVICE USING AUXILIARY LASERS IN A PHOTONIC INTEGRATED CIRCUIT

for which we have executed application papers for a U.S. patent thereon; and

WHEREAS, Calix, Inc., a Delaware Corporation, having a place of business located at 100 Headquarters Drive, San Jose, CA 95134, USA, is desirous of acquiring the exclusive right, title and interest in and to said invention and in and to the Letters Patent to be granted and issued therefore in the United States of America and its territories and possessions, and all countries foreign thereto;

NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, we, Gilbert Levesque and Nirmal S. Virdee do sell, assign, transfer and set over unto said Calix, Inc., its successors and assigns the full and exclusive right, title and interest in and to said invention, and in and to any and all Letters Patent to be granted and issued therefore, not only for, to and in the United States of America, its territories and possessions, but also for, to and in all other countries including all priority rights under the International Convention; and we hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said Calix San Jose, Inc., its successors and assigns, in accordance with this Assignment. IN TESTIMONY WHEREOF, we have hereunto signed our names on the date indicated hereinafter:

Re: U.S. Patent Application entitled:

**METHODS AND APPARATUS FOR IMPROVING RELIABILITY OF AN
OPTICAL DEVICE USING AUXILIARY LASERS IN A PHOTONIC
INTEGRATED CIRCUIT**

1) Inventor: **Gilbert Levesque**

Signature: _____

Gilbert Levesque

Date: _____

Dec 27, 2016

Witness: _____

Date: _____

Witness: _____

Date: _____

2) Inventor: **Nirmal S. Virdee**

Signature: _____

Nirmal S. Virdee

Date: _____

Dec 27, 2016

Witness: _____

Date: _____

Witness: _____

Date: _____

DECLARATION & POWER OF ATTORNEY & CORRESPONDENCE ADDRESS INDICATION FORM

Title of invention is

**"METHODS AND APPARATUS FOR IMPROVING RELIABILITY OF AN OPTICAL
DEVICE USING AUXILIARY LASERS IN A PHOTONIC INTEGRATED CIRCUIT"**

As the below named inventor, I hereby declare that:

This declaration is directed to:

☒ the attached application, or

☐ United States application or PCT international application number _____
filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor (if only one name is listed below) or an original joint inventor (if more than one name is listed below) of a claimed inventor in the application.

Power of Attorney & Correspondence Address

I hereby appoint James M. Wu, Registration No. 45,241, and the attorneys/agents associated with Customer ID No. **79662**, as attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith. If this application is assigned by me I agree and understand that the above-named attorneys will represent the assignee and not me.

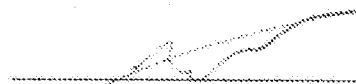
Please send all correspondence and direct all telephone calls to:

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INVENTOR 1			
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INVENTOR 2			

FIRST Name	MIDDLE Initial(s)	LAST Name	
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I, the undersigned, declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment of not more than five (5) years, or both, under Section 1001 of Title 18 of the United States Code.


 Gilbert Levesque

Dec 27 2016
 Date

Nirmal S. Virdee
 Nirmal S. Virdee

Dec 27, 2016
 Date

37 C.F.R. §1.56

Duty to disclose information material to patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

