505729184 10/18/2019

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5775995

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
OLEG M. EFIMOV	10/11/2019
BIQIN HUANG	10/16/2019
PAMELA R. PATTERSON	10/16/2019
RAYMOND SARKISSIAN	10/16/2019
KEYVAN SAYYAH	10/17/2019

RECEIVING PARTY DATA

Name:	THE BOEING COMPANY	
Street Address:	100 N. RIVERSIDE PLAZA	
City:	CHICAGO	
State/Country:	ILLINOIS	
Postal Code:	60606-1596	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16656628

CORRESPONDENCE DATA

Fax Number: (704)444-1111

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: 7044441000

usptomail@alston.com Email: ALSTON & BIRD LLP **Correspondent Name:**

Address Line 1: BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET

SUITE 4000 Address Line 2:

Address Line 4: CHARLOTTE, NORTH CAROLINA 28280-4000

ATTORNEY DOCKET NUMBER:	038190/528810	
NAME OF SUBMITTER:	GUY R. GOSNELL	
SIGNATURE:	/Guy R. Gosnell/	
DATE SIGNED:	10/18/2019	

Total Attachments: 5

PATENT REEL: 050756 FRAME: 0156

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PATENT REEL: 050756 FRAME: 0157 ASSIGNMENT

Docket No.: 038190/528810 (18-3011-US-NP)

WHEREAS, Oleg M. Efimov, residing in Thousand Oaks, California (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled CHIP-SCALE LASER RECEIVER DEVICE, which application has been duly executed by Assignor concurrently herewith;

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 N. Riverside Plaza, Chicago, Illinois 60606-1596, with a mailing address of 5301 Bolsa Avenue, Huntington Beach, California, 92647, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation—in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Oleg M. EFIMOV

10/11/2019 Date ASSIGNMENT

Docket No.: 038190/528810 (18-3011-US-NP)

WHEREAS, Biqin Huang, residing in Torrance, California (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled CHIP-SCALE LASER RECEIVER DEVICE, which application has been duly executed by Assignor concurrently herewith;

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 N. Riverside Plaza, Chicago, Illinois 60606-1596, with a mailing address of 5301 Bolsa Avenue, Huntington Beach, California, 92647, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Bigin HILAND

<u>10/16/2019</u>

ASSIGNMENT Docket No.: 038190/528810 (18-3011-US-NP)

WHEREAS, Pamela R. Patterson, residing in Los Angeles, California (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled CHIP-SCALE LASER RECEIVER DEVICE, which application has been duly executed by Assignor concurrently herewith;

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 N. Riverside Plaza, Chicago, Illinois 60606-1596, with a mailing address of 5301 Bolsa Avenue, Huntington Beach, California, 92647, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

	10-16-2019	
the litter	Date	
Pamela R. PATTERSON	-	

ASSIGNMENT

Docket No.: 038190/528810 (18-3011-US-NP)

WHEREAS, Raymond Sarkissian, residing in Studio City, California (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled CHIP-SCALE LASER RECEIVER DEVICE, which application has been duly executed by Assignor concurrently herewith;

WHEREAS. The Boeing Company, a corporation organized and existing under the laws of the State of Delaware. USA, having a place of business at 100 N. Riverside Plaza. Chicago, Illinois 60606-1596, with a mailing address of 5301 Bolsa Avenue, Huntington Beach, California, 92647, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof. and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation—in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment,

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Raymond SARKISSI

BOEING PROPRIETARY

ASSIGNMENT

Docket No.: 038190/528810 (18-30) 1-US-NP)

WHEREAS, Keyvan Sayyah, residing in Santa Monica, California (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled CHIP-SCALE LASER RECEIVER DEVICE, which application has been duly executed by Assignor concurrently herewith;

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 N. Riverside Plaza, Chicago, Illinois 60606-1596, with a mailing address of 5301 Bolsa Avenue, Huntington Beach, California, 92647, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Keyvan SAYVAH 7 19 m/n 10 -17-19
Date

PATENT REEL: 050756 FRAME: 0162

RECORDED: 10/18/2019